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January 5, 2015

Dr. David Zerbe
Superintendent
Methacton School District
1001 Kriebel Mill Road
Eagleville, PA 19403

Dear Dr. Zerbe:

The Pennsylvania Economy League, Central PA Division, is pleased to submit three copies of its analysis of demographics and community growth patterns in the Methacton School District and projections of the district's enrollments covering the next 10 years.

The staff of the district, municipal officials, and a variety of others contributed greatly to the preparation of the study, and their assistance is acknowledged and appreciated. However, the responsibility for any statement of fact or opinion rests solely with the Pennsylvania Economy League.

It is hoped that the findings of this report will be of assistance to the Board of School Directors, the district's administrators and staff, and the general public in addressing the issues that confront them with respect to the future operation of the district.

Sincerely,

Gerald E. Cross
Executive Director

GEC/blc
Enclosures

**ANALYSIS OF
DEMOGRAPHICS AND HOUSING AND
RELATED ACTIVITY AND PROJECTIONS OF
PUBLIC SCHOOL ENROLLMENTS IN THE
METHACTON SCHOOL DISTRICT
2014-15**

Prepared By:

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January 2015

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CHAPTER 1
GENERAL CHARACTERISTICS

The Methacton School District is located in the central portion of Montgomery County about 25 miles from Center City Philadelphia. The district encompasses about 31.5 square miles and is comprised of the townships of Lower Providence and Worcester.

Based on U.S. Census figures, between 1990 and 2010 the Methacton School District experienced an increase in population from 24,037 to 35,186—a gain of 11,149 or 46.4 percent. The population of the district rose in both of these decades, and slightly more than 50 percent of the growth occurred during the 1990s. During this 20-year period, both of the district municipalities recorded gains in population. Lower Providence Township grew by 6,085 (or 31.4 percent) and Worcester Township increased by 5,064 (or 108.1 percent).

As a point of reference, Montgomery County's population was up by 121,763 (18.0 percent) from 678,111 in 1990 to 799,874 in 2010, and the district's proportionate growth was more than two and on-half times that of the county. Like the district, the county grew in both decades, but the country's absolute gain was much stronger in the 1990s than in the 2000s. (See Table 1-1 and Graph 1-1.)

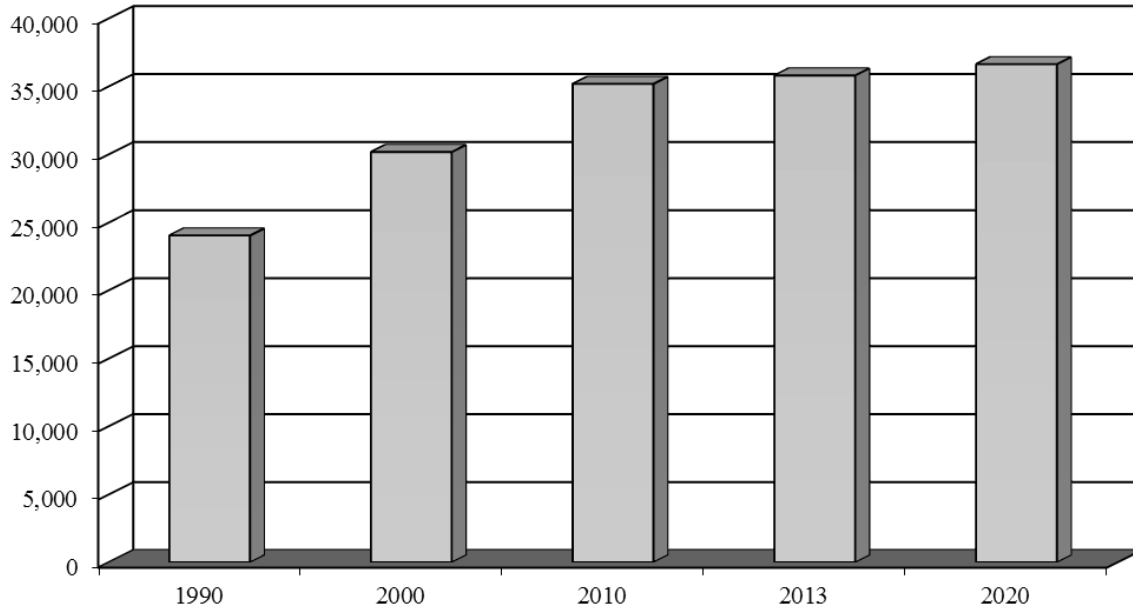
Table 1-1
METHACTON SCHOOL DISTRICT
Population Trend
1990 to 2010

Municipality	Total Population			Change 1990 to 2010		Change 1990 to 2000		Change 2000 to 2010	
	1990	2000	2010	#	%	#	%	#	%
Lower Providence Twp.	19,351	22,390	25,436	6,085	31.4	3,039	15.7	3,046	13.6
Worcester Township	<u>4,686</u>	<u>7,789</u>	<u>9,750</u>	<u>5,064</u>	108.1	<u>3,103</u>	66.2	<u>1,961</u>	25.2
District Total	24,037	30,179	35,186	11,149	46.4	6,142	25.6	5,007	16.6
Montgomery County	678,111	750,097	799,874	121,763	18.0	71,986	10.6	49,777	6.6

SOURCE: U.S. Bureau of the Census.

During the 1990s Methacton recorded a growth in population of 6,142 or 25.6 percent. Lower Providence Township grew by 3,039 (or 15.7 percent), and Worcester Township gained

Graph 1-1
 METHACTON SCHOOL DISTRICT
 Population Trends, Estimates, and Projections
 1990 to 2020



3,103 residents (or 66.2 percent). During this period the county's population count was up by 71,986 (10.6 percent).

Between 2000 and 2010, the district's population increased by 5,007 or 16.6 percent. Lower Providence Township rose by 3,046 (or 13.6 percent), and Worcester Township recorded a gain of 1,961 (or 25.2 percent). The county's population grew by 49,777 or 6.6 percent during the decade of the 2000s.

Methacton's population in the under 18 age group was up by 449 or 5.7 percent between 2000 and 2010, the number of residents age 18 to 64 increased by 2,626 or 13.9 percent, and the number of those age 65 or over rose by 1,932 or 56.8 percent. In 2010, 23.9 percent of the population in the district was under 18 years of age, 61.0 percent was between the ages of 18 and 64, and 15.2 percent was age 65 or over. The proportions of the district's population in the under 18 and the 18 to 64 age groups fell between 2000 and 2010; conversely, the percentage of those age 65 or over grew.

The proportion of the Methacton School District's 2010 population under the age of 18 (23.9 percent) was higher than the county figure (22.9 percent), as was the proportion of those 65 and over (15.2 percent versus 15.1 percent). However, the proportion of the district's population between the ages of 18 and 64 was lower than that of the county (61.0 percent versus 62.0 percent). In 2010, the median age in the district was 41.7 (up from 37.4 in 2000); countywide, the median age was 40.6 (up from 38.2 in 2000). Statewide, the median age in 2010 was 40.1 (up from 38.0 in 2000). (See Table 1-2.)

Table 1-2
METHACTON SCHOOL DISTRICT
Population by Age Group
2000 to 2010

Age grouping	2000			2010			Change in Methacton SD 2000 to 2010	
	Methacton SD		County	Methacton SD		County	#	%
	#	% of Total	% of Total	#	% of Total			
Under 18	7,944	26.3	24.1	8,393	23.9	22.9	449	5.7
18-64	18,835	62.4	61.0	21,461	61.0	62.0	2,626	13.9
65 & Over	<u>3,400</u>	<u>11.3</u>	<u>14.9</u>	<u>5,332</u>	<u>15.2</u>	<u>15.1</u>	<u>1,932</u>	56.8
Total	30,179	100.0	100.0	35,186	100.0	100.0	5,007	16.6

Note: Not all numbers may add due to rounding.

SOURCE: U.S. Bureau of the Census.

The U.S. Census Bureau estimates that the population of Methacton grew by 619 persons or 1.8 percent from the time of the 2010 Census and July of 2013. Both of the district's municipalities were estimated to have experienced growth in residents in the current decade. Lower Providence Township was estimated to have grown by 204 (or 0.8 percent), and Worcester Township was estimated to have increased by 415 (or 4.3 percent).

Montgomery County's population was estimated to be up by 12,502 or 1.6 percent during this period. The district's proportionate growth between 2010 and 2013—based on these estimates—was just slightly higher than that of the county. (See Table 1-3 and Graph 1-1.)

Table 1-3
METHACTON SCHOOL DISTRICT
Actual and Estimated Population
2010 to 2013

Municipality	Actual 2010	Estimate 2013	Change 2010 to 2013	
			#	%
Lower Providence Twp.	25,436	25,640	204	0.8
Worcester Township	<u>9,750</u>	<u>10,165</u>	<u>415</u>	4.3
District Total	35,186	35,805	619	1.8
Montgomery County	799,874	812,376	12,502	1.6

SOURCE: U.S. Bureau of the Census.

According to figures developed by the Delaware Valley Regional Planning Commission (March 2013), Methacton's population is projected to rise to 36,635 in 2020; this would be a growth of 1,449 (4.1 percent) from the 2010 Census figure. Both of the district municipalities are projected to increase during this period. Lower Providence is expected to grow by 548 (or 2.2 percent), and Worcester Township is projected to be up by 901 (or 9.2 percent). The projection of the county's population for 2020 (824,165) reflects an increase of 24,291 or 3.0 percent over the 2010 Census—marginally slower than the district on a proportionate basis. (See Table 1-4 and Graph 1-1.)

Table 1-4
METHACTON SCHOOL DISTRICT
Actual and Projected Population
2010 to 2020

Municipality	Actual 2010	Projected 2020	Change 2010 to 2020	
			#	%
Lower Providence Twp.	25,436	25,984	548	2.2
Worcester Township	<u>9,750</u>	<u>10,651</u>	<u>901</u>	9.2
District Total	35,186	36,635	1,449	4.1
Montgomery County	799,874	824,165	24,291	3.0

SOURCE: Actual 2010: U.S. Bureau of the Census.

Projected 2020: Delaware Valley Regional Planning Commission (March 2013).



Public school enrollments during the next 10 years will be more dependent on recent and future births, migration patterns, the age composition of the child population, and the role of schools and educational programs other than those operated directly by the district than on the overall population pattern. If recent experience serves as a valid guide, the trends in public school enrollments will not necessarily directly mirror the changes in total population.

CHAPTER 2
HOUSING AND RELATED ACTIVITY

According to the U.S. Census Bureau, the number of housing units in the Methacton School District rose from 8,658 in 1990 to 13,001 in 2010—up by 4,343 or 50.2 percent. The growth was split almost evenly between the two decades. Both of the Methacton School District’s municipalities recorded increases in housing units during the 20-year period. Lower Providence Township grew by 2,401 units (or 35.2 percent) and Worcester Township by 1,942 units (or 106.0 percent). As a point of reference, the total housing count in Montgomery County was up from 265,856 in 1990 to 325,735 in 2010 (by 59,879 or 22.5 percent). Methacton’s overall rate of growth in residential units during this period (50.2 percent) was almost two and one-half times that of the county as a whole. Like the district, Montgomery County’s gain in housing was almost fairly evenly split between the two decades. (See Table 2-1 and Graph 2-1.)

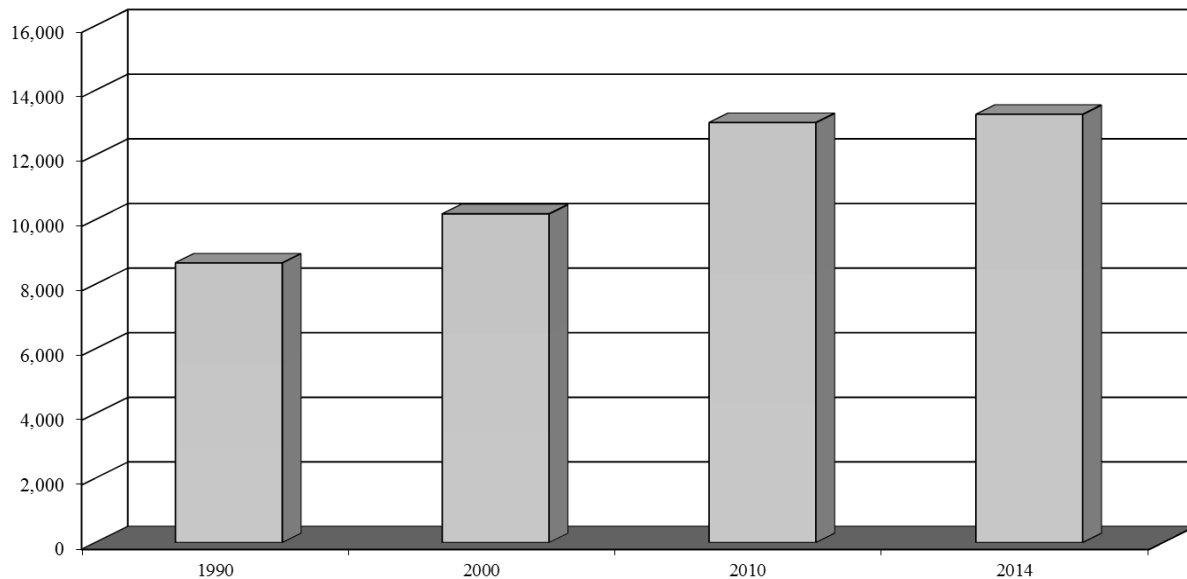
Table 2-1
METHACTON SCHOOL DISTRICT
Reported Change in Number of Housing Units by Municipality
1990 to 2010

Municipality	Housing Units			Reported Change 1990 to 2010		Reported Change 1990 to 2000		Reported Change 2000 to 2010	
	1990	2000	2010	#	%	#	%	#	%
Lower Providence Twp.	6,826	7,690	9,227	2,401	35.2	864	12.7	1,537	20.0
Worcester Twp.	<u>1,832</u>	<u>3,026</u>	<u>3,774</u>	<u>1,942</u>	106.0	<u>1,194</u>	65.2	<u>748</u>	24.7
District Total	8,658	10,716	13,001	4,343	50.2	2,058	23.8	2,285	21.3
Montgomery County	265,856	297,434	325,735	59,879	22.5	31,578	11.9	28,301	9.5

SOURCE: U.S. Bureau of the Census

From 1990 to 2000 the number of housing units in the district grew by 2,058 or 23.8 percent. Lower Providence Township recorded a gain of 864 units or 12.7 percent, while Worcester Township increased by 1,194 (or 65.2 percent). The county rose by 31,578 units or 11.9 percent during the 1990s.

Graph 2-1
 METHACTON SCHOOL DISTRICT
 Total Housing Units
 1990 to 2014



In the decade of the 2000s, the number of residential units the district was up by 2,285 (21.3 percent). Lower Providence grew by 1,537 units (or 20.0 percent), while Worcester Township recorded an increase of 748 units (or 24.7 percent). The county experienced a growth of 28,301 units or 9.5 percent in the 2000s.

In 1990, Lower Providence was the larger of the two district municipalities based on housing units with 6,826 or 78.8 percent of the total; Worcester had 1,832 units (21.2 percent of the total). By 2000, although the number of residential units in Lower Providence had risen by 864 to 7,690, its proportionate share of the district total was down from 78.8 percent to 71.8 percent. Worcester gained 1,194 units in the decade of the 1990s raising its account to 3,026 units—28.2 percent of the total (up from 21.2 percent in 1990). The number of housing units in Lower Providence grew to 9,227 in 2010, but its proportionate share of the total was down again—although just slightly (from 71.8 percent in the prior Census to 71.0 percent). On a relative basis, Worcester experienced stronger growth in housing units than Lower Providence during the decade of the 2000s, and its proportionate share of all district housing units rose from 28.2 percent in 2000 to 29.0 percent in 2010.

Thus far in the current decade (that is, between January of 2010 and the end of June of 2014), 256 additional housing units have been permitted for construction in the district. These new units raised the total number of residential units in Methacton to 13,257—up by 2.0 percent over the 2010 Census figure. Worcester Township recorded the vast majority of the new housing built during this period (204—a gain of 5.4 percent). Lower Providence Township accounted for 52 new units or about one-fifth of the total—a growth of 0.6-percent). (It should be noted that the district-wide number of new units permitted for construction in the current decade averages 57 annually and is down dramatically from an average of about 229 per year during the decade of the 2000s.)

As of the end of June 2014, Lower Providence continued as the larger of the district's municipalities in terms of housing units with 9,279, but its proportionate share of the total (70.0 percent) was down again from 71.0 percent the time of the 2010 Census. Worcester outpaced Lower Providence in the construction of new housing units, and its total count rose to 3,978—up to 30.0 percent of the total (from 29.0 percent in 2010). (See Table 2-2 and Graph 2-1.)

Table 2-2
METHACTON SCHOOL DISTRICT
Number of Housing Units Authorized by Permit
2010 to 2014¹

Municipality	Reported Number of Housing Units Permitted for Construction					Est. Total 2014 ¹	Change		% of Total Added
	2010	2011	2012	2013	2014 ¹		#	%	
Lower Providence Twp.	19	8	7	8	10	9,279	52	0.6	20.3
Worcester Twp.	<u>50</u>	<u>45</u>	<u>37</u>	<u>55</u>	<u>17</u>	<u>3,978</u>	<u>204</u>	5.4	<u>79.7</u>
District Total	69	53	44	63	27	13,257	256	2.0	100.0

¹ Through June 2014.

SOURCE: Delaware Valley Regional Planning Commission and respective municipalities.

According to municipal officials there are four approved subdivisions in the Methacton School District with lots available to be permitted for residential construction, and three projects has been formally proposed. No residential development is known to be under discussion or in the early planning stages, but both of the district's townships expect to experience some level of infill, minor subdivision activity, or miscellaneous housing construction.

The current inventory of approved and proposed residential projects and other housing activity totals 687 units and includes 51 units that remain to be permitted for construction in the

approved subdivisions, 516 units that have been proposed, and 120 that are expected to result from infill, minor subdivision activity, or miscellaneous housing construction during the next 10 years. (All references to lots in subdivisions in Methacton reflect only those that remain available for construction as of the beginning of July, 2014—not the total number of units in the subdivision, which would include units already built, those under construction, and those for which building permits have been issued.) (See Table 2-3.)

In Lower Providence Township there are no approved subdivisions that have lots available for the construction of housing units. It should be noted, however, that the Meadows at Shannondell (a community within Shannondell at Valley Forge—a Continuing Care Retirement Community in the Audubon section of the township with about 2,500 residents) has received approval for 192 additional suites with private baths. It is believed that about one-half of these units will be built in 2014 and the remainder in 2015. The facility has common living room areas and provides family-style dining rooms; therefore, like dormitory rooms, boarding houses, and hospital rooms, etc., these facilities are not bona fide residential units based on the U.S. Census definition, and their occupants would be considered to be residing in group quarters. For this reason, the units that will result from this project are not reflected on tables 2-3 and 2-4 of this chapter or factored into any of the housing counts presented in this report. Further, given the nature of the occupants, the expansion of Meadows at Shannondell would not have a direct or material impact on public school enrollments in the district.

There is, however, a proposal for the construction of 140 townhouses by WB Homes that is under review by the township. It is expected that this project—known as the Townhomes of Evansburg—will begin construction in 2016 and be fully built out in 2017. During the next 10 years it is anticipated that infill, minor subdivision activity, and/or miscellaneous housing construction in Lower Providence will average 10 units per year and total about 100 by 2023.

It should also be noted that there has been discussion of the potential for perhaps 100 additional residential units on the Collegeville Inn parcel. Details on the precise size of the project and the type of units that would be built are unavailable, although it is thought that construction would not begin until 2016 or 2017 at the earliest, and the build-out would likely take about three years. Given the various uncertainties with regard to this possible project it is not reflected in the tables in this chapter.

Sewage collection in Lower Providence is provided in almost the entire township by the Lower Providence Township Sewer Authority, which maintains about 100 miles of pipe and 18

Table 2-3
 METHACTON SCHOOL DISTRICT
 Inventory of Approved and Proposed Residential Subdivisions and Other Housing Activity
 (as of July 2014)

Development Activity	Elementary Attendance Area	Type of Housing ¹	Units to be Completed ²	Units Per Year ²	Start Date ²	Estimated Completion Date ²
<u>APPROVED</u>						
<u>Lower Providence Township</u>						
Meadows at Shannondell ³	-	-	-	-	-	-
<u>Worcester Township</u>						
Applewood Estates	Worcester	SFD	3	?	U	?
Mandracchia/Stump Road Preserve at Worcester	Worcester	SFD	3	1	U	2016
Sycamore Estates	Worcester	SFD	39	13	U	2016
	Worcester	SFD	6	2	U	2016
<u>PROPOSED</u>						
<u>Lower Providence Township</u>						
Townhomes of Evansburg	Arrowhead	TH	140	70	2016	2017
<u>Worcester Township</u>						
Life Care Facility/Cutler Group ⁴	Worcester	CH	170	?	?	?
Life Care Facility/Cutler Group ⁴	Worcester	SFD	164	?	?	?
Our Farm/Potshop Road	Worcester	SFD	42	?	?	?
<u>UNDER DISCUSSION</u>						
<u>Lower Providence Township</u>						
None	-	-	-	-	-	-
<u>Worcester Township</u>						
None	-	-	-	-	-	-
<u>MINOR ACTIVITY</u>						
Lower Providence Township	NA	SFD	100	10	U	2023
Worcester Township	NA	SFD	20	2	U	2023

1 Housing codes are as follows: SFD = Single-family Detached; TH = Townhouse; CH = Carriage Home; ?? = Unknown

2 Estimating the starting date and/or pace of the build-out at the district's various developments is difficult given the uncertainties involved; these estimates reflect the best judgments of the parties involved based on what is known at this time. U = Underway; ? = Unknown

3 The Meadows at Shannondell (a community within Shannondell at Valley Forge—a Continuing Care Retirement Community in the Audubon section of the township) has been approval for 192 additional suites. It is believed that about one-half of these units will be built in 2014 and the remainder in 2015. These units, like dormitory rooms, boarding houses, and hospital rooms, etc. are not bona fide residential units based on the U.S. Census definition, and their occupants would be considered to be residing in group quarters. For this reason, the units are not reflected on this table or factored into any of the housing counts presented in this report. Given the nature of the occupants, the expansion of Meadows at Shannondell will not have a direct or material impact on public school enrollments in the district.

4 The units in this proposed project—which will replace the Center Square Golf Course—will be age-qualified or similar in nature. It should be noted that in addition to the carriage homes and single-family detached units, this complex will include 141 units designed for independent living, assisted living, personal care nursing, memory care, etc. Like the units at the Meadows at Shannondell, these are not bona fide residential units based on the U.S. Census definition, and their occupants would be considered to be residing in group quarters. For this reason, the units that will result from this portion of project are not reflected on this table or factored into any of the housing counts presented in this report. Given the nature of the occupants, this project would not have a direct or material impact on public school enrollments in the district.

pumping stations. It transmits an average 3.0 million gallons of sewage per day to the Lower Perkiomen Valley Regional Sewer Authority for treatment. It is reported that there is adequate capacity at the plant to meet the township's needs, but there have been inflow and infiltration (I&I) issues in township's collection system that resulted in a moratorium imposed by the Pennsylvania Department of Environmental Protection (DEP). Township officials indicate that the I&I problem has been addressed, and the moratorium on new sewer connections is in the process of being lifted; as a result, EDUs are about to be released by DEP, and future development activity is unlikely to be negatively affected. The proposed projects and the one that is known to be under discussion are located in the portions of the township with public sewage collection and treatment service. (The EDUs for the expansion of the Meadows at Shannondell were reserved before the moratorium was put in place.)

Water supply in Lower Providence is provided by the Audubon Water Company and the Pennsylvania American Water Company, although some areas rely on private wells. The distribution systems provide an adequate supply of potable water.

Township officials indicated that the pace of turnover in mature owner-occupied housing is moderate, and some of this involves empty-nesters giving way to younger couples and families, particularly in the older subdivisions. Also, it is reported that there is steady turnover in rental units, but no information is available (anecdotal or otherwise) with respect to whether this involves a transition from older to younger folks—although it was noted that many of the apartments are of the “starter type”.

While more than 25 percent of Lower Providence Township is comprised of parkland and other recreational sites, government and historical facilities, and wetlands and most of the township has been developed, land still remains for additional residential construction. Beyond the approved and proposed projects and the one that is under discussion, it is speculated that several 20- to 30-acre parcels could be developed in the Collegeville area. Also, a moderate amount of unimproved land exists along the Ridge Pike corridor, and efforts have been underway for some time to create a plan for development of this area. This has led to a proposal to rezone the corridor. While issues remain to be resolved (high density versus low density, commercial versus residential, etc.), it is believed that—depending on the nature of the zoning changes—the parcels in this area could produce 15 to 20 residential units yearly for at least 3 to 4 years.

Going forward it is believed that it is not unrealistic to expect the number of new housing units that will be built in Lower Providence Township to rise to perhaps 80 units in 2016 and 2017, but, overall, it is anticipated that the annual construction of residential units will average fewer than 50 during the next several years—still well below the pace of the prior decade. This would be a much stronger pace of growth than in the first four and one-half years of this decade but dramatically lower than the annual average for the decade of the 2000s.

