Demographic Study
for the

## South Hunterdon Regional School District

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## Executive Summary

Statistical Forecasting LLC ("Statistical Forecasting") completed a demographic study for the South Hunterdon Regional School District ("South Hunterdon Regional"), projecting grade-by-grade enrollments from 2021-22 through 2025-26, a five-year period. In addition, the following tasks were completed:

- analyzed community population trends and age structure, demographic characteristics, birth counts, and fertility rates,
- examined historical enrollment trends, both districtwide and by grade configuration (PK6 and 7-12),
- compared building capacities to current and projected enrollments,
- researched new housing starts and analyzed their impact on the school district, and
- projected enrollments, in a totally independent analysis, based on student yields and housing turnover rates (resales) in South Hunterdon Regional.


## Community Overviews

South Hunterdon Regional began operating in its existing configuration in the 2014-15 school year, after voters in the City of Lambertville ("Lambertville"), Stockton Borough ("Stockton"), and West Amwell Township ("West Amwell") elected to dissolve the limitedpurpose South Hunterdon Regional School District (7-12) and create a PK-12 regional school district for the children of Lambertville, Stockton, and West Amwell. The new regional district also eliminated the former West Amwell Township School District (K-6), Lambertville School District (K-6), and Stockton School District (PK-6).

Census and American Community Survey ("ACS") data were analyzed for each of the three communities, including:

- Historical and projected populations
- Racial composition
- Age distribution
- Educational attainment
- Income
- Housing occupancy and housing types.

When comparing the Census and ACS data of the communities, the following represents some of the highlights:

- The aggregated population of the three communities in 2019 is 7,052. Lambertville has the greatest population $(3,801)$, accounting for $54 \%$ of the total.
- The racial distribution in each community is fairly similar where the majority race is White. Hispanics are the second-largest race in Lambertville and Stockton, while Asians are the second-largest race in West Amwell.
- West Amwell has the lowest median age (47.0 years) while Stockton has the highest (54.9 years), all of which are much higher than that of New Jersey (40.2 years).
- The foreign-born percentage in each community is low and ranges from 5.4\%-9.5\%.
- The percentage of persons with a bachelor's degree or higher is fairly similar in each community, ranging from $47.4 \%-51.6 \%$.
- West Amwell has the highest median family income $(\$ 130,688)$ and median value of an owner-occupied unit $(\$ 462,800)$.
- West Amwell has the highest percentage (95.4\%) of one-unit homes, either detached or attached, while Lambertville has the lowest (61.9\%).
- Lambertville has the highest percentage (47.6\%) of renter-occupied units while West Amwell has the lowest (11.5\%).


## Historical Enrollment Trends

Historical enrollments (PK-12) were analyzed from 2011-12 through 2020-21, a ten-year period, which also reflects the aggregated PK-12 enrollments of the three former elementary school districts (PK-6) and the limited-purpose regional (7-12) prior to 2014-15. In general, enrollments have been declining for the last five years. In 2020-21, enrollment is 861.5 , which is nearly identical to the 2011-12 enrollment of 860.5 . In the most recent year, there was a decline of 59.5 students, which is partially due to the coronavirus pandemic.

For grades PK-6, enrollments peaked at 525 students in 2014-15 before reversing trend and declining. Since 2014-15, elementary enrollments have declined by 93 students. Enrollment declined by 38 students in 2020-21, which is partially due to the coronavirus pandemic. In 202021 , enrollment is 432 , which is a loss of 58 students from the 2011-12 enrollment of 490 .

For grades 7-12 at South Hunterdon Regional High School, enrollments had been generally increasing before reversing trend in 2020-21. Enrollment is 429.5 in 2020-21, which is a gain of 59 students from the 2011-12 enrollment of 370.5.

There is a slight net outward migration of students in the school district, as eight of the 13 average survival ratios in the five-year trend were below 1.000.

## Kindergarten Replacements

Kindergarten replacements were analyzed to determine whether there was any relationship between overall enrollment change and kindergarten replacement, which is the numerical difference between the number of graduating $12^{\text {th }}$ graders and the number of entering kindergarten students. The district has experienced negative kindergarten replacement in four of the last five years after experiencing positive kindergarten replacement for the four years prior. Positive kindergarten replacement has ranged from 4.5-17.5 students per year while negative
kindergarten replacement has ranged from 18.5-25.5 students per year. Negative kindergarten replacement occurs when the number of kindergarten students entering the district is less than the number of graduating twelfth grade students from the prior year. Conversely, positive kindergarten replacement occurs when the number of kindergarten students entering the district is greater than the number of graduating twelfth grade students from the prior year.

## Birth Counts

The number of births in Lambertville, Stockton, and West Amwell was used to project kindergarten enrollments five years later. Lambertville has consistently had the greatest number of births of the three communities. Combining the data from the three communities, the number of births has declined from a high of 94 in 2006 to a low of 48 in 2017. As a result of the decline in the number of births, kindergarten enrollment has declined from 80 in 2011-12 to 48 in 202021.

Regarding fertility rates, the fertility rates in Lambertville, Stockton, and West Amwell are significantly lower than the rate in both Hunterdon County and the State of New Jersey.

## Age Distributions

Age-sex diagrams were created from the 2010 Census and the 2015-2019 ACS for the aggregated populated counts of the three communities to show the percentages of males and females in each age class. In 2010, the largest number of individuals was aged 45-49 for both males and females. As these individuals advance in age, the largest cohort in the 2015-2019 ACS was aged 55-59 for both genders. Over this time period, the greatest declines occurred in the 35-39 age group for males and the 30-34 age group for females. The greatest gains occurred in the 70-74 age group for males and the 15-19 age group for females, which corresponds with high school and college-aged individuals.

## Potential New Housing

Municipal representatives in each community provided information regarding current and future residential development. In Lambertville, there is the potential for 16-17 non agerestricted housing units, most of which are townhouse units. In Stockton and West Amwell, there are no residential developments under construction, nor are there applications for residential subdivisions before the respective planning boards. In total, seven (7) public school children (K-12) are projected to be generated from the new housing developments in Lambertville.

## Home Sales

The number of annual home sales was analyzed for each community from 1990-2019. In Lambertville, home sales peaked in 1999 ( 125 sales) before declining to 49 in 2011 due to the housing market crash and banking crisis. After 2011, home sales steadily increased through 2017 before reversing trend. From 2015-2019, the annual number of sales ranged from 78-106,
which is comparable to the number of annual sales that occurred prior to the housing market crash and banking crisis.

In Stockton, the number of sales peaked at 19 in 2004 before declining to six (6) in 2011 due to the housing market crash and banking crisis. Home sales steadily increased from 20112017 before reversing trend. The annual number of sales has ranged from 10-16 in the last five years, which is generally higher than the number of sales that occurred before the housing market crash and banking crisis.

Finally, in West Amwell, the number of sales steadily increased and peaked at 38 in 2002 before declining to 19 in 2011 due to the housing market crash and banking crisis. Since 2011, the number of sales has steadily increased, peaking at 42 sales in 2016 before reversing trend. The annual number of sales has ranged from 27-30 in the last three years, which is comparable to the number of sales that occurred before the housing market crash and banking crisis.

## Student Withdrawals

In 2020-21, the district's enrollment declined by 59.5 students, which is partially due to the coronavirus pandemic. A total of 23 students withdrew in 2020-21, which only includes students who are being homeschooled or are attending private schools. It does not include students who have moved, as this typically occurs on an annual basis and may not be related to the pandemic. Approximately three-quarters ( $\mathrm{n}=18,78 \%$ ) of these students are being homeschooled while the remaining students are attending private school. Nearly all of the students are in the elementary grades. If the pandemic had not occurred and these students had enrolled in the district, the decline in enrollment (-36.5) would have been less.

## Enrollment Projections

Enrollments were computed for a five-year period, 2021-22 through 2025-26. To provide a range for future enrollments, two sets of projections were computed based on five and six years of historical enrollments.

Due to the decline in enrollment in 2020-21, which was partially related to the coronavirus pandemic, the existing 2020-21 enrollments were modified before the projections were undertaken to prevent artificially low enrollments in the future when the pandemic ends. It was assumed that the students who withdrew from the district in 2020-21 would have attended South Hunterdon Regional in 2020-21 if the pandemic had not occurred. Therefore, these students were added back into the 2020-21 enrollments by grade for the purpose of increasing the most current survival ratios (four of the 13 ratios were the lowest in the last decade) and to provide a "higher base" for projecting future enrollments, as these students are likely to return to the district in September 2021 if the pandemic ends with the implementation of an effective vaccine.

Enrollments (PK-12) are projected to decline throughout the projection period in each projection. In the first projection, enrollment is projected to be 781 in 2025-26, which would be a loss of 80.5 students from the 2020-21 enrollment of 861.5 . In the second projection,
enrollment is projected to be 800 in 2025-26, which would be a loss of 61.5 students from the 2020-21 enrollment.

For grades PK-6, enrollments are projected to be slightly lower by the end of the projection period. In the first projection, enrollment is projected to be 415 in 2025-26, which would be a loss of 17 students from the 2020-21 enrollment of 432 . In the second projection, enrollment is projected to be 418 in 2025-26, which would be a loss of 14 students from the 2020-21 enrollment.

