School District of Springfield Township
Enrollment Projections

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Table of Contents

Introduction

School districts can only plan for their future if they have some idea of what that future will entail. The number of students that will need to be served by district facilities is the key variable that must be understood in order to make prudent decisions.

Montgomery County and much of the region is in a cautious period following a historic housing price bubble and the subsequent bursting of that bubble followed by the Great Recession. An extended recovery period still lingers with long-term unemployment and slow job creation. While these events have reduced growth in the county and in the region overall, different impacts are being felt in mature "inner" suburbs such as Springfield Township. Some of these places are actually seeing the opposite effect and several decades of population decline are starting to flatten out or even grow again thanks to redevelopment and infill projects along

with a new generation of people that appreciate existing amenities such as public transit, walkable neighborhoods, main streets, and good school districts.

It was not very long ago that many school districts in these "inner" suburbs were witnessing a decline in enrollments, but now see them climbing up again in recent years. It remains to be seen if this is just a cycle of growth or if it will continue for an extended period and put new pressures on existing facilities spurring difficult and costly decisions.

This report gives an overview of the population and housing characteristics within the School District of Springfield Township (SDST) in order to establish the conditions that have formed the most recent enrollment trends. Future enrollments will depend largely upon the following factors:

- Recent and future births

- Housing construction

- Moves in and out of the school district

- Private, charter, home, and cyber school growth

The following study employs the use of a Cohort Progression Model to account for the above factors and form projections for each grade level over the next ten years. No model is perfect when it comes to predicting the future, but given the right data, an accurate projection for at least the next five years is expected.

Projections should not be considered a final product with the completion of the model. Additional data and analysis, including housing and population forecasts, characteristics of households by housing types, geographic mobility by age cohorts, and housing sales activity, are also presented in this study so as to provide a useful context with the projections. This context also provides the basis for using the projections beyond just the next school year. The study provides the important data points that should be reviewed every year to determine if unanticipated activity is occurring and how that might influence the projections and actual enrollments down the line.

Summary of Key Findings

Multiple scenarios of birth activity and housing construction offer a range of future projections for overall SDST enrollment. The general trend calls for continued growth over the next five years with relatively stable levels over the second five years, but the actual schools will react differently.

- Enfield and Erdenheim Elementary Schools will grow and reach their peak enrollment within 2-3 years, but they will then start declining through the rest of the decade. After ten years, enrollments at these schools will be smaller than they were in 2013.

- Springfield Middle School will also grow significantly by about 100 students in the next five years, but then it will level off over the remaining five years.

- Springfield High School can be expected to grow continually throughout the entire decade. This is partly due to the historically low level of enrollment that is now at the high school. The near term growth of the lower schools will provide larger classes, which will replace the smaller senior classes as they graduate. Overall, the high school may grow as much as 40 percent over the decade.

FIGURE 1: *District School Locations*

Legend

- Erdenheim Elem. School
- Enfield Elem. School
- Springfield Middle School
- Springfield High School

0   1,400   2,800   5,600 Feet

Base map prepared January 2014 by MCPC
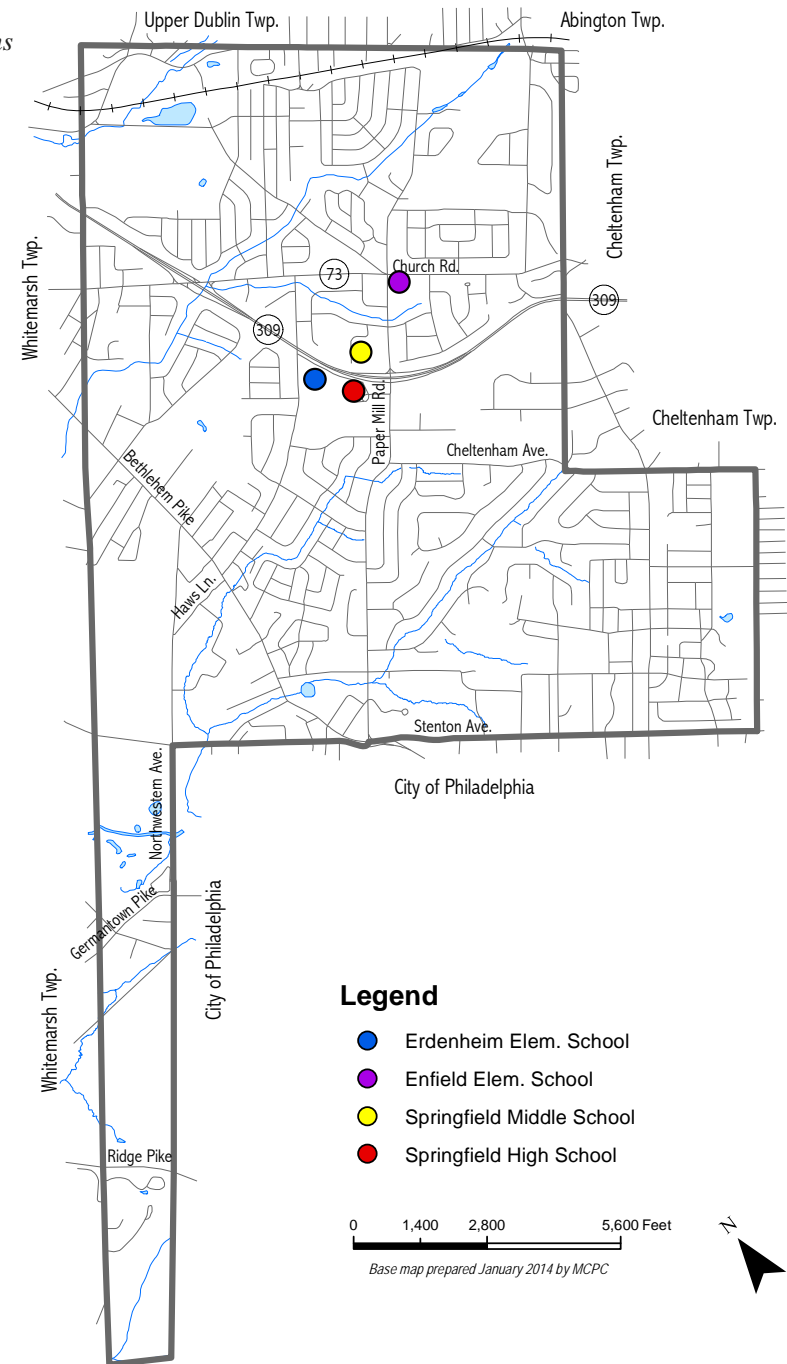
School District Characteristics

Part 1

School District Characteristics
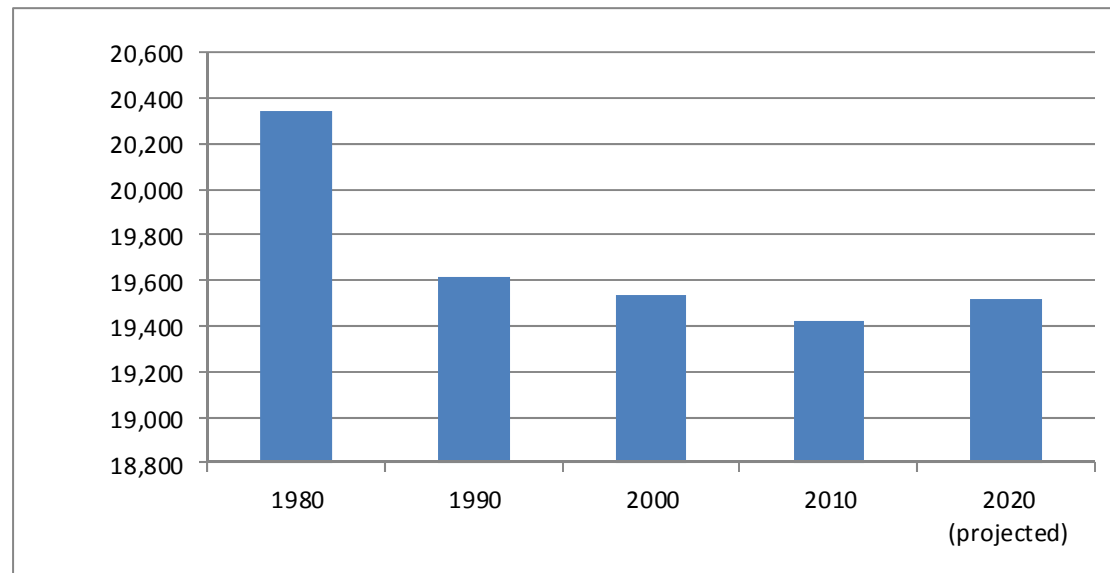
Population

Springfield Township has maintained a fairly stable population base over the last two decades after enduring more substantial declines prior to 1990. Those earlier declines in the 1970s and 1980s were indicative of a nationwide trend of smaller average household size in many places, including Springfield. Since 1990, household sizes have declined at a much lower rate, but the population has still gone down slightly due to minimal opportunity for growth in terms of new housing being built in Springfield.

Regional projections are calling for the downward trend to reverse by 2020 and lead to modest population growth in Springfield over the coming decades. This change will be due to a combination of changing demographics and a heightened emergence of infill development opportunities. Inner suburbs are experiencing renewed interest from younger residents and developers since they can offer value from existing infrastructure, such as public transportation, mixed use environments and road networks in proximity to existing employment centers.

It is important to recognize that population totals do not necessarily reflect changes in the numbers of school-age children or public school enrollment figures. While the population of Springfield is not expected to vary widely from where it is today, shifts in the age cohorts within that population will have distinct effects on the numbers of school age children in the future.