In Worcester Township there are four approved and ongoing subdivisions, and two that have been proposed; none is known to be under serious discussion or in the early planning stages. Worcester expects to experience a modest amount of infill, minor subdivision activity, and/or miscellaneous housing construction.

The approved subdivisions total 51 single-family detached units and include Applewood Estates (where three of the 24 lots remain available for construction), the Mandracchia parcel (at 3425 Stump Road—where three units are expected to be built), the Preserve at Worcester (where Toll Brothers recently initiated construction of 39 units), and Sycamore Estates (where six units remain to be built). It is estimated that Mandracchia, the Preserve at Worcester, and Sycamore Estates will be fully built out by the end of 2016; it is unknown when the remaining units at Applewood Estates will be constructed.

The projects that have been proposed total 376 units and include 170 age-qualified carriage homes and 164 age-qualified single-family detached units to be built in a “Life Care Facility” proposed by the Cutler Group on the site of the Center Square Golf Course and 42 large high-end single-family detached units in a horse farm setting known as Our Farm at 1600 Potshop Road.

(It should be noted that in addition to the carriage homes and single-family detached units, the “Life Care Facility” will include 141 units designed for independent living, assisted living, personal care nursing, memory care, etc. Like the units at the Meadows at Shannondell, these are not bona fide residential units based on the U.S. Census definition, and their occupants would be considered to be residing in group quarters. For this reason, the units that will result from this portion of project are not reflected on tables 2-3 and 2-4 of this chapter or factored into any of the housing counts presented in this report. Given the nature of the occupants, the “Life Care Facility” would not have a direct or material impact on public school enrollments in the district.

Worcester officials estimate that infill, minor subdivision activity, and miscellaneous housing construction in the township will average about two units annually and result in a total of 20 units during the next 10 years.

It should be noted that all 209 townhomes at the Stony Creek Farm have been built; as such, they are not reflected in these tables but, instead, are accounted for in U.S. Census figures and the number of permits for new residential units issued in recent years.

While most of the homes in Worcester Township occupy parcels of between one and three acres (and many properties are much larger) and rely on on-site sewage treatment mechanisms, limited areas have access to public sewage collection and treatment services provided by Worcester's Green Valley treatment plant, the Upper Gwynedd plant, or the Upper Gwynedd/Towamencin plant. Worcester's treatment plant is in the process of being overhauled with a view to returning its capacity to 222,000 gallons per day.

In 2006 the township commissioned a preliminary feasibility study for the expansion of public sewage collection and treatment services to Center Point Village in order to address failing on-lot systems in that area and also to provide service to several properties along Skippack Pike and Valley Forge Road. It is PEL understanding that services have yet to be extended to this area. The feasibility study indicates that at least 95 properties would be involved.

Public water supply is provided to the portions of Worcester that have access to public sewage collection and treatment services as well as some additional properties. This service provided by the North Penn Water Authority and, to a lesser extent, the Pennsylvania American Water Company. Clearly, most of the township relies on private on-site wells.

Reportedly, beyond the limited expansion of sewage collection and treatment services under consideration for the Center Point Village area, there is no interest on the part of the township to further expand this service, and, although sewage treatment for the ongoing Preserve at Worcester project will be provided by Upper Gwynedd Township, it is believed that most of the future development in Worcester will rely on on-lot systems, and the same will be true for water supply. It is reported that soil conditions in the township are quite poor, and this makes perking problematic, necessitating the larger lot sizes.

The general philosophy and culture in Worcester tends to reflect a strong dislike for residential or commercial development, and preservation of farmland and open space clearly appears to be the goal of the township. Worcester's 2008 Comprehensive Plan lists several rural

preservation goals including maintaining the rural character of the majority of the township, preserving farmland, preserving scenic views and roads, and preserving historic sites and landscapes, and it outlines various objectives for achieving these goals. Similarly, Worcester's website indicates that preserving open space is a core initiative, and that the township is working to maintain the quality of life to which its residents have become accustomed. It also states that "through gifts, outright purchases of property or acquisition of development rights, Worcester has preserved tracks of land which otherwise would be developed into homes" and cites the role of Montgomery County's \$150 million Open Space Program (Green Fields-Green Towns) in providing options for "re-greening" communities and preserving open space and farmland.

There is a considerable amount of undeveloped land in Worcester Township; however, about 15 percent of this land is reported to be publicly owned or protected from development through various techniques. Construction on available developable land must adhere to the township's 2006 Growing Greener Ordinance, which applies to all properties in the agricultural and land preservation zoning districts—except subdivisions resulting in three or fewer lots, regardless of the size of the starting tract. The ordinance mandates that parcels of eight or more acres adhere to conservation design in order to conserve important natural resources and, essentially, requires that 50 percent of the land in the parcel remain as open space. Reportedly, this requirement makes it difficult to profitably develop any parcel covered by the ordinance.

Worcester's January 2014 Land Use Assumption Report (LUAR) prepared by its Act 209 Transportation Advisory Committee indicated that there are approximately 3,700 properties in the township, and 403 of these (comprising about 4,048 acres) are deemed to be developable. The ultimate build-out of these developable parcels is estimated at 1,142 housing units—1,106 single-family detached units and 36 single-family attached (townhouse) units, plus almost 1.2 million square feet of nonresidential development in various uses. The report notes that the ultimate build-out will require decades of development, and during the 10-year timeframe of the LUAR (and this study) the township will not begin to approach these figures.

During the 1990s (according to the U.S. Census), 2,058 housing units were constructed in the Methacton School District compared with 747 units in the 1980s and 2,206 units during the 1970s. In the decade of the 2000s, 2,285 new dwelling units were added—a figure that was 227 units or 11.0 percent higher than the number of units built in the immediate preceding decade. The number of units built in the 2000s was three times the number built in the 1980s and just slightly higher than the figure for the 1970s.

As stated earlier in this chapter, thus far in the current decade (that is, between January of 2010 and the end of June 2014) 256 additional housing units were permitted for construction in the district, and the annual average number of net new units was down from about 229 per year during the decade of the 2000s to about 57 per year during the current decade.

Based on information gathered from interviews and conversations with municipal officials—and data provided by them—the current overall inventory of new housing in the district’s pipeline totals 687 units—51 are in approved subdivisions, 516 have been proposed, and 120 are expected to result from infill, minor subdivision activity, and/or miscellaneous housing construction. There are no projects that are known to be under serious discussion or in the early planning stages. (See Table 2-4.)

The number of units on the drawing board suggests a much slower pace of new housing construction in the district during the next 10 years than in the decade of the 2000s, the 1990s, and the 1970s, and just a slightly slower pace than in the 1980s—but a modestly faster pace than in the first four and one-half years of the current decade. All this, of course, is conditioned on the economy, interest rates, land use-regulations, and so forth.

Specifically, the figures indicate that the number of new units that are likely to be constructed in Methacton during the next 10 years (687) is only about one-third the number of units built during the prior decade, in the 1990s, and in the 1970s, and slightly more than 90 percent of the number of units constructed in the 1980s. The potential pace of growth (about 69 units per year, on average) is about 20 percent higher than the average annual rate of housing development in the first four and one-half years of the current decade (57), and (assuming all the projects in the pipeline are completed during the next 10 years) would result in the district’s housing stock rising by 5.2 percent—compared with 38.7 percent in the 1970s, 9.4 percent in the 1980s, 23.8 percent in the 1990s, 21.3 percent in the immediate past decade, and 2.0 percent thus far in this decade.

However, all parties should be sensitive to the number of age-qualified and similar housing units expected to be built in the district in the years ahead. Specifically, the Life Care Facility proposed by the Cutler Group in Worcester Township involves 334 units of this type. As such, it is possible that almost one-half of the units in the district’s pipeline would not have a direct or material impact on the district’s enrollments. It should be noted, however, that housing geared to senior citizens has been known to draw older residents from nearby areas and, in turn, make the vacated parcels available for younger families.

Table 2-4
 METHACTON SCHOOL DISTRICT
 Estimated Expected Dwelling Unit Construction¹
 2014 to 2023
 (as of July 2014)

Development Activity	Type of Housing ²	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total 2014 to 2023
APPROVED												
Lower Providence Township Meadows at Shannondell ³	-	-	-	-	-	-	-	-	-	-	-	-
Worcester Township												
Applewood Estates	SFD	?	?	?	?	?	?	?	?	?	?	3
Mandracchia/Stump Road	SFD	1	1	1	-	-	-	-	-	-	-	3
Preserve at Worcester	SFD	13	13	13	-	-	-	-	-	-	-	39
Sycamore Estates	SFD	<u>2</u>	<u>2</u>	<u>2</u>	-	-	-	-	-	-	-	<u>6</u>
Total		16	16	16	?	?	?	?	?	?	?	51
TOTAL APPROVED		≥16	≥16	≥16	?	?	?	?	?	?	?	51
PROPOSED												
Lower Providence Township Townhomes of Evansburg	TH	-	-	70	70	-	-	-	-	-	-	140
Worcester Township												
Life Care Facility/Cutler Group ⁴	CH	?	?	?	?	?	?	?	?	?	?	170
Life Care Facility/Cutler Group ⁴	SFD	?	?	?	?	?	?	?	?	?	?	164
Our Farm/Potshop Road	SFD	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>42</u>
Total		?	?	?	?	?	?	?	?	?	?	376
TOTAL PROPOSED		?	?	≥70	≥70	?	?	?	?	?	?	516
UNDER DISCUSSION												
Lower Providence Township None	-	-	-	-	-	-	-	-	-	-	-	-
Worcester Township None	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL UNDER DISCUSSION		-	-	-	-	-	-	-	-	-	-	-
MINOR ACTIVITY												
Lower Providence Township	SFD	10	10	10	10	10	10	10	10	10	10	100
Worcester Township	SFD	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>20</u>
TOTAL MINOR ACTIVITY		12	12	12	12	12	12	12	12	12	12	120
TOTAL APPROVED		≥16	≥16	≥16	?	?	?	?	?	?	?	51
TOTAL PROPOSED		?	?	≥70	≥70	?	?	?	?	?	?	516
TOTAL UNDER DISCUSSION		-	-	-	-	-	-	-	-	-	-	-
TOTAL MINOR ACTIVITY		12	12	12	12	12	12	12	12	12	12	120
GRAND TOTAL		≥28	≥28	≥98	≥82	≥12	≥12	≥12	≥12	≥12	≥12	687

1 Estimating the starting date and/or the pace of the build-out at the district's various developments is difficult given the various uncertainties involved; these estimates reflect the best judgments of the parties involved based on what is known at this time. U = Underway; ? = Unknown

2 Housing codes are as follows: SFD = Single-family Detached; TH = Townhouse; CH = Carriage Home; ?? = Unknown

3 The Meadows at Shannondell (a community within Shannondell at Valley Forge—a Continuing Care Retirement Community in the Audubon section of the township) has been approved for 192 additional suites. It is believed that about one-half of these units will be built in 2014 and the remainder in 2015. These units, like dormitory rooms, boarding houses, and hospital rooms, etc. are not bona fide residential units based on the U.S. Census definition, and their occupants would be considered to be residing in group quarters. For this reason, the units are not reflected on this table or factored into any of the housing counts presented in this report. Given the nature of the occupants, the expansion of Meadows at Shannondell will not have a direct or material impact on public school enrollments in the district.

4 The units in this proposed project—which will replace the Center Square Golf Course—will be age-qualified or similar in nature. It should be noted that in addition to the carriage homes and single-family detached units, this complex will include 141 units designed for independent living, assisted living, personal care nursing, memory care, etc. Like the units at the Meadows at Shannondell, these are not bona fide residential units based on the U.S. Census definition, and their occupants would be considered to be residing in group quarters. For this reason, the units that will result from this portion of project are not reflected on this table or factored into any of the housing counts presented in this report. Given the nature of the occupants, this project would not have a direct or material impact on public school enrollments in the district.

While new residential construction is often a very visible source of new public school enrollments in many districts, this is not always the case, and it is not the only source of new pupils. The sale and resulting turnover of mature owner-occupied housing and the turnover of rental units can drive growth in a district's enrollments, as well. Modest turnover in these types of housing has been experienced in parts of the Methacton, and it is expected to continue—albeit at a slow rate. Some of the turnover results from the normal process of family relocation, and some, reportedly, involves older residents being replaced by younger ones with children (or who are about to have them). Clearly, this can affect the demographic mix. If turnover from empty-nesters to younger families accelerates dramatically or if the historical mix is materially altered and higher numbers of empty-nesters are replaced by young families with children (or who are about to have them), further changes in the demographic mix could occur, and this may have a greater impact on enrollments. The district should be mindful of this potential.

PEL's projection methodology for the Methacton School District reflects the numbers and types of new housing that municipal officials expect will be constructed in the years ahead in the approved and proposed subdivisions and the units expected to result from infill, minor subdivision activity, and/or miscellaneous housing construction. Further, the methodology recognizes the potential for age-qualified and similar housing units, as well as the expected impact of the modest but continuing sale and turnover of mature owner-occupied housing and rental units in the district, and it assumes that overall migration and related patterns will remain consistent with expected patterns, the role of nonpublic education will be compatible with the recent past, and the district will continue its current policies relative to its kindergarten, CTC, and special education programs.

Table 2-5 groups approved housing projects, those that have been proposed, and those expected to result from infill, minor subdivision activity, and miscellaneous construction activity by current elementary attendance areas, (to the extent that this information is readily available), and it assumes that these attendance areas will remain unchanged during the next 10 years. The resulting figures suggest that the area encompassed by the Arrowhead Building could experience at least 140 new units or 20.4 percent of the district's new housing over the next 10 years, and the Worcester Building is estimated to record at least 93 units or 13.5 percent of the total. The Audubon, Eagleville, and Woodland buildings are not expected to experience any new housing units over the next ten years. Excluded from the building-by-building figures are units that could not be linked to an attendance area (for example, infill, minor subdivision activity, and

miscellaneous housing construction—120 units or 17.5 percent of the total anticipated new dwelling units during the next 10 years). These units could be located in almost any of the district's attendance areas. Also excluded from the building-by-building figures are data on age-qualified, assisted living, and/or similar senior-oriented units (334 or 48.6 percent of the total) because they are not expected to have a direct impact on the districts enrollments. (See Table 2-5.)

Table 2-5
METHACTON SCHOOL DISTRICT
Estimated Dwelling Unit Construction by Elementary Attendance Area¹
2014 to 2023

Elementary Attendance Area	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	NA ⁴	Total 2014 to 2023	% of Total
Arrowhead	-	-	70	70	-	-	-	-	-	-	-	140	20.4
Audubon	-	-	-	-	-	-	-	-	-	-	-	-	-
Eagleville	-	-	-	-	-	-	-	-	-	-	-	-	-
Woodland	-	-	-	-	-	-	-	-	-	-	-	-	-
Worcester	16	16	16	?	?	?	?	?	?	?	45	93	13.5
NA by Attendance Area ²	12	12	12	12	12	12	12	12	12	12	-	120	17.5
Age-restricted ³	?	?	?	?	?	?	?	?	?	?	334	334	48.6
Total	≥28	≥28	≥98	≥82	≥12	≥12	≥12	≥12	≥12	≥12	379	687	100.0

1 Based on units in approved and proposed subdivisions and expected infill, minor subdivision activity, and miscellaneous housing construction identified as of July 2014.

2 Includes new construction that could not be linked to an attendance area—for example, infill, minor subdivision activity, and miscellaneous housing construction. These units could be located in almost any of the district's attendance areas.

3 Includes age-qualified, assisted living, and/or similar senior-oriented units.

4 This information is not available by year, but it is included in the totals.

During the 1970s, the population of the Methacton School District increased by 4,194 or 21.6 percent, and the number of housing units in the district rose by 2,206 or 38.7 percent, but public school enrollments decreased by 447 or 9.2 percent. Between 1980 and 1990 the district's population was up by 431 or 1.8 percent, housing units grew by 747 or 9.4 percent, and public school enrollments were down again—by 1,240 or 28.1 percent. Between 1990 and 2000 the district's population increased by 6,142 or 25.6 percent, housing units rose by 2,058 or 23.8 percent, and public school enrollments according to gain of 1,646 or 52.0 percent. Between 2000 and 2010 the district's population grew by 5,007 or 16.6 percent, housing units were up by 2,285 or 21.3 percent, and public school enrollments rose by 477 or 9.9 percent. Since 2010, the district's population is estimated to have risen by 619 or 1.8 percent (based on U.S. Census estimates as of July 2013), the number of housing units increased by 229 or 1.8 percent (based

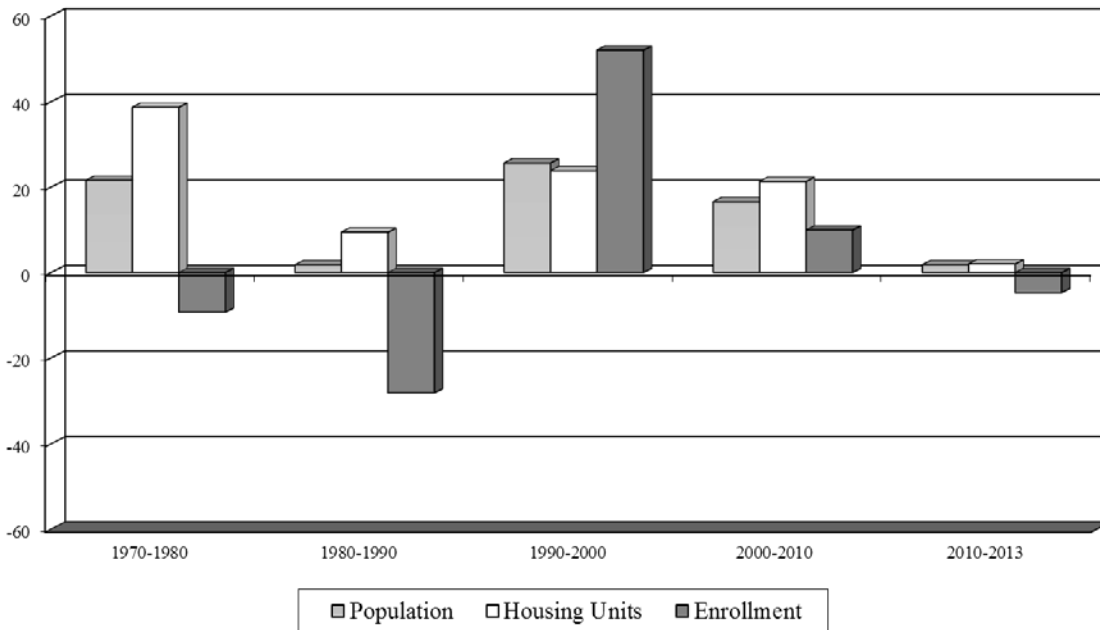
on construction permits issued through December 2013), and public school enrollments were down by 247 or 4.7 percent (as of October 1, 2013). (See Table 2-6 and Graph 2-2.)

Table 2-6
 METHACTON SCHOOL DISTRICT
 Absolute and Proportionate Change in Population, Housing Units, and Enrollments
 1970 to 2013

	1970 – 1980		1980 – 1990		1990 – 2000		2000 – 2010		2010 – 2013	
	#	%	#	%	#	%	#	%	#	%
Population	4,194	21.6	431	1.8	6,142	25.6	5,007	16.6	619 ²	1.8 ²
Housing Units	2,206	38.7	747	9.4	2,058	23.8	2,285	21.3	229 ³	1.8 ³
Total Enrollment	-447 ¹	-9.2 ¹	-1,240	-28.1	1,646	52.0	477	9.9	-247 ⁴	-4.7 ⁴

- 1 Based on 1971 enrollment figure.
- 2 Based on July 2013 U.S. Census estimates.
- 3 Through December 2013.
- 4 Based on October 1, 2013 figures as provided by the district.

Graph 2-2
 METHACTON SCHOOL DISTRICT
 Proportionate Change in Population, Housing Units, and Enrollments
 1970 to 2013





Public school enrollments in the Methacton School District have not had a direct correlation with trends in population and housing units. While population and housing experienced very strong gains in the 1970s, public school enrollments decreased. During the 1980s, population and housing units rose at noticeably slower rates than in the 1970s, and the district's enrollments declined again—by about three times that of the previous decade. In the 1990s, the growth in population and housing units accelerated dramatically from the prior decade, and, unlike in the 1970s and 1980s, public school enrollments grew and, in fact, more than doubled the proportionate gains in both population and housing. Between 2000 and 2010, the district's population and housing counts maintained their robust growth, but the rate of increase in the district's enrollments dropped markedly from the 1990s. In the current decade, the district's total population (through July of 2013) is estimated to have grown at a much slower average annual rate than in any of the preceding decades except the 1980s, and the same is true for the rise in housing (as of the end of 2013). The district's enrollments in the early years of the current decade reversed direction from the two prior decades and recorded a decrease.

CHAPTER 3 BIRTH PATTERNS

The annual number of resident births in the Methacton School District, which is extremely important in the planning process, was higher in the decade of the 2000s (on average) than in any of the three previous decades, but the figure for the first four years of the current decade is down from the average for the 2000s, almost equal to the level of the 1990s, but still above the figures for the 1980s and 1970s. The average number of annual births in the district in the 2010s (304) is 36 (10.6 percent) lower than the average for 2000s (340), which was 38 (12.6 percent) higher than the average for the 1990s (302), and in turn, 11 births (3.8 percent) higher than the average for the period 1980 to 1989 (291). The average for the 1970s was (259).

The absolute number of births in Methacton fell from 320 in 1970 to 195 in 1977 (its lowest point during the review period), and then rose fairly steadily (on average) reaching its high point during the 44-year review period (380) in 2000. This was followed by a series of decreases and increases that resulted in a drop to 286 births in 2010 (their second lowest point since 1990. Births rose in 2011, fell in 2012, and were down again in 2013 (preliminary figure) hitting 286—the third lowest level since 1990.

Overall, births in the district were down in 22 of the years since 1970 (including nine of the past 13 and four of the past five). They rose in 21 years, but only in four of the past 11. The preliminary figure for 2013 (286) was just one birth (0.3 percent) higher than in 2010, but 94 (24.7 percent) lower than in 2000, and 34 (10.6 percent) lower than 1970; however, it remained 46 births (19.2 percent) higher than in 1980, and seven (2.5 percent) higher than in 1990. Again (as noted above), the preliminary 2013 figure is down by 94 (24.7 percent) from the high point of 380 in 2000. (See Table 3-1 and Graph 3-1.)

As a point of reference, annual births in Montgomery County were at their peak during the 44 years reviewed in 1990 (compared with 2000 for the district); the county's low point was recorded in 1975 (the lowest district figure was in 1977). Preliminary 2013 figures reveal that the county as a whole (like Methacton), is down from 2000 (by 9.0 percent) and from 1970 (by 3.2 percent) and higher than in 1980 (by 10.6 percent). Unlike the district, births in the county were down in 2013 from 1990 (by 12.4 percent) and recorded fewer births in 2013 than in 2010 (down by 4.4 percent).