For South Hunterdon Regional High School (grades 7-12), enrollments are projected to decline, in general, throughout the projection period. In the first projection, enrollment is projected to be 366 in 2025-26, which would represent a loss of 63.5 students from the 2020-21 enrollment of 429.5. In the second projection, enrollment is projected to be 382 in 2025-26, which would be a loss of 47.5 students from the 2020-21 enrollment.

## Building Capacities

The capacities of the grade configurations (PK-6 and 7-12) in the district were compared to the current enrollments in 2020-21 and the enrollment projections in the 2025-26 school year. Using the building capacities from the school district's Long Range Facilities Plan, the differences between capacity and current/projected number of students were computed. Capacities were compared by grade configuration since the enrollment projections were not performed at the school level. Positive values indicate available extra seating while negative values indicate inadequate seating (also known as "unhoused students"). It should be noted that the capacity values are not fixed and can change from year-to-year based on classroom usage. For instance, additional special education classes in a building would reduce a building's capacity. On the other hand, districts with unhoused students can accommodate these children by increasing class sizes, which in turn increases the school's capacity. As such, the capacity of a school is not a fixed value and can be changed depending on how the building is used.

In the elementary configuration, there is currently a surplus of seating $(+143)$ while South Hunterdon Regional High School is nearing capacity. By 2025-26, due to a projected decline in enrollment, the surplus at the elementary configuration is projected to increase $(+157)$. South Hunterdon Regional High School is projected to have a small surplus in seating ( +52 ) due to a projected decline in enrollment.

## Housing Turnover

Using historical housing turnover rates by length of ownership for one- to four-family homes in Lambertville, Stockton, and West Amwell (henceforth described as South Hunterdon Regional), along with current student yields by length of ownership, the number of students was projected from 2020-2024 in a completely independent analysis. To complete this analysis, three inputs were needed:

1. housing turnover rates by length of ownership,
2. current distribution of homes by length of ownership, and
3. student yields by length of ownership.

To compute turnover rates, home sales were obtained from 1990-2019, a period of 29 years. Data for 2020 were incomplete and were not used in the analysis. Turnover rates in South Hunterdon Regional were greatest at three years of ownership (4.6\%) before declining, as turnover rates are lowest for longer lengths of ownership. For homes with 14 or more years of ownership, average turnover rates were less than $2.0 \%$.

Student yields slowly increase with length of ownership, peaking at 0.45 children per housing unit with 15 years of ownership. Student yields then decline through 22 years of ownership before stabilizing. After 21 years of ownership, student yields are below 0.20 children per home.

Using the housing turnover methodology, total enrollments were projected in two separate scenarios. In the first scenario, enrollments are projected to be fairly stable throughout the five-year projection period, ranging from 996-1,010. In the second scenario, enrollments are projected to slowly decline throughout the five-year period. In 2024, enrollment is projected to be 962, which would be slightly lower than the 2019-20 enrollment (993). In each scenario, it was assumed that the turnover rates of long-held homes ( 30 or more years) would be higher than experienced historically.

It should be clearly stated that the purpose of this analysis is not to use the projections for future planning since the CSR method is the most accurate method available. Rather, it is an independent process to see whether future enrollments may be affected by housing turnover. In the second scenario, which is more plausible, it appears enrollments are likely to slowly decline, controlling for all other factors, such as fertility rates, births, inward migration, or new residential construction.

## Final Thoughts

In the last five years, total enrollments (PK-12) have been declining, in general, in the South Hunterdon Regional School District. In the next five years, this trend is projected to continue, particularly at the high school. As a result of the declining birth rate, particularly in Lambertville, there have been smaller kindergarten cohorts entering the school district, which has led to a decline of 93 elementary students in the past six years. In 2020-21, there were 48 kindergarten students, which are 27 fewer students than five years prior. As these smaller elementary grade levels move through the district, the middle and high school cohorts are likely to decline as well.

As the district's enrollment declined by 59.5 students in 2020-21, it appears that some of this is COVID-related, as some parents may be reluctant to send their child to school or may seek private schools that have full in-person learning rather than hybrid or remote instruction. All of the impact of the pandemic has occurred at the elementary level.

In closing, it is difficult to measure the impact of the coronavirus on the school district's enrollments moving forward. In the short-term, the coronavirus may have a negative impact on
the local economy, new home construction, and rentals, which could lead to outward migration of families with children. If there are a significant number of evictions from rental units, this could have a negative impact on the district's enrollment. In a recent New York Times article ${ }^{1}$, families with financial means are leaving large metropolitan areas to reside in their second homes in rural COVID-free areas or are purchasing an existing home in these new locations. These individuals can typically work remotely and are seeking to escape the pandemic. It is not clear whether these households will permanently reside in these locations or return to suburban/urban centers once a vaccine is widely implemented. Enrollment in some districts is affected by whether they are currently having in-person or remote instruction. Some parents are pulling their children out of existing districts and seeking schools for their children that provide in-person instruction in favor of those offering hybrid or solely online instruction ${ }^{2}$. In particular, parents are seeking schools that have in-person learning for children in both pre-kindergarten and kindergarten ${ }^{3}$. While the duration of the pandemic is unknown and available data is limited, we are continuing to monitor data as it becomes available to assess its future impact on enrollments both short- and long-term.

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## Introduction

Statistical Forecasting LLC ("Statistical Forecasting") completed a demographic study for the South Hunterdon Regional School District ("South Hunterdon Regional"), projecting grade-by-grade enrollments from 2021-22 through 2025-26, a five-year period. In addition, the following tasks were completed:

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- projected enrollments, in a totally independent analysis, based on student yields and housing turnover rates (resales) in South Hunterdon Regional.


## Population Trends

## 1. City of Lambertville

Located in Hunterdon County, the City of Lambertville ("Lambertville") contains a land area of 1.15 square miles with an additional 0.14 square miles of water area. Historical and projected populations for Lambertville from 1940-2040 are shown in Table 1 and Figure 1.

## Table 1 <br> Historical and Projected Populations for Lambertville

1940-2040

| Year | Population | Percent Change |
| :---: | :---: | :---: |
| Historical $^{\mathbf{3}}$ |  |  |
| $\mathbf{1 9 4 0}$ | 4,447 | N/A |
| $\mathbf{1 9 5 0}$ | 4,477 | $+0.7 \%$ |
| $\mathbf{1 9 6 0}$ | 4,269 | $-4.6 \%$ |
| $\mathbf{1 9 7 0}$ | 4,359 | $+2.1 \%$ |
| $\mathbf{1 9 8 0}$ | 4,044 | $-7.2 \%$ |
| $\mathbf{1 9 9 0}$ | 3,927 | $-2.9 \%$ |
| $\mathbf{2 0 0 0}$ | 3,868 | $-1.5 \%$ |
| $\mathbf{2 0 1 0}$ | 3,906 | $+1.0 \%$ |
| $\mathbf{2 0 1 9}$ (est.) | 3,801 | $-2.7 \%$ |
| $\mathbf{2 0 2 0}$ | Projected $^{2}$ | $+4.3 \%$ |
| $\mathbf{2 0 3 0}$ | 3,964 | $+1.2 \%$ |
| $\mathbf{2 0 4 0}$ | 4,013 | $+1.3 \%$ |

Sources: ${ }^{1}$ United States Census Bureau
${ }^{2}$ North Jersey Transportation Planning Authority, Inc. (2013)

In the 2010 Census, Lambertville had 3,906 residents, which is $3,396.5$ persons per square mile. From 1940-2000, Lambertville's population slowly declined before remaining fairly stable in the 2000s.

In addition, a population estimate for 2019 is provided in Table 1. The estimated population in 2019 is 3,801 , which is a loss of 105 persons from the 2010 Census. The Census Bureau publishes estimates every July $1^{\text {st }}$ following the last decennial census and are computed using the decennial census base counts, number of births and deaths in a community, and migration data (both domestic and international).

Population projections from 2020-2040, which were prepared by the North Jersey Transportation Planning Authority ("NJTPA"), indicate that the population will increase. However, as the 2019 Census estimate reflects a decline in the population since 2010, the NJTPA likely needs to revise its projections after the 2020 Census results become available. As it currently stands, forecasts project the population to be 4,065 in 2040, which would be a $6.9 \%$ increase from the 2019 population estimate and a gain of 264 persons.

## 2. Stockton Borough

Stockton Borough ("Stockton"), which is also located in Hunterdon County, contains a land area of 0.54 square miles with an additional 0.08 square miles of water area. Historical and projected populations for Stockton from 1940-2040 are shown in Table 2 and Figure 1.

## Table 2 <br> Historical and Projected Populations for Stockton 1940-2040

| Year | Population | Percent Change |
| :---: | :---: | :---: |
| Historical $^{1}$ |  |  |
| $\mathbf{1 9 4 0}$ | 478 | N/A |
| $\mathbf{1 9 5 0}$ | 488 | $+2.1 \%$ |
| $\mathbf{1 9 6 0}$ | 520 | $+6.6 \%$ |
| $\mathbf{1 9 7 0}$ | 619 | $+19.0 \%$ |
| $\mathbf{1 9 8 0}$ | 643 | $+3.9 \%$ |
| $\mathbf{1 9 9 0}$ | 629 | $-2.2 \%$ |
| $\mathbf{2 0 0 0}$ | 560 | $-11.0 \%$ |
| $\mathbf{2 0 1 0}$ | 538 | $-3.9 \%$ |
| $\mathbf{2 0 1 9}$ (est.) | 512 | $-4.8 \%$ |
| $\mathbf{2 0 2 0}$ | Projected $^{2}$ | $+8.0 \%$ |
| $\mathbf{2 0 3 0}$ | 553 | $+2.5 \%$ |
| $\mathbf{2 0 4 0}$ | 567 | $+1.2 \%$ |

Sources: ${ }^{1}$ United States Census Bureau
${ }^{2}$ North Jersey Transportation Planning Authority, Inc. (2013)

In 2010, Stockton had 538 residents, which is 996.3 persons per square mile. Stockton's population grew from 1940-1980 before reversing trend. The population slowly declined from 1980-2010. Stockton experienced its greatest population growth in the 1960s $(+19.0 \%)$. Stockton's estimated population in 2019 is 512 , which is a loss of 26 persons ( $-4.8 \%$ ) from the 2010 Census.