FIGURE 2: *Population of SDST, 1980-2020*

Source: U.S. Census Bureau, except 2020 Projections (DVRPC and MCPC)

FIGURE 3: *Population Totals, 1990-2020*

	1990			2000			2010			2020 (Forecasted)		
	Total	1980-1990 Change	1980-1990 Percent	Total	1990-2000 Change	1990-2000 Percent	Total	2000-2010 Change	2000-2010 Percent	Total	2010-2020 Change	2010-2020 Percent
Springfield Township	19,612	-732	-3.6%	19,533	-79	-0.4%	19,418	-115	-0.6%	19,522	104	0.5%
Montgomery County	678,111	34,740	5.4%	748,987	70,876	10.5%	799,874	50,887	6.8%	823,564	23,690	3.0%

Source: U.S. Census Bureau, except 2020 Forecasts (DVRPC and MCPC)

Age Cohorts and School Age Children

Age data from the last three decennial censuses reveal patterns in how the demographics of Springfield have changed. The cohort that best represents school age children is the 5-17 year old group. This cohort increased during the 1990s but stayed essentially level from 2000 to 2010. These figures include all children, not just public school students, but it is no surprise that the enrollment for the District as a whole was essentially the same in 2000 and 2010. However, the younger cohort, 0-4 year olds (pre-school age), has grown since 2000.

These "future students" hint that enrollments could be naturally increasing for several years after 2010.

The remaining cohorts show that the population aged 45-64 years old has created a bubble where there are disproportionately more people in these age ranges. These ages roughly account for the baby boomers and the cause for why places like Springfield and Montgomery County are said to be home to an aging population. These people may still have children in their households or have seen them move out in recent years. The effect is that there may be fewer children per household as these people age, but that effect will also be countered by seniors moving to other types of housing or downsizing, providing opportunities for younger families to move in.

The ages in between the previous cohorts mentioned, the 25-44 year old population, declined in 2010. These are the people who are of the age to create children and their decline heralds a period of lower birth activity, which can ultimately result in fewer students enrolling for school six years later. However, the cohorts coming up behind the 25-44 year olds are slightly larger than the previous decade and could create a recovery from the lower birth activity as they settle into homes and have children of their own.

This shifting of age cohorts over time is only one part of the picture when it comes to explaining and predicting what will happen with school enrollment, but it is a very good place to start when considering why enrollments cycle up and down over time.

FIGURE 4: *Age Cohorts, Springfield Township, 1990-2010*

	1990		2000		2010	
Age Cohort	Total	1980-1990 Change	Total	1990-2000 Change	Total	2000-2010 Change
0-4	1,137	271	1,054	-83	1,146	92
5-17	2,789	-784	3,129	340	3,118	-11
18-24	1,171	-899	912	-259	1,043	131
25-34	2,573	118	2,113	-460	1,846	-267
35-44	2,884	834	2,924	40	2,455	-469
45-54	1,985	-578	2,999	1,014	3,047	48
55-64	2,179	-903	1,846	-333	2,952	1,106
65-74	2,474	435	1,780	-694	1,647	-133
75 and over	2,420	774	2,776	356	2,164	-612

Source: U.S. Census Bureau

School District Characteristics

Birth Patterns

The number of births in an area is a critical component to projecting future enrollments in a school district. While some families will migrate over time, births provide a beginning indicator of the potential for future kindergarten classes. This relationship will be detailed in the cohort progression model (p. 26), but it is important to note that birth data can give a preview of what will happen with entering students over the first five years of the projection period. Also note that annual birth totals are aligned to match the school calendar year (September—August) in order to make the most accurate correlations to future kindergarten classes.

The trend for live births since 2000 in Springfield shows that the average number of births from the 2000 to 2010 school years was 219 births. While a couple of years peaked closer to 250 as seen in

Figure 5, total births never fell below 200. Since 2010, births have failed to register above 200 with only two years of data so far. This recent decline is not just relative to Springfield. Countywide, birth totals began falling two years earlier in 2009.

Has the downturn in the economy starting with the Great Recession in 2008 driven the recent decline in births? Logically, it would make sense for some to defer or delay decisions to have children based on economic uncertainty in one's life. Some studies have looked at national population bases, both the United States and globally, and determined that overall fertility rates do decline with downturns in the economy. However, Springfield is a relatively small place and it exists within the context of much larger economies. Births in Springfield did not really start declining until the end of 2011. While the economy may have an indirect impact as it influences

FIGURE 5: *Number of Live Births in SDST by School Calendar Year (Sept.-Aug.)*
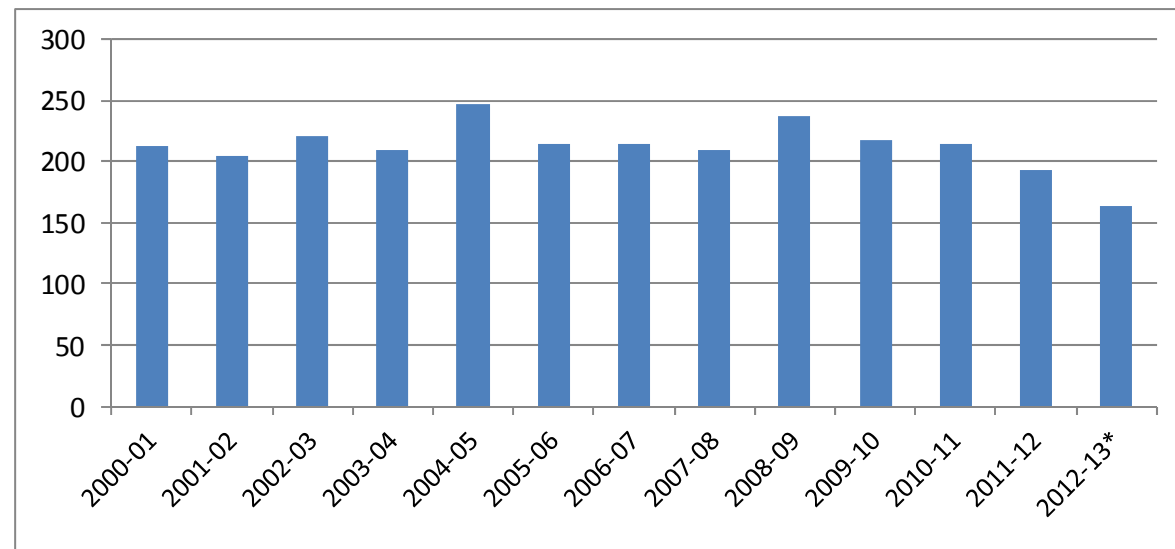
* Births during the 2013 months in the 2012-2013 school year were estimated due to state data being unreleased at the time of this report.
Source: Pennsylvania Department of Health

other factors such as housing construction and sales activity, it alone should not be considered the cause for the recent decline in births.

Attempting to pinpoint the causes of change in birth totals over time is difficult, but another clue comes from looking at the population of child-bearing age women. According to the Pennsylvania Department of Health, birth activity in Montgomery County is at its highest when potential mothers are between the ages of 25-34. The population of women in that age group from Springfield dropped from 1,095 in 2000 to 957 in 2010, a loss of 12.6 percent. Figure 7 identifies age cohorts for females of child-bearing age.

FIGURE 6: *Number of Live Births in SDST by School Calendar Year (Sept.-Aug.)*

School Year	Springfield
2000-01	213
2001-02	205
2002-03	220
2003-04	210
2004-05	247
2005-06	215
2006-07	215
2007-08	210
2008-09	237
2009-10	218
2010-11	214
2011-12	193
2012-13	163

* Births during the 2012 months in the 2011-2012 school year were estimated due to state data being unreleased at the time of this report.
Source: Pennsylvania Department of Health

This data also suggests that on a purely demographic basis, births may not remain at the current low levels for long. Females within the age 15-24 groups increased by 18 percent in 2010. Looking out to 2020, the bubble in the younger cohorts will be aging into higher fertility rates, potentially raising birth figures closer to the averages of the last decade.

Of course, the actual 15-24 year olds living in Springfield at the time of the data collection are going through an extreme period of flux as many of them graduate high school and go to college, or otherwise move out of their parents' homes. Many things may happen to prevent them from becoming a 25-34 year old resident of Springfield. However, the bubbles in baby boomers and echo boomers also exist at the county and regional levels. The general increase in people of that age will still likely impact the number of 25-34 year olds in Springfield even if they are not the same residents that lived here as 15-24 year olds.

FIGURE 7: *Females of Child-Bearing Age in Springfield, 2000 and 2010*

Age Cohort	2000 Females	2010 Females
Age 15 - 19	477	553
Age 20 - 24	295	358
Age 25 - 29	446	436
Age 30 - 34	649	521
Age 35 - 39	739	625
Age 40 -44	846	659

Source: U.S. Census Bureau

Birth Rates

Birth rates are a different statistic than live births. An increase or decrease in actual births could be explained by concurrent growth or decline in the population base, but birth rates average out the number of live births per 1,000 persons in an area. The statistics in Figure 9 confirm that the trend of lower birth activity is only a recent occurrence beginning in 2011 and not being caused by an overall reduction in population.

Pennsylvania's overall birth rate for 2011 was 11.1 and the nation's rate was 12.7. Springfield has typically been slightly under the state rate, although it has surpassed the state on occasion. Both the state and national birth rates have been declining for a more extended period than Springfield, having dropped each year between 2007 and 2011.