Table 3-1
 METHACTON SCHOOL DISTRICT
 Comparison of Birth Trends in the Methacton School District
and Montgomery County
 1970 to 2013¹

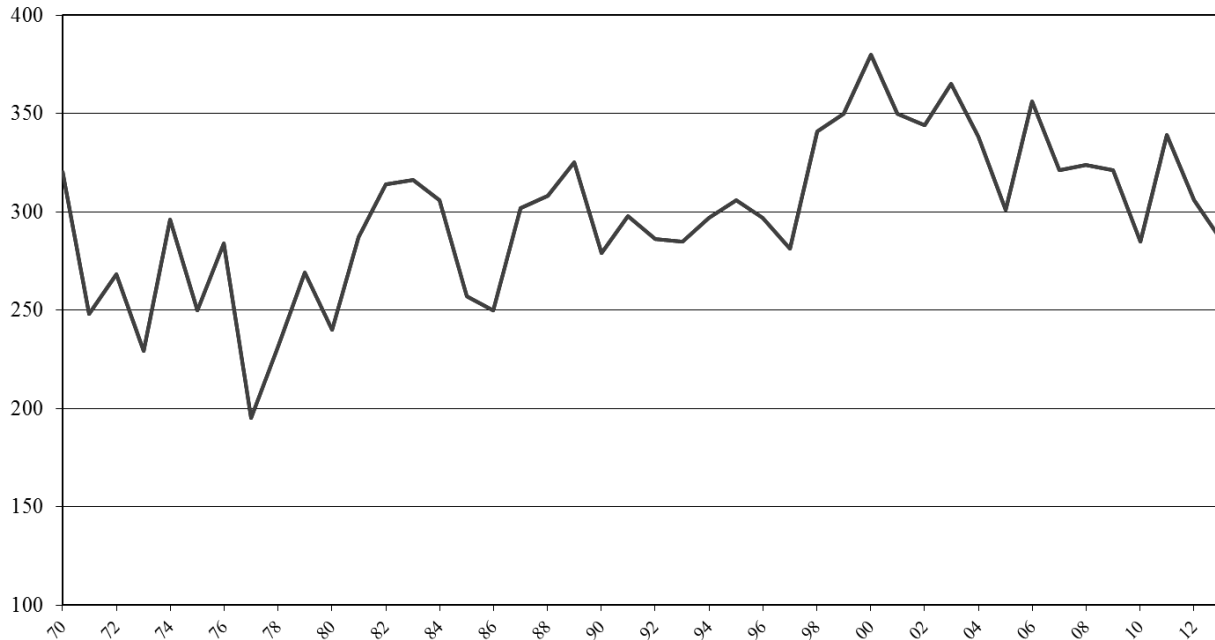
Year	Methacton School District		Montgomery County		Methacton as a % of the County
	Total # of Births	% Change From Previous Year	Total # of Births	% Change From Previous Year	
1970	320	-	8,978	-	3.6
1980	240	-10.8	7,856	5.1	3.1
1981	287	19.6	8,204	4.4	3.5
1982	314	9.4	8,348	1.8	3.8
1983	316	0.6	8,342	-0.1	3.8
1984	306	-3.2	8,634	3.5	3.5
1985	257	-16.0	8,820	2.2	2.9
1986	250	-2.7	9,052	2.6	2.8
1987	302	20.8	8,278	-8.6	3.6
1988	308	2.0	9,647	16.5	3.2
1989	325	5.5	9,611	-0.4	3.4
1990	279	-14.2	↑9,921	3.2	2.8
1991	298	6.8	9,638	-2.9	3.1
1992	286	-4.0	9,324	-3.3	3.1
1993	285	-0.3	9,256	-0.7	3.1
1994	297	4.2	9,302	0.5	3.2
1995	306	3.0	9,366	0.7	3.3
1996	297	-2.9	9,290	-0.8	3.2
1997	281	-5.4	8,978	-3.4	3.1
1998	341	21.4	9,391	4.6	3.6
1999	350	2.6	9,214	-1.9	3.8
2000	↑380	8.6	9,554	3.7	4.0
2001	350	-7.9	9,479	-0.8	3.7
2002	344	-1.7	9,376	-1.1	3.7
2003	365	6.1	9,778	4.3	3.7
2004	338	-7.4	9,578	-2.0	3.5
2005	301	-10.9	9,392	-1.9	3.2
2006	356	18.3	9,618	2.4	3.7
2007	321	-9.8	9,327	-3.0	3.4
2008	324	0.9	9,529	2.2	3.4
2009	321	-0.9	9,285	-2.6	3.5
2010	285	-11.2	9,107	-1.9	3.1
2011	339	18.9	9,038	-0.8	3.8
2012	306	-9.7	8,894	-1.6	3.4
2013 ¹	286	-6.5	8,690	-2.3	3.3
Change 1970	#	-34	-	-	-
to 2013¹	%	-10.6	-	-	-
Change 1980	#	46	-	-	-
to 2013¹	%	19.2	-	-	-
Change 1990	#	7	-	-	-
to 2013¹	%	2.5	-	-	-
Change 2000	#	-94	-	-	-
to 2013¹	%	-24.7	-	-	-
Change 2010	#	1	-	-	-
to 2013¹	%	0.3	-	-	-

¹ Preliminary figures

NOTE: Highest point marked by ↑; lowest point marked with ↓. In cases where no high or low point is cited, it occurred between 1971 and 1979.

SOURCE: State Health Data Center, Pennsylvania Department of Health, Harrisburg, Pennsylvania. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions.

Graph 3-1
METHACTON SCHOOL DISTRICT
Annual Births
1970 to 2013



Births in Methacton accounted 3.4 percent of the total number of births in Montgomery County during the first four years of the current decade (based on the preliminary 2013 numbers). This figure was down from 3.5 percent in the 2000s and 3.5 percent in the 1970s, but up from 3.2 percent in the 1990s. The figure was the same as in the 1980s. Preliminary figures indicate that births in Methacton represented 3.3 percent of the countywide total in 2013.

Statewide, annual births increased fairly consistently from the mid-1970s until 1990 and then declined in seven consecutive years. While births in Pennsylvania were up in 1998, they fell in four of the subsequent six years. Births then rose in 2005, 2006, and 2007, before dropping by 0.9 percent in 2008, 2.3 percent in 2009, 2.1 percent in 2010, 0.3 percent in 2011, 0.8 percent in 2012, and 1.8 percent in 2013 (based on preliminary figures), when they hit their lowest level during the reporting period starting in 1915. Nationally, births decreased in each year from 1991 through 1997 (when they reached their lowest level since 1987) and then increased in all but two of the years between 1997 and 2007. Like Pennsylvania as a whole, the total birth figure for the U.S. was down in 2008 (by 1.6 percent), 2009 (by 2.7 percent), 2010 (by 3.2 percent), 2011 (by 1.1 percent), and 2012 (by less than 0.1 percent). However, unlike Pennsylvania, figures for the

U.S. as a whole rose by 0.1 percent in 2013 (based on preliminary figures). The highest number of annual births ever recorded in the U.S. occurred in 2007; although the preliminary figure was up in 2013, births nationally were still 8.3 percent lower than in 2007. Pennsylvania's figure for 2007, while the highest recorded since 1995, was more than 100,000 births (or about 41 percent) below its historical high point in 1957. Between 2007 and 2013 (preliminary), births in Pennsylvania dropped by 8.0 percent.

Births in Lower Providence Township averaged 223 yearly or 86.0 percent of all district births during the 1970s. In the 1980s the average was up to 245, but the township's proportionate share fell to 84.3 percent, and in the 1990s births were down further to 237 or 78.5 percent of the district total. In the 2000s, the absolute average rose to 252; however, the Lower Providence's proportionate share of the district total decreased again to 74.0 percent. (Between 2000 and 2004 the average was 265 or 74.6 percent of the total; for the period 2005 through 2009 the average was down to 238, or 73.4 percent.) Lower Providence's average for the current decade is still lower—221 or 72.7 percent of the district total. The preliminary figure for 2013 indicates that the Lower Providence accounted for 217 or 75.9 percent of all district births.

Annual births in Worcester Township during the 1970s averaged 37 or 14.0 percent of total births in Methacton. In the 1980s, the township's average grew to 46 or 15.7 percent; in the 1990s the average rose again to 65 or 21.5 percent of all district births. In the 2000s, the absolute average increased still again to 88, and Worcester's proportionate share of the total reached 26.0 percent. (Between 2000 and 2004, the average was 90 or 25.4 percent of the district total; for the period 2005 through 2009, the average was 86 or 26.6 percent.) The average number of births recorded in Worcester Township during the first four years of the current decade was down to 83, but the proportionate share was up slightly to 27.3 percent of the district total. Worcester produced 69 births or 24.1 percent of all district births based on preliminary 2013 figures. (See Table 3-2.)

A comparison of average numbers of births and the proportionate shares of total district births in Methacton's two municipalities reveals that in Lower Providence Township the absolute number of births was higher in the 1980s than in the 1970s, but its share of the district total was lower. In Worcester Township, the average numbers of births per year and share of the district's total were both higher during the 1980s than during the 1970s. In the 1990s, the average number of births per year and proportionate share of the district total in Lower Providence Township fell

Table 3-2
 METHACTON SCHOOL DISTRICT
District Birth Trends, by Municipality
 1970 to 2013¹

	Lower Providence Township		Worcester Township		District Total	
	#	% of Total	#	% of Total	#	% of Total
	1970	263	82.2	57	17.8	320
1980	206	85.8	34	14.2	240	100.0
1981	244	85.0	43	15.0	287	100.0
1982	267	85.0	47	15.0	314	100.0
1983	276	87.3	40	12.7	316	100.0
1984	254	83.0	52	17.0	306	100.0
1985	216	84.0	41	16.0	257	100.0
1986	207	82.8	43	17.2	250	100.0
1987	247	81.8	55	18.2	302	100.0
1988	263	85.4	45	14.6	308	100.0
1989	268	82.5	57	17.5	325	100.0
1990	229	82.1	50	17.9	279	100.0
1991	236	79.2	62	20.8	298	100.0
1992	233	81.5	53	18.5	286	100.0
1993	234	82.1	51	17.9	285	100.0
1994	229	77.1	68	22.9	297	100.0
1995	241	78.8	65	21.2	306	100.0
1996	234	78.8	63	21.2	297	100.0
1997	220	78.3	61	21.7	281	100.0
1998	258	75.7	83	24.3	341	100.0
1999	252	72.0	98	28.0	350	100.0
2000	↑294	77.4	86	22.6	380	100.0
2001	265	75.7	85	24.3	350	100.0
2002	247	71.8	97	28.2	344	100.0
2003	266	72.9	↑99	27.1	365	100.0
2004	254	75.1	84	24.9	338	100.0
2005	215	71.4	86	28.6	301	100.0
2006	260	73.0	96	27.0	356	100.0
2007	240	74.8	81	25.2	321	100.0
2008	243	75.0	81	25.0	324	100.0
2009	234	72.9	87	27.1	321	100.0
2010	199	69.8	86	30.2	285	100.0
2011	254	74.9	85	25.1	339	100.0
2012	215	70.3	91	29.7	306	100.0
2013 ¹	217	75.9	69	24.1	286	100.0
Change						
1970	#	-46	-	12	-	-34
to 2013¹	%	-17.5	-	21.1	-	-10.6

¹ Preliminary figures.

NOTE: Highest point marked by ↑; lowest point marked with ↓. In cases where no high or low point is cited, it occurred between 1971 and 1979.

SOURCE: State Health Data Center, Pennsylvania Department of Health, Harrisburg, Pennsylvania. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions.

from the prior decade. In Worcester Township, the average numbers of births per year and share of the district’s births were higher than in the 1980s.

In the 2000s the average numbers of births in Lower Providence rose, but its proportionate share of all district births was down. In Worcester the average number of births was up again, as was its proportionate share of the district total. In the current decade the average number of births and proportionate share of all district births in Lower Providence Township fell. In Worcester, the average number of births was down, but its proportionate share was up.

Births per 1,000 residents in the Methacton averaged 12.2 per year during the 1970s and also during the 1980s. In the 1990s the average fell to 11.3, and it was down to 10.5 in the 2000s. In the first four years of the current decade, the average fell again to 8.6 (based on preliminary birth figures for 2013 and the most recent population estimates). The highest number of births per 1,000 district residents (16.5) was recorded in 1970; the lowest number of births per 1,000 residents (8.0) occurred in 2013. (See Table 3-3 and Graph 3-2.)

Graph 3-2
 METHACTON SCHOOL DISTRICT
Births Per 1,000 Residents
 1970 to 2013

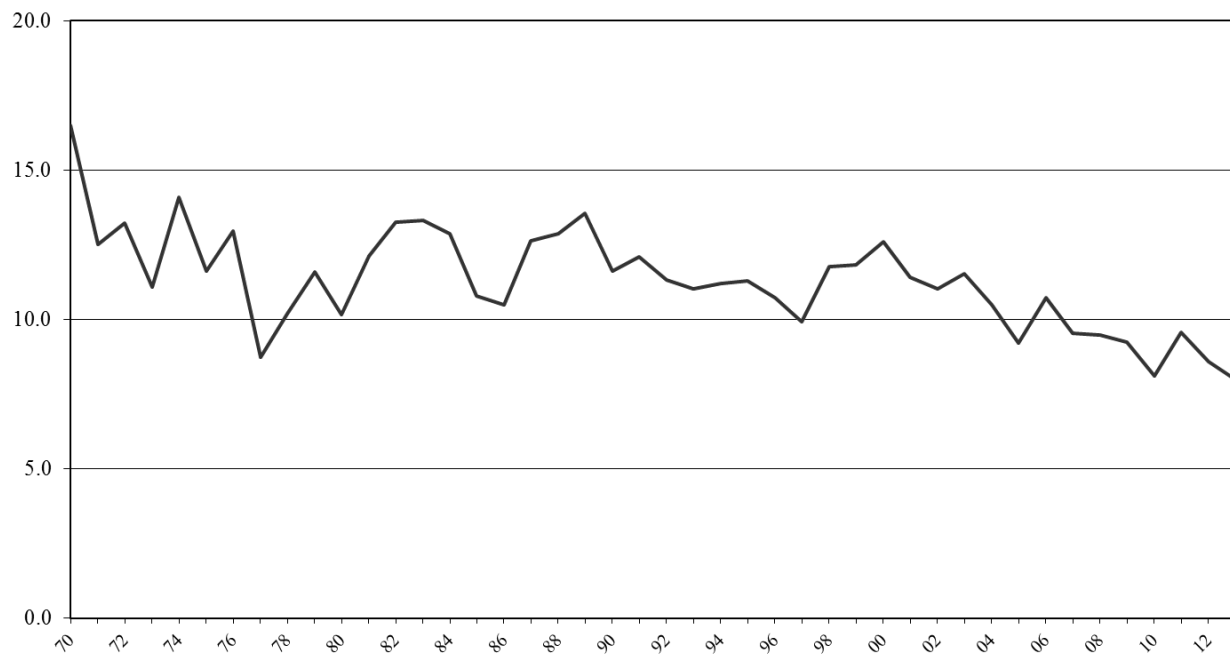


Table 3-3
 METHACTON SCHOOL DISTRICT
Births Per 1,000 Residents and Per 1,000 Housing Units
 1970 to 2013¹

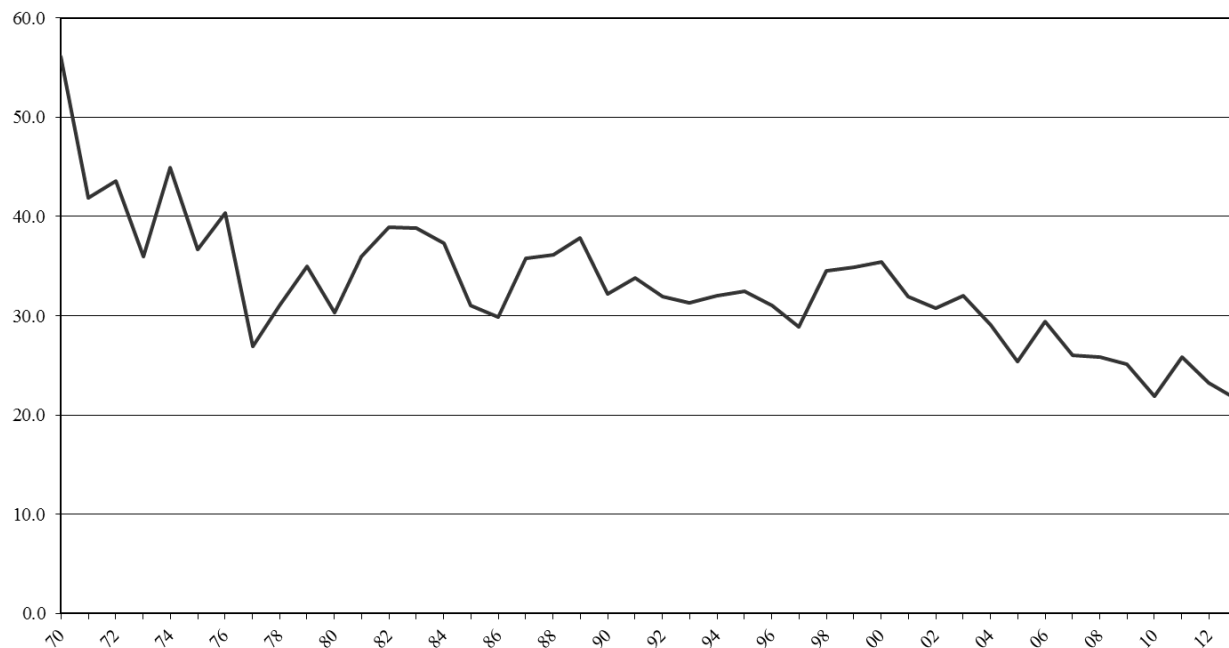
<u>Year</u>	<u>Births Per 1,000</u>	
	<u>Residents</u>	<u>Housing Units</u>
1970	↑16.5	↑56.1
1980	10.2	30.3
1981	12.1	35.9
1982	13.3	39.0
1983	13.3	38.8
1984	12.9	37.3
1985	10.8	31.0
1986	10.5	29.9
1987	12.6	35.8
1988	12.9	36.2
1989	13.5	37.9
1990	11.6	32.2
1991	12.1	33.8
1992	11.3	31.9
1993	11.0	31.3
1994	11.2	32.1
1995	11.3	32.5
1996	10.7	31.0
1997	9.9	28.9
1998	11.8	34.5
1999	11.8	34.9
2000	12.6	35.5
2001	11.4	32.0
2002	11.0	30.8
2003	11.5	32.0
2004	10.5	29.1
2005	9.2	25.4
2006	10.7	29.4
2007	9.5	26.1
2008	9.5	25.8
2009	9.3	25.1
2010	8.1	21.9
2011	9.6	25.8
2012	8.6	23.2
2013 ¹	↓8.0	↓21.6

1 Based on preliminary birth figures.

NOTE: Highest point marked by ↑; lowest point marked with ↓. In cases where no high or low point is cited, it occurred between 1971 and 1979.

The number of births per 1,000 housing units in the district averaged 39.2 during the 1970s. In the 1980s the average was down to 35.2, and in the 1990s it fell again to 32.3. Between 2000 and 2009 the average annual number of births per 1,000 housing units was down further to 29.1, and in the first four years of the current decade (based on preliminary birth figures for 2013 and new residential units authorized by permit in 2010, 2011, 2012, and 2013), the number was down still again to 23.1. The highest number of births per 1,000 housing units in Methacton during the review period (56.1) was recorded in 1970; the lowest figure (21.6) occurred in 2013. (See Table 3-3 and Graph 3-3.)

Graph 3-3
METHACTON SCHOOL DISTRICT
Births Per 1,000 Housing Units
1970 to 2013



Analyzing the Methacton's enrollments in relation to its total number of housing units produces a more complete picture of the district's demographics. In 1970-71, the average number of public school pupils generated by each housing unit in the district was 0.851. Between 1970-71 and 1980-81, the housing unit count increased by 38.7 percent, while public school enrollments were down by 9.2 percent, causing the ratio of public school pupils to housing units to fall to 0.557. By 1990-91, given a 9.4 percent rise in housing units and a decrease in enrollments of 28.1 percent, the number of public school pupils per housing unit had

fallen further to 0.366—well below one-half of the 1970-71 level. During the decade of the 1990s, the number of housing units rose by 23.8 percent, and public school enrollments grew by 52.0 percent; as a result, unlike during the two prior decades, the number of public school pupils generated by each housing unit was up to 0.449 in 2000-01. In the decade of the 2000s, the number of housing units in the district increased by 21.3 percent, and public school enrollments were up by 9.9 percent. This caused the number of public school pupils per housing unit in the 2010-11 school year to fall to 0.407.

Using a housing count based on 2010 Census figures and the number of units authorized by permit between 2010 and the end of June 2014 (up by 2.0 percent since Census) and the district's October 2014 enrollment figure (down by 6.0 percent from the fall of 2010), the average number of public school pupils produced by each housing unit in the 2014-15 school year is down again to 0.375, and all of the district's three grade groupings experienced a decreases. The yield in the current school year for grades K-4 (0.131) is down from 0.141 in 2010-11. (Figures for these grades had decreased from 0.311 in 1970-71 to 0.166 in 1980-81 and to 0.145 in 1990-91 before rising to 0.179 in 2000-01 and then falling to 0.141 in 2010-11.) The current ratio of public school pupils in grades 5 and 6 to housing units (0.060) is down from 0.062 in 2010-11. (Figures for this grade grouping had dropped from 0.132 in 1970-71 to 0.092 in 1980-81 and to 0.053 in 1990-91 and then rose to to 0.074 in 2000-01 before declining to 0.062 in 2010-11.) In grades 7 and 8, the ratio of public school pupils to housing units fell from 0.065 in 2010-11 to 0.059 in the current school year. (Figures in these grades had fallen from 0.138 in 1970-71 to 0.093 in 1980-81 and to 0.049 in 1990-91 before rising to 0.069 in 2000-01 and then dropping to 0.065 in 2010-11.) In the high school grades (9-12) the ratio of pupils to housing units in 2014-15 (0.125) is down from 0.138 in 2010-11. (Figures for these grades had fallen from 0.269 in 1970-71 to 0.206 in 1980-81 and to 0.119 in 1990-91 before rising to 0.126 in 2000-01 and 0.138 in 2010-11). (See Table 3-4 and Graph 3-4.)

Table 3-4
 METHACTON SCHOOL DISTRICT
Relationship of Public School Enrollments to Housing Units
 1970-71 to 2014-15

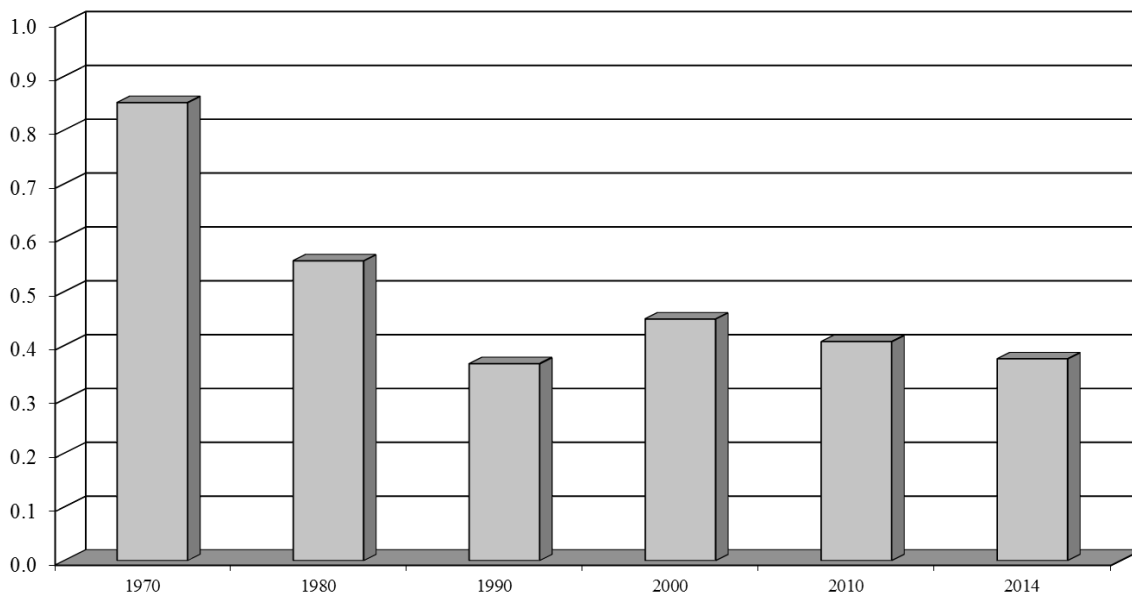
	<u>1970-71</u>	<u>1980-81</u>	<u>1990-91</u>	<u>2000-01</u>	<u>2010-11</u>	<u>2014-15</u>
Number of Housing Units	5,705	7,911	8,658	10,716	13,001	13,257 ²
<u>District Enrollments</u>						
Grades K-4	1,777	1,317	1,252	1,922	1,836	1,733
Grades 5-6	755	726	461	795	805	802
Grades 7-8	788	736	425	743	851	777
Grades 9-12	<u>1,533</u>	<u>1,627</u>	<u>1,028</u>	<u>1,352</u>	<u>1,797</u>	<u>1,662</u>
Total Grades K-12	4,853 ¹	4,406	3,166	4,812	5,289	4,974
<u>Pupils Per Unit</u>						
Grades K-4	0.311	0.166	0.145	0.179	0.141	0.131
Grades 5-6	0.132	0.092	0.053	0.074	0.062	0.060
Grades 7-8	0.138	0.093	0.049	0.069	0.065	0.059
Grades 9-12	<u>0.269</u>	<u>0.206</u>	<u>0.119</u>	<u>0.126</u>	<u>0.138</u>	<u>0.125</u>
Total Grades K-12	0.851	0.557	0.366	0.449	0.407	0.375

1 1971-72 figure used due to unavailability of 1970-71 data.

2 Housing units are as of the end of June 2014.

SOURCE: U.S. Bureau of the Census, Methacton School District, and the district's member municipalities.

Graph 3-4
 METHACTON SCHOOL DISTRICT
Relationship of Public School Enrollments to Housing Units
 1970 to 2014





PEL's analysis of birth trends in the Methacton School District reveals a fairly steady and fairly dramatic pattern of growth in absolute numbers (on average) from the late-1970s through 2000, when annual births reached their highest point during the 44 years reviewed. This was followed by a series of decreases and increases and by 2010 annual births had reached their second lowest point since 1990. Births rose in 2011, fell in 2012, and were down again in 2013 (preliminary figure) hitting the third lowest level since 1990. The average number of births per 1,000 district residents remained unchanged from the 1970s to the 1980s, but it fell in the 1990s, dropped further in the 2000s, and in the first four years of the current decade the average was down again. The district's average number of births per 1,000 housing units declined in each of the four decades reviewed. In 2013, both births per 1,000 residents and births per 1,000 housing units hit their lowest levels of the 44-year period reviewed (the highest points were in 1970). The ultimate impact of birth patterns (combined with migration patterns, new housing construction, the impact of nonpublic education, and dropouts) is that the number of public school pupils generated by each housing unit in the district fell between 1970-71 and 1980-81, between 1980-81 and 1990-91. However, between 1990-91 and 2000-01 the figure rose noticeably, but this was followed by a drop 2000-01 and 2010-11. Figures for the 2014-15 school year indicate that the number of public school children per housing unit in the first several years of the current decade were down still again. Each housing unit now produces well under one-half the number of pupils as in 1970-71. The differences between the figure for the current school year and the others presented are somewhat less dramatic. The current figure is about 33 percent lower than in the 1980-81 school year, about 16 percent lower than in 2000-01, and about 8.0 percent lower than in 2010-11, but it is about 2.0 percent higher than in 1990-91.