Forecasts prepared by the NJTPA project Stockton's population to increase through 2040. However, as the 2019 Census estimate reflects a decline in the population since 2010, the NJTPA likely needs to revise its projections after the 2020 Census results become available. As it currently stands, forecasts project the population to be 574 in 2040 , which would be a $12.1 \%$ increase from the 2019 population estimate and a gain of 62 persons.

Figure 1
Historical and Projected Populations 1940-2040


## 3. West Amwell Township

Also located in Hunterdon County, West Amwell Township ("West Amwell") contains a land area of 21.58 square miles and anditional 0.19 square miles of water area. According to the 2010 Census, the population of West Amwell Township was 3,840. However, the 2010 Census count in the township has been revised and lowered to 2,843 , which is 131.7 persons per square mile. Historical and projected populations for West Amwell from 1940-2040 are shown in Table 3 and Figure 1. Unlike the previous communities, the population in West Amwell has been steadily increasing. From 1940-2010, West Amwell's population has nearly tripled, with its greatest gain occurring in the 1950s $(+38.7 \%)$. In 2019, the estimated population is 2,739 , which is a loss of 104 persons from the 2010 Census.

Forecasts prepared by the NJTPA project West Amwell's population will continue to increase through 2040. However, as the 2019 Census estimate reflects a decline in the population since 2010, the NJTPA likely needs to revise its projections after the 2020 Census results become available. As it currently stands, forecasts project the population to be 4,009 in 2040, which would be a $46.4 \%$ increase from the 2019 population estimate and a gain of 1,270 persons.

Table 3
Historical and Projected Populations for West Amwell 1940-2040

| Year | Population | Percent Change |
| :---: | :---: | :---: |
| Historical $^{1}$ |  |  |
| $\mathbf{1 9 4 0}$ | 975 | N/A |
| $\mathbf{1 9 5 0}$ | 1,213 | $+24.4 \%$ |
| 1960 | 1,683 | $+38.7 \%$ |
| 1970 | 2,142 | $+27.3 \%$ |
| $\mathbf{1 9 8 0}$ | 2,299 | $+7.3 \%$ |
| 1990 | 2,251 | $-2.1 \%$ |
| $\mathbf{2 0 0 0}$ | 2,383 | $+5.9 \%$ |
| $\mathbf{2 0 1 0}$ | $2,843^{2}$ | $+19.3 \%$ |
| $\mathbf{2 0 1 9}$ (est.) | 2,739 | $-3.7 \%$ |
| $\mathbf{2 0 2 0}$ | Projected $^{3}$ | $+18.5 \%$ |
| $\mathbf{2 0 3 0}$ | 3,247 | $+10.7 \%$ |
| $\mathbf{2 0 4 0}$ | 3,596 | $+11.5 \%$ |

Notes: ${ }^{1}$ United States Census Bureau
${ }^{2}$ Corrected population from 2010 Census
${ }^{3}$ North Jersey Transportation Planning Authority, Inc. (2013)

## Demographic Profiles

In Table 4, selected demographic characteristics of Lambertville, Stockton, and West Amwell are compared from the 2010 Census and the 2005-2009, 2006-2010, and 2015-2019 American Community Surveys ("ACS"). Due to perceived errors in the 2010 Census data for West Amwell, the 2005-2009 ACS was used instead. While some Census variables account for everyone in the population (e.g., age and race), other variables are collected from a sample (e.g., median family income, educational attainment, poverty status, etc.). The ACS replaced the long form of the Census, last administered in 2000 to approximately $16 \%$ of the population in the United States. For communities with fewer than 65,000 persons such as Lambertville, Stockton, and West Amwell, ACS data represent a sample collected over a five-year time period, where the estimates represent the average characteristics between January 2015 and December 2019, for example. This information does not represent a single point in time like the long form of earlier Censuses. The five-year ACS contains $1 \%$ annual samples from all households and persons from 2015 to 2019 , resulting in a $5 \%$ sample of the population. Due to the small sample size, the sampling error is quite large, which increases the degree of uncertainty of the estimated values. Therefore, the forthcoming ACS data should be interpreted with caution.

## 1. City of Lambertville

With respect to race, Whites are the largest race in Lambertville. In the 2015-2019 ACS, Lambertville was $87.5 \%$ White as compared to $86.3 \%$ in 2010 , which is a gain of 1.2 percentage points. Hispanics were the second-largest race at $10.1 \%$ in the 2015-2019 ACS, which is nearly unchanged from 2010 ( $9.8 \%$ ). In general, the racial distribution has not changed significantly over this time period.

Regarding nativity, 9.5\% of Lambertville residents were foreign-born in the 2015-2019 ACS, which is a decline of 2.0 percentage points from the 2006-2010 ACS percentage (11.5\%). As a point of comparison, New Jersey's foreign-born resident percentage was $23.4 \%$ in the 2019 ACS, which is more than double that of Lambertville. While not shown in the table, place of birth, which serves as a proxy for country of origin, indicates that Mexico and the Philippines were the largest sources of immigrants in the 2006-2010 ACS, accounting for $43.2 \%$ and $17.6 \%$, respectively, of the foreign-born population. In the 2015-2019 ACS, the Dominican Republic is now the largest source, accounting for $21.8 \%$ of the foreign-born population. The Philippines remains the second-largest source at $14.3 \%$.

The median age in Lambertville was 48.8 years in the 2015-2019 ACS, which is nearly unchanged from 2010 ( 48.9 years). The median age in Lambertville is much higher than that of New Jersey ( 40.2 years). During the same time period, the percentage of people under the age of 18 years, which corresponds predominantly to school-age children, increased from $13.7 \%$ to $15.6 \%$.

Table 4
Selected Demographic Characteristics

|  | Lambertville |  | Stockton |  | West Amwell |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Race Origin ${ }^{1}$ | $\begin{aligned} & \text { 2006-10 ACS } \\ & 2010 \text { Census } \end{aligned}$ | $\begin{gathered} \text { 2015-2019 } \\ \text { ACS } \end{gathered}$ | $\begin{aligned} & \text { 2006-10 ACS } \\ & 2010 \text { Census } \end{aligned}$ | $\begin{gathered} \text { 2015-2019 } \\ \text { ACS } \end{gathered}$ | 2005-09 ACS | $\begin{gathered} \text { 2015-2019 } \\ \text { ACS } \end{gathered}$ |
| White | 86.3\% | 87.5\% | 98.0\% | 93.8\% | 91.6\% | 90.7\% |
| Black or African American | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% |
| Hispanic | 9.8\% | 10.1\% | 0.6\% | 6.2\% | 0.9\% | 2.7\% |
| American Indian and Alaska Native | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Asian | 1.3\% | 1.8\% | 0.9\% | 0.0\% | 3.3\% | 3.9\% |
| Native Hawaiian and Other Pacific Islander | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Other Race | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.2\% |
| Two or more Races | 0.8\% | 0.7\% | 0.6\% | 0.0\% | 2.3\% | 2.5\% |
| Place of Birth |  |  |  |  |  |  |
| Foreign-Born | 11.5\% | 9.5\% | 2.8\% | 5.4\% | 6.6\% | 8.4\% |
| Age |  |  |  |  |  |  |
| Under 18 | 13.7\% | 15.6\% | 19.5\% | 20.7\% | 21.3\% | 20.4\% |
| 18-64 | 68.9\% | 62.5\% | 62.5\% | 47.9\% | 62.8\% | 59.0\% |
| 65 and over | 17.4\% | 21.9\% | 18.0\% | 31.4\% | 15.9\% | 20.6\% |
| Median age | 48.9 yrs. | 48.8 years | 47.7 yrs. | 54.9 years | 45.5 years | 47.0 years |
| Educational Attainment |  |  |  |  |  |  |
| Bachelor's degree or higher | 51.0\% | 51.6\% | 47.0\% | 47.4\% | 44.8\% | 48.4\% |
| Graduate or professional degree | 22.1\% | 22.9\% | 15.0\% | 21.3\% | 19.0\% | 17.2\% |
| Income |  |  |  |  |  |  |
| Median family income | \$100,952 | \$102,057 | \$72,321 | \$114,063 | \$109,886 | \$130,688 |
| \% of Persons in Poverty aged 5-17 | 3.5\% | 2.9\% | 0.0\% | 4.0\% | 0.0\% | 0.0\% |
| Housing Units |  |  |  |  |  |  |
| Total number | 2,075 | 2,072 | 259 | 294 | 1,172 | 1,144 |
| Occupied units | 1,958 (94.4\%) | 1,863 (89.9\%) | 237 (91.5\%) | 266 (90.5\%) | 1,146 (97.8\%) | 1,081 (94.5\%) |
| Owner-occupied units | 1,208 (61.7\%) | 977 (52.4\%) | 177 (74.7\%) | 178 (66.9\%) | 1,051 (91.7\%) | 957 (88.5\%) |
| Renter-occupied units | 750 (38.3\%) | 886 (47.6\%) | 60 (25.3\%) | 88 (33.1\%) | 95 (8.3\%) | 124 (11.5\%) |
| Median value of an owner-occupied unit | \$380,200 | \$395,900 | \$363,400 | \$371,000 | \$403,500 | \$462,800 |
| Average household size | 1.98 | 2.03 | 2.27 | 2.31 | 2.55 | 2.55 |
| Housing Type ${ }^{1}$ |  |  |  |  |  |  |
| Total number | 2,077 | 2,072 | 233 | 294 | 1,172 | 1,144 |
| 1-unit, attached or detached | 1,302 (62.7\%) | 1,278 (61.7\%) | 185 (79.4\%) | 229 (77.9\%) | 1,147 (97.9\%) | 1,091 (95.4\%) |
| Two units | 210 (10.1\%) | 173 (8.3\%) | 37 (15.9\%) | 36 (12.2\%) | 9 (0.8\%) | 30 (2.6\%) |
| Three or four units | 248 (11.9\%) | 234 (11.3\%) | 9 (3.9\%) | 25 (8.5\%) | 16 (1.4\%) | 16 (1.4\%) |
| Five to nine units | 58 (2.8\%) | 141 (6.8\%) | 2 (0.9\%) | 4 (1.4\%) | 0 (0.0\%) | 7 (0.6\%) |
| 10 to 19 units | 59 (2.8\%) | 69 (3.3\%) | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) |
| 20 or more units | 200 (9.6\%) | 177 (8.5\%) | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) |
| Mobile home, Boat, Van, RV, etc. | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) |