FIGURE 8: *Birth Rates (Births Per 1,000 Population) in SDST by Calendar Year (Jan.-Dec.)*

Calendar Year	Springfield	Montgomery County
2002	11.3	12.2
2003	11.2	12.7
2004	10.8	12.3
2005	12.4	12.1
2006	10.9	12.3
2007	11.1	11.9
2008	11.3	12.1
2009	11.7	11.7
2010	11.8	11.4
2011	10.5	11.2
2012	9.0	11.0

Sources: Pennsylvania Department of Health, U.S. Census Bureau

School District Characteristics
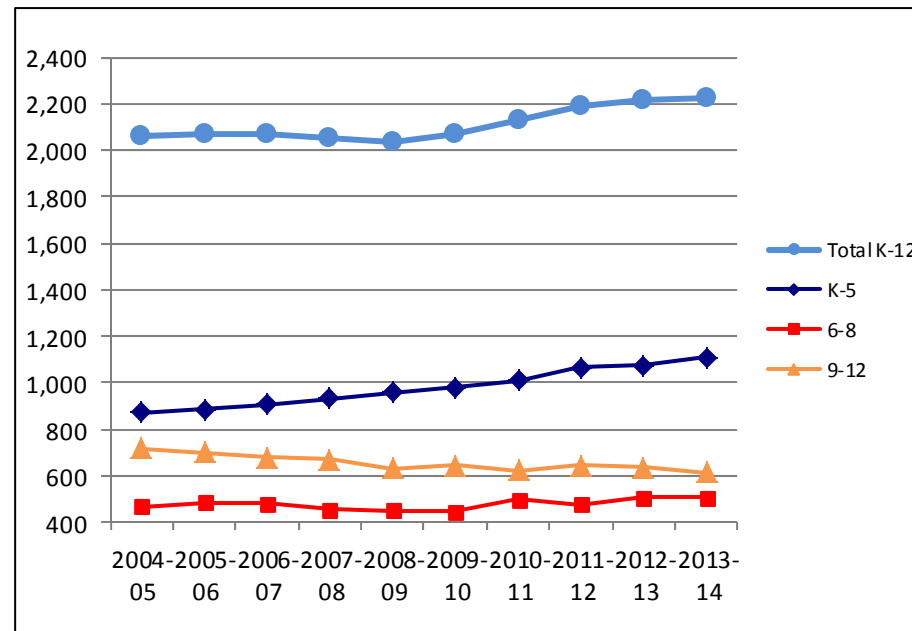
School District Enrollment

Over the last twenty years, the District has grown fairly consistently between six and eight percent each decade. Growth has not been constant, however. Since 2004, enrollment went up by 168 students overall, but all of that gain was realized only during the last five years. Figure 10 demonstrates that growth continued up through the current school year, but the rate of growth has been slowing down for the last three years. The big question to be answered by this study is whether the current growth cycle is heading towards decline or will it continue to grow over the next few years?

The first hint at that answer comes from breaking down the figures by general school levels as indicated in Figure 9. Elementary school enrollment, grades K-5, has been on a fairly consistent upward trend for the last ten years. Middle school enrollment, grades 6-8, has remained the most steady in terms of change, but still gained almost eight percent over the decade, which is similar to the district as a whole. The high school enrollment, grades 9-12, has been generally declining. Over time these larger elementary class sizes will move through the system replacing smaller than usual upper grade classes. While other factors, including the recent decline in births, will counteract against this pattern, it seems likely that overall enrollment will continue to expand in the short term.

It is recognized that the grade configuration for schools in the District has not remained static and changes were made in the distribution of students among each building at the beginning of the 2010-11 school year. The figures on these pages have been configured to match the current distribution in the District in order to expose relevant trends over time.

FIGURE 9: *School District Enrollment by Grade Divisions, 2004-2013*

Source: School District of Springfield Township (enrollment as of October 1 each year)

FIGURE 10: *District Enrollment by Division, 2004-2013*

Year	Total K-12	Number Change from Previous Year	Percent Change from Previous Year		Grade K-1	Grade 2-5	Grade K-5 Combined Elementary Schools		Grade 6-8 Middle School	Grade 9-12 High School
2004-05	2,061				289	584	873		469	719
2005-06	2,073	12	0.6%		301	584	885		487	701
2006-07	2,066	-7	-0.3%		318	589	907		481	678
2007-08	2,055	-11	-0.5%		333	598	931		456	668
2008-09	2,038	-17	-0.8%		347	610	957		451	630
2009-10	2,071	33	1.6%		344	636	980		448	643
2010-11	2,133	62	3.0%		344	668	1,012		497	624
2011-12	2,188	55	2.6%		352	714	1,066		477	645
2012-13	2,217	29	1.3%		388	688	1,076		507	634
2013-14	2,229	12	0.5%		385	723	1,108		505	616

Source: School District of Springfield Township (enrollment as of October 1 each year)

FIGURE 11: *District Enrollment by Grade, 2004-2013*

Year	K	1	2	3	4	5	6	7	8	9	10	11	12
2004-05	154	135	144	123	156	161	144	165	160	203	165	181	170
2005-06	139	162	138	149	130	167	165	157	165	159	200	169	173
2006-07	178	140	158	146	152	133	164	163	154	159	156	199	164
2007-08	154	179	138	159	146	155	134	158	164	160	154	163	191
2008-09	183	164	176	131	157	146	157	131	163	158	154	162	156
2009-10	172	172	168	174	136	158	150	161	137	170	162	149	162
2010-11	168	176	180	168	184	136	169	158	170	143	174	161	146
2011-12	188	164	178	182	168	186	145	169	163	164	149	169	163
2012-13	189	199	163	171	188	166	188	150	169	158	166	143	167
2013-14	185	200	195	167	174	187	167	190	148	155	152	165	144

Source: School District of Springfield Township (enrollment as of October 1 each year)

School District Characteristics

Alternative School Enrollment

Potential alternative schooling choices include private schools, charter/cyber schools, and homeschooling. Enrollment in these schools are enumerated from several data sources and do not always have a consistent historical record. Further confusing matters is that charter and most cyber schools are also considered public schools.

Private Schools

The U.S. Census Bureau and its American Community Survey (ACS) provides some comprehensive data on public versus private school enrollment, which is probably the most straightforward assessment of trends. However, these figures are still estimates with a margin of error and they rely upon the accuracy of individuals filling out questionnaires. Figure 12 shows the available data that can be compared from the Census and ACS. The data indicates that private school enrollment has increased within the district since 2000 by approximately eight percent. The School District of Springfield Township also keeps data on residents that attend private school through its monitoring of district bus records which includes public and private school students. While this data cannot be verified for 100 percent accuracy, it does provide a detailed look at student addresses and destinations by grade

level going back to the 2009-10 school year. The bus data shows that the district is aware of 660 students living within the district that attend private schools inside or outside of Springfield Township. This number has slightly decreased from the 671 students identified from the 2009-10 bus records. However, within the five year span, the number rose to 708 in 2011-12 before coming back down.

The available data suggests that private school enrollment has probably increased over the last decade at a slightly higher rate than the increase in public school enrollment, but that there is no clear trend of a rapid growth or decline in the last five years. It has been suggested that a downturn in the economy such as the last recession and its recovery period might lead to lower private school attendance and a boost in public school enrollment. The data for SDST do not suggest that this is a clear trend in Springfield. A recent Census Bureau report studying a national decline in private school enrollment dismisses the impact that the economy has had and instead points to alternative schooling choices, such as charter schools and homeschooling as drains on private school enrollment.

FIGURE 12: *Private School Enrollment According to U.S. Census Bureau*

Year	Private School Students	Dataset
2012*	751	ACS, 5 Year Estimates, 2008-2012
2000	693	Census 2000, Summary File 3

* 5 Year Estimates from the ACS are an average of 5 years worth of sampling data

FIGURE 13: *Private School Enrollment According to SDST Bus Records*

School Year	Private School Students
2013-14	660
2012-13	671
2011-12	708
2010-11	692
2009-10	671

Source: School District of Springfield Township Bus Records Analysis

FIGURE 14: *Private School Destinations With Over Five Students, 2013-14 School Year*

Private Schools	Students Living in SDST
St. Genevieve School	119
LaSalle College High School	51
William Penn Charter School	49
Chestnut Hill Academy	47
Springside School	40
Germantown Friends School	37
Ancillae-Assumpta Academy	36
Germantown Academy	33
Mount Saint Joseph Academy	28
Norwood-Fontbonne Academy	24
Gwynedd-Mercy Academy	16
Phil-Mont Christian Academy	15
St. Joseph's Prepatory School	15
Our Lady of Mercy	12
Archbishop Wood High School	11
Waldorf School	10
Abington Friends School	8
Academy in Manayunk	8
Roman Catholic High School	8
St. Joseph the Protector	8
St. Philip Neri School	8
Miquon School	7
Plymouth Meeting Friends	7
St. Basil's Academy	6

Source: School District of Springfield Township Bus Records

Charter / Cyber Schools

Charter schools are still considered public in that they usually have free tuition and are funded with public dollars. However, they are independently operated and students are not considered in the district enrollment figure. According to the School District of Springfield Township, there were 16 students living in the district in 2013-14 that enrolled in cyber charter schools, which are a form of home-based virtual charter schools. These types of schools are relatively new options in the area, first appearing in the area less than ten years ago. The Disrict's records show that there were 12 charter students in 2005-06 and that charter school enrollment peaked in 2011-12 at 23 students.

Homeschooling

The last alternative, which is not considered public schooling, is homeschooling where the parent is responsible for educating the child. The Pennsylvania Department of Education reports that there were 23 students being homeschooled within the SDST during the 2013-2014 school year. The District did not have any prior year data, but the Pennsylvania Department of Education has records available from 1998 to 2006. That data shows that there were fewer homeschooling students back then with 9 students in 1998-99, and as many as 19 students in 2005-06.

Housing Activity

Part 2

Housing Activity

Impacts of Housing on Enrollment

School Age Children by Housing Type

The average number of school age children in a residential unit depends on the type of residential unit. MCPC reviews the latest census data and compares it to county property records as part of its report titled, "Characteristics of the Population in New and Existing Housing Units". The latest report, based on the 2010 Census, contains the average number of school age children in single family detached, attached (townhomes and twins), and multifamily (apartments or multiple units in a structure) housing types. The data is also analyzed in terms of new and existing units. The results of the study (Figure 15) show that a newly constructed single family detached home is over 20 times more likely to contain a school age child than multifamily units. The difference is less stark when considering all existing units, but there are clearly more children found in detached units than in multifamily units, with single family attached units falling in between the other two.

The methodology for the report was replicated to just focus on data within the SDST. Additionally, actual data on schoolchildren at the Township's multifamily and townhome developments from the District's bus data was analyzed. While there were not enough new units to develop representative figures, it was still revealed that the disparity between school age children between detached units and other housing types is similar to countywide levels for existing units. Multifamily homes in the Township may be slightly more likely to have children than the county. Attached homes were less likely to have children, but the Springfield data really only accounts for two townhome developments. These factors can be used to make estimates on the impact of different housing types in terms of school age children.