CHAPTER 4
MIGRATION PATTERNS

During the 1970s resident births in the Methacton School District totaled 2,591; deaths of district residents during this period totaled 1,129. This produced a “natural” increase in population of 1,462. The actual change in the number of residents between 1970 and 1980, however, was an increase of 4,194, indicating that a net in-migration of 2,732 people had occurred. Between 1980 and 1990, there were 2,905 births in the district and 1,287 deaths. This resulted in a natural increase in population of 1,618, but the district’s count grew by just 431 during the 1980s, signifying a net out-migration of 1,187. In the 1990s, births totaled 3,020 and deaths totaled 1,711 producing another natural increase in population of 1,309. The district’s total population was up by 6,142 during the 1990s meaning that a net in-migration of 4,833 occurred. Between 2000 and 2010, there were 3,400 births and 2,084 deaths, resulting in still another natural increase in population of 1,316. Methacton’s total population grew by 5,007 in the 2000s indicating that a net in-migration of 3,691 residents had taken place. From 2010 through 2012, 904 births and 796 deaths were recorded. This produced a natural increase of 108 people. The district’s population was estimated to have risen by 468 during this period suggesting a net in-migration of 360. (See Table 4-1.)

Table 4-1
METHACTON SCHOOL DISTRICT
Resident Births, Deaths, and Population Change
1970 to 2012

	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2012	1970 to 2012
Births	2,591	2,905	3,020	3,400	904	12,820
Deaths	<u>1,129</u>	<u>1,287</u>	<u>1,711</u>	<u>2,084</u>	<u>796</u>	<u>7,007</u>
Natural Pop. Change	+1,462	+1,618	+1,309	+1,316	+108	+5,813
Total Population (start)	19,412	23,606	24,037	30,179	35,186	19,412
Total Population (end)	<u>23,606</u>	<u>24,037</u>	<u>30,179</u>	<u>35,186</u>	<u>35,654</u>	<u>35,654</u>
Total Population Change	+4,194	+431	+6,142	+5,007	+468	+16,242
Less Natural Change	1,462	1,618	1,309	1,316	108	5,813
Net Migration	<u>+2,732</u>	<u>-1,187</u>	<u>+4,833</u>	<u>+3,691</u>	<u>+360</u>	<u>+10,429</u>

SOURCE: U.S. Bureau of the Census and State Health Data Center, Pennsylvania Department of Health, Harrisburg Pennsylvania. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions.

Overall, between 1970 and 2012, resident births in Methacton totaled 12,820; deaths during these years totaled 7,007. This generated a natural increase in population of 5,813. The actual population change during this period was a growth of 16,242, indicating a net in-migration of 10,429. Net in-migration was very noticeable in the 1970s, but it reversed to a net out-migration in the 1980s. Net in-migration returned during the 1990s, and it was the most robust of any of the decades reviewed. During the decade of the 2000s, net in-migration was also recorded, but it was somewhat lower than in the 1990s—but still stronger than during the 1970s. Thus far in the current decade, net in-migration has continued, but it is down markedly and on a pace to produce a much lower level of net in-migration than in either of the two preceding decades—but this is based on very limited experience.

The significance of migration for purposes of this examination lies in its effect on school-age children and the district's enrollments, and it can be highlighted by using birth data and actual enrollment figures.

A review of the relationship between Methacton's pupil population and births in the district in the years corresponding to the ages of children in school (essentially, a surrogate for the number of school-age children) normally provides a perspective on the impact of migration. A figure of greater than 100 percent indicates an enrollment that is higher than that resulting solely from the cumulative total of births in the district during the corresponding time period (due to net in-migration in this age grouping); conversely, a figure of less than 100 percent indicates an enrollment that is lower than the cumulative number of births (due primarily to net out-migration and/or resident children enrolling in schools and educational programs other than those operated directly by the school district (for example, private/parochial schools; home, charter, and/or cyber schools; perhaps Career and Technical Center (CTC) programs; full-time Intermediate Unit and other special programs and classes; other out-of-district placements; etc.).

The cumulative number of births recorded in the Methacton School District during calendar years 1997 through 2009 (which roughly corresponds to children in grades K-12 in the current school year) was 4,372; the number of children enrolled in the district in this school year (based on October 1 figures as provided by the district which include all regular classroom pupils as well as district children enrolled in either the half-day or full-day program offered by the North Montco Technical Career Center (a cooperative CTC program involving the Methacton, North Penn, Souderton Area, Wissahickon, and Perkiomen Valley school districts for pupils in

the 9th, 10th, 11th, and 12th grades), the vast majority of the district's special education pupils, and some of those who participate in the Brandywine Virtual Academy (operated by the Chester County Intermediate Unit) is 4,974 or 113.8 percent of the corresponding births—well above the “neutral” migration figure of 100 percent. In 2004-05, the relationship of district pupils to the sum of the births in the years corresponding to the ages of children in school totaled 135.0 percent. The figure fell in each subsequent year reaching 113.8 percent in the current school year—the lowest point during the period reviewed. The relationship of district enrollments to the sum of the births in the corresponding years averaged 125.6 percent throughout the years reviewed—131.7 percent for the years 2004-05 to 2009-10 and 118.4 percent for during the five most recent years. (See Table 4-2.)

The number of children residing in the Methacton School District who were reported to be enrolled in schools and educational programs other than those operated directly by Methacton in the 2014-15 school year is 991 or 22.7 percent of the corresponding births. (These figures include district children enrolled in home schools, cyber/charter schools—except those who participate in the Brandywine Valley Virtual Academy, and just those in private/parochial school schools who are transported by the district.) In 2004-05, there were 1,271 district children reported to be enrolled in schools and programs other than Methacton's (as defined above)—32.1 percent of cumulative births. The relationship between these enrollments and cumulative births declined in all but three of the ensuing years and reached its low point during the years reviewed (22.7 percent) in the current school year (its high point of 32.1 percent of cumulative births occurred in 2004-05). The relationship of district children in schools and programs other than those operated directly by Methacton (as defined above) to the sum of the births in the corresponding years averaged 25.0 percent throughout the years reviewed. The average for the period 2004-05 through 2009-10 was 26.4 percent; the average for the five most recent years was up to 23.3 percent.

Further insight with respect to migration patterns and their impact can often be gained by analyzing the relationship between cumulative births and the combined pupil count of district children enrolled in Methacton and those in schools and educational programs operated by others. In 2014-15, 5,965 district children were reported to be in district and non-district schools and programs (as defined above). Based on these figures, the total number of district children

Table 4-2
 METHACTON SCHOOL DISTRICT
 Relationship of Reported Methacton Enrollments and District Children Enrolled in
Other Schools and Educational Programs to the Cumulative Number of Births in the Corresponding Years
 2004-05 to 2014-15

	Cumulative Births ¹	Methacton SD Enrollments ²		Enrollments in Other Educational Programs ³		Total Enrollments ⁴	
		#	as a % of Cumulative Births	#	as a % of Cumulative Births	#	as a % of Cumulative Births
2004-05	3,955	5,338	↑135.0	1,271	↑32.1	6,609	↑167.1
2005-06	4,033	5,413	134.2	1,163	28.8	6,576	163.1
2006-07	4,075	5,454	133.8	1,011	24.8	6,465	158.7
2007-08	4,094	5,469	133.6	984	24.0	6,453	157.6
2008-09	4,180	5,310	127.0	1,049	25.1	6,359	152.1
2009-10	4,220	5,332	126.4	1,000	23.7	6,332	150.0
2010-11	4,235	5,289	124.9	988	23.3	6,277	148.2
2011-12	4,306	5,161	119.9	1,050	24.4	6,211	144.2
2012-13	4,330	5,085	117.4	997	23.0	6,082	140.5
2013-14	4,348	5,042	116.0	1,013	23.3	6,055	139.3
2014-15	4,372	4,974	↓113.8	991	↓22.7	5,965	↓136.4

- 1 Cumulative births represent the sum of actual and estimated births for the 13-year period corresponding to the school year. For example, pupils in grades K-12 in school year 2014-15 reflect births during the years 1997 through 2009.
- 2 Pupil counts are based on October 1 figures as provided by the district for each year and include all regular classroom pupils as well as district children enrolled in either the half-day or full-day program offered by the North Montco Technical Career Center, the vast majority of the district's special education pupils, and **some of** those who participate in the Brandywine Virtual Academy.
- 3 Includes district children reported to be enrolled in home schools, cyber/charter schools—except those who participate in the Brandywine Valley Virtual Academy, and just those in private/parochial school schools who are transported by the district. The numbers enrolled in home schools in 2004-05 and 2005-06 were estimated by PEL. Excluded from these counts are any private/parochial pupils who are not transported by the district, the small number of district children in full-time Intermediate Unit programs conducted outside the district's classrooms, those participating in the Brandywine Valley Virtual Academy who are not in the district's October 1 counts, and resident children in institutions and other out-of-district placements, etc.
- 4 Includes district children enrolled in Methacton and schools and educational programs not operated directly by the district (as defined above). It should be noted that the overall relationship between cumulative births and total reported enrollments may be influenced not only by migration patterns but also by any changes over time in the way those in schools and educational programs other than Methacton's are recorded. Further, if figures on any district children enrolled in private/parochial pupils who are not transported by the district, the small number of district children in full-time Intermediate Unit programs conducted outside the district's classrooms, those participating in the Brandywine Valley Virtual Academy who are not in the district's October 1 counts, and resident children in institutions and other out-of-district placements, etc., were factored in, the relationship between total reported enrollments and cumulative births in Methacton would be higher.

NOTE: Highest point marked by ↑; lowest point marked by ↓.

SOURCE: Methacton School District

enrolled in schools and educational programs in the current school year equals 136.4 percent of the number of births that occurred in the district during the corresponding years. The relationship of all these children to the corresponding number of births in the district totaled 167.1 percent in

2004-05. It then fell in each of the following years reviewed hitting 136.4 percent in 2014-15—the lowest level during this period. Total district children reported to be enrolled in the district and the non-district schools and programs during the years 2004-05 to 2014-15 averaged 150.7 percent of the births in the corresponding years—158.1 percent for the period 2004-05 through 2009-10, and 141.7 percent for the most recent five years.

Clearly, the net in-migration of pupils to the Methacton School District and the net in-migration of reported Methacton residents to non-district schools and educational programs (based on the relationship between pupil counts and corresponding births in the district) have slowed markedly in the past 10 years.

The overall relationship between cumulative births and total reported enrollments of district children (as defined above) appears to be strongly influenced by migration patterns, but it may also be influenced by any changes over time in the way those in schools and educational programs other than Methacton's are recorded. However, the figures presented are likely to represent a valid measure of the general relationship between cumulative births and the enrollment of school-age children residing in the district during the period reviewed—recognizing that children in non-district schools and programs include only those reported to be enrolled in home schools, charter/and cyber schools (except those who participate in the Brandywine Valley Virtual Academy), and just district residents enrolled in private/parochial schools who are transported by the district.

If figures on any district children enrolled in private/parochial pupils who are not transported by the district, the small number of district children in full-time Intermediate Unit programs conducted outside the district's classrooms, those participating in the Brandywine Valley Virtual Academy who are not in the district's October 1 counts, and resident children in institutions and other out-of-district placements, etc., were factored in, the relationship between total reported enrollments and cumulative births in Methacton would be higher.

Changes in Methacton's enrollments by grade can reflect many factors in addition to migration; for example, shifts to and from private/parochial and other schools, and special classes and other educational programs not provided directly by Methacton; changes in promotional and other internal district policies; withdrawals—particularly in the high school grades; etc. However, any large migration would likely be reflected in a comparison of the number of pupils in corresponding grades over a period of years. In 2008-09 there were 1,161 pupils in grades 1-3

in the district. Three years later (2011-12) when the bulk of this group was in grades 4-6, the number was 1,167 (6 pupils or 0.5 percent higher than in 2008-09). In the current school year (three years later—when these pupils are in grades 7-9), the number is 1,181—an increase of 14 pupils (1.2 percent) from 2011-12, and an increase of 20 pupils or 1.7 percent over the 2008-09 school year. In 2014-15 the number of pupils in grades 4-6 totals 1,173—42 (3.7 percent) more than in grades 1-3 three years earlier.

In 2008-09 the number of pupils in grades 4-6 totaled 1,195; three years later when these children were in grades 7-9, the total was 1,250—up by 55 or 4.6 percent. When these children reached grades 10-12 in 2014-15, the number had risen slightly to 1,258—8 pupils or 0.6 percent higher than three years prior. This figure was 63 or 5.3 percent above the level of 2008-09, when these pupils were in grades 4-6. A gain (32 pupils or 2.4 percent) was recorded in the number of pupils in grades 10-12 in 2011-12 from the count in the three lower grades three years earlier. (See Table 4-3.)

Table 4-3
METHACTON SCHOOL DISTRICT
Migration Reflected in Methacton's Enrollments, By Grade
2008-09, 2011-12, and 2014-15

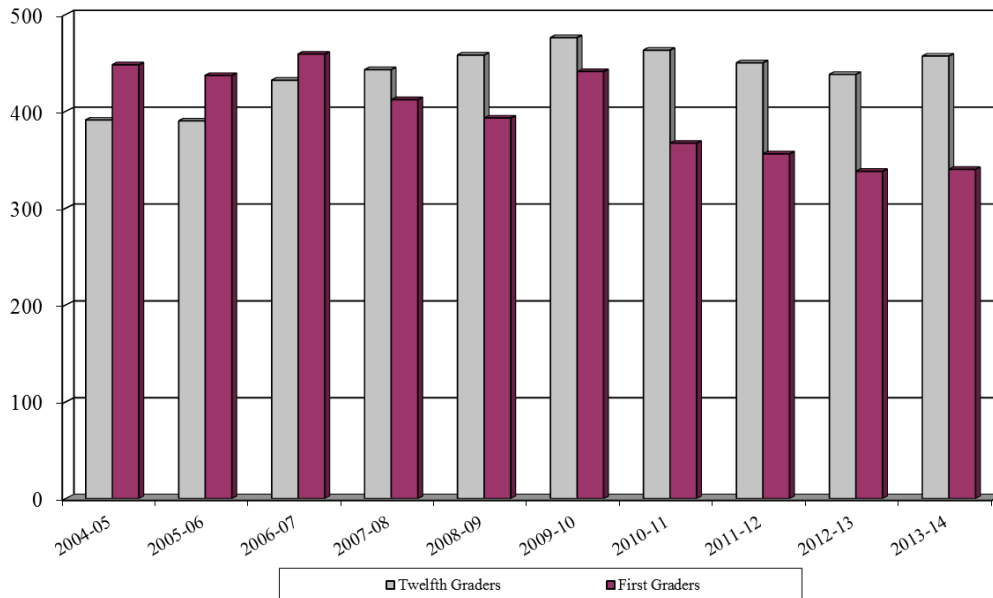
2008-09		2011-12		Change 2008-09 to 2011-12		2014-15		Change 2011-12 to 2014-15		Change 2008-09 to 2014-15	
Grade	Number	Grade	Number	#	%	Grade	Number	#	%	#	%
–	–	1	367	–	–	4	371	4	1.1	–	–
–	–	2	410	–	–	5	432	22	5.4	–	–
–	–	3	<u>354</u>	–	–	6	370	<u>16</u>	4.5	–	–
–	–	Total				Total					
–	–	1-3	1,131	–	–	4-6	1,173	42	3.7	–	–
1	412	4	384	-28	-6.8	7	370	-14	-3.6	-42	-10.2
2	385	5	407	22	5.7	8	407	NC	NC	22	5.7
3	<u>364</u>	6	<u>376</u>	<u>12</u>	3.3	9	<u>404</u>	<u>28</u>	7.4	<u>40</u>	11.0
Total		Total				Total					
1-3	1,161	4-6	1,167	6	0.5	7-9	1,181	14	1.2	20	1.7
4	402	7	416	14	3.5	10	422	6	1.4	20	5.0
5	398	8	417	19	4.8	11	404	-13	-3.1	6	1.5
6	<u>395</u>	9	<u>417</u>	<u>22</u>	5.6	12	<u>432</u>	<u>15</u>	3.6	<u>37</u>	9.4
Total		Total				Total					
4-6	1,195	7-9	1,250	55	4.6	10-12	1,258	8	0.6	63	5.3
7	433	10	451	18	4.2	–	–	–	–	–	–
8	430	11	439	9	2.1	–	–	–	–	–	–
9	445	12	<u>450</u>	<u>5</u>	1.1	–	–	–	–	–	–
Total		Total									
7-9	1,308	10-12	1,340	32	2.4	–	–	–	–	–	–

Another factor that can be an indicator of the pattern of future overall enrollments in a school district is the relationship between senior classes and the first grade classes that replace them in the following school year. For example, in the 2005-06 school year 448 first graders replaced 391 twelfth graders in the prior school year, producing a “gain” of 57 pupils or 14.6 percent. The gains diminished in the two following years, and starting in 2008-09 and continuing through the current school year first grade classes were smaller than the senior classes they replaced. The annual “losses” in pupils rose fairly steadily from 31 or 7.0 percent in 2008-09 to its highest point of 117 or 25.6 percent in the current school year. Overall, during the 10-year period there was a loss of 407 first grade entries versus the preceding year’s senior class. In the first five years of the review period there was a net overall gain of 35 pupils between the senior classes and the following years’ first graders—an annual average increase of seven pupils. During the most recent five years, however, the number of first graders was lower than the number of twelfth graders in the prior year by 442, resulting in an average loss of 88 pupils per year. (See Table 4-4 and Graph 4-1.)

Table 4-4
 METHACTON SCHOOL DISTRICT
 Relationship Between Senior Classes and
Entering First Grade Classes in the Following Year
 2004-05 to 2014-15

Senior Class		First Grade Class		Change	
Year	No. of Pupils	Year	No. of Pupils	Pupils	%
2004-05	391	2005-06	448	57	14.6
2005-06	390	2006-07	437	47	12.1
2006-07	432	2007-08	459	27	6.3
2007-08	443	2008-09	412	-31	-7.0
2008-09	458	2009-10	493	-65	-14.2
2009-10	476	2010-11	441	-35	-7.4
2010-11	463	2011-12	367	-96	-20.7
2011-12	450	2012-13	356	-94	-20.9
2012-13	438	2013-14	338	-100	-22.8
2013-14	457	2014-15	340	-117	-25.6

Graph 4-1
 METHACTON SCHOOL DISTRICT
 Relationship Between Twelfth Graders
 and Entering First Graders in the Following Year
 2004-05 to 2014-15



Net in-migration of the total population in the Methacton School District is evident during three of the four decades reviewed. Net in-migration was strong in the 1970s, it reversed to net out-migration in the 1980s, returned during the 1990s and was more robust than in any of the other decades reviewed, and during the 2000s net in-migration continued but at a slower rate than in the 1990s. Thus far in the current decade, net in-migration is down markedly and on a pace to produce a much lower level of net in-migration than in either of the two preceding decades—but this is based on very limited experience. The relationship between cumulative births and Methacton’s enrollments during the past 10 years suggests that the number of children enrolled in the district has been noticeably above the neutral migration figure, but the relationship clearly weakened in each of the past 10 years. When figures on district children enrolled in schools and educational programs other than those provided directly by Methacton are factored in—based on those enrolled in home schools, cyber/charter schools (except those who participate in the Brandywine Valley Virtual

Academy), and just district residents enrolled in private/parochial school schools who are transported by the district, the relationship between the number of children residing in the district who are reported to be enrolled in all district and non-district schools and educational programs and births in the district in the corresponding years is much higher, but, like those of the district, it has fallen in every year and is well below the level of 10 years ago. Analysis of the movement of children through the district's grades during the recent past reveals very noticeable net in-migration of pupils (on average) in grades 1-4 (largely on the strength of the first grade), much more modest net in-migration in grades 5 and 6; essentially neutral migration (on average) in grades 7 and 8; and just slight net in-migration (on average) in the high school grades. Also, as a result of migration, birth patterns, and other factors, first grade classes were smaller than the senior classes they replaced in each of the past seven school years, and the annual losses in first graders versus the prior year's seniors have been noticeably larger in the most recent years than in the earlier years. These relationships and indicators as a variety of others will be further explored in Chapter 5.

CHAPTER 5 ENROLLMENT TRENDS AND PROJECTIONS

Past Enrollment Trends

Enrollments in the Methacton School District total 4,974 in the 2014-15 school year are 364 (6.8 percent) lower than in 2004-05. (Pupil counts are based on October 1 figures for each year as provided by the district and include all regular classroom pupils as well as district children enrolled in either the half-day or full-day program offered by the North Montco Technical Career Center (a cooperative CTC program involving the Methacton, North Penn, Souderton Area, Wissahickon, and Perkiomen Valley school districts for pupils in the 9th, 10th, 11th, and 12th grades), the vast majority of the district's special education pupils, and some of those who participate in the Brandywine Virtual Academy (operated by the Chester County Intermediate Unit.)

Decreases in Methacton's pupil population were recorded in six years during the period reviewed, including each of the past five years; increases occurred in four of the five preceding years. The largest annual loss in enrollments (159 pupils or 2.9 percent) was experienced in 2008-09; the smallest decrease (43 pupils or 0.8 percent) occurred in both 2010-11 and 2013-14. The increases ranged from 15 pupils (0.3 percent) in 2007-08 to 75 pupils (1.4 percent) in 2005-06. In the current school year the pupil count declined by 68 (1.3 percent). The district's pupil count fell by a net of six or 0.1 percent between 2004-05 and 2009-10 (a net decrease of one pupil or less than 0.1 percent yearly, on average—due to a single large drop in 2008-09); in the five most recent years enrollments were down by 358 or 6.7 percent (a loss of 72 pupils or 1.3 percent yearly, on average). (See Tables 5-1 and 5-2 and Graph 5-1.)

Table 5-1
 METHACTON SCHOOL DISTRICT
Total Enrollments (Grades K-12)¹
 2004-05 to 2014-15

<u>School Year</u>	<u>Enrollment K-12</u>	<u>Change From Previous Year</u>	
		<u>#</u>	<u>%</u>
2004-05	5,338	–	–
2005-06	5,413	75	1.4
2006-07	5,454	41	0.8
2007-08	5,469	15	0.3
2008-09	5,310	-159	-2.9
2009-10	5,332	22	0.4
2010-11	5,289	-43	-0.8
2011-12	5,161	-128	-2.4
2012-13	5,085	-76	-1.5
2013-14	5,042	-43	-0.8
2014-15	4,974	-68	-1.3
Change 2004-05 to 2014-15		-364	-6.8

¹ Based on October 1 figures as provided by the district.

Table 5-2
METHACTON SCHOOL DISTRICT
Total Enrollments by Grade¹
2004-05 to 2014-15

<u>School Year</u>	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Total <u>K-4</u>	<u>5</u>	<u>6</u>	Total <u>5-6</u>	<u>7</u>	<u>8</u>	Total <u>7-8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	Total <u>9-12</u>	Total <u>K-12</u>
2004-05	314	416	371	398	404	1,903	421	442	863	440	459	899	454	438	390	391	1,673	5,338
2005-06	306	448	373	381	405	1,913	419	434	853	442	444	886	476	464	431	390	1,761	5,413
2006-07	314	437	392	380	383	1,906	425	420	845	439	451	890	470	463	448	432	1,813	5,454
2007-08	294	459	356	401	400	1,910	392	430	822	432	445	877	470	476	471	443	1,860	5,469
2008-09	268	412	385	364	402	1,831	398	395	793	433	430	863	445	457	463	458	1,823	5,310
2009-10	318	393	374	387	372	1,844	416	416	832	410	428	838	447	440	455	476	1,818	5,332
2010-11	267	441	342	385	401	1,836	385	420	805	425	426	851	441	446	447	463	1,797	5,289
2011-12	273	367	410	354	384	1,788	407	376	783	416	417	833	417	451	439	450	1,757	5,161
2012-13	274	356	364	424	348	1,766	385	409	794	387	416	803	417	418	449	438	1,722	5,085
2013-14	287	338	358	367	428	1,778	373	378	751	410	401	811	413	411	421	457	1,702	5,042
2014-15	317	340	349	356	371	1,733	432	370	802	370	407	777	404	422	404	432	1,662	4,974
Pupil Change																		
2004-05 to																		
2014-15	3	-76	-22	-42	-33	-170	11	-72	-61	-70	-52	-122	-50	-16	14	41	-11	-364
Percent Change																		
2004-05 to																		
2014-15	1.0	-18.3	-5.9	-10.6	-8.2	-8.9	2.6	-16.3	-7.1	-15.9	-11.3	-13.6	-11.0	-3.7	3.6	10.5	-0.7	-6.8

¹ Based on October 1 figures as provided by the district.