Sources: American Community Survey (2005-2009, 2006-2010 and 2015-2019), United States Census (2010)
Notes: ${ }^{1}$ Data may not sum to $100.0 \%$ due to rounding.
Cells shaded orange are from the 2010 Census while cells shaded blue are from the American Community Survey.

Regarding educational attainment for adults aged 25 and over, $51.6 \%$ of the population had a bachelor's degree or higher in the 2015-2019 ACS, which is nearly unchanged from the 2006-2010 ACS percentage (51.0\%). Lambertville's percentage of persons having a bachelor's degree or higher is the highest of the three communities and greater than that of New Jersey $(41.2 \%)$. Persons with graduate or professional degrees increased slightly from $22.1 \%$ to $22.9 \%$ during this time period.

Median family income increased slightly from $\$ 100,952$ in the 2006-2010 ACS to $\$ 102,057$ in the 2015-2019 ACS, a gain of $1.1 \%$. By comparison, median family income in New Jersey is $\$ 105,705$, which is slightly higher than Lambertville's. During this time period, the percentage of school-age children (5-17) that are in poverty declined slightly from $3.5 \%$ to $2.9 \%$.

Regarding housing, there were 2,072 housing units in Lambertville in the 2015-2019 ACS, which is a decline of three (3) units from 2010. Over this time period, the overall occupancy rate declined from $94.4 \%$ to $89.9 \%$ while the average household size increased slightly from 1.98 to 2.03 persons. Renter-occupied units accounted for $47.6 \%$ of the housing units in the 2015-2019 ACS, which is a gain of 9.3 percentage points from the 2010 percentage (38.3\%). As a point of comparison, the percentage of renter-occupied units in Lambertville is higher than that of New Jersey (36.7\%). Lambertville has the highest percentage of renteroccupied units of the three communities. Finally, the median home price of an owner-occupied unit in the 2015-2019 ACS was $\$ 395,900$, which is a $4.1 \%$ increase from the value reported in the 2006-2010 ACS $(\$ 380,200)$.

With respect to housing type, $61.7 \%$ of homes in the 2015-2019 ACS were one-unit, either attached or detached, which is nearly unchanged from the 2006-2010 ACS percentage ( $62.7 \%$ ). Homes with 3-4 units were the second-largest type of housing in the 2015-2019 ACS and consisted of $11.3 \%$ of the housing stock. Over this time period, the largest percentage-point change ( +4.0 ) occurred in homes with $5-9$ units, which typically contain renters. In general, there has been little change in the housing distribution since the 2006-2010 ACS.

## 2. Stockton Borough

In Stockton, Whites are also the largest race. In the 2015-2019 ACS, Stockton was $93.8 \%$ White as compared to $98.0 \%$ in 2010 , which is a loss of 4.2 percentage points. Hispanics were the second-largest race at $6.2 \%$ in the 2015-2019 ACS, which is a 5.6 percentage-point increase from 2010.

Regarding nativity, $5.4 \%$ of Stockton residents were foreign-born in the 2015-2019 ACS, which is a gain of 2.6 percentage points from the 2006-2010 ACS percentage ( $2.8 \%$ ). The foreign-born percentage in Stockton is the lowest of the three communities, and significantly lower than that of New Jersey (23.4\%). While not shown in the table, place of birth, which serves as a proxy for country of origin, indicates that Mexico and Honduras were the largest sources of immigrants in the 2015-2019 ACS, accounting for $45.5 \%$ and $15.2 \%$, respectively, of the foreign-born population. Since there were so few foreign-born persons in the 2006-2010 ACS, the largest sources are not reported here.

The median age in Stockton has increased from 47.7 years in 2010 to 54.9 years in the 2015-2019 ACS, which is significantly higher than the median age in New Jersey (40.2 years). Stockton has the highest median age of the three communities. During the same time period, the percentage of people under the age of 18 years, which corresponds predominantly to school-age children, increased slightly from $19.5 \%$ to $20.7 \%$.

Regarding educational attainment for adults aged 25 and over, $47.4 \%$ of the population in Stockton had a bachelor's degree or higher in the 2015-2019 ACS, which is nearly unchanged from the 2006-2010 ACS percentage of $47.0 \%$. Stockton's percentage of persons having a bachelor's degree or higher is greater than that of New Jersey ( $41.2 \%$ ). The percentage of persons with graduate or professional degrees was $21.3 \%$ in the $2015-2019$ ACS, which is a 6.3 percentage-point gain from the 2006-2010 ACS (15.0\%).

Median family income increased from $\$ 72,321$ in the 2006-2010 ACS to $\$ 114,063$ in the 2015-2019 ACS, a gain of $57.7 \%$. By comparison, median family income in New Jersey is $\$ 105,705$, which is approximately $\$ 8,000$ lower than Stockton's. During this time period, the percentage of school-age children (5-17) that are in poverty increased from $0.0 \%$ to $4.0 \%$.

Regarding housing, there were 294 housing units in Stockton in the 2015-2019 ACS, which is a gain of 35 units ( $+13.5 \%$ ) from 2010. Over this time period, the occupancy rate declined from $91.5 \%$ to $90.5 \%$, while the average household size increased slightly from 2.27 to 2.31 persons. Renter-occupied units accounted for $33.1 \%$ of the occupied units in the 2015-2019 ACS, which is a gain of 7.8 percentage points from the 2010 percentage ( $25.3 \%$ ). The percentage of renter-occupied units in Stockton is lower than that of New Jersey (36.7\%). The median home price of an owner-occupied unit in the 2015-2019 ACS was $\$ 371,000$, which is a $2.1 \%$ increase from the value reported in the 2006-2010 ACS $(\$ 363,400)$.

With respect to housing type, the percentage of one-unit homes, either attached or detached, declined from $79.4 \%$ in the 2006-2010 ACS to $77.9 \%$ in the 2015-2019 ACS, which is a loss of 1.5 percentage points. Homes with two units (duplexes) were the second-largest type of housing in the 2015-2019 ACS and consisted of $12.2 \%$ of the housing stock, which is a decline of 3.7 percentage points from the 2006-2010 ACS (15.9\%).

## 3. West Amwell Township

Like Lambertville and Stockton, Whites are the largest race in West Amwell. In the 2015-2019 ACS, West Amwell was 90.7\% White, which is nearly unchanged from the 20052009 ACS percentage ( $91.6 \%$ ). Asians were the second-largest race at $3.9 \%$ in the 2015-2019 ACS, which is nearly unchanged from the 2005-2009 ACS percentage (3.3\%). In general, the racial distribution has not changed significantly over this time period.

Regarding nativity, $8.4 \%$ of West Amwell residents were foreign-born in the 2015-2019 ACS, which is a gain of 1.8 percentage points from the 2005-2009 ACS percentage ( $6.6 \%$ ). West Amwell's foreign-born percentage is much lower than New Jersey's (23.4\%). While not shown in the table, place of birth, which serves as a proxy for country of origin, indicates that India and Brazil were the largest sources of immigrants in the 2005-2009 ACS, accounting for
$20.5 \%$ and $17.5 \%$, respectively, of the foreign-born population. In the 2015-2019 ACS, the United Kingdom is now the largest source (16.5\%) of the foreign-born population while Bangladesh is now the second-largest source at $12.6 \%$.