FIGURE 15: *Average Number of School Aged Children by Housing Unit Type*

Montgomery County			
	Single Family Detached	Single Family Attached	Multifamily
School Age Children per Household in **Existing** Units	0.55	0.41	0.18
School Age Children per Household in **New** Units	0.93	0.21	0.06

Springfield Township			
	Single Family Detached	Single Family Attached	Multifamily
School Age Children per Household in **Existing** Units	0.45	0.16	0.23
School Age Children per Household in **New** Units	NA	NA	NA

Source: Montgomery County Planning Commission

Migration of Households

The connection between new housing units and new population is fairly clear, although it also depends on the type of units. The impact of household movement in and out of any existing housing unit is a less certain connection. This impact is incorporated into the cohort progression model in terms of the recent past and how it relates to enrollments. However, it would also be useful to look at sales data of homes and come to an understanding of what might happen with school age children where sales activity increases for one reason or another.

The American Community Survey offers data on geographic mobility of households and the age composition of those households. Figure 16 shows a breakdown of households that have remained within the same house as the year prior and households that have moved within the last year. This latter group would constitute the characteristics of people who are purchasing homes or moving into rental units.

The results show that the percentage of school age children is higher in homes that are occupied by the same household as the year before. Therefore, recently sold homes will contain fewer school age children than homes that have not been sold. A sudden increase in home sales should not be construed as having an immediate positive impact on school enrollment.

Eventually, a boost in housing sales may still provide a positive impact on increasing enrollments. Pre-school age children (1-4 years old) are found at a higher percentage in recently sold homes than in homes that have not been sold. Many of these children will enter the public school system over the next five years. Also, persons age 25-34 are the most likely to conceive children. This age group is more likely to occupy households that have just moved into a new home, therefore increasing the likelihood that new children will be born into the district.

Age Qualified Housing

Age qualified housing refers to housing developments that place minimum limits on the age of residents but still offers independent living. The age limit is usually set at 55 years old and above. This housing does not include assisted living units or nursing care beds although some age restricted developments are actually continuing care environments where all three types of living are present—independent, assisted, and nursing–allowing residents to transfer into more dependent care as needed. Age qualified developments can feature any type of housing, single family or multifamily, but the housing is designed to facilitate an older population and meet their needs.

Age qualified (also called age restricted) housing became popular in Montgomery County beginning in the mid to late 1990s and continues to be a prominent type of residential development today. Since 1996, about 22 percent of all units proposed in the county have been age qualified.

In Springfield Township, there are 219 age qualified units (all multifamily) spread across two developments, Bethlehem Retirement Village and Springfield Residences. Springfield has also created a zoning overlay district that allows *age targeted* units. Age targeted units are built with amenities and design elements that are conducive to older adults, but they do not place any restrictions on how old a person must be to live there.

These types of housing are important to recognize as they can account for residential and population growth. While some school children are still found in these developments, there are fewer of them than in units that are not age qualified or age targeted. Therefore, residential proposals that are built under the age qualified or age targeted overlay will have a smaller effect on school enrollments.

FIGURE 16: *Percentage of Children in SDST Area Households Related to Geographic Mobility*

	Total Persons	Persons Age 1-4		Persons Age 5-17		Persons Age 25-34	
		Number	Percent	Number	Percent	Number	Percent
Persons in households that have moved within the last year	1,808	131	7.2%	254	14.0%	379	21.0%
Persons in households that have remained in the same house	17,367	920	5.3%	2,655	15.3%	1,511	8.7%

Source: American Community Survey, 2008-2012 Estimates

Housing Activity

Housing Tenure

Owner / Renter Occupied

Housing in Springfield Township is predominately owner occupied—80 percent of all occupied units. This is a higher rate of home ownership than in the county as a whole, which is 73 percent. However, rental housing as a percentage has increased since 2000 when the Township was 82 percent owner occupied. Generally, the rental market has been stronger in recent years as the housing market declined after the bubble burst in 2007. This may have contributed to an increase in conversions of owner occupied properties to rental properties.

An upswing in rental housing can have varying socioeconomic effects in a population, but it is not expected to result in more school age children. Data from the 2010 Census (Figure 17) suggests that children under the age of 18 are more likely to be found in owner occupied housing than they are in renter occupied housing.

FIGURE 17: *Presence of Children in Owner Occupied and Renter Occupied Housing Within Springfield*

	Percent of Housing with Children Under 18
Owner Occupied Housing	33%
Renter Occupied Housing	22%

Source: U.S. Census Bureau, 2010 Census

Multifamily and Townhouse Developments

The map and tables on the opposite page (Figures 18 and 19) detail the location of denser housing types in Springfield Township as a means of understanding how they impact the number of school children in the Township. Some developments are clearly not conducive or appealing to families with children due to their size or location. The biggest increases in children over the last five years occurred in rental properties such as Penn Weldy and Oreland Station Apartments, but these increases have slowed down or remained stable the last three years.

Changes in school children at owner occupied developments are not expected to happen as quickly as with renter occupied units. While Stotesbury does have a moderate amount of children, Eagleview Townhomes has very little impact with only a few students.

The existing developments can also provide insight as to how any future housing developments may impact school enrollment. These figures are consistent with county wide findings for school age children typically found in denser housing types.

FIGURE 18: *Existing Renter Occupied Multifamily or Attached Developments with Over Ten Units in Springfield*

Map ID	Development Name	Type	Total Units	School Age Children				
				2009-10	2010-11	2011-12	2012-13	2013-14
1	Erden Court Apartments	MF	36	13	12	15	14	14
2	Lincoln Woods Apartments	MF	216	10	6	6	12	11
3	Oreland Station Apartments	MF	25	9	9	17	17	20
4	Penn Weldy Apartments	MF	64	24	40	40	40	40
5	Penn's Wood Apartments	MF	51	0	1	2	2	1
6	929 Pleasant Avenue	MF	10	1	4	6	6	5
	Total		*402*	*57*	*72*	*86*	*90*	*91*

FIGURE 19: *Existing Owner Occupied Multifamily or Attached Developments with Over Ten Units in Springfield Township*

Map ID	Development Name	Type	Total Units	School Age Children				
				2009-10	2010-11	2011-12	2012-13	2013-14
7	Wyndmoor Arms	MF	20	10	8	9	10	6
8	Eagleview Townhomes	SFA	54	1	2	2	5	3
9	Stotesbury	SFA	187	33	37	36	38	35

Source: Montgomery County Planning Commission, SDST Bus Records
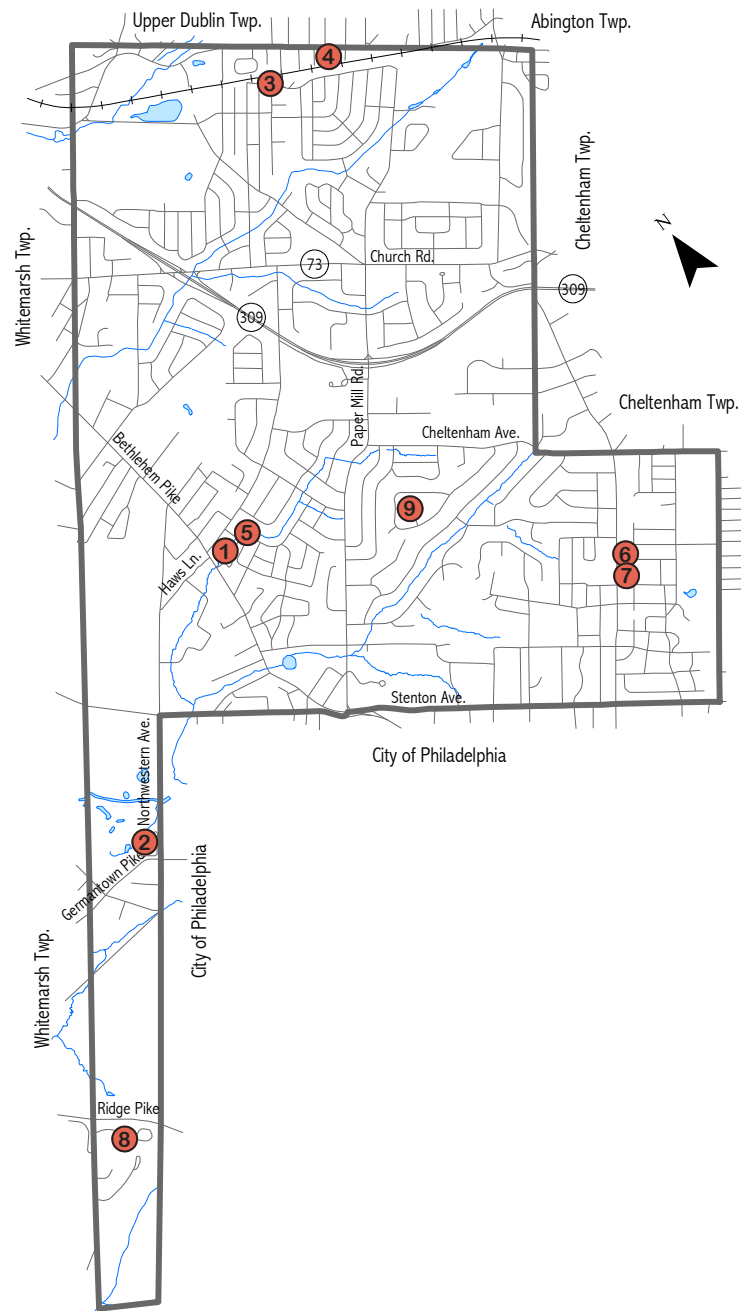
Housing Activity

Impacts of Housing on Enrollment

Housing Tenure

Housing Units

Housing Sales

Housing Units

Recent Construction

Residential construction activity in the Montgomery County has hit historic lows since around 2008 after the housing market bubble burst and the Great Recession followed. Construction in Springfield has been very slow since that time, but unlike many suburban municipalities, there was not much activity during the housing boom. Springfield is a mature suburb with very little developable land remaining. With a few exceptions, most future building activity is going to be based on redevelopment or reuse of currently nonresidential land.

Since 2004, an average of only four units per year have been built in the township with the most being 9 in any given year. No units were built in 2013 according to preliminary data from the County's Board of Assessment.

Proposed Housing

Despite the low construction figures, there have been a few properties receiving developer interest in the last ten years, and some of them look like they will be realized over the next 3-4 years. If these units get built then they will bring additional students into the district above the recent historical averages of new students based on limited new housing. The models in Part Three contain alternative scenarios to account for these potential developments. The following three proposals are considered likely to happen in addition to a fourth which is not as certain at this time.