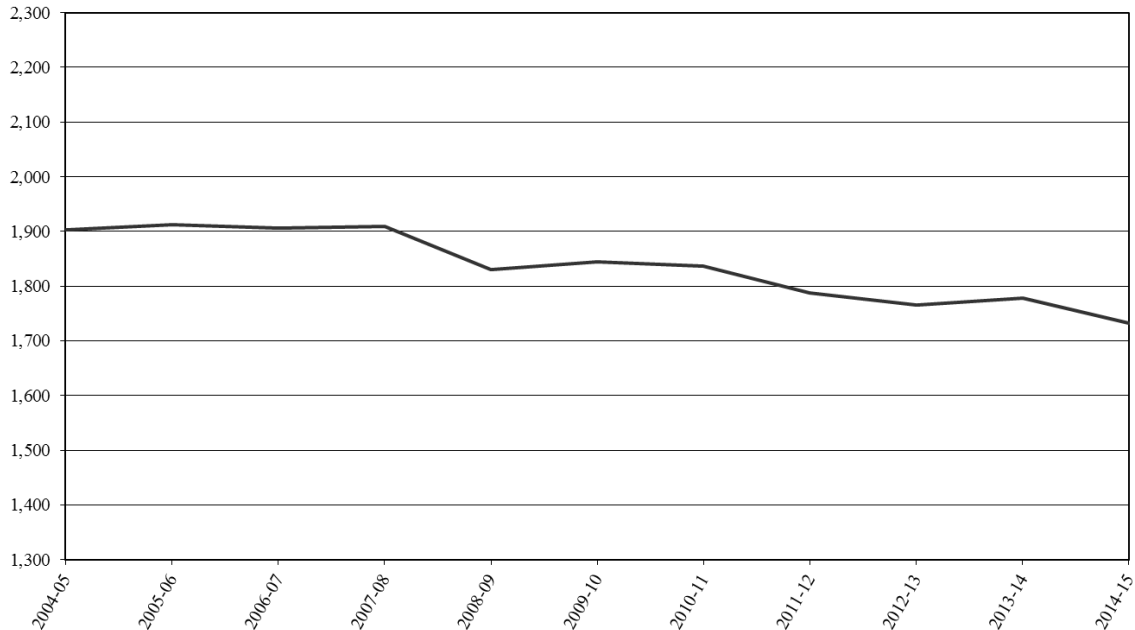
Methacton's enrollments in grades K through 4 in 2014-15 are 170 pupils (8.9 percent) below the 2004-05 level. During this period the pupil count fell in six years (including four of the past five) and rose in four years. The largest annual decrease in pupils (79 or 4.1 percent) occurred in 2008-09. The smallest absolute loss (seven pupils) was recorded in 2006-07, while the smallest proportionate decline (0.4 percent) was in both 2006-07 and 2010-11. The largest absolute growth in enrollments (13) was experienced in 2009-10; the largest proportionate increase (0.7 percent) was in both 2009-10 and 2013-14. In the current school year enrollments fell by 45 or 2.5 percent. The pupil population in grades K-4 was down by a net of 59 or 3.1 percent during the period 2004-05 to 2009-10 (a net loss of 12 pupils or 0.6 percent yearly, on average); in the five most recent years enrollments in these grades decreased by a net of 111 or 6.0 percent (or an average annual net drop of 22 pupils or 1.2 percent). (See Tables 5-2 and 5-3 and Graph 5-2.)

Table 5-3
METHACTON SCHOOL DISTRICT
Elementary Enrollments (Grades K-4)¹
2004-05 to 2014-15

<u>School Year</u>	<u>Enrollment K-4</u>	<u>Change From Previous Year</u>	
		<u>#</u>	<u>%</u>
2004-05	1,903	-	-
2005-06	1,913	10	0.5
2006-07	1,906	-7	-0.4
2007-08	1,910	4	0.2
2008-09	1,831	-79	-4.1
2009-10	1,844	13	0.7
2010-11	1,836	-8	-0.4
2011-12	1,788	-48	-2.6
2012-13	1,766	-22	-1.2
2013-14	1,778	12	0.7
2014-15	1,733	-45	-2.5
Change 2004-05 to 2014-15		-170	-8.9

¹ Based on October 1 figures as provided by the district.

Graph 5-2
 METHACTON SCHOOL DISTRICT
Elementary Enrollment Trends (Grades K-4)
 2004-05 to 204-15



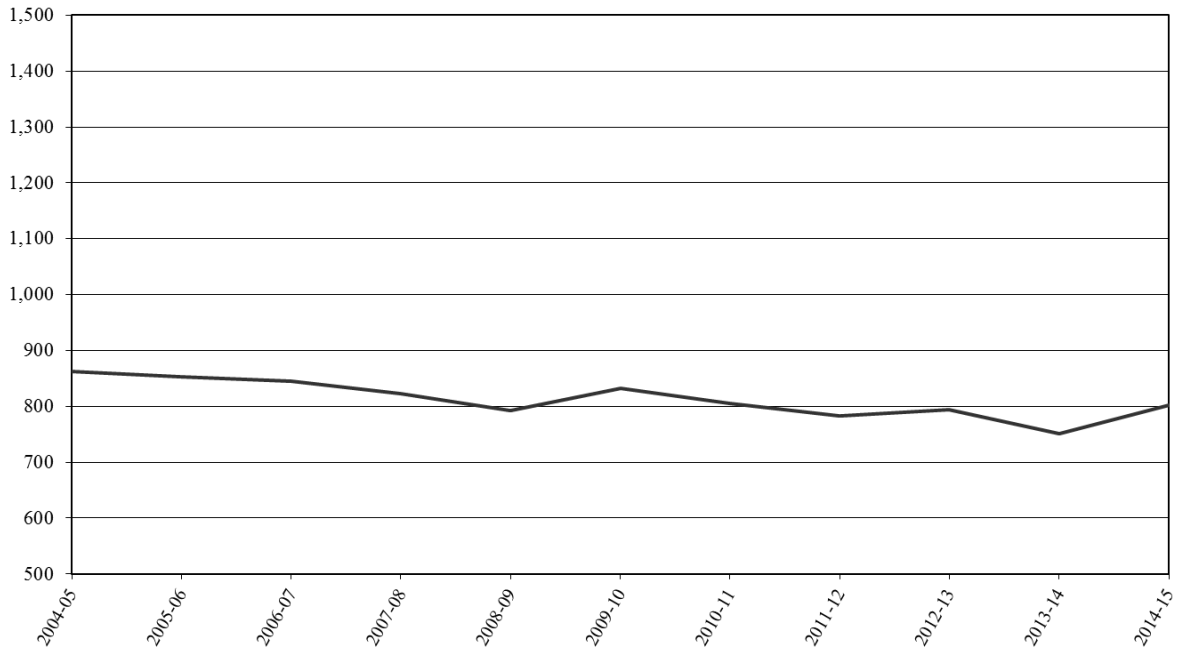
The district's 2014-15 pupil count in the Upper Elementary School grades (5 and 6) is down by 61 pupils or 7.1 percent from 2004-05. Enrollments decreased in seven years during this period (including three of the past five); they rose in three years—including two of the past three. The largest annual drop in pupils in these grades (43 or 5.4 percent) was recorded in 2013-14, and the smallest loss (eight pupils or 0.9 percent) occurred in 2006-07. The increases ranged from 11 pupils (1.4 percent) in 2012-13 to 51 pupils (6.8 percent) in the current school year. The enrollment in grades 5-6 fell by a net of 31 or 3.6 percent during the period 2004-05 to 2009-10 (a net loss of six pupils or 0.7 percent yearly, on average); in the five most recent years enrollments in these grades decreased by a net of 30 or 3.6 percent (or an average annual net decline of six pupils or 0.7 percent). The unusually high increase in pupils in 2014-15—given that it is essentially a one-time event—tends to understate the average overall net loss in enrollments in the past five years. This single large class—referred to as a “bubble”—can be traced back to a high birth figure in 2003-04 that was compounded by a high cohort survival rate in 2009-10 and resulted in a much larger kindergarten class in that school year than in the preceding or subsequent years. As this class has moved through the grades, it has grown noticeably. (See Tables 5-2 and 5-4 and Graph 5-3.)

Table 5-4
 METHACTON SCHOOL DISTRICT
Upper Elementary School Enrollments (Grades 5-6)¹
 2004-05 to 2014-15

<u>School Year</u>	<u>Enrollment</u> <u>5-6</u>	<u>Change From</u> <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2004-05	863	-	-
2005-06	853	-10	-1.2
2006-07	845	-8	-0.9
2007-08	822	-23	-2.7
2008-09	793	-29	-3.5
2009-10	832	39	4.9
2010-11	805	-27	-3.2
2011-12	783	-22	-2.7
2012-13	794	11	1.4
2013-14	751	-43	-5.4
2014-15	802	51	6.8
Change 2004-05 to 2014-15		-61	-7.1

¹ Based on October 1 figures as provided by the district.

Graph 5-3
 METHACTON SCHOOL DISTRICT
Upper Elementary Enrollment Trends (Grades 5-6)
 2004-05 to 2014-15



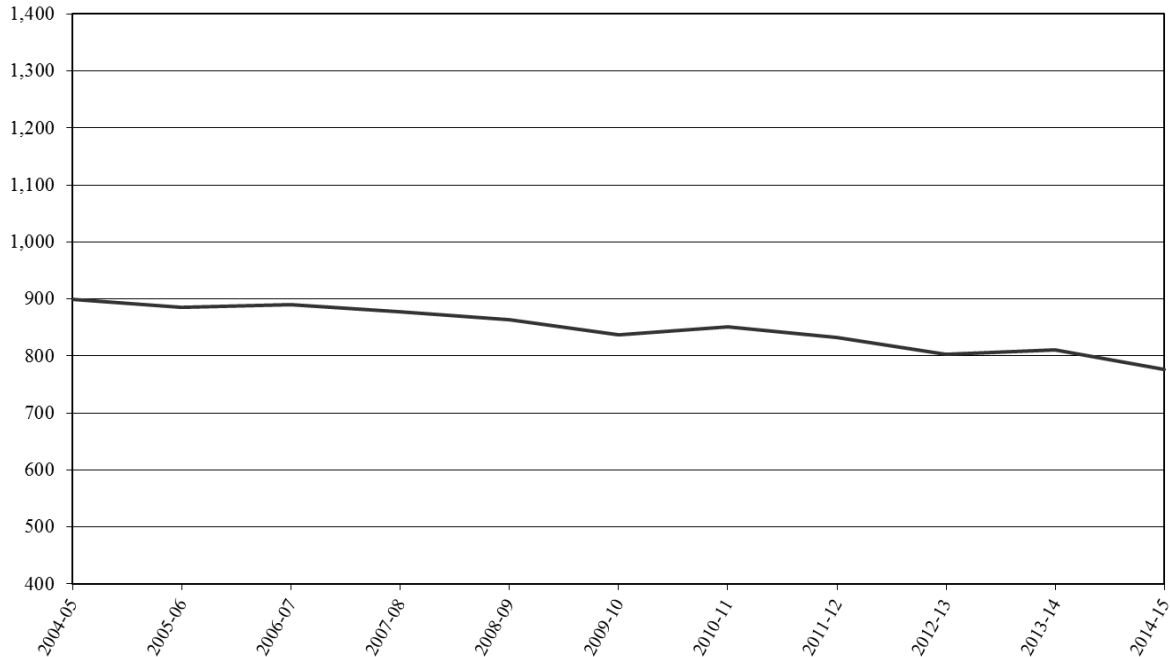
The pupil population in the intermediate grades (7 and 8) decreased by 122 or 13.6 percent between the 2004-05 and 2014-15 school years. Losses in enrollments in these grades were recorded in seven years during this period (including three of the past four), while increases occurred in three years. The largest annual drop was in the current school year (34 pupils or 4.2 percent); the smallest absolute decline (13 pupils) was in both 2005-06 and 2007-08; the smallest proportionate decrease (1.4 percent) was experienced in 2005-06. The increases ranged from four pupils (0.5 percent) in 2006-07 to 13 pupils (1.6 percent) in 2010-11. During school years 2004-05 through 2009-10, enrollments in grades 7-8 fell by a net of 61 or 6.8 percent (a net decline of 12 pupils or 1.4 percent yearly, on average); in the five most recent years the count in these grades was also down by a net of 61 (or 7.3 percent) resulting in an annual average net decrease of 12 pupils or 1.5 percent. (See Tables 5-2 and 5-5 and Graph 5-4.)

Table 5-5
METHACTON SCHOOL DISTRICT
Intermediate School Enrollments (Grades 7-8)¹
2004-05 to 2014-15

<u>School Year</u>	<u>Enrollment</u> <u>7-8</u>	<u>Change From</u> <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2004-05	899	—	—
2005-06	886	-13	-1.4
2006-07	890	4	0.5
2007-08	877	-13	-1.5
2008-09	863	-14	-1.6
2009-10	838	-25	-2.9
2010-11	851	13	1.6
2011-12	833	-18	-2.1
2012-13	803	-30	-3.6
2013-14	811	8	1.0
2014-15	777	-34	-4.2
Change 2004-05 to 2014-15		-122	-13.6

¹ Based on October 1 figures as provided by the district.

Graph 5-4
 METHACTON SCHOOL DISTRICT
Intermediate School Enrollment Trends
 2004-05 to 2014-15



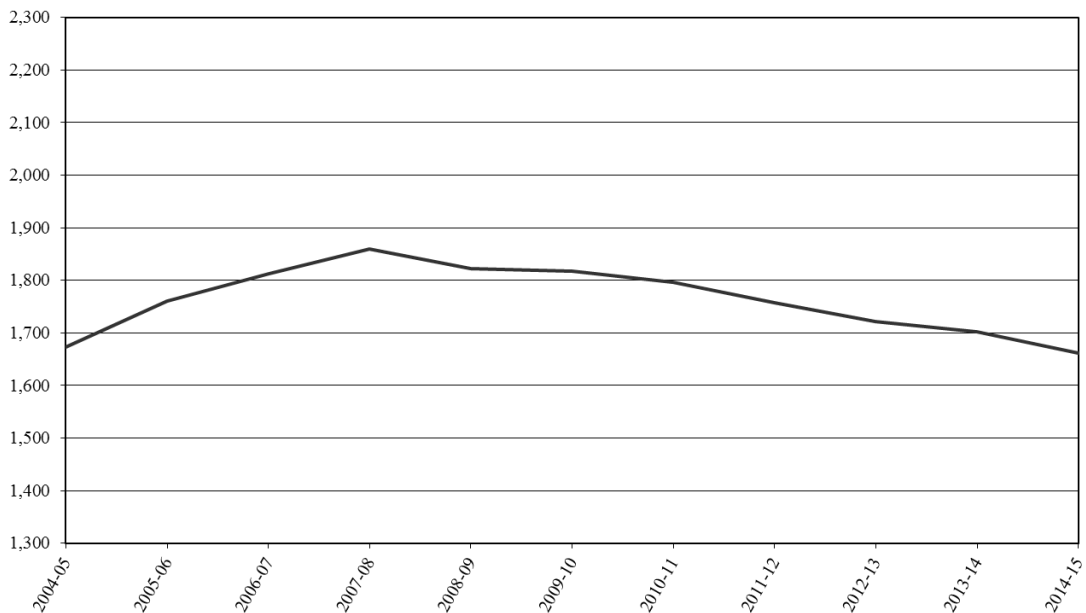
High school enrollments (grades 9-12) in the current school year are 11 pupils (0.7 percent) lower than in 2004-05. Annual decreases were recorded in each of the past seven years; increases occurred in the first three years of the review period. The largest absolute annual decline (40) occurred in both 2011-12 and 2014-15, while the largest proportionate drop (2.4 percent) was in the current school year. The smallest loss (five pupils or 0.3 percent) was experienced in 2009-10. The increases in enrollments at the high school ranged from 47 (2.6 percent) in 2007-08 to 88 (5.3 percent) in 2005-06. The pupil population in grades 9-12 grew by a net of 145 or 8.7 percent between 2004-05 and 2009-10 (a net increase of 29 pupils or 1.7 percent yearly, on average); enrollments in these grades fell by 156 or 8.6 percent in the five most recent years (an annual average loss of 31 pupils or 1.7 percent). (See Tables 5-2 and 5-6 and Graph 5-5.)

Table 5-6
 METHACTON SCHOOL DISTRICT
High School Enrollments (Grades 9-12)¹
 2004-05 to 2014-15

<u>School Year</u>	<u>Enrollment</u> <u>9-12</u>	<u>Change From</u> <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2004-05	1,673	–	–
2005-06	1,761	88	5.3
2006-07	1,813	52	3.0
2007-08	1,860	47	2.6
2008-09	1,823	-37	-2.0
2009-10	1,818	-5	-0.3
2010-11	1,797	-21	-1.2
2011-12	1,757	-40	-2.2
2012-13	1,722	-35	-2.0
2013-14	1,702	-20	-1.2
2014-15	1,662	-40	-2.4
Change 2004-05 to 2014-15		-11	-0.7

¹ Based on October 1 figures as provided by the district.

Graph 5-5
 METHACTON SCHOOL DISTRICT
High School Enrollment Trends
 2004-05 to 2014-15



Based on figures provided by the district, the number of children residing in Methacton who were reported to be enrolled in schools and educational programs other than those operated directly by the Methacton School District (specifically, those who are in home schools, cyber/charter schools—except those who participate in the Brandywine Valley Virtual Academy, and just district residents enrolled in private/parochial school schools who are transported by the district) dropped from 1,271 in 2004-05 to 991 in the current school year—or by 280 pupils or 22.0 percent. During this same period Methacton’s enrollments were down by a net of 364 or 6.8 percent.

The reported number of Methacton residents transported by the district to private/parochial schools totaled 905 in 2014-15—down by 336 or 27.1 percent from 1,241 in 2004-05. The number of district children enrolled in the home schools fell from 30 in 2004-05 (estimated) to 29 in the current school year (or by just one pupil or 3.3 percent), and the number reported to be enrolled in cyber/charter schools was up by 57 during this period—from none in 2004-05 to 57 in 2014-15.

In 2004-05, 19.2 percent of district children were reported to be enrolled in schools and programs other than Methacton’s (as defined above)—this was the highest figure recorded during the years reviewed. The relative number of pupils in non-district schools and programs declined in each of the three subsequent years and hit its lowest point during the review period (15.2 percent) in 2007-08. The figure then experienced a mix of increases and decreases, but remained fairly constant averaging 16.4 percent. The figure for the current school year is slightly higher (16.6 percent), but it is down somewhat from the level of 10 years prior. The relationship of these children to the total number enrolled in district and non-district schools and programs averaged 16.6 percent during the review period—16.9 percent between 2004-05 and 2009-10 and 16.4 percent for the years 2010-11 through 2014-15.

Conversely, the Methacton School District’s share of the combined number of resident children reported to be in district and non-district schools and programs totaled 80.8 percent in 2004-05—its lowest level during the years reviewed. The figure then rose to its high point (84.8 percent) in 2007-08 and in the ensuing years recorded several increases and decreases, eventually reaching 83.4 percent in 2014-15. The relationship between Methacton’s enrollments and all

reported children in schools averaged 83.4 percent during the period reviewed—83.1 percent for the years 2004-05 through 2009-10 and 83.6 percent in the five most recent years.

The overall relationship between Methacton’s enrollments and district children in other schools and educational programs may be affected by any changes over time in the way those in schools and programs other than Methacton’s are recorded and/or in the relative number of private/parochial school pupils who are transported by the district. However, the figures presented are believed to represent a valid measure of the general relationship between resident children enrolled in district and non-district schools and programs during the period reviewed—acknowledging that children in non-district schools and programs include only those reported to be enrolled in home schools and cyber/charter schools, and just private/parochial pupils who are transported by the district. If figures on all district children participating in schools and programs other than those operated directly by Methacton were factored in (for example, any private/parochial pupils who are not transported by the district, the small number of district children in full-time Intermediate Unit programs conducted outside the district’s classrooms, those participating in the Brandywine Valley Virtual Academy who are not in the district’s October 1 counts, and resident children in institutions and other out-of-district placements, etc.), Methacton’s “market share” would likely be lower.

The methodology employed to generate the enrollment projections recognizes the impact of district children involved in schools and educational programs other than those operated directly by Methacton and factors in the patterns and events of the past several years and expectations for the next several years. (See Table 5-7.)

Table 5-7
 METHACTON SCHOOL DISTRICT
 Proportion of District Children Enrolled in Methacton and Those Enrolled in Other Schools and Educational Programs
 2004-05 to 2014-15

	MSD Enroll- ments	Enrollments in Other Schools and Educational Programs ¹				Grand Total Enroll- ments ²	MSD as a % of Grand Total ³	Other Schools & Programs as a % of Grand Total ³
		Private/ Parochial	Home	Cyber / Charter	Total			
2004-05	5,338	1,241	30	-	1,271	6,609	↓80.8	↑19.2
2005-06	5,413	1,133	30	-	1,163	6,576	82.3	17.7
2006-07	5,454	980	31	-	1,011	6,465	84.4	15.6
2007-08	5,469	952	32	-	984	6,453	↑84.8	↓15.2
2008-09	5,310	972	38	39	1,049	6,359	83.5	16.5
2009-10	5,332	941	27	32	1,000	6,332	84.2	15.8
2010-11	5,289	923	26	39	988	6,277	84.3	15.7
2011-12	5,161	971	24	55	1,050	6,211	83.1	16.9
2012-13	5,085	912	25	60	997	6,082	83.6	16.4
2013-14	5,042	926	26	61	1,013	6,055	83.3	16.7
2014-15	4,974	905	29	57	991	5,965	83.4	16.6
Change 2004-05 to 2014-15	# -364 % -6.8	-336 -27.1	-1 -3.3	57 --	-280 -22.0	-644 -9.7	- -	- -

- 1 Includes district children reported to be enrolled in home schools, cyber/charter schools—except those who participate in the Brandywine Valley Virtual Academy, and just those in private/parochial schools who are transported by the district. The numbers enrolled in home schools in 2004-05 and 2005-06 were estimated by PEL.
- 2 Includes district children enrolled in Methacton and schools and educational programs not operated directly by the district (as defined above). Excluded from these counts are any private/parochial pupils who are not transported by the district, the small number of district children in full-time Intermediate Unit programs conducted outside the district's classrooms, those participating in the Brandywine Valley Virtual Academy who are not in the district's October 1 counts, and resident children in institutions and other out-of-district placements, etc.
- 3 It should be noted that the overall relationship between Methacton's enrollments and district children in other schools and educational programs may be influenced by any changes over time in the way those in schools and programs other than Methacton's are recorded and/or in the relative number of private/parochial school pupils who are transported by the district. Further, if figures on any district children enrolled in private/parochial pupils who are not transported by the district, the small number of district children in full-time Intermediate Unit programs conducted outside the district's classrooms, those participating in the Brandywine Valley Virtual Academy who are not in the district's October 1 counts, and resident children in institutions and other out-of-district placements, etc., were factored in, the Methacton's market share would likely be lower.

NOTE: Highest point marked by ↑; lowest point marked by ↓.

SOURCE: Methacton School District.

Mechanics of Enrollment Projections

Enrollment projections for the Methacton School District were prepared using the “grade progression” technique, which is based on the ratio of enrollments in a given grade in a given year to enrollments in the next lower grade in the preceding year. The grade progression formula was developed by reviewing the recent experience in the district with respect to pupil progression and tempering that with the various community growth data that were analyzed and the expected impact of schools and educational programs other than those operated directly by Methacton. This approach is generally designed to detect such factors as in- or out-migration of pupils; transfers of pupils into and out of special classes and programs, private/parochial and other schools, CTC programs, and other educational programs not directly operated by the district; changes in promotional and other internal district policies; withdrawals—particularly in the high school grades; etc.

By way of example, if grade 2 enrollments were 98 in the 2014-15 school year and grade 1 had 100 pupils in the prior school year (2013-14), the grade progression ratio from grade 1 to grade 2 would be 0.98. Ratios below 1.00 are generally indicative of net out-migration, transfers out of the school system or to special classes or programs, failure to promote pupils from the prior grade, and/or dropouts in the high school grades. Ratios above 1.00 usually indicate net in-migration, transfers into the school system from private/parochial and other schools or special classes and programs, and/or the failure to promote pupils to the next grade.

In the Methacton School District during the current school year the progression ratios for grades 1, 2, 4, 5, and 9, 10, and 12 are 1.0 or higher suggesting net in-migration of pupils in these grades. In the grades with a ratio below 1.0 (3, 6, 7, 8, and 11) there was not necessarily an absence of in-migration, but any in-migration may not have been as strong as in the other grades, and/or may have been more than offset by out-migration, transfers to private/parochial and other schools, entry into special classes and programs, failure to promote pupils from the previous grade, and/or the dropout of pupils in the high school grades.

Analysis of the progression ratios for the most recent five years reveals that the sum of the individual grade ratios increased in two years and decreased in two years, and they exceeded the “neutral” migration figure of 12.0 in all years. In 2010-11 the sum of the progression ratios totaled 12.4894 (the highest point during the review period). It fell to 12.2926 in 2011-12, grew

to 12.3455 in 2012-13, and was up slightly to 12.3524 in 2013-14, the ratio fell noticeably to 12.2337 in 2014-15 (its lowest point during the review period).

A further reinforcement of in- and out-migration is found in the number of individual grade progression ratios that equaled or exceeded 1.0. In 2010-11, for example, 10 of the 12 figures equaled or exceeded 1.0; in 2013-14, nine of the ratios equaled or exceeded 1.0; in 2012-13 eight of the ratios equaled or exceeded 1.0; in 2014-15 seven of ratios equaled or exceeded 1.0; and in 2011-12 just five of the ratios equaled or exceeded 1.0.