The median age in West Amwell has increased from 45.5 years in the 2005-2009 ACS to 47.0 years in the 2015-2019 ACS, which is much higher than the median age in New Jersey ( 40.2 years). During the same time period, the percentage of people under the age of 18 years, which corresponds predominantly to school-age children, declined slightly from $21.3 \%$ to 20.4\%.

Regarding educational attainment for adults aged 25 and over, $48.4 \%$ of the population had a bachelor's degree or higher in the 2015-2019 ACS as compared to $44.8 \%$ in the 2005-2009 ACS, which is a gain of 3.6 percentage points. West Amwell's percentage of persons having a bachelor's degree or higher is greater than that of New Jersey (41.2\%). Persons with graduate or professional degrees declined from $19.0 \%$ to $17.2 \%$ during this time period.

Median family income increased from $\$ 109,886$ in the 2005-2009 ACS to $\$ 130,688$ in the 2015-2019 ACS, a gain of $18.9 \%$. West Amwell's median family income is the highest of the three communities and is approximately $\$ 25,000$ higher than New Jersey's $(\$ 105,705)$. During this time period, there were no school-age children (5-17) in poverty.

Regarding housing, there were 1,144 housing units in West Amwell in the 2015-2019 ACS, which is a loss of 28 units ( $-2.4 \%$ ) from the 2005-2009 ACS. Over this time period, the overall occupancy rate declined slightly from $97.8 \%$ to $94.5 \%$ while the average household size remained constant at 2.55 persons. West Amwell has the greatest average household size of the three communities. Renter-occupied units accounted for $11.5 \%$ of the occupied units in the 2015-2019 ACS, which is a gain of 3.2 percentage points from the 2005-2009 ACS percentage $(8.3 \%)$. The percentage of renter-occupied units in West Amwell is the lowest of the three communities and much lower than that of New Jersey ( $36.7 \%$ ). Finally, the median home price of an owner-occupied unit in the 2015-2019 ACS was $\$ 462,800$, which is a $14.7 \%$ increase from the value reported in the 2005-2009 ACS $(\$ 403,500)$.

With respect to housing type, $95.4 \%$ of homes in the 2015-2019 ACS were one-unit, either attached or detached, which is a loss of 2.5 percentage points from the 2005-2009 ACS percentage $(97.9 \%$ ). Homes with two units (duplexes) were the second-largest type of housing in the 2015-2019 ACS and consisted of $2.6 \%$ of the housing stock. Homes with 3-4 units had been the second-largest housing type in the 2005-2009 ACS. In general, there has been little change in the housing distribution since the 2005-2009 ACS.

## District Overview

South Hunterdon Regional began operating in its existing configuration in the 2014-15 school year, after voters in Lambertville, Stockton, and West Amwell elected to dissolve the limited-purpose South Hunterdon Regional School District (7-12) and create a PK-12 regional school district for the children of Lambertville, Stockton, and West Amwell. The new regional district also eliminated the former West Amwell Township School District (K-6), Lambertville School District (K-6), and Stockton School District (PK-6).

In Figure 2, the location of each of the district's schools is shown with respect to the municipal boundaries. Children attend one of two (2) elementary schools for grades PK-6: Lambertville Public School or West Amwell Township Elementary School. A third elementary school, Stockton School (PK-6), closed after the 2017-18 school year. Stockton children can attend either of the elementary schools in the district. Finally, South Hunterdon Regional High School educates children in grades 7-12.

According to the district's Long Range Facilities Plan ("LRFP"), total educational capacity in the district is 1,009 using District Practices methodology and 859 using Facilities Efficiency Standards ("FES") methodology. The District Practices methodology considers how the building is utilized by the school district and its targeted student-teacher ratios. This method does not take into account square footage allowances per student, which is the FES methodology. Capacity using FES methodology is often lower, particularly for middle and high schools, than when using District Practices methodology. Since buildings cannot be $100 \%$ utilized, due in part to scheduling conflicts, most districts employ either an $85 \%$ or $90 \%$ utilization factor to determine school capacity. A comparison of each grade configuration's capacity to current and projected enrollments is provided later in the report.

In this study, historical enrollments from the New Jersey Department of Education ("NJDOE") New Jersey Standards Measurement and Resource for Teaching ("NJ SMART") database were used to project enrollments five years into the future using the Cohort-Survival Ratio method.

Figure 2
School Locations - South Hunterdon Regional School District


## Explanation of the Cohort-Survival Ratio Method

In 1930, Dublin and Lodka provided an explicit age breakdown, which enabled analysts to follow each cohort through its life stages and apply appropriate birth and death rates for each generation. A descendant of this process is the Cohort-Survival Ratio ("CSR") method, which is the NJDOE-approved methodology to project public school enrollments. In this method, a survival ratio is computed for each grade progression, which essentially compares the number of students in a particular grade to the number of students in the previous grade during the previous year. The survival ratio indicates whether the enrollment is stable, increasing, or decreasing. A survival ratio of 1.00 indicates stable enrollment, less than 1.00 indicates declining enrollment, while greater than 1.00 indicates increasing enrollment. If, for example, a school district had 100 fourth graders and the next year had 95 fifth graders, the survival ratio would be 0.95 .

The CSR method assumes that what happened in the past will also happen in the future. In essence, this method provides a linear projection of the population. The CSR method is most applicable for districts that have relatively stable increasing or decreasing trends without any major unpredictable fluctuations from year to year. In school districts encountering rapid growth or decline not experienced historically (a change in the historical trend), the CSR method must be modified and supplemented with additional information. In this study, survival ratios were calculated using historical data for birth to kindergarten, kindergarten to first grade, first grade to second grade, etc. Due to the fluctuation in survival ratios from year to year, it is appropriate to calculate an average survival ratio, which is then used to calculate grade-level enrollments five years into the future.

## Historical Enrollment Trends

While South Hunterdon Regional was formed recently in 2014-15, historical enrollments for the district are shown in Figure 3 and Table 5 from 2011-12 through 2020-21, a ten-year period, which also reflects the aggregated PK-12 enrollments of the three former elementary school districts and the limited-purpose regional prior to 2014-15. Enrollments (PK-12) increased through 2015-16 before reversing trend. In general, enrollments have been declining for the last five years. In 2020-21, enrollment is 861.5 , which is nearly identical to the 2011-12 enrollment of 860.5. In the most recent year, there was a decline of 59.5 students, which is partially due to the coronavirus pandemic.

Figure 3
South Hunterdon Regional Historical Enrollments 2011-12 to 2020-21


Table 6 shows computed grade-by-grade survival ratios from 2011-12 to 2020-21. In addition, the average, minimum, and maximum survival ratios are shown for the past ten years along with the five- and six-year averages, which were used to project enrollments. The average survival ratios also indicate the net migration by grade, where values over 1.000 reflect net inward migration and values below 1.000 reflect net outward migration. Eight of the 13 average survival ratios in the five-year trend were below 1.000 , indicating a slight net outward migration of students. In 2020-21, four survival ratios were the lowest value in the last decade, two of which occurred at the elementary level (K-6). The decline in the ratios may be due to the coronavirus pandemic, as parents are seeking alternative educational experiences for their children. In comparing the fiveyear averages with the ten-year averages, the differences were very small, demonstrating the longterm stability of the survival ratios over the last decade.

Table 5
South Hunterdon Regional School District Historical Enrollments (PK-12)
2011-12 to 2020-21

| Year ${ }^{1}$ | PK | K | 1 | 2 | 3 | 4 | 5 | 6 | SE ${ }^{2}$ | PK-6 Total | 7 | 8 | 9 | 10 | 11 | 12 | SE ${ }^{3}$ | 7-12 <br> Total | PK-12 <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011-12 | 4 | 80 | 76 | 79 | 69 | 60 | 52 | 65 | 5 | 490 | 71 | 77 | 66 | 57 | 46 | 53.5 | 0 | 370.5 | 860.5 |
| 2012-13 | 0 | 58 | 82 | 77 | 65 | 65 | 60 | 52 | 8 | 467 | 72 | 83 | 86 | 69 | 45 | 46.5 | 0 | 401.5 | 868.5 |
| 2013-14 | 2 | 64 | 66 | 91 | 76 | 74 | 74 | 60 | 18 | 525 | 58 | 73 | 85 | 82 | 70 | 44.5 | 0 | 412.5 | 937.5 |
| 2014-15 | 1 | 55 | 76 | 67 | 85 | 74 | 74 | 78 | 15 | 525 | 63 | 62 | 70 | 83 | 71.5 | 67.5 | 0 | 417 | 942 |
| 2015-16 | 0 | 75 | 61 | 76 | 65 | 84 | 70 | 69 | 15 | 515 | 82 | 68 | 63 | 68.5 | 76.5 | 69.5 | 0 | 427.5 | 942.5 |
| 2016-17 | 0 | 44 | 81 | 59 | 71 | 65 | 85 | 74 | 10 | 489 | 70 | 86 | 77 | 66 | 70 | 71.5 | 2 | 442.5 | 931.5 |
| 2017-18 | 22 | 53 | 52 | 83 | 59 | 67 | 65 | 82 | 4 | 487 | 70 | 68 | 86 | 81 | 71.5 | 66.5 | 0 | 443 | 930 |
| 2018-19 | 26 | 41 | 56 | 56 | 78 | 61 | 66 | 60 | 5 | 449 | 80 | 69 | 68 | 84 | 73.5 | 66 | 6 | 446.5 | 895.5 |
| 2019-20 | 29 | 66 | 48 | 54 | 56 | 85 | 60 | 68 | 4 | 470 | 66 | 83 | 77 | 73 | 76 | 71 | 5 | 451 | 921 |
| 2020-21 | 24 | 48 | 60 | 50 | 51 | 53 | 79 | 60 | 7 | 432 | 66 | 64 | 76 | 77 | 65 | 76.5 | 5 | 429.5 | 861.5 |