Penn's Manor. This site off of Pennsylvania Avenue was approved in 2013 for 39 age targeted townhomes and construction is expected to commence this year. Very few school children are expected to come from this development since it will be age targeted to older adults, but a few children may still result.

FIGURE 20: *Housing Units Built and Proposed in Springfield, 2004-2013*
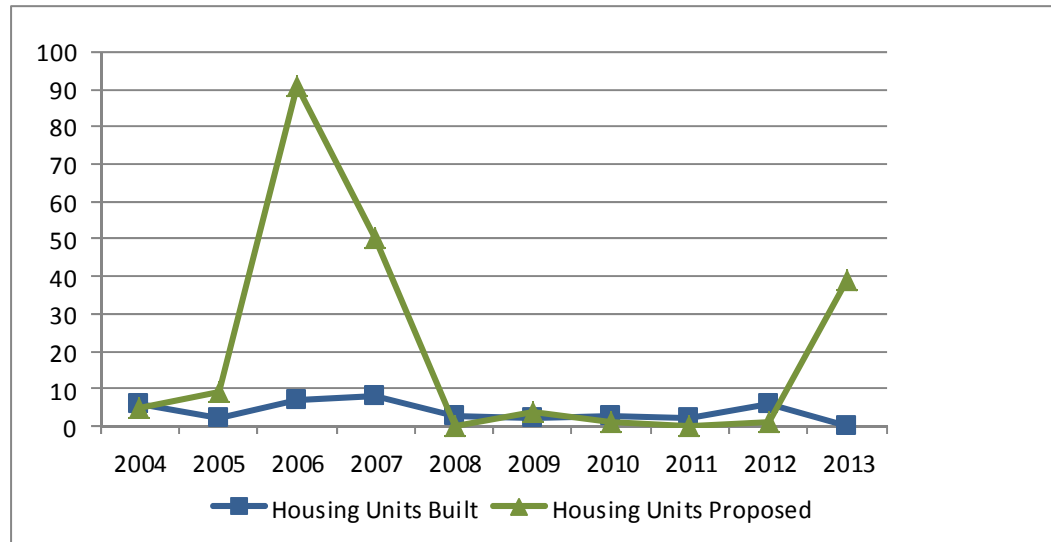
*Source: Montgomery County Planning Commission*

<u>Springfield Manor</u>. Further east off of Pennsylvania Avenue is another approved plan for 50 luxury townhomes on what is known as the Piszek tract. Construction has not started, but the builder is already advertising for buyers online. Some children should be expected with the development, but it remains to be seen if it veers more towards the lower numbers of children at Eagleview Townhomes or a bit higher such as the Stotesbury development.

<u>Falcon Hill</u>. The former Lloyd estate, which straddles Springfield and Cheltenham Townships, has been proposed for development since at least 2002. The developer and the township may be nearing a consensus although nothing has been approved yet. The developer would like to build 64 single family detached homes on the Springfield side of the tract. These homes would be relatively expensive at over $400,000, and would be the most likely to bring young families with children. The township would prefer to see carriage style homes built, which may be less enticing to families, but the zoning does allow for traditional detached homes.

<u>Tecce Tract</u>. This property off of Ridge Avenue at the south end of the Township is also going through the development proposal process, but its ultimate potential is still unknown. The property received prior approval for 52 age qualified attached units, but the current owner is focused on getting approval for an assisted living facility at the front end of the tract. The rear of the tract could eventually be developed as well, but it is uncertain if this portion would be mostly open space, age qualified units, or regular detached housing at varying densities.

<u>Future Possibilities</u>. No other immediate development projects have been brought forward, but this could change in time. The Township is host to all or part of three privately owned golf courses and one municipal owned course. There is no public discussion of any of them being considered for development. However, the County has seen a few golf courses close and become opportunities for new development or open space. Again, this is not expected in Springfield at this time, but if a course were to close at any point in the future, it would represent the most significant potential for additional construction in the Township.

FIGURE 21: *Currently Proposed Housing Developments*
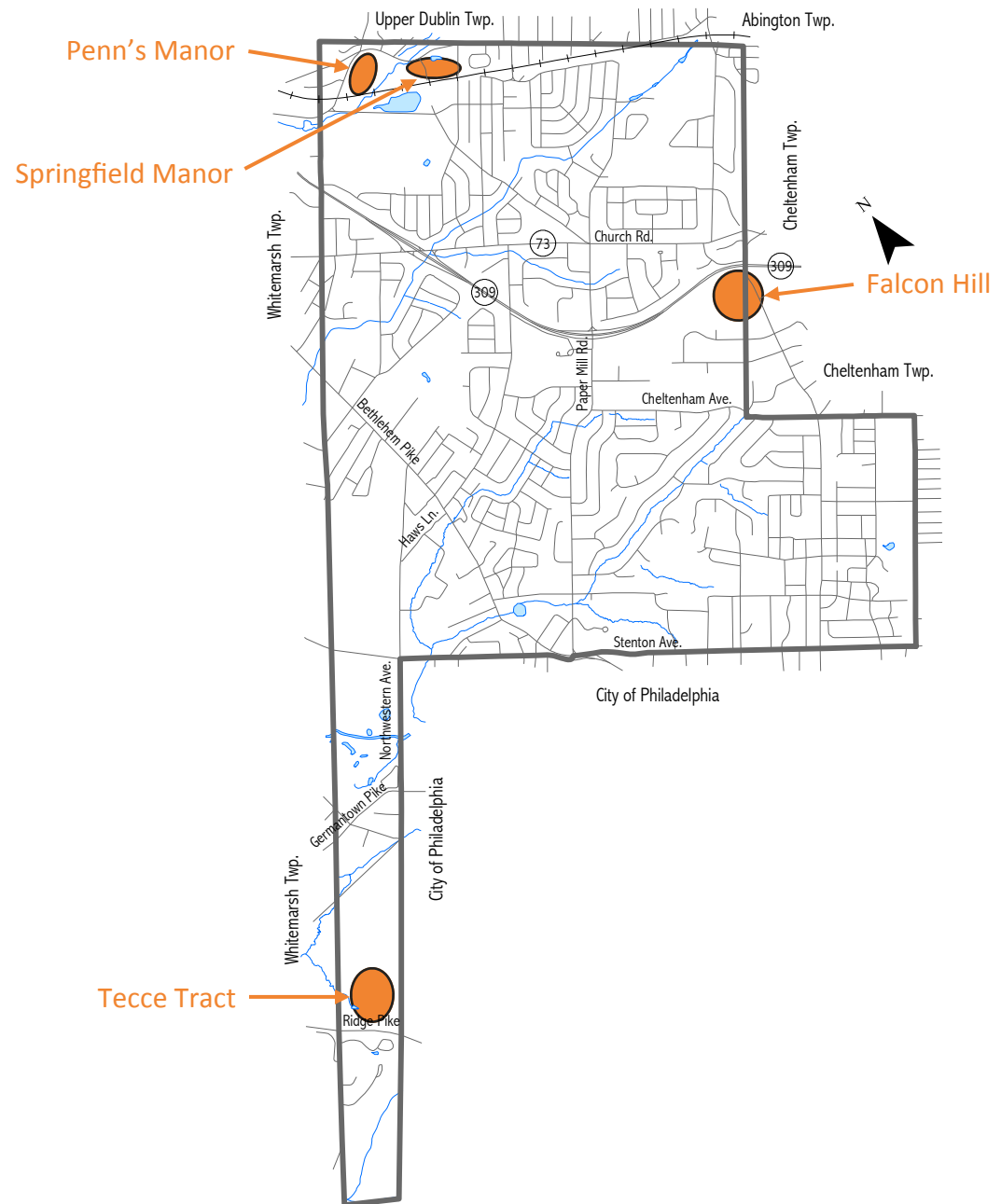
20

Housing Sales

Market-rate housing sales activity has declined since 2005 within Springfield Township, just as it has countywide and in much of the nation. This was due to the unprecedented housing bubble through the first half of the '00 decade where median sales prices increased as much as 15 percent on an *annual* basis. The subsequent collapse during the latter half of the decade saw home values flatten out and often depreciate as financial markets tightened up for potential buyers. By 2010, the county experienced a historically low level of housing sales. Sales activity in Springfield hit its low point in 2012 having dropped 45 percent from its peak.

The impact of this decline in sales is that it can slow down migration activity in an area that features 80 percent of its housing stock as owner-occupied housing. While it was demonstrated on page 17 that housing transfers do not necessarily bring more school age children with them, they do provide for a churning of households that should result in a greater number of child-bearing age women. The data is not strong enough to link housing sales directly with birth totals, but the Township has seen births drop considerably in the last two years after this sustained period of housing sales decline.