The sum of the progression ratios in grades 1 through 4 exceeded the “neutral” migration figure of 4.0 in each of the past five years. There were three annual decreases and one increase during the years reviewed. The sum of the ratios rose from 4.3226 in 2010-11 to 4.3367 (its highest point during the review period) in 2011-12. It then fell to 4.3130 in 2012-13, to 4.2568 in 2013-14, and to 4.2225 (its lowest point during the review period) in 2014-15. In 2011-12 and 2012-13 just two of the four elementary progression ratios equaled or exceeded 1.0; in 2010-11 and the current school year three of the ratios equaled or exceeded 1.0; and in 2013-14 each of the grades had ratios that equaled or exceeded 1.0.

The sum of the progression ratio in grades 5 and 6 exceeded the “neutral” migration figure of 2.0 in four of the five years reviewed. Two annual decreases and two increases were recorded during this period. The sum of the ratios was down from 2.0445 in 2010-11 to 1.9916 (its lowest point during the review period) in 2011-12. The sum then rose to 2.0075 in 2012-13 and to 2.0536 (its highest point during the review period) in 2013-14; it fell to 2.0013 in the current school year. The progression ratios equaled or exceeded 1.0 in both of these grades in 2010-11 and 2012-13; in 2011-12, 2013-14, and 2014-15 one of the grades had a ratio that equaled or exceeded 1.0.

The sum of the progression ratios for grades 7 and 8 exceeded the “neutral” point of 2.0 in just three of the past five years; two annual decreases and two annual increases were recorded during these years. In 2010-11 the sum of the ratios was 2.0606 (its highest point during the review period). The sum fell to 1.9717 in 2011-12, grew to 2.0293 in 2012-13, and rose further to 2.0386 in 2013-14. In 2014-15 the ratio was down noticeably to 1.9715 (its lowest point during the review period). In 2010-11, 2012-13, and 2013-14 each of the two ratios in these grades equaled or exceeded 1.0; in 2011-12 and 2014-15 neither of these grades had a ratio that equaled or exceeded 1.0.

The sum of the progression ratios for grades 9 to 12 exceeded the “neutral” point of 4.0 in three of the past five years; there were three annual increases and one decrease during the period reviewed. In 2010-11 the sum of the ratios was 4.0617 (its highest point during the review period). In 2011-12 the figure fell to 3.9926 (its lowest point during the years reviewed). It then grew to 3.9957 in 2012-13, to 4.0034 in 2013-14, and again to 4.0384 in 2014-15. In 2011-12, 2012-13, and 2013-14 two of the four high school grades had ratios that equaled or exceeded 1.0; in 2010-11 and the current school year three of these grades had a ratio that equaled or exceeded 1.0. The individual grade ratios and the overall ratios for many of the high school grades are often more strongly influenced by dropouts than by general migration patterns. (See Table 5-8.)

Table 5-8
METHACTON SCHOOL DISTRICT
Grade Progression Ratios by Grade Groupings
2010-11 to 2014-15

<u>Grades</u>	<u>2014-15 Progression Ratios</u>	<u>2013-14 Progression Ratios</u>	<u>2012-13 Progression Ratios</u>	<u>2011-12 Progression Ratios</u>	<u>2010-11 Progression Ratios</u>
1/K	↓1.1847	1.2336	1.3040	1.3745	↑1.3868
2/1	↑1.0325	1.0056	0.9918	0.9297	↓0.8702
3/2	↓0.9944	1.0082	1.0341	↑1.0351	1.0294
4/3	<u>1.0109</u>	<u>1.0094</u>	↓0.9831	<u>0.9974</u>	↑ <u>1.0362</u>
Total 1-4	↓4.2225	4.2568	4.3130	↑4.3367	4.3226
5/4	1.0093	↑1.0718	↓1.0026	1.0150	1.0349
6/5	<u>0.9920</u>	<u>0.9818</u>	<u>1.0049</u>	↓0.9766	↑ <u>1.0096</u>
Total 5-6	2.0013	↑2.0536	2.0075	↓1.9916	2.0445
7/6	↓0.9788	1.0024	↑1.0293	0.9905	1.0216
8/7	<u>0.9927</u>	<u>1.0362</u>	<u>1.0000</u>	↓0.9812	↑ <u>1.0390</u>
Total 7-8	↓1.9715	2.0386	2.0293	1.9717	↑2.0606
9/8	1.0075	0.9928	1.0000	↓0.9789	↑1.0304
10/9	1.0218	↓0.9856	1.0024	↑1.0227	0.9978
11/10	↓0.9830	1.0072	0.9956	0.9843	↑1.0159
12/11	↑ <u>1.0261</u>	<u>1.0178</u>	↓0.9977	<u>1.0067</u>	<u>1.0176</u>
Total 9-12	4.0384	4.0034	3.9957	↓3.9926	↑4.0617
Total 1-12	↓<u>12.2337</u>	<u>12.3524</u>	<u>12.3455</u>	<u>12.2926</u>	↑<u>12.4894</u>

NOTE: Highest point for each grade marked by ↑; lowest point marked with ↓. Not all figures may add due to rounding.

The impact of the Methacton's progression ratios is clearly demonstrated by measuring their effect on children entering kindergarten and then moving through each of the grades. Using the grade-by-grade progression ratios for the current school year (the lowest of the five most recent years), 100 children entering kindergarten this year would in theory become 122 pupils in the fourth grade, total 122 again in sixth grade, fall to 118 in grade 8, and rise to 123 in the twelfth grade. These figures contrast somewhat with those that would result from using the ratios for the 2010-11 school year—the highest aggregate figure of the past five years. Based on these figures, 100 kindergarten entries in that school year would increase to 130 fourth graders, rise to 136 pupils in the grade 6, continue to grow to 144 eight graders, and ultimately reach 153 in their senior year.

In practice, these patterns would not necessarily materialize as outlined due to changes in progression ratios over time. However, the theoretical impact of the progression ratios based on these points of reference reveals the effect of the migration of school-age children, transfers out of or into district classrooms, to or from private/parochial and other schools and special classes and programs, changes in promotional and other internal district policies, dropouts, and so forth.

The only new input needed in projecting enrollments in this manner is kindergarten entries. In order to determine future kindergarten entries, ratios must be developed between historic kindergarten enrollments in specific school years and resident births in the district five years earlier. These ratios (or “cohort survival rates”) are then analyzed and—along with the number of births in the district—are used to calculate future kindergarten enrollments. This approach, like the grade progression technique, detects net in- and out-migration and the impact of private/parochial and other schools as well as special classes and programs. A figure below 1.0 suggests that kindergarten entries are lower than the number of births in the district five years earlier indicating net out-migration and/or families opting to enroll their children in kindergarten classes or programs provided by entities other than the public school district. Conversely, a figure of greater than 1.0 suggests more kindergarten entries than births in the district five years earlier indicating in-migration that outweighs any role non-district schools and educational programs and special classes and programs may play.

The ratio of kindergarten entries to the number of annual births in the Methacton School District five years prior totaled in 0.8370 in 2010-11. It fell slightly to 0.8349 in 2011-12 and then dropped more noticeably to 0.8059 (its lowest point in the past five years) in 2012-13. In

2013-14 the ratio of kindergarten entries to births in the district five years prior rose to 0.8777, and in the current school year it jumped to 0.9665 (its highest point during this period). (See Table 5-9.)

Table 5-9
METHACTON SCHOOL DISTRICT
Ratios of Kindergarten Entries to Births
2010-11 to 2014-14

<u>School Year</u>	<u>Kindergarten Enrollment</u>	<u>School Year Births 5 Years Earlier</u>		<u>Ratio of K Entries to Births</u>
		<u>School Year</u>	<u>Births</u>	
2010-11	267	2004-05	319	0.8370
2011-12	273	2005-06	327	0.8349
2012-13	274	2006-07	340	0.8059
2013-14	287	2007-08	327	0.8777
2014-15	317	2003-04	328	0.9665

The best available source of data on resident births in the district is the annual compilations by the PA Department of Health. However, it should be noted that birth figures for purposes of the projection methodology are based on the school year and age requirements for entry into the school system rather than the calendar year as reported elsewhere in this study. The district requires that children be five years old by September 1 to be eligible to enter kindergarten in that school year.

The resulting figures reveal that there were 285 births in calendar year 2010; for the school year (that is, births from September 2009 through August 2010—those who will enter kindergarten in 2015-16) the figure was 307. Birth figures in calendar year 2011 were 339, and for school year 2010-11 births totaled 322. The birth figure for calendar year 2012 was 306, and for school year 2011-12 the figure was 275. The preliminary birth figure for calendar year 2013 was 286, and for school year 2012-13 the figure was 308. (See Table 5-10.)

The use of resident births and the “cohort survival rate” to project kindergarten entries restricts “high confidence” estimates of future enrollments to the “primary” projection period—the first five years beyond the most recent year for which birth data are available. Data on births for Methacton are currently available only through calendar year 2013 (preliminary). In view of this, projections of kindergarten enrollments can be made through 2018-19 (the fourth projected year) based on the cohort survival rate and births covering September 2012 through August 2013

Table 5-10
 METHACTON SCHOOL DISTRICT
Relationship Between Calendar Year and School Year Births
 2010 to 2013¹

Kindergarten Year	Calendar Year Births		School Year Births	
	CY	#	SY	#
2015-16	2010	285	2009-10	307
2016-17	2011	339	2010-11	322
2017-18	2012	306	2011-12	275
2018-19	2013 ¹	286	2012-13 ¹	308

¹ Preliminary figures.

(which represents the main source of kindergarten entries in the 2018-19 school year). Because PEL's primary projections extend one year beyond the birth data available to determine kindergarten entries (to school year 2019-20), an estimate must be used to fill this gap. As a result, the average birth figure for the two most recent years was used to calculate kindergarten entries in 2019-20. When this estimated birth figure is replaced with the final figure, the projection of kindergarten pupils for 2019-20 may change slightly.

For years 2020-21 through 2024-25, estimates also need to be made with regard to the number of births that would serve as the source for kindergarten enrollments in those school years. But, it should be noted that the use of these estimated birth figures influences only kindergarten and grade 1 in 2020-21; in 2021-22, only kindergarten and grades 1 and 2 are affected; in 2022-23, only kindergarten and grades 1 through 3; in 2023-24, only kindergarten and grades 1 through 4; and in the final projected year, only kindergarten and grades 1 through 5. The use of estimated birth figures has no effect on the projections beyond this point during the next 10 years.

Because all projections for grades 6 and higher for all years are based primarily on births that have already occurred and pupils currently in school, high confidence projections for the secondary grades can be carried five years further. Projections of enrollments for these grades beyond the primary projection period are provided later in this chapter.

The effect of changing births patterns can be demonstrated by measuring their impact on total enrollments in the absence of net in- or out-migration, the role of schools and educational programs other than those provided directly by the district, special classes and programs, changes in promotional and other internal district policies, dropouts, etc.; that is, the ratios of

kindergarten entries to births in the district five years prior would equal 1.0, as would all grade progression ratios. A school district that had experienced a steady 18-year pattern of 100 births annually—in the absence of net in- or out-migration and any impact from schools and programs other than those provided directly by the public school district, special classes and programs, changes in promotional and other internal district policies, dropouts, etc.—would have a total K-12 enrollment of 1,300 pupils. If this district were to begin experiencing increases in births of five per year (that is, in the first year, five more births than in the base year, in the second year, 10 more than the base year, etc.), the effect on total enrollments (again, in the absence of net in- or out-migration and any impact from schools and educational programs other than those operated directly by the district, special classes and programs, changes in promotional and other internal district policies, dropouts, etc.) would be an increase of five pupils in the fifth year after births began to rise (the year when children from the first year of the increase would enter kindergarten). The total enrollment in that year would be 1,305 or just 0.4 percent higher than in the base year. However, in subsequent years the increase would compound and grow to 75 pupils in the ninth year after births began to rise—equivalent to PEL’s fifth projected year (when the children resulting from the first year of the increase in births would reach the fourth grade). Total enrollments in that year would reach 1,375—an increase of 5.8 percent over the base year. The increase would further compound to 275 pupils in the 15th year after births began to rise—equivalent to PEL’s 10th projected year (when the children resulting from the first year of the increase would reach the ninth grade). Total enrollments in that year would reach 1,575 and be 21.2 percent higher than in the base year.

Conversely, if the same district were to begin experiencing decreases in births of five per year, the effect on total enrollments—in the absence of net in- or out-migration and any impact from schools and educational programs other than those operated directly by the district, special classes and programs, changes in promotional and other internal district policies, dropouts, etc.—would be a loss of five pupils in the fifth year after births began to fall. Total enrollments would decline slightly in that year to 1,295 or by 0.4 percent. The decrease in enrollments would compound to 75 pupils in the 10th year after births began to drop—equivalent to PEL’s fifth projected year—when enrollments would total 1,225 and be 5.8 percent below the base year. The decrease would further compound to 275 pupils in the 15th year after births began to

decrease—equivalent to PEL’s 10th projected year—and total enrollments in that year would be 1,025, down by 21.2 percent from the base year.

The theoretical impact of the changes in birth patterns based on these points of reference would likely not occur precisely as outlined in these examples because of year-to-year variations in birth patterns and the effect of in- and out-migration during the pre-school years and as children move through the grades. But, the impact that changing birth patterns can have on enrollments is apparent: births can have a powerful influence on enrollments independent of migration patterns and any impact from schools and educational programs other than those operated directly by the district, special classes and programs, changes in promotional and other internal district policies, dropouts, etc. (that can compound or neutralize the impact of changing birth patterns); there is a five-year delay in the impact of changes in birth patterns; and a series of similar changes will have a compounding effect. With respect to the scenario presented here, it should also be noted that the precise size of the changes in enrollments would be influenced by the relative magnitude of the births in a given district and by the relative and absolute size of the changes in birth patterns. For example, the annual number of calendar year births in the Methacton School District during the past 10 years—on average—was more than three times the figure used in this example, and during this period they fell by an average of more than eight births per year—noticeably more than the figure in the model outlined above.

Enrollment Projections—Primary Period

The projections that follow are based on the numbers and type of new housing expected to be built in the various subdivisions in the Methacton School District in the years ahead, as well as the infill, minor subdivision activity, and/or miscellaneous housing construction that can reasonably be assumed to occur during this period (all as outlined in Chapter 2). Further, the methodology recognizes the potential for age-qualified and similar housing units, as well as the expected impact of the modest but continuing sale and turnover of mature owner-occupied housing and rental units in the district. The projections are also based on the assumption that overall migration and related patterns will remain consistent with current expectations, that the role of schools and educational programs other than those operated directly by Methacton will be compatible with expected patterns, and that the district will continue its current practices relative to its kindergarten, special education, and CTC programs and maintain its other key policies, practices, and programs.

Given these assumptions and conditions, PEL projects that during the primary projection period (the first five years) the overall pattern of decline in total enrollments experienced in the past five years will continue—but at a slower average annual rate, and Methacton’s total pupil count will fall to 4,710 in 2019-20—264 pupils or 5.3 percent below the 2014-15 level. Decreases will be recorded in all years during this period. The largest annual loss in pupils (82 or 1.7 percent) will occur in 2017-18; the smallest drop (26 or 0.5 percent) will be in 2016-17. The projected decrease in the pupil population during next five years averages 53 pupils yearly compared with an average annual loss of 72 pupils during the most recent five years. (See Tables 5-11 and 5-12 and Graph 5-6.)

Table 5-11
 METHACTON SCHOOL DISTRICT
Total Enrollment Projections (Grades K-12)
 2014-15 to 2019-20

<u>School Year</u>	<u>Enrollment K-12</u>	<u>Change From Previous Year</u>	
		<u>#</u>	<u>%</u>
2014-15 (actual)	4,974	-68	-1.3
2015-16	4,920	-54	-1.1
2016-17	4,894	-26	-0.5
2017-18	4,812	-82	-1.7
2018-19	4,767	-45	-0.9
2019-20	4,710	-57	-1.2
Change 2014-15 to 2019-20		-264	-5.3

Graph 5-6
 METHACTON SCHOOL DISTRICT
Total Enrollment Trends/Primary Projections
 2009-10 to 2019-20

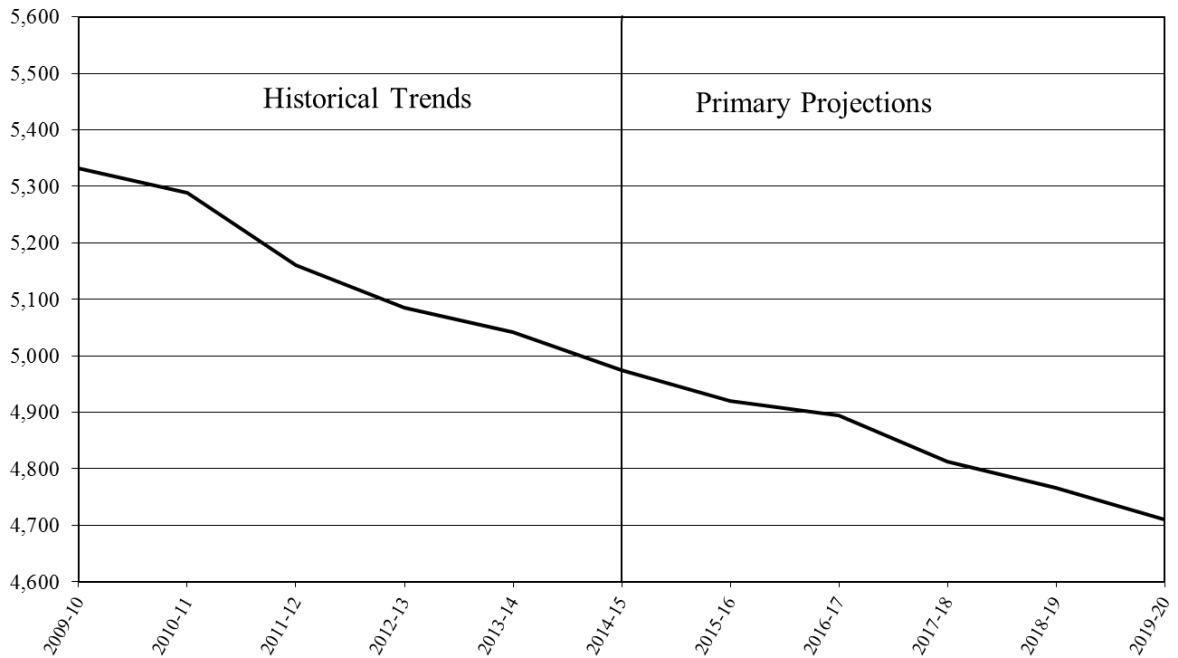


Table 5-12
METHACTON SCHOOL DISTRICT
Projected Total Enrollments by Grade
2014-15 to 2019-20

<u>School Year</u>	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Total <u>K-4</u>	<u>5</u>	<u>6</u>	Total <u>5-6</u>	<u>7</u>	<u>8</u>	Total <u>7-8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	Total <u>9-12</u>	Total <u>K-12</u>
2014-15 (actual)	317	340	349	356	371	1,733	432	370	802	370	407	777	404	422	404	432	1,662	4,974
2015-16	283	383	346	349	360	1,721	386	426	812	367	375	742	407	405	420	413	1,645	4,920
2016-17	297	342	390	346	353	1,728	375	381	756	422	372	794	375	409	403	429	1,616	4,894
2017-18	254	359	349	391	350	1,703	367	370	737	377	428	805	372	376	407	412	1,567	4,812
2018-19	284	307	366	349	395	1,701	364	362	726	367	382	749	428	373	374	416	1,591	4,767
2019-20	269	343	313	366	353	1,644	411	359	770	359	372	731	382	430	371	382	1,565	4,710
Pupil Change																		
2014-15 to																		
2019-20	-48	3	-36	10	-18	-89	-21	-11	-32	-11	-35	-46	-22	8	-33	-50	-97	-264
Percent Change																		
2014-15 to																		
2019-20	-15.1	0.9	-10.3	2.8	-4.9	-5.1	-4.9	-3.0	-4.0	-3.0	-8.6	-5.9	-5.4	1.9	-8.2	-11.6	-5.8	-5.3

Enrollments in grades K to 4 will total 1,644 in 2019-20 and be 89 pupils or 5.1 percent lower than in the current school year; losses will occur in all years of this period except 2016-17, when an increase of seven pupils (0.4 percent) is expected. The largest decrease in pupils (57 or 3.4 percent) will be in 2019-20; the smallest drop will be in 2018-19 (two pupils or 0.1 percent). The overall projected net decrease in enrollments in grades K-4 during the next five years averages 18 pupils yearly compared with an annual net decrease of 22 pupils (on average) during the past five years.

The decline in the district's pupil population at the elementary level during the next five years is strongly influenced by the lower numbers of births in the district in recent years. For example, the preliminary figure for calendar 2013 (280) is down by 41 or 12.8 percent from six years prior, and it is the lowest since 1996. Further, the average number of births that will drive kindergarten entries during the primary projection period is 300—28 or 9.3 percent lower than the average annual number of births that served as the pool for kindergarten classes in the past five years (328), which, in turn was down by 24 or 6.8 percent from the number of births that drove kindergarten entries in the prior several years (352).

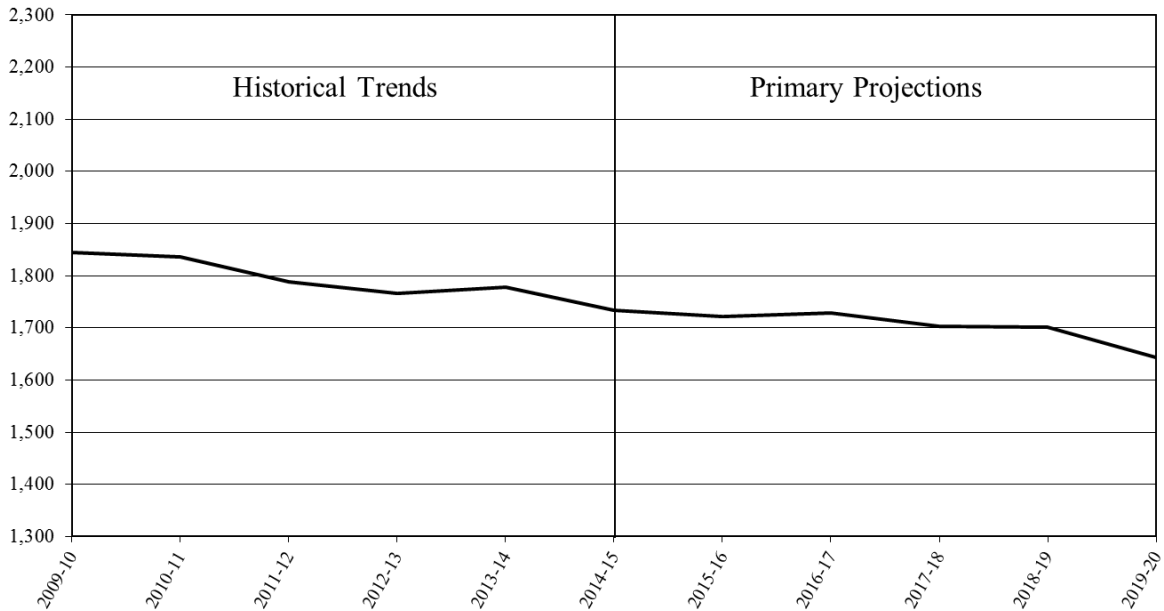
However, the impact of the declining births is mitigated by cohort survival rates (the relationship between kindergarten entries and births in the district five years earlier) and the progression ratios in the elementary grades, and the net effect is just a slight slowing in the pace of decline in elementary enrollments compared with the past five years.

Cohort survival rates remain negative, but have risen in recent years—in fact, the figure for the current school year is the highest of the past five. The elementary grade progression ratios are strongly positive (especially in first grade, which reflects the entry into the school system of some of the children who opted for alternative kindergarten programs, which, in turn, helped produce the negative cohort survival figures). However, the progression figures in the elementary grades have weakened somewhat in recent years. (See Tables 5-12 and 5-13 and Graph 5-7.)

Table 5-13
 METHACTON SCHOOL DISTRICT
Elementary Enrollment Projections (Grades K-4)
 2014-15 to 2019-20

<u>School Year</u>	<u>Enrollment</u> <u>K-4</u>	<u>Change From</u> <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2014-15 (actual)	1,733	-45	-2.5
2015-16	1,721	-12	-0.7
2016-17	1,728	7	0.4
2017-18	1,703	-25	-1.4
2018-19	1,701	-2	-0.1
2019-20	1,644	-57	-3.4
Change 2014-15 to 2019-20		-89	-5.1

Graph 5-7
 METHACTON SCHOOL DISTRICT
Elementary Enrollment Trends/Primary Projections (Grades K-4)
 2009-10 to 2019-20



Projected enrollments for the upper elementary grades (5 and 6) in 2019-20 will be down by 32 (4.0 percent) from the current school year. Annual decreases will be recorded in three years and will range from 11 pupils (1.5 percent) in 2018-19 to 56 pupils (6.9 percent) in 2016-17. Increases in the pupil population are expected in 2015-16 (10 or 1.2 percent) and 2019-20 (44 or 6.1 percent). The projected net loss in the pupil count in grades 5 and 6 during the primary projection period will average six annually—the same as during the most recent five years.