Notes: ${ }^{1}$ Data as provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/) and the South Hunterdon Regional School District
${ }^{2}$ Self-contained special education enrollment/ungraded students at the elementary school level
${ }^{3}$ Self-contained special education enrollment/ungraded students at the middle/high school level

Table 6
South Hunterdon Regional School District Historical Survival Ratios
2011-12 to 2020-21

| Progression Years | B-K | K-1 | $\mathbf{1 - 2}$ | $\mathbf{2 - 3}$ | $\mathbf{3 - 4}$ | $\mathbf{4 - 5}$ | $\mathbf{5 - 6}$ | $\mathbf{6 - 7}$ | $\mathbf{7 - 8}$ | $\mathbf{8 - 9}$ | $\mathbf{9 - 1 0}$ | $\mathbf{1 0 - 1 1}$ | $\mathbf{1 1 - 1 2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011-12 to 2012-13 | 0.7160 | 1.0250 | 1.0132 | 0.8228 | 0.9420 | 1.0000 | 1.0000 | 1.1077 | 1.1690 | 1.1169 | 1.0455 | 0.7895 | 1.0109 |
| 2012-13 to 2013-14 | 0.8101 | 1.1379 | 1.1098 | 0.9870 | 1.1385 | 1.1385 | 1.0000 | 1.1154 | 1.0139 | 1.0241 | 0.9535 | 1.0145 | 0.9889 |
| 2013-14 to 2014-15 | 0.8594 | 1.1875 | 1.0152 | 0.9341 | 0.9737 | 1.0000 | 1.0541 | 1.0500 | 1.0690 | 0.9589 | 0.9765 | 0.8720 | 0.9643 |
| 2014-15 to 2015-16 | 0.9146 | 1.1091 | 1.0000 | 0.9701 | 0.9882 | 0.9459 | 0.9324 | 1.0513 | 1.0794 | 1.0161 | 0.9786 | 0.9217 | 0.9720 |
| 2015-16 to 2016-17 | 0.7586 | 1.0800 | 0.9672 | 0.9342 | 1.0000 | 1.0119 | 1.0571 | 1.0145 | 1.0488 | 1.1324 | 1.0476 | 1.0219 | 0.9346 |
| 2016-17 to 2017-18 | 1.1277 | 1.1818 | 1.0247 | 1.0000 | 0.9437 | 1.0000 | 0.9647 | 0.9459 | 0.9714 | 1.0000 | 1.0519 | 1.0833 | 0.9500 |
| 2017-18 to 2018-19 | 0.7321 | 1.0566 | 1.0769 | 0.9398 | 1.0339 | 0.9851 | 0.9231 | 0.9756 | 0.9857 | 1.0000 | 0.9767 | 0.9074 | 0.9231 |
| 2018-19 to 2019-20 | 1.0000 | 1.1707 | 0.9643 | 1.0000 | 1.0897 | 0.9836 | 1.0303 | 1.1000 | 1.0375 | 1.1159 | 1.0735 | 0.9048 | 0.9660 |
| 2019-20 to 2020-21 | 0.8000 | 0.9091 | 1.0417 | 0.9444 | 0.9464 | 0.9294 | 1.0000 | 0.9706 | 0.9697 | 0.9157 | 1.0000 | 0.8904 | 1.0066 |
| Maximum Ratio | 1.1277 | 1.1875 | 1.1098 | 1.0000 | 1.1385 | 1.1385 | 1.0571 | 1.1154 | 1.1690 | 1.1324 | 1.0735 | 1.0833 | 1.0109 |
| Minimum Ratio | 0.7160 | $\mathbf{0 . 9 0 9 1}$ | 0.9643 | 0.8228 | 0.9420 | $\mathbf{0 . 9 2 9 4}$ | 0.9231 | 0.9459 | $\mathbf{0 . 9 6 9 7}$ | $\mathbf{0 . 9 1 5 7}$ | 0.9535 | 0.7895 | 0.9231 |
| Avg. 5-Year Ratios | 0.8837 | 1.0796 | 1.0269 | 0.9711 | 1.0034 | 0.9745 | 0.9795 | 0.9980 | 0.9911 | 1.0079 | 1.0256 | 0.9465 | 0.9614 |
| Avg. 6-Year Ratios | 0.8888 | 1.0796 | 1.0150 | 0.9637 | 1.0027 | 0.9820 | 0.9950 | 1.0013 | 1.0026 | 1.0328 | 1.0300 | 0.9616 | 0.9561 |
| Avg. 10-Year Ratios | 0.8576 | 1.0953 | 1.0236 | 0.9480 | 1.0062 | 0.9994 | 0.9957 | 1.0368 | 1.0383 | 1.0311 | 1.0115 | 0.9339 | 0.9685 |
| Diff. Between 5-Year |  |  |  |  |  |  |  |  |  |  |  |  |  |
| and 10-Year Ratios |  |  |  |  |  |  |  |  |  |  |  |  |  |

Note: ${ }^{1}$ Bolded values reflect survival ratios from 2019-20 to 2020-21.

Factors related to inward migration include families with school-age children purchasing an existing home or new housing unit, or renting an apartment. The reasons for families moving into a community vary. For instance, a family could move into Lambertville, Stockton, or West Amwell for economic reasons and proximity to employment, the presence of affordable housing, or to be near family members. Another plausible reason for inward migration is the reputation of the school district, as the appeal of a school district draws families into a community, resulting in the transfer of students into the district. On the flip side, outward migration is caused by families with children moving out of the community, perhaps due to difficulty in finding employment or affordable housing. Outward migration in the school district can also be caused by parents choosing to withdraw their children from public school to attend private, parochial, or charter schools, to be homeschooled, or to attend a different public school district. In the case of South Hunterdon Regional, the reasons for migration are not explicitly known (such as for economic reasons or the appeal of the school district), as exit and entrance interviews would need to be conducted for all children leaving or entering the district.

Historical enrollments are also shown in Table 5 and Figure 4 by grade configuration (PK-6 and 7-12). Self-contained special education/ungraded students were incorporated into the totals by grade configuration. For grades PK-6, enrollments peaked at 525 students in 2014-15 before reversing trend and declining. Since 2014-15, elementary enrollments have declined by 93 students. Enrollment declined by 38 students in 2020-21, which is partially due to the coronavirus pandemic. In 2020-21, enrollment is 432, which is a loss of 58 students from the 2011-12 enrollment of 490.

For grades 7-12 at South Hunterdon Regional High School, enrollments had been generally increasing before reversing trend in 2020-21. Enrollment is 429.5 in 2020-21, which is a gain of 59 students from the 2011-12 enrollment of 370.5.

Figure 4
South Hunterdon Regional
Historical Enrollments by Grade Configuration 2011-12 to 2020-21


## Kindergarten Replacement

Kindergarten replacements were analyzed to determine whether there was any relationship between overall enrollment change and kindergarten replacement, which is the numerical difference between the number of graduating $12^{\text {th }}$ graders and the number of entering kindergarten students. The district has experienced negative kindergarten replacement in four of the last five years after experiencing positive kindergarten replacement for the four years prior. Negative kindergarten replacement occurs when the number of kindergarten students entering the district is less than the number of graduating twelfth grade students from the prior year. Conversely, positive kindergarten replacement occurs when the number of kindergarten students entering the district is greater than the number of graduating twelfth grade students from the prior year. As shown in Figure 5, positive kindergarten replacement has ranged from 4.5-17.5 students per year while negative kindergarten replacement has ranged from 18.5-25.5 students per year. The negative kindergarten replacement is due to the smaller kindergarten cohorts, ranging from 41-66 students in the last five years, as compared to the kindergarten cohorts four years prior, which ranged from 55-75 students. In 2020-21, there was a loss of 23 students due to kindergarten replacement, as 71 twelfth graders graduated in 2019-20 and were replaced by 48 kindergarten students in 2020-21.

Figure 5
South Hunterdon Regional Historical Kindergarten Replacement


Figure 6 shows the annual change in total enrollment compared to kindergarten replacement. As the figure demonstrates, there appears to be a strong relationship, statistically speaking, between the overall change in enrollment and kindergarten replacement. Although this data represent a very small sample, the correlation coefficient between the two variables was +0.781 . Correlation coefficients measure the relationship or association between two variables; this does not imply that there is cause and effect between the two variables. Other variables, known as lurking variables, may have an effect on the true relationship between kindergarten replacement and total enrollment change. Negative correlation coefficients indicate that as one variable is increasing (decreasing), the other variable is decreasing (increasing). Positive correlation coefficients indicate that as one of the variables increases (decreases), the other variable increases (decreases) as well. The computed linear correlation coefficient is always between -1 and +1 . Values near -1 or +1 indicate a strong linear relationship between the variables while values near zero indicate a weak linear relationship. Based on the correlation of +0.781 , there appears to be a strong relationship between enrollment change and kindergarten replacement in the school district. In 2020-21, the negative kindergarten replacement was compounded by outward migration, which is likely related to the coronavirus pandemic.