FIGURE 22: *Housing Units Sold in Springfield, 2003-2012*
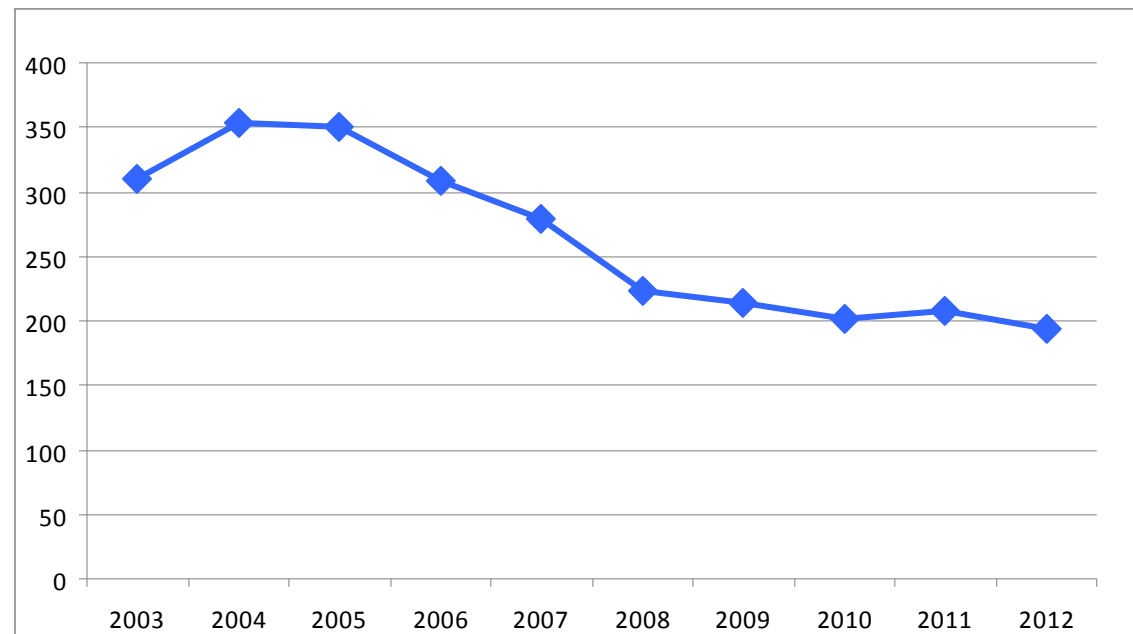
Source: Montgomery County Planning Commission

FIGURE 23: *Housing Units Sold in Springfield, 2008-2012*

Housing Types

- Single Family Detached
- Single Family Attached
- Multifamily
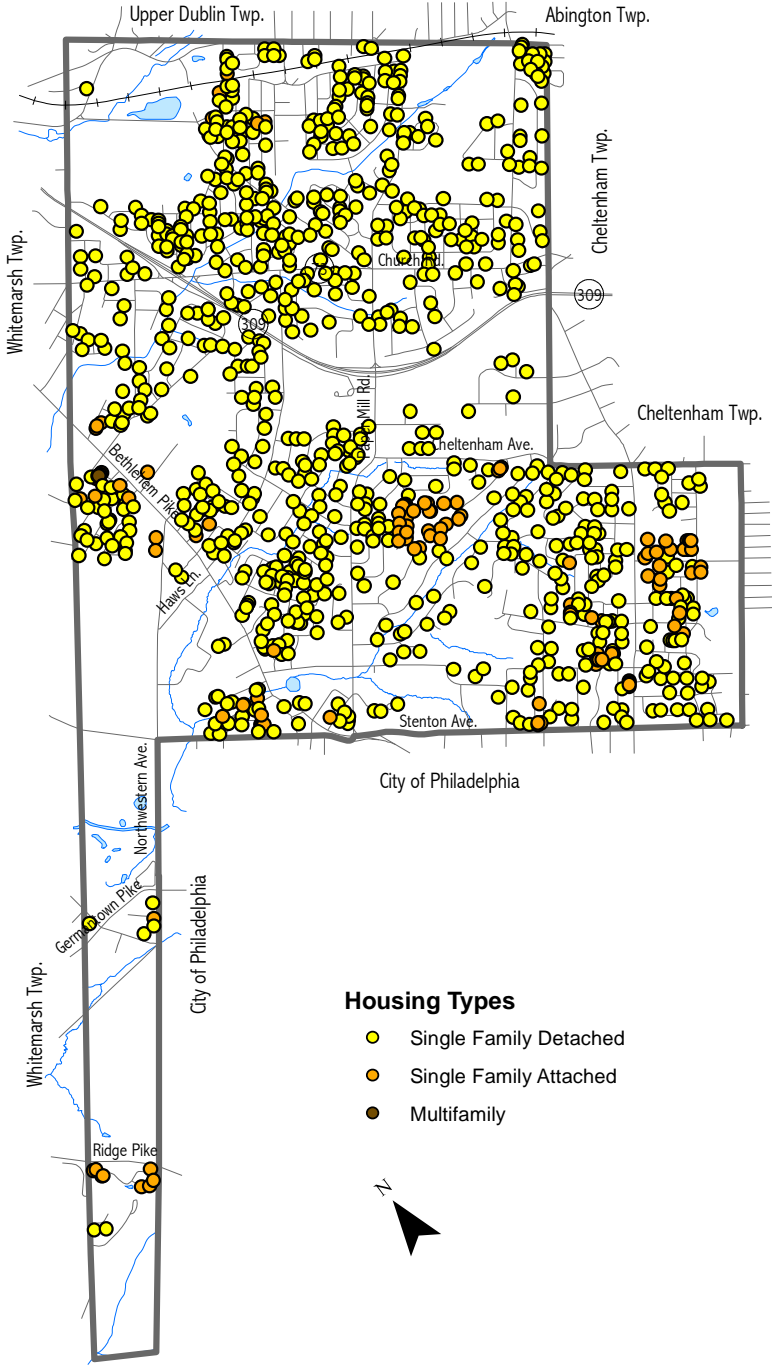
District Enrollment Projections

Part 3

District Enrollment Projections

Cohort Progression Model

The method used in this study to calculate projections for each grade level is known as the Cohort Progression Model, which is also referred to as Cohort Survival in some applications. This is a fairly common approach and one used by the state and other districts in formulating projections. However, it should always be used with caution and presented in context with the other variables offered in this report. In some districts there will be cause for adjustments to the model based on rapidly changing factors in population growth or migration.

The nature of the model allows it to integrate trend activity across a number of variables. Birth rates have the most obvious impacts in the model, but the changes that take place account for trends in population migration, housing construction, sales, and alternative schooling choices, such as private, charter, or homeschooling opportunities.

The model is fairly straightforward in its method. It tracks each class in a given year and measures the change in that class from one year to the next. Then it applies an average of changes over a specified time period to determine the percentage of a given grade likely to "progress" to the next grade in future years. A six year average was used for the School District of Springfield Township since it would account for enrollment patterns from the 2007 through 2013 school years. The lowest and highest progression rates over the six years were eliminated for the average to eliminate unexplained extremes within the period. This also minimizes possible impacts that could have been caused by the District's grade and building realignment that occurred in 2010.

Figure 24 displays all of the progression rates for each grade transition from the last six school years. The average is calculated to arrive at a basic trend that will be applied for each projected year. Any progression rate that is greater than 1.0 indicates that a class *increased* in size from one year to the next as it also moved up a grade level. Progression rates that are lower than 1.0 indicate that a class *decreased* in size. For example, the first grade class of the 2007 school year decreased in size when it entered the second grade in 2008 at a rate of 0.983. Using actual enrollment figures, the class went from 179 to 176 students during that period. The following year in 2009, it entered the third grade and decreased again at a rate of 0.989. In 2010, it entered the fourth grade and actually increased in size at a rate of 1.057, gaining 10 students by the enrollment figures.

Looking at the whole range of progression rates (Figure 24), most grade levels are more likely to grow at the elementary and middle school levels, but classes may decline during the high school years. It is possible that some students will drop out of school and others will leave the public system to enroll in a private preparatory high school. The high school grade progression rates in Springfield do not drop by very much, indicating that there may be a low dropout rate or departures are counterbalanced by incoming students moving into the Township.

Birth-to-Kindergarten Ratio

The projection of future enrollments in the model requires that we apply the trends in progression rates to future classes as they go from one grade to the next. However, the kindergarten class for each year does not have an enrollment figure for its prior year since those children would be in preschool or home care outside of the District system. Therefore, we must use live birth data to identify ratios of births to kindergarten. The birth data comes from a given past year and is then applied to the kindergarten class that would follow six years later in order to capture the same children at each end of the ratio. For instance, a birth-to-kindergarten ratio for the 2013-14 school year uses birth data from 2007-08 as the numerator and divides it by the kindergarten enrollment in 2013 to form the rate (0.881) shown in Figure 24.

The ratios of births to kindergarten are much lower than the yearly grade progression rates. Some will go straight into a private school, and others may move away before entry into kindergarten. The

FIGURE 24: *Grade Progression Rates Over the Last Six Years*

School Year	Birth-K*	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
2008-09	0.832	1.065	0.983	0.949	0.987	1.000	1.013	0.978	1.032	0.963	0.963	1.052	0.957
2009-10	0.819	0.940	1.024	0.989	1.038	1.006	1.027	1.025	1.046	1.043	1.025	0.968	1.000
2010-11	0.680	1.023	1.047	1.000	1.057	1.000	1.070	1.053	1.056	1.044	1.024	0.994	0.980
2011-12	0.874	0.976	1.011	1.011	1.000	1.011	1.066	1.000	1.032	0.965	1.042	0.971	1.012
2012-13	0.879	1.059	0.994	0.961	1.033	0.988	1.011	1.034	1.000	0.969	1.012	0.960	0.988
2013-14	0.881	1.058	0.980	1.025	1.018	0.995	1.006	1.011	0.987	0.917	0.962	0.994	1.007
*Average****	*0.851*	*1.029*	*1.003*	*0.990*	*1.022*	*1.000*	*1.029*	*1.018*	*1.027*	*0.985*	*1.006*	*0.982*	*0.994*

* *The birth-to-kindergarten ratio uses birth data six years prior to the indicated school year, thus drawing the relationship between children born and the year they would actually enter kindergarten.*
** *The average is calculated with minimum and maximum value (shaded in red) removed from each set of progression.*

averaging out of the ratios gives us the best approximation of the net result of all birth and migration activity in the district, but clearly there is room for error.

One beneficial aspect of a birth-to-kindergarten ratio is that it allows the model to integrate real data into the first five years of the projection period. In other words, projections of kindergarten classes for the first five years, through the 2018 school year, can account for real changes in birth patterns that have occurred from 2008 to 2013. The downside is that an estimated birth figure must be used for any projection beyond the 2018 school year.

Projection Periods

Due to the distinction between using real birth data and the need to estimate beyond five years, enrollment projections are divided into two periods. The primary period covers the first five school years from 2014 to 2018, and the secondary period covers the next five school years from 2019 to 2023. There is a higher degree of accuracy expected during the primary period than in the secondary period. Recent trends are more likely to continue in the short term before outside factors can influence a change in patterns, but the use of the birth data gives a more dependable start to projecting the size of kindergarten classes in the future.