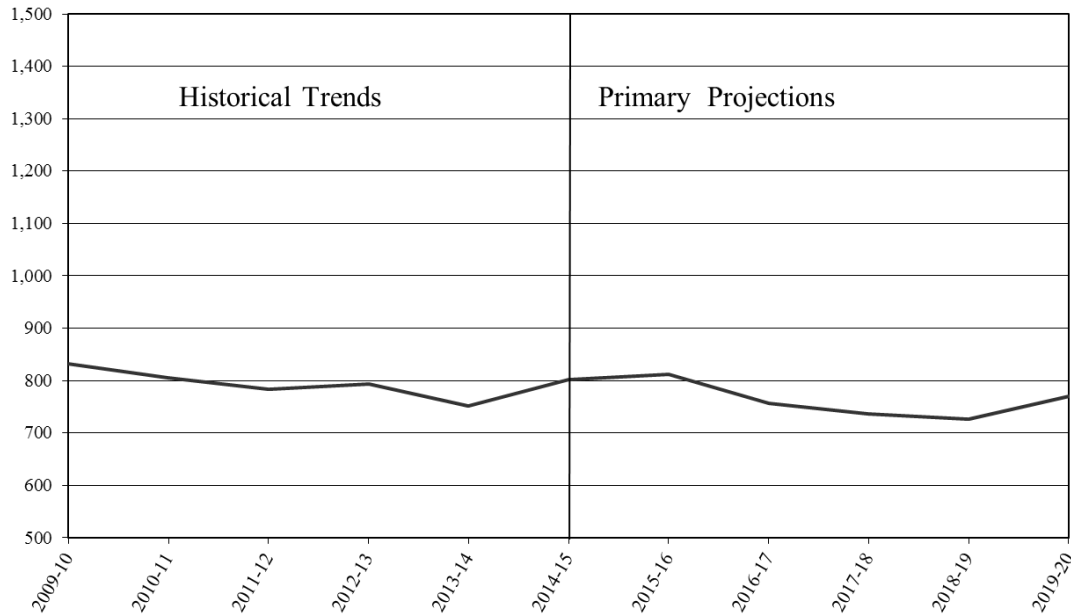
The stable pace of the average net loss in pupils at the Upper Elementary School during the primary projection period results from the movement into these two grades of classes that are about the same size—on average—as those in recent years and which, for the most part, are not materially affected by the progression ratios for these grades that are (on average) just slightly positive.

However, a closer review of the year-by-year pattern of enrollment change in the first five projected years reveals an unusual rise of 44 pupils in 2019-20. Without this increase, the average yearly decline in pupils would have been much more pronounced than in the past five years. The increase in 2019-20 can be linked to the 2014-15 kindergarten figure, which was up noticeably—not due to births, but as a result of a very high cohort survival rate. (See Tables 5-12 and 5-14 and Graph 5-8.)

Table 5-14
METHACTON SCHOOL DISTRICT
Upper Elementary School Enrollment Projections (Grades 5-6)
2014-15 to 2019-20

<u>School Year</u>	<u>Enrollment</u> <u>5-6</u>	<u>Change From</u> <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2014-15 (actual)	802	51	6.8
2015-16	812	10	1.2
2016-17	756	-56	-6.9
2017-18	737	-19	-2.5
2018-19	726	-11	-1.5
2019-20	770	44	6.1
Change 2014-15 to 2019-20		-32	-4.0

Graph 5-8
 METHACTON SCHOOL DISTRICT
Upper Elementary School Enrollment Trends/Primary Projections (Grades 5-6)
 2009-10 to 2019-20



Intermediate enrollments (grades 7 and 8) projected for 2019-20 (731) will be 46 pupils (5.9 percent) lower than in the current school year; decreases will be experienced in three years and increases will be recorded in two years. The largest annual loss in enrollments (56 or 7.0 percent) will occur in 2018-19; the smallest decline (18 pupils or 2.4 percent) will be in 2019-20. The pupil count will grow by 52 (7.0 percent) in 2016-17 and by 11 (1.4 percent) in 2017-18. The projected net drop in the number of pupils in the intermediate grades during the next five years will average nine annually compared with an average net yearly loss of 12 pupils during the most recent five years.

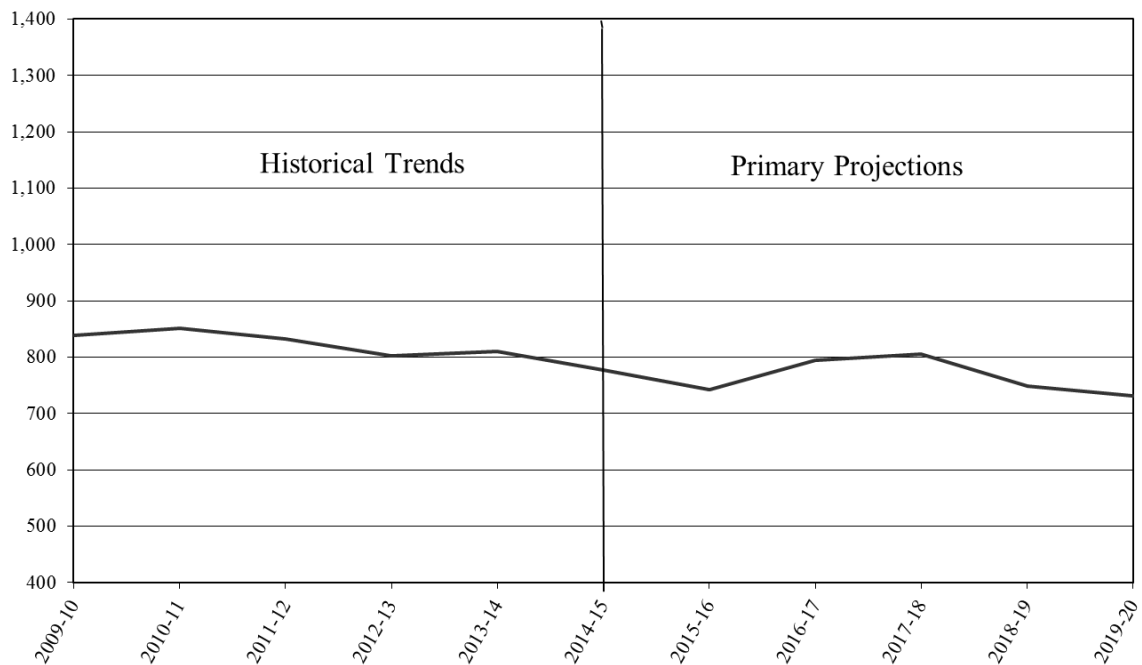
The slight slowing in the average rate of enrollment loss in grades 7 and 8 during the next five years is due primarily to the size of most of the classes from the lower grades entering these grades and the essentially neutral grade progression ratios. However, it is skewed by a single uncharacteristically large increase in 2016-17 that reflects the movement into the intermediate school of the “bubble” described in the discussion of historic elementary enrollments. This “bubble” was caused by a high birth figure in 2003-04 that was compounded by a high cohort survival rate in 2009-10 and resulted in a much larger kindergarten class in that school year than

in the preceding or subsequent years. Without the influence of this large increase, the average annual decline would have been double that of the most recent five years—not slightly smaller. (See Tables 5-12 and 5-15 and Graph 5-9.)

Table 5-15
 METHACTON SCHOOL DISTRICT
Intermediate School Enrollment Projections (Grades 7-8)
 2014-15 to 2019-20

<u>School Year</u>	<u>Enrollment</u> <u>7-8</u>	<u>Change From</u> <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2014-15 (actual)	777	-34	-4.2
2015-16	742	-35	-4.5
2016-17	794	52	7.0
2017-18	805	11	1.4
2018-19	749	-56	-7.0
2019-20	731	-18	-2.4
Change 2014-15 to 2019-20		-46	-5.9

Graph 5-9
 METHACTON SCHOOL DISTRICT
Intermediate School Enrollment Trends/Primary Projections
 2009-10 to 2019-20



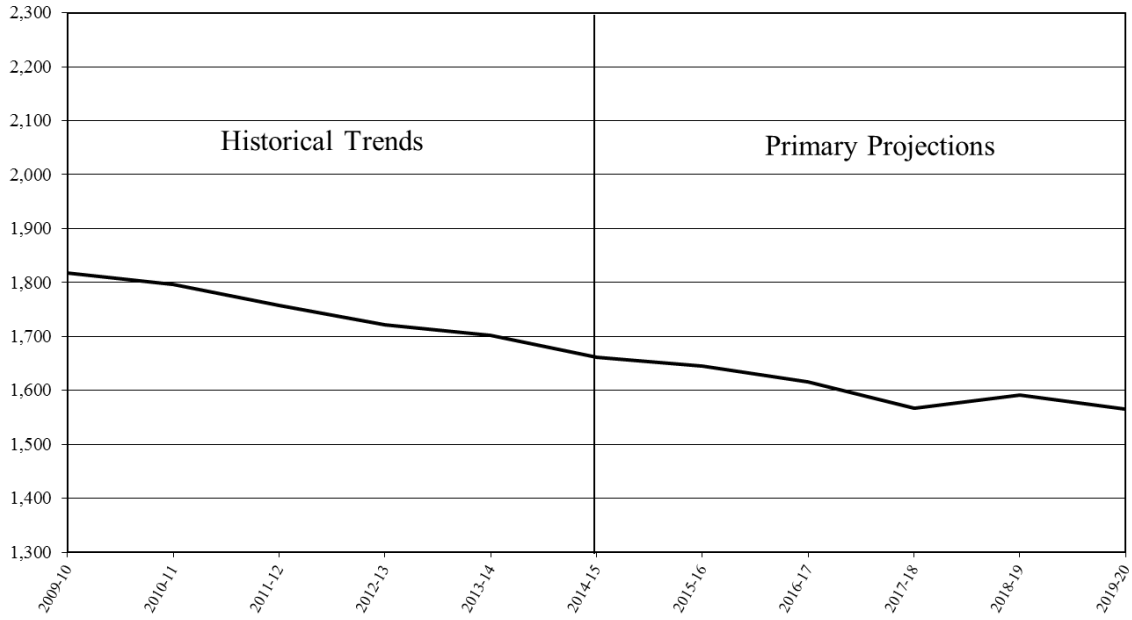
Projections for the high school (grades 9-12) indicate that enrollments will total 1,565 in 2019-20—97 pupils (5.8 percent) below the level of the current school year. The pupil population in these grades will fall in all years during this period except 2018-19, when it will grow by 24 or 1.5 percent. The decreases will range from 17 pupils (1.0 percent) in 2015-16 to 49 pupils (3.0 percent) in 2017-18. The projected annual net loss in enrollments at the high school will average 19 compared with an average yearly decline of 31 during the past five years.

The noticeable average slowing in the annual rate of decline in the pupil count in grades 9-12 during the primary projection period is consistent with the pattern of enrollments in the lower grades in the prior years and occurs in spite of the slightly positive and modestly strengthening (on average) grade progression ratios at the high school. But, again, it should be noted that a single increase in 2018-19 diminishes the overall average net decrease in enrollments in these grades. Without it, the average decline would have been more in keeping with that of the past five years. (See Tables 5-12 and 5-16 and Graph 5-10.)

Table 5-16
METHACTON SCHOOL DISTRICT
High School Enrollment Projections (Grades 9-12)
2014-15 to 2019-20

<u>School Year</u>	<u>Enrollment</u> <u>9-12</u>	<u>Change From</u> <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2014-15 (actual)	1,662	-40	-2.4
2015-16	1,645	-17	-1.0
2016-17	1,616	-29	-1.8
2017-18	1,567	-49	-3.0
2018-19	1,591	24	1.5
2019-20	1,565	-26	-1.6
Change 2014-15 to 2019-20		-97	-5.8

Graph 5-10
METHACTON SCHOOL DISTRICT
High School Enrollment Trends/Primary Projections
2009-10 to 2019-20



Enrollment Projections—Extended Period

As stated in the discussion of the methodology employed to generate these projections, high confidence projections can be offered for a limited period beyond the most recent year for which actual birth figures are available. Projecting further requires estimating future births, the key component in new kindergarten entries. This limitation, however, does not apply to secondary enrollments because they rely largely on children already born and/or in the school system. With a view to providing a longer-term perspective while recognizing methodological limitations, extended projections for the district's enrollments have been prepared for the years 2020-21 through the 2024-25.

If births hold steady at the average level of the two most recent years for which data are available, the total number and type of housing units in the district rise at the expected rate (as outlined in Chapter 2), overall migration and related patterns, including the role of schools and educational programs other than those operated directly by Methacton, remain in keeping with current expectations, and key practices relative to the district's kindergarten, CTC, and special education programs, and other key policies, practices and programs remain unchanged, total enrollments in Methacton will continue to decrease during the extended projection period (the second five years) but at a slower average annual rate than in the first five projected years and reach 4,509 in 2024-25—201 pupils or 4.3 percent below the projected figure for 2019-20. Given the decrease of 264 pupils projected to occur between 2014-15 and 2019-20, total enrollments in 2024-25 will be 465 pupils or 9.3 percent lower than the actual figure for the current school year.

Annual losses in total enrollments will be experienced in each of the five years during the extended projection period. The largest annual decline in pupils (84 or 1.8 percent) will occur in 2022-23. The smallest absolute drop (26 pupils) will be recorded in both 2021-22 and 2024-25; the smallest proportionate decrease (0.6 percent) will be experienced in 2020-21, 2021-22, and 2024-25. The overall decline in the pupil population during the extended period will average 40 yearly compared with an average annual decrease of 53 pupils during the first five projected years and an average decrease of 72 pupils per year during the past five years.

Based on the assumptions used, beyond 2024-25 total enrollments in Methacton are likely to decrease for several years, experience a single increase, decline again, and then stabilize at a level somewhat lower than the figure projected for the final year covered in the study and substantially below the figure for 2014-15. (See Tables 5-17 and 5-18 and Graph 5-11.)

Table 5-17
 METHACTON SCHOOL DISTRICT
Extended Total Enrollment Projections (Grades K-12)¹
 2019-20 to 2024-25

<u>School Year</u>	<u>Enrollment K-12</u>	<u>Change From Previous Year</u>	
		<u>#</u>	<u>%</u>
2019-20	4,710	-57	-1.2
2020-21	4,682	-28	-0.6
2021-22	4,656	-26	-0.6
2022-23	4,572	-84	-1.8
2023-24	4,535	-37	-0.8
2024-25	4,509	-26	-0.6
Change 2019-20 to 2024-25		-201	-4.3
Change 2014-15 to 2024-25		-465	-9.3

1 Based on births fixed at 292.

Graph 5-11
 METHACTON SCHOOL DISTRICT
Total Primary/Extended Enrollment Projections
 2014-15 to 2024-25

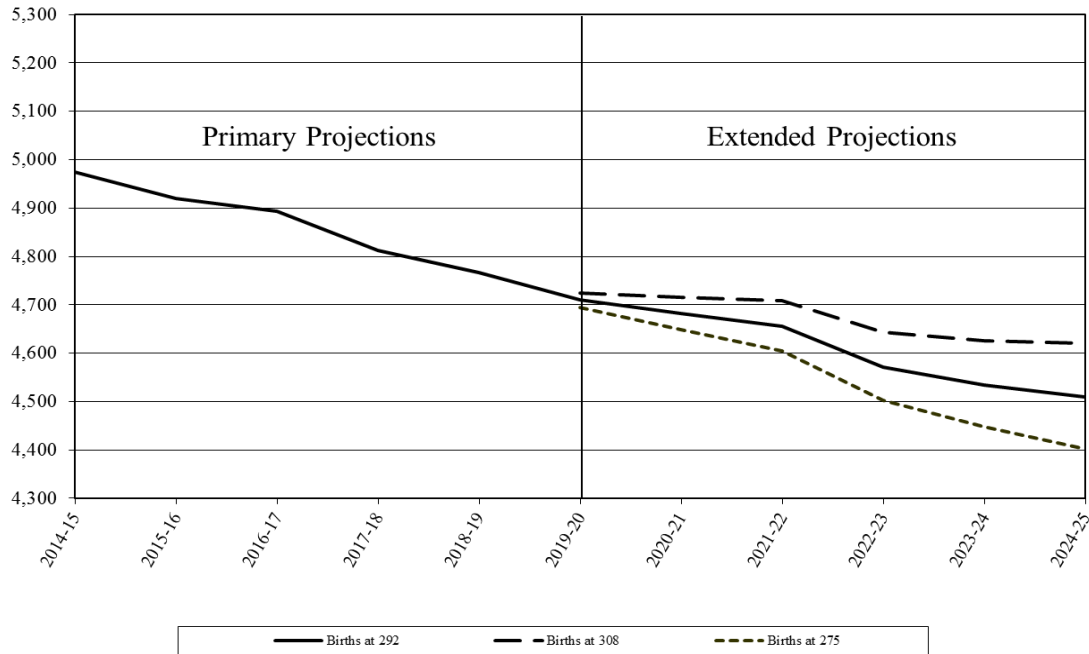


Table 5-18
METHACTON SCHOOL DISTRICT
Extended Total Enrollment Projections by Grade Based on Births Fixed at 292
2019-20 to 2024-25

<u>School Year</u>	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Total <u>K-4</u>	<u>5</u>	<u>6</u>	Total <u>5-6</u>	<u>7</u>	<u>8</u>	Total <u>7-8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	Total <u>9-12</u>	Total <u>K-12</u>
2019-20	269	343	313	366	353	1,644	411	359	770	359	372	731	382	430	371	382	1,565	4,710
2020-21	269	325	350	313	370	1,627	367	406	773	356	364	720	372	383	428	379	1,562	4,682
2021-22	269	325	331	350	316	1,591	385	362	747	402	361	763	364	373	381	437	1,555	4,656
2022-23	269	325	331	331	354	1,610	329	380	709	359	408	767	361	365	371	389	1,486	4,572
2023-24	269	325	331	331	334	1,590	368	325	693	376	364	740	408	362	363	379	1,512	4,535
2024-25	269	325	331	331	334	1,590	348	363	711	322	381	703	364	410	360	371	1,505	4,509
Pupil Change																		
2019-20 to																		
2024-25	-	-18	18	-35	-19	-54	-63	4	-59	-37	9	-28	-18	-20	-11	-11	-60	-201
Percent Change																		
2019-20 to																		
2024-25	-	-5.2	5.8	-9.6	-5.4	-3.3	-15.3	1.1	-7.7	-10.3	2.4	-3.8	-4.7	-4.7	-3.0	-2.9	-3.8	-4.3
Pupil Change																		
2014-15 to																		
2024-25	-48	-15	-18	-25	-37	-143	-84	-7	-91	-48	-26	-74	-40	-12	-44	-61	-157	-465
Percent Change																		
2014-15 to																		
2024-25	-15.1	-4.4	-5.2	-7.0	-10.0	-8.3	-19.4	-1.9	-11.3	-13.0	-6.4	-9.5	-9.9	-2.8	-10.9	-14.1	-9.4	-9.3

Enrollments in grades K through 4 are expected to total 1,590 in 2024-25 and be down by 54 pupils (3.3 percent) from 2019-20. In view of the decrease of 89 pupils projected for the period 2014-15 through 2019-20, counts in these grades in 2024-25 will be 143 (8.3 percent) below the figure for 2014-15. The pupil population will drop by 17 (1.0 percent) in 2020-21 and by 36 (2.2 percent) in 2021-22, and then rise by 19 (1.2 percent) in 2022-23 and fall by 20 (1.2 percent) in 2023-24. In view of the assumptions used, the pupil population in these grades will remain unchanged in the final year projected in this report and in all subsequent years.

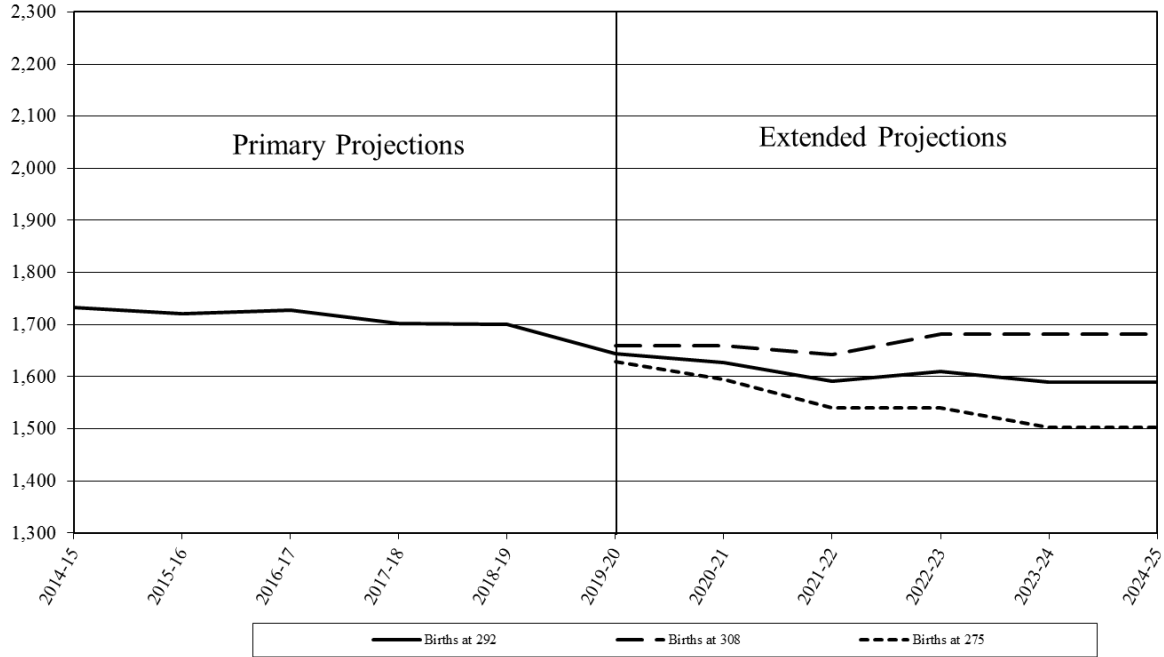
The net decrease in enrollments in grades K-4 during the extended projection period averages 11 pupils per year compared with the average annual net loss of 18 pupils during the first five projected years (and an annual net decrease of 22 pupils during the past five years). The projected continuing—but slowed—average annual decline in enrollments in grades K-4 is most strongly affected by the fixed number of births on which the projection model is based (292—which is just slightly lower than in most of the preceding years), as well as by the negative cohort survival rates and the strongly positive elementary grade progression ratios. The average decline in these years is diminished somewhat by an increase in the pupil population in 2022-23. (See Tables 5-18 and 5-19 and Graph 5-12.)

Table 5-19
METHACTON SCHOOL DISTRICT
Extended Elementary Enrollment Projections (Grades K-4)¹
2019-20 to 2024-25

<u>School Year</u>	Enrollment <u>K-4</u>	Change From <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2019-20	1,644	-57	-3.4
2020-21	1,627	-17	-1.0
2021-22	1,591	-36	-2.2
2022-23	1,610	19	1.2
2023-24	1,590	-20	-1.2
2024-25	1,590	NC	NC
Change 2019-20 to 2024-25		-54	-3.3
Change 2014-15 to 2024-25		-143	-8.3

¹ Based on births fixed at 292.

Graph 5-12
 METHACTON SCHOOL DISTRICT
 Elementary Primary/Extended Enrollment Projections (K-4)
 2014-15 to 2024-25



The pupil count in the Upper Elementary School (grades 5 and 6) is expected to total to 771 in 2024-25 and reflect a net loss of 59 (7.7 percent) from the projected level in 2019-20. Enrollments in these grades in 2024-25 will be 91 or 11.3 percent lower than in 2014-15 given the drop of 32 projected for the period 2014-15 to 2019-20. The pupil population will decrease in three years during the extended projection period and rise in two—2020-21 and 2024-25 (three or 0.4 percent and 18 or 2.6 percent, respectively). The annual declines will range from 16 pupils (2.3 percent) in 2023-24 to 38 pupils (5.1 percent) in 2022-23. The net decrease in grade 5 and 6 enrollments during the extended period will average 12 yearly compared with an average net annual decrease of six during the first five projected years—same as during the most recent five years.

The larger average annual projected decline in pupils in the upper elementary grades in the second five-year projection period from what is projected for the first five years is influenced primarily by smaller classes moving through these grades—classes that are linked to the lower births in recent years and also effected by the just slightly positive grade progression ratios. The

rise in the final projected year tends to reduce the average rate of decline from what it would otherwise be.