Figure 6
Comparison of PK-12 Enrollment Change and Kindergarten Replacement


## Birth Data

Birth data were needed to compute kindergarten enrollments, which were calculated as follows. Birth data, which were lagged five years behind their respective kindergarten classes, were used to calculate the survival ratio for each birth-to-kindergarten cohort. For instance, in 2015, there were a total of 60 births in Lambertville, Stockton, and West Amwell. Five years later (the 2020-21 school year), 48 children enrolled in kindergarten, which is equal to a survival ratio of 0.800 from birth to kindergarten. Birth counts and birth-to-kindergarten survival ratios are displayed in Table 7. Values greater than 1.000 indicate that some children are born outside of a community's boundaries and are attending kindergarten in the school district five years later, i.e., an inward migration of children. This type of inward migration is typical in school districts with excellent reputations, because the appeal of a good school district draws families into the community. Inward migration is also seen in communities where there are a large number of new housing starts (or home resales), with families moving into the community having children of age to attend kindergarten. Birth-to-kindergarten survival ratios that are below 1.000 indicate that a number of children born within a community are not attending kindergarten in the school district five years later. This is common in communities where a high proportion of children attend private, parochial, charter, or out-of-district special education facilities, or where there is a net migration of families moving out of the community. It is also common in school districts that have a half-day kindergarten program where parents choose to send their child to a private full-day kindergarten for the first year.

## Table 7 <br> Birth Counts and Historical Birth-to-Kindergarten Survival Ratios South Hunterdon Regional

| Birth Year ${ }^{\mathbf{1}}$ | Lambertville <br> Births | Stockton <br> Births | West Amwell <br> Births | Total Number <br> of Births | Kindergarten <br> Students Five <br> Years Later | Birth-to- <br> Kindergarten <br> Survival Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 0 6}$ | 57 | 9 | 28 | 94 | 80 | 0.851 |
| $\mathbf{2 0 0 7}$ | 50 | 5 | 26 | 81 | 58 | 0.716 |
| $\mathbf{2 0 0 8}$ | 45 | 10 | 24 | 79 | 64 | 0.810 |
| $\mathbf{2 0 0 9}$ | 40 | 9 | 15 | 64 | 55 | 0.859 |
| $\mathbf{2 0 1 0}$ | 51 | 7 | 24 | 82 | 75 | 0.915 |
| $\mathbf{2 0 1 1}$ | 39 | 2 | 17 | 58 | 44 | 0.759 |
| $\mathbf{2 0 1 2}$ | 29 | 2 | 16 | 47 | 53 | 1.128 |
| $\mathbf{2 0 1 3}$ | 34 | 2 | 20 | 56 | 41 | 0.732 |
| $\mathbf{2 0 1 4}$ | 44 | 3 | 19 | 66 | 66 | 1.000 |
| $\mathbf{2 0 1 5}$ | 34 | 4 | 22 | 60 | 48 | 0.800 |
| $\mathbf{2 0 1 6}$ | 38 | 1 | 16 | 55 | N/A | N/A |
| $\mathbf{2 0 1 7}$ | 26 | 2 | 20 | 48 | N/A | N/A |
| $\mathbf{2 0 1 8}$ | 34 | 0 | 28 | 62 | N/A | N/A |
| $\mathbf{2 0 1 9}$ | 38 | 1 | 18 | 57 | N/A | N/A |

Note: ${ }^{1}$ Birth data were provided by the New Jersey Center for Health Statistics from 2006-2019

Due to the low number of aggregated births and kindergarten students, birth-tokindergarten survival ratios have been more susceptible to variability. In eight of the last ten years, birth-to-kindergarten survival ratios in the district have been below 1.000 and have been fairly inconsistent over this time period, ranging from $0.716-1.128$. As many of the birth-tokindergarten survival ratios are below 1.000 , this indicates that some children who were born in the sending communities are moving out before school age or are enrolling in other districts besides South Hunterdon Regional.

Geocoded birth data were provided by the New Jersey Center for Health Statistics ("NJCHS") from 2006-2019 by assigning geographic coordinates to a birth mother based on her street address. Births for 2019 are provisional while births for 2020 were not yet available. Since the NJCHS did not have birth data for 2020, an estimate was formulated by averaging historical births. Birth counts were needed for 2020 since this cohort will become the kindergarten class of 2025.

From 2006-2019, Lambertville has consistently had the greatest number of births of the three communities as shown in Figure 7. The number of births in Lambertville has been generally declining. Births have declined from a high of 57 in 2006 to a low of 26 in 2017 before reversing trend. In Stockton, the annual number of births has ranged from 0-10 while the annual number of births in West Amwell has ranged from 15-28. Combining the data from the three communities, the number of births has declined from a high of 94 in 2006 to a low of 48 in 2017. As a result of the decline in the number of births, kindergarten enrollment has declined from 80 in 2011-12 to 48 in 2020-21.


The fertility rates in Lambertville, Stockton, and West Amwell are significantly lower than those of both Hunterdon County and the State of New Jersey. According to the 2015-2019 ACS, the fertility rate of women aged 15 to 50 was 20 births per 1,000 women in Lambertville, 19 births per 1,000 women in Stockton, and 21 births per 1,000 women in West Amwell. In comparison, as reported by the NJCHS, the 2019 fertility rate in Hunterdon County was 50.0 births per 1,000 women (ages 15-49) and was 59.3 births per 1,000 women in New Jersey. However, it should be noted that while the municipal, county, and state data are all based on a sample, the municipal data have a margin of error that is much higher than the county and state data and may not reflect the "true" fertility rates in the communities.

## Population Age Structure

Due to the small populations in each community, Figures 8 and 9 show the age pyramids of males and females from the three sending communities using aggregated populated counts from both the 2010 Census $^{4}$ and the 2015-2019 ACS. In 2010, the largest number of individuals was aged 45-49 for both males and females. As these individuals advance in age, the largest cohort in the 2015-2019 ACS was aged 55-59 for both genders. As shown in Table 7, the greatest declines (shaded red) over this time period, both in number and percentage points, occurred in the 35-39 age group for males and the 30-34 age group for females. The greatest gains (shaded blue), both in number and percentage points, occurred in the 70-74 age group for males and the 15-19 age group for females, which corresponds with high school and collegeaged individuals.

Figure 8
Population Pyramid of South Hunterdon Regional 2010 Census


[^1]Figure 9
Population Pyramid of South Hunterdon Regional 2015-2019 ACS


Table 7
Numerical and Percentage Point Changes of Males and Females South Hunterdon Regional 2010 Census to 2015-2019 ACS

|  | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: |
| Age Group | Numerical <br> Change | Percentage Point <br> Change | Numerical <br> Change | Percentage Point <br> Change |
| Under 5 | -71 | -0.9 | -29 | -0.3 |
| $\mathbf{5 - 9}$ | +14 | +0.3 | -47 | -0.6 |
| $\mathbf{1 0 - 1 4}$ | +117 | +1.7 | -33 | -0.4 |
| $\mathbf{1 5 - 1 9}$ | -30 | -0.4 | +130 | +1.9 |
| $\mathbf{2 0 - 2 4}$ | -35 | -0.4 | -29 | -0.4 |
| $\mathbf{2 5 - 2 9}$ | +70 | +1.0 | +24 | +0.4 |
| $\mathbf{3 0 - 3 4}$ | -42 | -0.5 | -112 | -1.5 |
| $\mathbf{3 5 - 3 9}$ | -155 | -2.1 | -37 | -0.4 |
| $\mathbf{4 0 - 4 4}$ | -23 | -0.2 | -25 | -0.3 |
| $\mathbf{4 5 - 4 9}$ | -109 | -1.4 | -83 | -1.0 |
| $\mathbf{5 0 - 5 4}$ | -60 | -0.7 | -37 | -0.4 |
| $\mathbf{5 5 - 5 9}$ | +4 | +0.2 | +9 | +0.2 |
| $\mathbf{6 0 - 6 4}$ | +45 | +0.7 | +13 | +0.3 |
| $\mathbf{6 5 - 6 9}$ | +140 | +2.0 | +86 | +1.3 |
| $\mathbf{7 0 - 7 4}$ | +224 | +3.1 | -1 | 0.0 |
| $\mathbf{7 5 - 7 9}$ | -44 | -0.6 | +67 | +1.0 |
| $\mathbf{8 0 - 8 4}$ | -35 | -0.5 | -51 | -0.7 |
| $\mathbf{8 5 +}$ | +3 | +0.1 | -30 | -0.4 |

Notes: Cells shaded blue reflect the greatest gains over the ten-year period.
Cells shaded red reflect the greatest losses over the ten-year period.

## New Housing

## 1. City of Lambertville

Ms. Crystal Lawton, City of Lambertville Planning Board Secretary, provided information regarding current and future residential development in the community. A list of approved and proposed developments, location, number of units, housing type, and project status is shown in Table 8. The table excludes new houses to be built on single in-fill lots, or the subdivision of existing lots, or homes that are built after the demolition of an existing older home. In the latter instance, there is no net gain in the number of housing units. There is the potential for 16-17 non age-restricted housing units in Lambertville, most of which are townhouse units.

The table does not include any potential development from Academy Hill, Inc., which has been in litigation with the city since 1998. The development would require public water and sewer, which is not currently available in that area of the city.