Estimated Births

The projection of kindergarten classes after 2018 requires the use of estimated birth figures for the next five years. A simple approach to estimate these births is to use an average of the most recent birth figures and extend it through the end of the projection period. In Springfield Township, the average number of births over the last three years was 190. Due to the current low number of births in 2011 and 2012, the base model starts with a lower increment and progressively gets larger through the 2017 school year with 209 births projected. The average for the five years is still about 190. This strategy also reflects anticipated changes in age demographics that are expected to result in greater numbers of females of child-bearing age through 2020.

A second birth estimate was created using a wider window of recent data. This estimate uses the average number of births over the last *five* years, which was 205, but still follows an incremental approach to raising the number of expected births. By the 2017 school year, this method projects a total of 233 births.

Housing Adjustment

The model is based on recent activity including housing construction. As discussed on pp. 20-21, construction in Springfield Township has been very limited over the last decade. While few opportunities exist in this mature inner suburb, there are several proposed developments that could ultimately add more households to the Township than have recently been accommodated. If these developments are built over time, adjustments to public school enrollment can be made using the average number of school age children expected from these types of developments. The influx of new students in the District coming from new housing is also spread over time and across different grade levels.

The proposed developments of Penn's Manor, Springfield Manor, and Falcon Hill have been factored into the housing adjustment versions in the projection scenarios. However, the Tecce tract has not been included due to its uncertainty at this time.

Projected Enrollments

Figures 25, 26, 27, and 28 offer four variations of grade by grade projections over the next ten years. The four options represent a successive range of potential enrollment scenarios with each one gaining more students than the previous option.

The beginning base model, Option One, represents what is expected to happen if all factors proceed according to the trends of the recent past. Option Two runs the same model as the base with the exception of using higher birth estimates over the next five years, which results in greater numbers of students during the secondary period (2019 through 2023 school years).

FIGURE 25: *Projected Enrollments, OPTION 1—Base Future Birth Estimate*

School Year	Births 6 Years Ago*	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2014-15	237	202	190	201	193	171	174	192	170	195	146	156	149	164	2,303
2015-16	218	186	208	191	199	197	171	179	196	175	192	147	153	148	2,341
2016-17	214	182	191	208	189	203	197	176	182	201	172	193	144	152	2,392
2017-18	193	164	187	192	206	193	203	203	179	187	198	173	190	143	2,419
2018-19	163	139	169	188	190	211	193	209	207	184	184	199	170	189	2,431
2019-20	173	147	143	170	186	194	211	199	213	212	181	186	196	169	2,406
2020-21	182	155	152	143	168	190	194	217	203	219	209	182	182	195	2,408
2021-22	191	163	159	152	142	172	190	200	221	208	215	210	179	181	2,392
2022-23	200	170	167	160	150	145	172	196	203	227	205	217	207	178	2,396
2023-24	209	178	175	168	158	154	145	177	199	209	223	206	213	205	2,410

FIGURE 26: *Projected Enrollments, OPTION 2—Increased Birth Scenario*

School Year	Births 6 Years Ago*	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2014-15	237	202	190	201	193	171	174	192	170	195	146	156	149	164	2,303
2015-16	218	186	208	191	199	197	171	179	196	175	192	147	153	148	2,341
2016-17	214	182	191	208	189	203	197	176	182	201	172	193	144	152	2,392
2017-18	193	164	187	192	206	193	203	203	179	187	198	173	190	143	2,419
2018-19	163	139	169	188	190	211	193	209	207	184	184	199	170	189	2,431
2019-20	177	151	143	170	186	194	211	199	213	212	181	186	196	169	2,409
2020-21	191	163	155	143	168	190	194	217	203	219	209	182	182	195	2,419
2021-22	205	174	167	156	142	172	190	200	221	208	215	210	179	181	2,415
2022-23	219	186	180	168	154	145	172	196	203	227	205	217	207	178	2,436
2023-24	233	198	192	180	166	157	145	177	199	209	223	206	213	205	2,471

* The birth figure for each row does not pertain to births during that year, but rather the births that occurred six years prior to the projected year. The average birth-to-kindergarten ratio is then applied to get the projected kindergarten class.

Options Three and Four are the same models as One and Two, respectively, but with a housing adjustment made to account for anticipated development that will start impacting enrollment in the 2015 school year and continue adding students through the extent of the model.

FIGURE 27: *Projected Enrollments, OPTION 3—Housing Adjustment With Base Future Birth Estimate*

School Year	Births 6 Years Ago*	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2014-15	237	202	190	201	193	171	174	192	170	195	146	156	149	164	2,303
2015-16	218	187	209	192	200	198	172	180	197	176	193	148	154	148	2,353
2016-17	214	187	194	211	192	206	200	179	185	203	174	195	146	154	2,428
2017-18	193	173	195	197	211	198	208	208	184	192	202	177	194	147	2,487
2018-19	163	150	178	195	195	216	198	214	212	189	190	203	174	193	2,506
2019-20	173	157	154	179	193	199	216	204	218	218	186	191	200	173	2,487
2020-21	182	165	162	155	177	198	199	222	208	224	214	187	187	198	2,496
2021-22	191	171	170	162	153	181	198	205	226	213	221	216	184	186	2,485
2022-23	200	175	176	170	161	156	181	203	208	232	210	222	212	183	2,490
2023-24	209	183	180	176	169	164	156	186	207	214	229	212	218	210	2,505

FIGURE 28: *Projected Enrollments, OPTION 4—Housing Adjustment With Increased Birth Scenario*

School Year	Births 6 Years Ago*	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2014-15	237	202	190	201	193	171	174	192	170	195	146	156	149	164	2,303
2015-16	218	187	209	192	200	198	172	180	197	176	193	148	154	148	2,353
2016-17	214	187	194	211	192	206	200	179	185	203	174	195	146	154	2,428
2017-18	193	173	195	197	211	198	208	208	184	192	202	177	194	147	2,487
2018-19	163	150	178	195	195	216	198	214	212	189	190	203	174	193	2,506
2019-20	177	161	154	179	193	199	216	204	218	218	186	191	200	173	2,491
2020-21	191	173	165	155	177	198	199	222	208	224	214	187	187	198	2,507
2021-22	205	182	178	166	153	181	198	205	226	213	221	216	184	186	2,508
2022-23	219	191	188	178	164	156	181	203	208	232	210	222	212	183	2,530
2023-24	233	203	197	188	176	168	156	186	207	214	229	212	218	210	2,566

* The birth figure for each row does not pertain to births during that year, but rather the births that occurred six years prior to the projected year. The average birth-to-kindergarten ratio is then applied to get the projected kindergarten class.

District Enrollment Projections

Projected Enrollment Summaries

The summarized enrollment projections for the District and at each school level are presented on the following pages. The four options based on future birth estimates and housing adjustments are also differentiated. However, the higher birth estimates make no difference at the middle school and high school levels since children born over the next five years will not be old enough to influence those projections within the ten year timeframe.

Option Three is recommended as the most realistic or likely result at this time, although Option One can be considered the default or baseline standard for enrollment projections. If an assumption regarding housing development needs to be altered or actual birth data veers from the projected patterns, the District may adjust to a different option number. The presentation and explanation of each option is intended to allow the District to better plan for multiple scenarios.

The general trend for the district under all scenarios is that enrollment will continue growing, especially over the next three or four years. However that growth will slow down and some years in the secondary period may actually see a decline. This is mostly based on the natural progression of current classes in the district coupled with the departure of smaller high school senior classes.

Figures 30, 31, 32, and 33, isolate the projections according to the current grade distributions of buildings in the District. Changes have also been evaluated over the five-year intervals of the primary and secondary periods. Some of the buildings will experience very different trends from one five-year period to the next.

FIGURE 29: *Total District Enrollment Projections*

Year	Option 1—Base Future Births		Option 2—Higher Future Births		Option 3—Housing Adjustment with Base Future Births		Option 4—Housing Adjustment with Higher Future Births	
	Total Students	Annual Change	Total Students	Annual Change	Total Students	Annual Change	Total Students	Annual Change
2013-14 (Current)	2,229		2,229		2,229		2,229	
2014-15	2,303	74	2,303	74	2,303	74	2,303	74
2015-16	2,341	38	2,341	38	2,353	50	2,353	50
2016-17	2,392	51	2,392	51	2,428	75	2,428	75
2017-18	2,419	27	2,419	27	2,487	59	2,487	59
2018-19	2,431	12	2,431	12	2,506	19	2,506	19
2019-20	2,406	-25	2,409	-22	2,487	-19	2,491	-15
2020-21	2,408	2	2,419	10	2,496	9	2,507	16
2021-22	2,392	-16	2,415	-4	2,485	-11	2,508	1
2022-23	2,396	4	2,436	21	2,490	5	2,530	22
2023-24	2,410	14	2,471	35	2,505	15	2,566	36
Total Change 2013-2023	**181**		**242**		**276**		**337**	

FIGURE 30: *Grades K-1 Enrollment Projections (Enfield ES)*

Year	Option 1—Base Future Births		Option 2—Higher Future Births		Option 3—Housing Adjustment with Base Future Births		Option 4—Housing Adjustment with Higher Future Births	
	Total Students	Annual Change	Total Students	Annual Change	Total Students	Annual Change	Total Students	Annual Change
2013-14 (Current)	385		385		385		385	
2014-15	392	7	392	7	392	7	392	7
2015-16	393	1	393	1	395	3	395	3
2016-17	373	-20	373	-20	381	-14	381	-14
2017-18	352	-21	352	-21	368	-13	368	-13
2018-19	308	-44	308	-44	328	-40	328	-40
5 Yr. Change from 2013-14 to 2018-19	-77		-77		-57		-57	
2019-20	290	-18	293	-15	311	-17	315	-13
2020-21	306	16	318	25	327	16	338	23
2021-22	322	16	342	24	340	13	360	22
2022-23	337	15	366	24	351	11	379	19
2023-24	353	16	390	24	363	12	400	21
5 Yr. Change from 2018-19 to 2023-24	45		82		35		72	
10 Yr. Change Since 2013-14	**-32**		**5**		**-22**		**15**	

Enfield Elementary School

Enfield was reconfigured in 2010 to house all of the District's kindergarten and first grade classes. Under all scenarios, enrollment is expected to decline during the primary period after some initial but small gains. Growth should come back in the secondary period as birth activity is expected to rise over the next five years, but the overall change after ten years is a relatively small increase or decrease depending on the scenario.