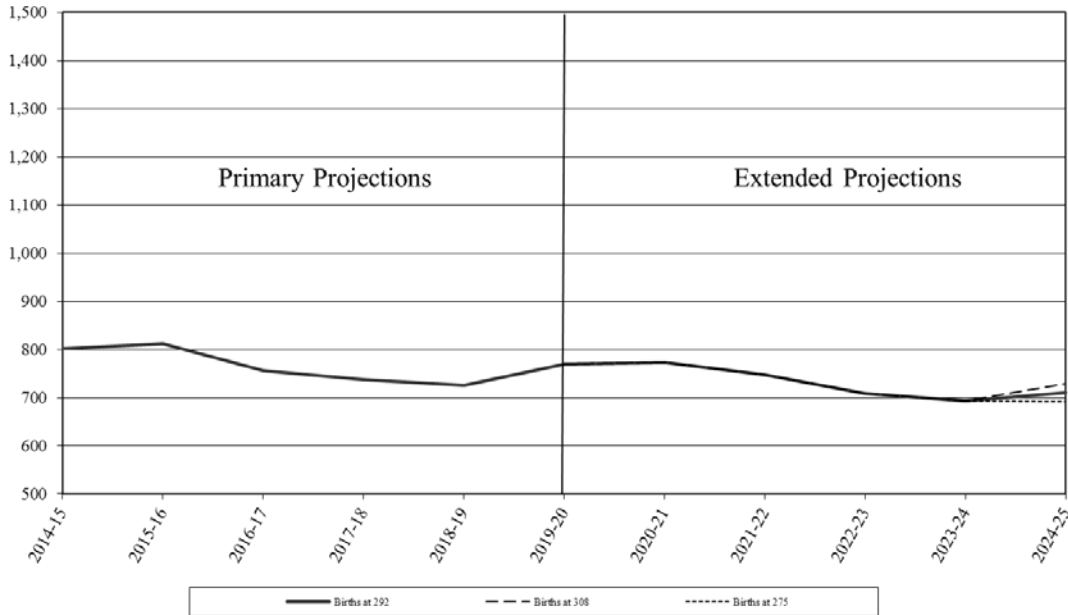
After 2024-25—given the assumptions used—the pupil population in grades 5-6 can be expected to experience a single decline and then remain unchanged at a level well below that of the current school year. (See Tables 5-18 and 5-20 and Graph 5-13.)

Table 5-20
METHACTON SCHOOL DISTRICT
Extended Upper Elementary Enrollment Projections (Grades 5-6)¹
2019-20 to 2024-25

<u>School Year</u>	Enrollment <u>5-6</u>	Change From <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2019-20	770	44	6.1
2020-21	773	3	0.4
2021-22	747	-26	-3.4
2022-23	709	-38	-5.1
2023-24	693	-16	-2.3
2024-25	711	18	2.6
Change 2019-20 to 2024-25		-59	-7.7
Change 2014-15 to 2024-25		-91	-11.3

¹ Based on births fixed at 292.

Graph 5-13
 METHACTON SCHOOL DISTRICT
 Upper Elementary Primary/Extended Enrollment Projections (Grades 5-6)
 2014-15 to 2024-25



Intermediate enrollments (grades 7 and 8) will total 703 in 2024-25 and be 28 or 3.8 percent lower than the projection for 2019-20. Pupil counts will decrease in three years and increase in two. The losses in pupils will range from 11 (1.5 percent) in 2020-21 to 37 (5.0 percent) in 2024-25. Growth will occur in 2021-22 (43 pupils or 6.0 percent) and 2022-23 (four pupils or 0.5 percent). Enrollments in grades 7 and 8 in 2024-25 will be 74 or 9.5 percent lower than in 2014-15 in view of the net loss of 46 pupils projected for the period 2014-15 through 2019-20. The annual net decrease in pupils in the intermediate grades projected for the extended period will average six compared with an average net loss of nine per year during the first five projected years and an average annual net decrease of 12 during the most recent five-year period.

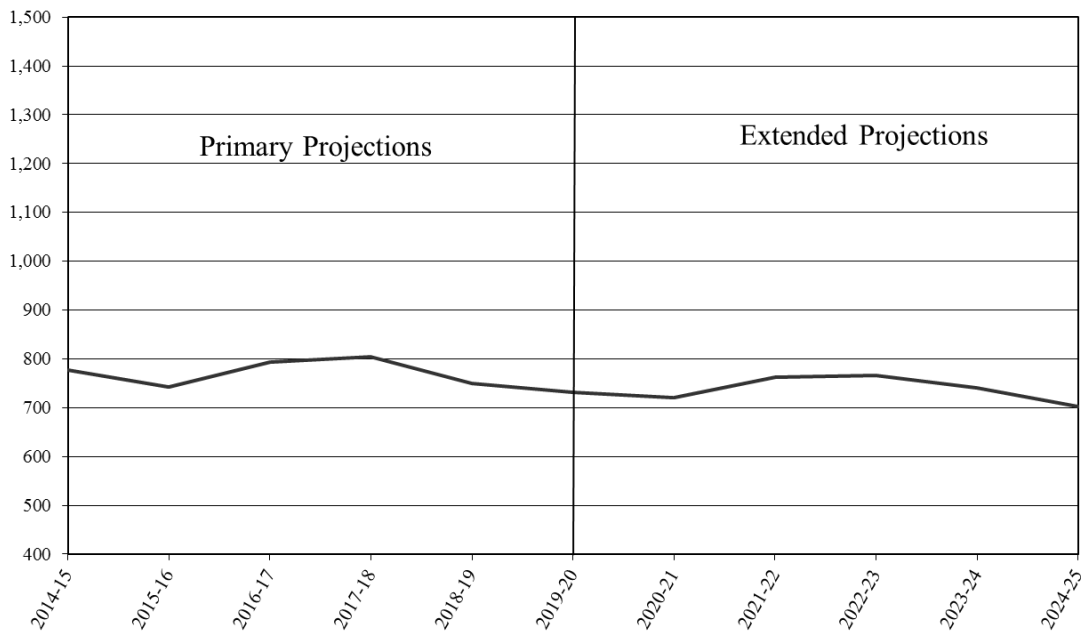
The slight slowing (on average) in the decline in enrollments in grades 7-8 during the extended projection period from the rate of decrease in the first five projected years is primarily a function of the movement into these grades of mainly smaller classes from the lower grades in prior years and the essentially neutral grade progression ratios at this level, but it is also influenced by the noticeable increase in the pupil count in 2021-22. This rise can be traced to the children in the unusually large kindergarten class in the current school year reaching the intermediate grades. Without this factor, the overall net average decline would have been larger.

Based on the assumptions used, subsequent to 2024-25 enrollments in grades 7 and 8 can be expected to record a single decrease and a single increase and then stabilize at a level just slightly below the figure projected for 2024-25 but more noticeably lower than the pupil count in the current school year. (See Table 5-18 and 5-21 and Graph 5-14.)

Table 5-21
 METHACTON SCHOOL DISTRICT
Extended Intermediate School Enrollment Projections (Grades 7-8)
 2019-20 to 2024-25

<u>School Year</u>	<u>Enrollment</u> <u>7-8</u>	<u>Change From</u> <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2019-20	731	-18	-2.4
2020-21	720	-11	-1.5
2021-22	763	43	6.0
2022-23	767	4	0.5
2023-24	740	-27	-3.5
2024-25	703	-37	-5.0
Change 2019-20 to 2024-25		-28	-3.8
Change 2014-15 to 2024-25		-74	-9.5

Graph 5-14
 METHACTON SCHOOL DISTRICT
Intermediate School Primary/Extended Enrollment Projections
 2014-15 to 2024-25



High school enrollments (grades 9-12) will total 1,505 in 2024-25 and be down by 60 or 3.8 percent from 2019-20. Decreases will occur in all years except 2023-24 (when they will grow by 26 or 1.7 percent) and will range from three pupils (0.2 percent) in 2020-21 to 69 pupils (4.4 percent) in 2022-23. The pupil count in grades 9-12 in 2024-25 will be 157 or 9.4 percent lower than in 2014-15 due to the loss of 97 expected during the primary projection period. The net drop in the pupil population at the high school level during the extended period will average 12 yearly compared with an average net loss of 19 per year during the first five projected years and an average annual decline of 31 during the most recent five-year period.

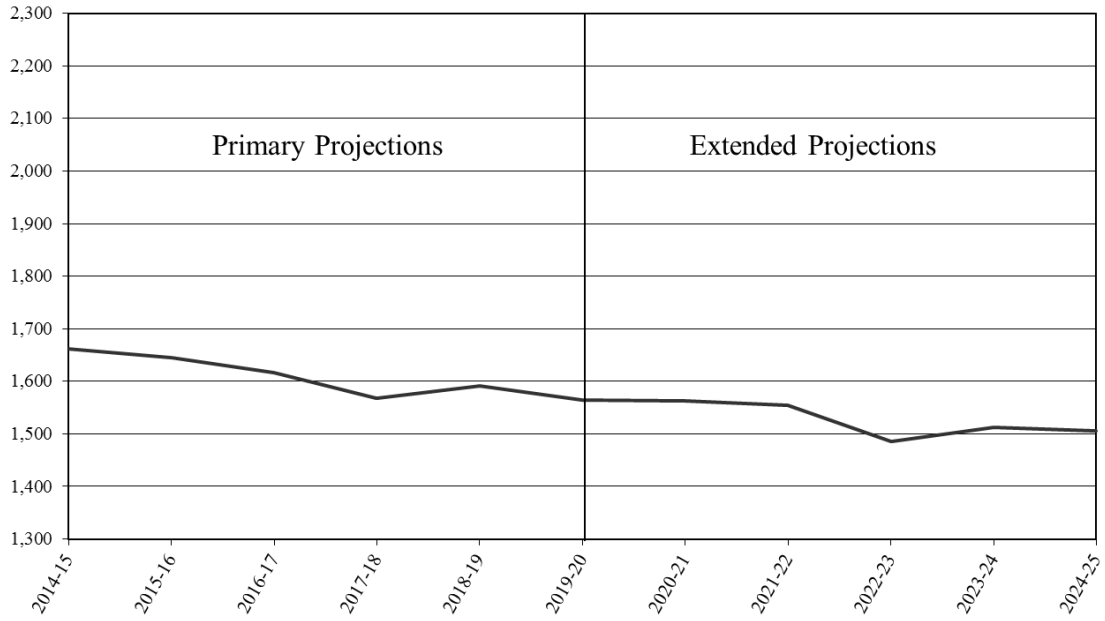
The modest slowing in the projected net average annual decrease in pupils in grades 9-12 during the extended projection period (from that of the primary projection period) is consistent with the pattern of enrollments in the lower grades in the preceding years and the grade progression ratios at the high school. And, like some of the figures in the other buildings in the earlier years, a single annual increase tends to slightly alter the overall picture at the high school. Without this rise, the average projected loss in pupils would have been greater.

After 2024-25, however, given the assumptions used, high school enrollments will likely experience continuing declines as a series of smaller classes reach these grades and eventually stabilize at a level noticeably below that of the final projected year and substantially lower than in the current school year. (See Table 5-18 and 5-22 and Graph 5-15.)

Table 5-22
METHACTON SCHOOL DISTRICT
Extended High School Enrollment Projections (Grades 9-12)
2019-20 to 2024-25

<u>School Year</u>	<u>Enrollment</u> <u>9-12</u>	<u>Change From</u> <u>Previous Year</u>	
		<u>#</u>	<u>%</u>
2019-20	1,565	-26	-1.6
2020-21	1,562	-3	-0.2
2021-22	1,555	-7	-0.4
2022-23	1,486	-69	-4.4
2023-24	1,512	26	1.7
2024-25	1,505	-7	-0.5
Change 2019-20 to 2024-25		-60	-3.8
Change 2014-15 to 2024-25		-157	-9.4

Graph 5-15
METHACTON SUBURBAN SCHOOL DISTRICT
High School Primary/Extended Enrollment Projections
2014-15 to 2024-25



Alternative Extended Enrollment Projections

In contrast with the extended projections based on the average number of births in the most recent two years for which data are available (the “preferred” projections), alternative extended projections based on the births fixed at the highest figure during the past several years 308 (the 2012-13 figure) suggest that total enrollments in 2024-25 would be 4,620—111 pupils (2.5 percent) higher than the preferred extended projection resulting from using the average birth figure of the past two years. This figure (4,620), however, is still 105 or 2.2 percent below the figure projected for 2019-20 and 354 or 7.1 percent lower than the actual 2014-15 level. (See Table 5-23.)

Enrollments in grades K-4 using this alternative approach would be 1,681 in 2024-25 compared with the preferred extended projection of 1,590. This figure (1,681) is 22 or 1.3 percent higher than in 2019-20, but 52 or 3.0 percent lower than in 2014-15. Upper Elementary school enrollments in grades 5-6 in 2024-25 resulting from this alternative scenario would be 731 compared with the preferred extended projection of 711. This figure (731) is 39 or 5.1 percent lower than in 2019-20 and 71 or 8.9 percent lower than in 2014-15. The pupil population in the intermediate school (grades 7-8) and high school would be unchanged from the preferred extended projections because the use of different birth figures has no effect on these projections beyond grade 6 during the next 10 years; any impact would not be reflected in these grades until after the final year projected in this study.

A somewhat different picture develops if projections are based on the assumption that births will remain constant at the lowest level of the past several years—275 (the 2011-12 figure). Enrollments using this approach would total 4,403 in 2024-25—292 pupils (6.2 percent) below the projected figure for 2019-20 and 571 pupils (11.5 percent) below the level in 2014-15. The resulting 2024-25 figure would be 106 pupils (2.4 percent) lower than the preferred extended projection and 217 pupils (4.7 percent) lower than the projection based on the highest recent school year birth figure. (See Table 5-24.)

Enrollments in grades K-4 resulting from this alternative scenario would be 1,503 in 2024-26 compared with the preferred extended projection of 1,590. This figure (1,503) is 126 (7.7 percent) lower than the figure projected for 2019-20 and 230 pupils or 13.3 percent lower than in 2014-15. Enrollments in grades 5-6 using this alternative approach would be 692 in 2024-25 compared with the preferred extended projection of 711. This figure (692) is 78 pupils

Table 5-23
METHACTON SCHOOL DISTRICT
Alternative Extended Total Enrollment Projections by Grade Based on Births Fixed at 308
2019-20 to 2024-25

<u>School Year</u>	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Total <u>K-4</u>	<u>5</u>	<u>6</u>	Total <u>5-6</u>	<u>7</u>	<u>8</u>	Total <u>7-8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	Total <u>9-12</u>	Total <u>K-12</u>
2019-20	284	343	313	366	353	1,659	411	359	770	359	372	731	382	430	371	382	1,565	4,725
2020-21	284	343	350	313	370	1,660	367	406	773	356	364	720	372	383	428	379	1,562	4,715
2021-22	284	343	350	350	316	1,643	385	362	747	402	361	763	364	373	381	437	1,555	4,708
2022-23	284	343	350	350	354	1,681	329	380	709	359	408	767	361	365	371	389	1,486	4,643
2023-24	284	343	350	350	354	1,681	368	325	693	376	364	740	408	362	363	379	1,512	4,626
2024-25	284	343	350	350	354	1,681	368	363	731	322	381	703	364	410	360	371	1,505	4,620
Pupil Change																		
2019-20 to 2024-25	-	-	37	-16	1	22	-43	4	-39	-37	9	-28	-18	-20	-11	-11	-60	-105
Percent Change																		
2019-20 to 2024-25	-	-	11.8	-4.4	0.3	1.3	-10.5	1.1	-5.1	-10.3	2.4	-3.8	-4.7	-4.7	-3.0	-2.9	-3.8	-2.2
Pupil Change																		
2014-15 to 2024-25	-33	3	1	-6	-17	-52	-64	-7	-71	-48	-26	-74	-40	-12	-44	-61	-157	-354
Percent Change																		
2014-15 to 2024-25	-10.4	0.9	0.3	-1.7	-4.6	-3.0	-14.8	-1.9	-8.9	-13.0	-6.4	-9.5	-9.9	-2.8	-10.9	-14.1	-9.4	-7.1

Table 5-24
 METHACTON SCHOOL DISTRICT
Alternative Extended Total Enrollment Projections by Grade Based on Births Fixed at 275
 2019-20 to 2024-25

<u>School Year</u>	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Total <u>K-4</u>	<u>5</u>	<u>6</u>	Total <u>5-6</u>	<u>7</u>	<u>8</u>	Total <u>7-8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	Total <u>9-12</u>	Total <u>K-12</u>
2019-20	254	343	313	366	353	1,629	411	359	770	359	372	731	382	430	371	382	1,565	4,695
2020-21	254	307	350	313	370	1,594	367	406	773	356	364	720	372	383	428	379	1,562	4,649
2021-22	254	307	313	350	316	1,540	385	362	747	402	361	763	364	373	381	437	1,555	4,605
2022-23	254	307	313	313	354	1,541	329	380	709	359	408	767	361	365	371	389	1,486	4,503
2023-24	254	307	313	313	316	1,503	368	325	693	376	364	740	408	362	363	379	1,512	4,448
2024-25	254	307	313	313	316	1,503	329	363	692	322	381	703	364	410	360	371	1,505	4,403
Pupil Change																		
2019-20 to 2024-25	-	-36	-	-53	-37	-126	-82	4	-78	-37	9	-28	-18	-20	-11	-11	-60	-292
Percent Change																		
2019-20 to 2024-25	-	-10.5	-	-14.5	-10.5	-7.7	-20.0	1.1	-10.1	-10.3	2.4	-3.8	-4.7	-4.7	-3.0	-2.9	-3.8	-6.2
Pupil Change																		
2014-15 to 2024-25	-63	-33	-36	-43	-55	-230	-103	-7	-110	-48	-26	-74	-40	-12	-44	-61	-157	-571
Percent Change																		
2014-15 to 2024-25	-19.9	-9.7	-10.3	-12.1	-14.8	-13.3	-23.8	-1.9	-13.7	-13.0	-6.4	-9.5	-9.9	-2.8	-10.9	-14.1	-9.4	-11.5

or 10.1 percent lower than the projected level for 2019-20, and 110 pupils or 13.7 percent lower than in 2014-15. Again, the intermediate and high school grades would be unchanged.

The alternative projections for grades K-4 in 2024-25 based on the higher birth figure produce 91 (5.7 percent) more pupils than the preferred extended projections; conversely, alternative projections for these grades in 2024-25 using the lower birth figure would be 87 (5.5 percent) below the preferred extended projection. (See Table 5-25 and Graph 5-12.)

Table 5-25
METHACTON SCHOOL DISTRICT
Comparison of Preferred and Alternative Extended
Elementary Projections (Grades K-4)
2019-20 to 2024-25

<u>School Year</u>	Preferred Based on Births <u>Fixed at 292</u>	Alternative B Based on Births <u>Fixed at 308</u>	Alternative C Based on Births <u>Fixed at 275</u>
2019-20	1,644	1,659	1,629
2020-21	1,627	1,660	1,594
2021-22	1,591	1,643	1,540
2022-23	1,610	1,681	1,541
2023-24	1,590	1,681	1,503
2024-25	1,590	1,681	1,503
Change 2019-20 #	-54	22	-126
to 2024-25 %	-3.3	1.3	-7.7
Change 2014-15 #	-143	-52	-230
to 2024-25 %	-8.3	-3.0	-13.3

The alternative projections for grades 5-6 in 2024-25 based on the higher birth figure produce 20 (2.8 percent) more pupils than the preferred extended projections; conversely, alternative projections for these grades in 2024-25 using the lower birth figure would be 19 pupils (2.7 percent) lower than the preferred extended projection. (See Table 5-26 and Graph 5-13.)

Table 5-26
METHACTON SCHOOL DISTRICT
Comparison of Preferred and Alternative Extended
Upper Elementary Projections (Grades 5-6)
2019-20 to 2024-25

<u>School Year</u>	Preferred Based on Births <u>Fixed at 292</u>	Alternative B Based on Births <u>Fixed at 308</u>	Alternative C Based on Births <u>Fixed at 275</u>
2019-20	770	770	770
2020-21	773	773	773
2021-22	747	747	747
2022-23	709	709	709
2023-24	693	693	693
2024-25	711	731	692
Change 2019-20 #	-59	-39	-78
to 2024-25 %	-7.7	-5.1	-10.1
Change 2014-15 #	-91	-71	-110
to 2024-25 %	-11.3	-8.9	-13.7

Intermediate (grades 7-8) and high school enrollments using these alternative approaches do not differ from each other or from the preferred projection because the effect of using the different birth figures would not be reflected in these grades until after the final year projected in this study. As such, the variation in projected total enrollments produced by the three approaches is narrower on a proportionate basis than at the elementary and upper elementary levels. At their widest point (2024-25), the alternative projection resulting from use of the higher birth figure is 111 pupils or 2.5 percent more than the preferred extended projection; using the smaller birth figure, the alternative is 106 pupils or 2.4 percent lower than the preferred extended projection. (See Table 5-27 and Graph 5-11.)

Table 5-27
METHACTON SCHOOL DISTRICT
Comparison of Preferred and Alternative Extended Total Projections (Grades K-12)
2019-20 to 2024-25

<u>School Year</u>	Preferred Based on Births <u>Fixed at 292</u>	Alternative B Based on Births <u>Fixed at 308</u>	Alternative C Based on Births <u>Fixed at 275</u>
2019-20	4,710	4,725	4,695
2020-21	4,682	4,715	4,649
2021-22	4,656	4,708	4,605
2022-23	4,572	4,643	4,503
2023-24	4,535	4,626	4,448
2024-25	4,509	4,620	4,403
Change 2019-20 #	-201	-105	-292
to 2024-25 %	-4.3	-2.2	-6.2
Change 2014-15 #	-465	-354	-571
to 2024-25 %	-9.3	-7.1	-11.5

Perspective on Accuracy

Accurate projections of public school enrollments for periods of five to 10 years or more are difficult, at best, because of so many unpredictable variables. Furthermore, such efforts are highly dependent on “full disclosure” and accurate and complete data from state, county, school, and municipal officials, as well as the candid views of developers, real estate professionals, and others. The resulting projections cannot rise above inaccurate and incomplete data.

The difficulty of generating accurate projections increases as the focus moves from a large base (such as a state) down to counties, to local school districts, and to individual buildings within districts. Generally, the larger the area involved, the greater the accuracy in terms of the amount of percentage deviation from the projection because differences in smaller areas within the larger area tend to balance each other out.

The best way to assess the potential accuracy of PEL’s projections of public school enrollments is by comparing projections in districts that relied on similar methodologies with the actual enrollments that PEL attempted to project, and calculating the Mean Absolute Percentage Error (MAPE). The MAPE “is the most frequently utilized forecast error measure for quantitative forecast models. By averaging the percentage errors in absolute terms, the forecaster is being given an indicator of expected error, on average.” (Howard A. Frank, *Budgetary Forecasting In Local Government: New Tools and Techniques*, Westport Connecticut and London: Quorum Books, 1993, p 82.)

Since 1986 PEL’s Central PA Division has examined demographics, community growth, and enrollment trends in numerous central and eastern Pennsylvania school districts and, using the techniques employed in this analysis, generated projections of enrollments covering a 10-year period. Those projections undertaken more than 10 years ago have 10 years on which to judge accuracy; some projections allow only eight or nine years’ experience to be viewed; some six, five, and so forth; and for others there has been only one year of actual figures on which to make judgments regarding PEL’s accuracy.

Based on actual enrollment figures through the 2010-11 school year, the Mean Absolute Percentage Error in all central and eastern Pennsylvania districts studied by PEL for the primary projection period—the first five years—is 3.06 percent (based on 812 data points); for all years for which there are actual figures to compare with PEL projections (which in many districts

includes all 10 years), the MAPE is 4.72 percent (based on 1,389 data points). (The literature suggests that projections within 5.0 percent (+/-) *after five years* are “acceptable.”)



It must be recognized that the projections generated for the Methacton School District are a product of certain assumptions. Specifically, it was assumed that the total number and type of new housing units in the district will be in keeping with expected levels of construction in the various subdivisions as well as additional housing that can reasonably be assumed to be built during the next 10 years (all as outlined in Chapter 2). The methodology is also sensitive to the ongoing turnover of mature housing. Further, the methodology assumes that overall migration and related patterns will remain consistent with current expectations, that the role of schools and educational programs other than those operated directly by Methacton will be compatible with expected patterns, and the district will continue its current policies relative to its kindergarten, CIT, and special education programs and maintain its other key policies.

Projections represent calculations based on hard data and analysis of relevant events in the Methacton School District in recent years. Because the projections were made on the basis of averages of data which varied from year to year, future enrollments can be expected to vary from year to year from these projections. Although actual enrollments in future years may fluctuate around the projections, over a period of years the projections generated in this manner will normally present a valid picture of the enrollment trend in a given district.

Uncertain events that can influence and alter pupil projections are such that no projections, no matter how carefully constructed, can guarantee complete accuracy. Unexpected changes in birth patterns; nonpublic school enrollments; migration patterns; internal policies (such as, retention and acceleration of pupils, age requirements for admission to school, half-day/full-day kindergarten programs, and who provides special education programs and to whom they are provided); statewide policies on “school choice,” vouchers, and other aspects of the educational program; the formation and/or termination of charter schools; economic climate; zoning and land use controls; infrastructure considerations; and interest rates, the housing market, and the state of the mortgage industry as they influence residential development activity and the turnover of mature housing, can all affect these projections. Also, policy changes by external parties, such

as major employers, can have a significant and lasting impact on enrollment patterns as can a teachers' strike or even the serious threat of a strike. As such, various influencing factors must be monitored and analyzed every year by district officials. In this way, significant changes in current and projected patterns can be quickly identified and the appropriate adjustments can be made.



Despite these words of caution, PEL believes the projections offered in this report are as reasonable and as realistic as possible in light of the available facts, and—based on our experience, the indicators we relied on, the techniques we used, and our track record—they should serve the district well in its short- and long-term planning. However, given the uncharacteristically large rise in the district's cohort survival rate in 2014-15 (the relationship between kindergarten entries and births in the district five years prior) and questions as to whether this level can be sustained, PEL—if requested—would revisit its projections in the fall of 2015 at no additional cost to the district in order to make any appropriate adjustments based on information available at that time.