FIGURE 31: *Grades 2-5 Enrollment Projections (Erdenheim ES)*

Year	Option 1—Base Future Births		Option 2—Higher Future Births		Option 3—Housing Adjustment with Base Future Births		Option 4—Housing Adjustment with Higher Future Births	
	Total Students	Annual Change	Total Students	Annual Change	Total Students	Annual Change	Total Students	Annual Change
2013-14 (Current)	723		723		723		723	
2014-15	738	15	738	15	738	15	738	15
2015-16	758	20	758	20	762	24	762	24
2016-17	798	40	798	40	810	48	810	48
2017-18	794	-4	794	-4	814	4	814	4
2018-19	782	-12	782	-12	804	-10	804	-10
5 Yr. Change from 2013-14 to 2018-19	59		59		81		81	
2019-20	760	-22	760	-22	787	-17	787	-17
2020-21	695	-65	695	-65	728	-59	728	-59
2021-22	656	-39	659	-36	694	-34	698	-30
2022-23	627	-29	638	-21	668	-26	680	-18
2023-24	625	-2	649	11	665	-3	689	9
5 Yr. Change from 2018-19 to 2023-24	-157		-133		-139		-115	
10 Yr. Change Since 2013-14	**-98**		**-74**		**-58**		**-34**	

Erdenheim Elementary School

Erdenheim was rebuilt into an entirely new building and reconfigured in 2010 to house all of the District's second through fifth grade classes. Under all scenarios, enrollment is expected to increase during the primary period, peaking in 2016, before declining most of the subsequent years. Total enrollment after ten years should actually be lower than the current number of students.

The early gains are driven by relatively large class sizes at the current kindergarten through second grade classes. The 2013 second grade class set a record high for the last ten years. Eventually, the decline in births over the last couple of years will start to bring enrollment totals down for the school.

FIGURE 32: *Grades 6-8 Enrollment Projections (Springfield MS)*

Year	Options 1 and 2		Options 3 and 4—Housing Adjustment	
	Total Students	Annual Change	Total Students	Annual Change
2013-14 (Current)	505		505	
2014-15	558	53	558	53
2015-16	550	-8	553	-5
2016-17	559	9	567	14
2017-18	569	10	585	18
2018-19	600	31	615	30
5 Yr. Change from 2013-14 to 2018-19	95		110	
2019-20	624	24	640	25
2020-21	638	14	654	14
2021-22	628	-10	644	-10
2022-23	626	-2	644	0
2023-24	585	-41	607	-37
5 Yr. Change from 2018-19 to 2023-24	-15		-8	
10 Yr. Change Since 2013-14	80		102	

FIGURE 33: *Grades 9-12 Enrollment Projections (Springfield HS)*

Year	Options 1 and 2		Options 3 and 4—Housing Adjustment	
	Total Students	Annual Change	Total Students	Annual Change
2013-14 (Current)	616		616	
2014-15	615	-1	615	-1
2015-16	640	25	643	28
2016-17	661	21	669	26
2017-18	704	43	720	51
2018-19	742	38	759	39
5 Yr. Change from 2013-14 to 2018-19	126		143	
2019-20	731	-11	749	-10
2020-21	768	37	787	38
2021-22	786	18	806	19
2022-23	806	20	827	21
2023-24	848	42	869	42
5 Yr. Change from 2018-19 to 2023-24	106		110	
10 Yr. Change Since 2013-14	232		253	

Springfield Middle School

The Middle School was reconfigured in 2010 to house all of the District's sixth through eighth graders, after previously being aligned to fifth through seventh graders. Adjustments to the estimates of future births will not affect enrollment at the Middle School since those children will not have reached the sixth grade prior to 2024. With or without the housing adjustment, enrollment is expected to grow fairly quickly over the next five years, but there will be a slight decline during the second five years. Under Options Three and Four, the Middle School will grow by over 20 percent at the end of the ten year span.

Springfield High School

The High School was reconfigured in 2010 to house all of the District's ninth through twelfth graders, after previously having included eighth graders as well. Adjustments to the estimates of future births will also not affect enrollment at the High School over the next ten years. With or without the housing adjustment, enrollment is expected to grow consistently throughout the next ten years. The overall gain is a 41 percent increase under Options Three and Four. This growth is due not only to the larger class sizes progressing through the system during this time period, but also because the High School is currently as small as it has been in the last decade. These small classes are going to be leaving the school and replaced by much larger ones.

District Enrollment Projections

Cohort Progression Model

Projected Enrollment Summaries

Indicators of Projection Change

Indicators of Projection Change

No further adjustments to the projections on the preceding pages are necessary at this time. The background data and analysis throughout this report forms a basis and understanding of how the numbers should be interpreted. However, markets and trends can always change in unexpected manners. This section provides a further understanding of the assumptions inherent with the progression model and potential warning signs that would prompt a future reconsideration of the projected enrollment figures. These indicators are not likely to prompt an immediate change in future enrollments, but over time they could still influence the outlook.

Housing Construction

New housing and births are the two most significant factors that could suggest a revision in the expected enrollments, but housing will have the more immediate effect. Housing construction has been very low over the last few years, so further declines in enrollment due to housing would be unlikely. Options Three and Four of the cohort progression model account for three major residential developments that could effect future enrollments. Should any of these alter or be unexpectedly discontinued, the effects can be roughly gauged through the various scenarios. If more development is brought forward, or if the Tecce tract receives approval for a built-out site with non-age qualified detached housing, a further adjustment might be warranted. However, this project or any others short of a golf course changing over, will not mark a major turnaround in the numbers since the overall number of units are relatively small and any additional students will be added over time and in different grade levels.

Figure 34 provides the data that was used to make the housing adjustment in the cohort progression model. Countywide factors for the number of children based on unit type were calculated and then modified to reflect a proportion that would attend public over private school (about 78 percent). These expected students were added to the model in the years indicated, but they were distributed across all grade levels. Townhome children were weighted more heavily towards the early grades. Finally, as these additional students go through the system and graduate, the model gets repopulated each year to balance out the departures. This keeps the average factor of school age children per unit intact through the life of the model.

FIGURE 34: *Factors Used for Housing Adjustment Model Calculations*

	Units	Type	Pre-School Age Children to be in Public School	School Age Children in Public School	Years Added to Public School across Grades
Penn's Manor	39	Townhomes (Age Targeted)	3	3	2015-16
Springfield Manor	50	Townhomes	8	9	2015-16
Falcon Hill	64	Detached Singles	21	47	2016-17 and 2007-18

Birth Patterns

Birth numbers are directly integrated into the cohort progression model and form the basis for the difference between Options One and Three and Options Two and Four presented on the preceding pages. The number of births can significantly affect future projections, but any changes today will not be felt for at least six years in terms of the projections.

Annual birth data should be tracked to anticipate if one option may become more likely during the secondary period. Live birth data is available from the Pennsylvania Department of Health, but the numbers must be correlated to the school year rather than the calendar year.

Alternative School Enrollment

Private schools, charter schools, cyber schools, and homeschooling could also impact the district's public school enrollment if students opt for these alternatives at a greater or lesser rate than in the past. The American Community Survey provides rather delayed data on private schools averaged out over multiple years, so the district's record of private school students using district buses is going to provide the most useful information on any change in enrollment trends. Nationally, private school enrollment has declined in recent years. The economy could be having an effect, but at least one study from the Census Bureau claims that mainstream public schools are not the primary competition to private schools, but rather new charter schools and homeschooling formats are causing lower enrollments.

Charter schools, cyber schools, and homeschooling make up a relatively small portion of students within Springfield Township, but many of these opportunities were not around ten to fifteen years ago. Approximately 39 students were using these combined alternatives during the 2013-14 school year. The SDST tracks homeschooled students along with annual enrollment in charter and cyber schools since they are still considered public schooling.

Housing Sales Activity

The amount of housing sales is expected to increase at some point in the next few years as it has been remarkably low due to the housing bubble bursting and the Great Recession. When it does increase, the effect on school age children in the District is still expected to be a delayed reaction. New households moving into an area are less likely to have school age children, but they are more likely to have members of child-bearing age. Therefore, an increase in school age children probably will not be felt in the near term but might in the longer term if housing sales dramatically increase.

Conclusion

Part 5

Conclusion

The School District of Springfield Township is in a similar position to other mature "inner" suburbs of Philadelphia with quality public school systems. While the populations in these communities have been generally steady, their public school enrollments have gone up in recent years.

The overall population of Springfield is still considered stable, and it is showing signs of slight growth after a couple decades of slight decline. Annual births over the last twelve years have fluctuated at a range above 200 until falling below that marker the last two years. Housing construction remains historically low in most places in the region, but Springfield is mostly built-out and has seen very little new construction during and after the housing boom of the 2000s decade.

Despite these trends, Springfield Township is in the middle of a period of strong growth in terms of enrollment. That growth is expected to continue over the next five years, but then it will slow down and level off over the following five year period out to 2023. However, this trend applies to District enrollment as a whole, and individual grades and buildings will see somewhat different patterns.

The elementary schools will both increase over the short term, but through the next ten years they will return to levels at or below the current enrollment. The more substantial growth is going to be seen in the middle school and high school. These schools are going to be receiving the larger classes that are already in the elementary schools in addition to the next few years of kindergarten classes as they move through the system over ten years.

The cohort progression model in this study uses accurate birth data and accounts for recent trends in enrollment over the last six years. This report offers several scenarios that account for potential changes in birth rates as well as a bump in housing construction based on plans that are likely to reach development in the near future.

Current signs for the future suggest that the model should not need to be adjusted. However, an early modification could be made if new kindergarten classes come in at an unusual size compared to the births-kindergarten ratio. Housing adjustments in the near term are fairly well covered by the forecasts in this report and a change in the anticipated number of births would not affect enrollments for some time, until those newborns become old enough to start school. A major turnaround of housing sales activity in Springfield could also have a longer term impact, but the results are less certain. These components should be monitored each year by the District to anticipate any changes in the forecast.