## Table 8

 Potential Residential Developments in Lambertville| Development/ <br> Location | Number <br> of Units | Housing <br> Type | Notes/Project Status |  |  |  |  |  |
| :---: | :---: | :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| Church Street | 3 | Townhouse | Recently completed |  |  |  |  |  |
| Wilson Street | 8 | Townhouse | Has received final approval but is not yet under <br> construction. Will consist of 2- and 3-bedroom units. |  |  |  |  |  |
| Ferry Street | 3 | Townhouse | Has received final approval but is not yet under <br> construction. |  |  |  |  |  |
| Douglas Street | $2-3$ | Detached <br> Single-Family | Application has been submitted but has not been <br> approved- to be heard by the Planning Board. |  |  |  |  |  |
| Total |  |  |  |  | $\mathbf{1 6 - 1 7}$ Units |  |  |  |

Source: City of Lambertville Planning Department

## Distribution of Homes by Decade Built

Figure 10 shows the number of homes built by decade in Lambertville as provided by the 2015-2019 ACS. As shown in the figure, Lambertville has an older housing stock, as $74 \%$ of the homes were built before 1980. Since 1940, the number of homes built per decade has been fairly stable. Of the decades shown, the largest number of homes was built in the 2000 s, which is $12 \%$ of the housing stock.

Figure 10
Number of Homes Built by Decade in Lambertville


## Home Sales

In Figure 11, the number of annual home sales in Lambertville is shown from 1990-2019. Data for 2020 were incomplete and are not shown. The information was retrieved from the Monmouth County Tax Board database, which possesses tax records and home sales for all municipalities in the state. "Paper sales," which are sales between members of the immediate family for a low price (e.g., $\$ 1$ or $\$ 100$ ) and result in a change in title but often not a change of the occupant, were excluded from the totals. Home sales peaked in 1999 ( 125 sales) before declining to 49 in 2011 due to the housing market crash and banking crisis. After 2011, home sales steadily increased through 2017 before reversing trend. From 2015-2019, the annual number of sales ranged from 78-106, which is comparable to the number of annual sales that occurred prior to the housing market crash and banking crisis.

Figure 11
Lambertville Home Sales
1990-2019


## 2. Stockton Borough

Ms. Maria Andrews, Stockton Borough Planning Board Secretary, provided information regarding current and future residential development in the community. Currently, there are no residential developments under construction, nor are there applications for residential subdivisions before the planning board. New residential construction is very limited in the borough as Stockton is essentially built out.

## Distribution of Homes by Decade Built

Figure 12 shows the number of homes built by decade in Stockton as provided by the 2015-2019 ACS. Like Lambertville, Stockton has an older housing stock with $90 \%$ of the homes being built prior to 1980. The number of homes built per decade peaked in the 1960s before slowly declining. Of the decades shown, the largest number of homes was built in the 1960s, which is $16 \%$ of the housing stock and corresponds to the sizable population gain $(+19.0 \%)$ as shown previously in Table 2. Since 1980, new home construction has been fairly minimal.

Figure 12
Number of Homes Built by Decade in Stockton


## Home Sales

In Figure 13, the number of annual home sales in Stockton is shown from 1990-2019. Data for 2020 were incomplete and are not shown. The information was once again retrieved from the Monmouth County Tax Board database, which possesses tax records and home sales for all municipalities in the state. "Paper sales" were excluded from the totals below. The number of sales peaked at 19 in 2004 before declining to six (6) in 2011 due to the housing market crash and banking crisis. Like Lambertville, home sales steadily increased from 2011-2017 before reversing trend. The annual number of sales has ranged from 10-16 in the last five years, which is generally higher than the number of sales that occurred before the housing market crash and banking crisis.

Figure 13 Stockton Home Sales 1990-2019


## 3. West Amwell Township

Ms. Maria Andrews, West Amwell Township Clerk, provided information regarding current and future residential development in the community. Currently, there are no residential developments under construction, nor are there applications for residential subdivisions before the planning board.

In December 2018, West Amwell approved a settlement agreement with the Fair Share Housing Center regarding its affordable housing obligation and identified potential residential developments to address the obligation. While there is the potential for 300-400 apartment and townhouse units (approximately 140 units will be affordable) as a result of the township's settlement agreement, there are no definitive plans to construct the units at this time. To construct these developments, the township would need public water and sewer, which it currently does not have. Therefore, due to the uncertainty of when they will be built, they were not considered in this study.

## Distribution of Homes by Decade Built

Figure 14 shows the number of homes built by decade in West Amwell as provided by the 2015-2019 ACS. Unlike the previous communities, West Amwell has a fairly even mix of older and newer homes, as $61 \%$ of the homes were built prior to 1980. As shown in the figure, the number of homes built per decade from 1960-1990 was fairly uniform, ranging from 74-97, before increasing in the 1990s and 2000s. Of the decades shown, the largest number of homes was built in the 2000 s, which is $18 \%$ of the housing stock and corresponds to the sizable population gain $(+19.3 \%)$ as shown previously in Table 3.

Figure 14


## Home Sales

In Figure 15, the number of annual home sales in West Amwell is shown from 19902019. Data for 2020 were incomplete and are not shown. The information was once again retrieved from the Monmouth County Tax Board database, which possesses tax records and home sales for all municipalities in the state. "Paper sales" were excluded from the totals below. The number of sales steadily increased and peaked at 38 in 2002 before declining to 19 in 2011 due to the housing market crash and banking crisis. Since 2011, the number of sales has steadily increased, peaking at 42 sales in 2016 before reversing trend. The annual number of sales has ranged from 27-30 in the last three years, which is comparable to the number of sales that occurred before the housing market crash and banking crisis.

Figure 15


## Historical Residential Construction

With respect to historical new construction, the number of certificates of occupancy ("COs") issued for new homes in Lambertville, Stockton, and West Amwell from 2015-2020 is shown in Table 9. New residential construction has been very limited in each community. In Lambertville, 22 COs were issued over this time period, most of which were for single-family or two-family homes. In West Amwell, 14 COs were issued from 2015-2020, all of which were for single-family or two-family homes. In Stockton, there were no COs issued over this time period.

## Table 9 <br> Number of Residential Certificates of Occupancy by Year 2015-2020

| Year | Lambertville |  |  | Stockton |  |  | West Amwell |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 1 \& 2 \\ \text { Family } \end{gathered}$ | MultiFamily/ Mixed Use | Total | $\begin{gathered} \text { 1\&2 } \\ \text { Family } \end{gathered}$ | MultiFamily/ Mixed Use | Total | $\begin{gathered} \text { 1\&2 } \\ \text { Family } \end{gathered}$ | MultiFamily/ Mixed Use | Total |
| 2015 | 4 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 4 |
| 2016 | 3 | 1 | 4 | 0 | 0 | 0 | 2 | 0 | 2 |
| 2017 | 4 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 1 |
| 2018 | 4 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 3 |
| 2019 | 5 | 0 | 5 | 0 | 0 | 0 | 4 | 0 | 4 |
| $\begin{gathered} \hline 2020 \\ \text { (through } \\ \text { Nov.) } \end{gathered}$ | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 21 | 1 | 22 | 0 | 0 | 0 | 14 | 0 | 14 |

Source: New Jersey Department of Community Affairs

## Estimate of Public School Children from New Housing

An estimate was made of the number of public school children that could potentially come from the proposed housing developments in Lambertville. To project the number of public school children from the new housing units, Who Lives in New Jersey Housing? ${ }^{5}$, published by the Rutgers University Center for Urban Policy Research ("CUPR"), was utilized. The resource provides statewide housing multipliers (student yields) based on housing type, number of bedrooms, housing value, housing tenure (ownership versus rental), and whether the housing units are market-rate or affordable.

[^2]In addition, several assumptions were made:

1. The student yield multipliers used from CUPR are from a sample of New Jersey homes and these multipliers would be representative of the families moving into Lambertville.
2. The developments on Church Street and Ferry Street were assumed to have two two-bedroom units and one three-bedroom unit as the bedroom distribution was unavailable.
3. The development on Wilson Street was assumed to have four two-bedroom units and four three-bedroom units as the bedroom distribution was unavailable.
4. It was assumed that the development on Douglas Street would consist of three detached single-family homes.
5. All market-rate townhouse units were assumed to have the following student yield multipliers: 2-bedroom $=0.226$ and 3-bedroom $=0.477$.
6. The detached single-family homes were assumed to have 4-5 bedrooms and the following student yield multiplier: 0.848.

In total, seven (7) public school children ( $\mathrm{K}-6=5$ and $7-12=2$ ) in grades $\mathrm{K}-12$ are projected to be generated from the new housing developments according to the following distribution:

- Church Street $-1(\mathrm{~K}-6=1,7-12=0)$
- Ferry Street - $1(\mathrm{~K}-6=1,7-12=0)$
- Douglas Street $-2(\mathrm{~K}-6=1,7-12=1)$
- Wilson Street $-3(\mathrm{~K}-6=2,7-12=1)$

When determining the impact of future new housing, it should be clearly stated that enrollment projections utilize cohort survival ratios that do take into account prior new home construction growth. Children who move into new homes during the historical period are captured by the survival ratios, as these ratios will be used to project future enrollments. Therefore, it is not appropriate to add all of the new children generated from future housing units without considering the historical period, as double counting would occur, since the survival ratios have already increased due to the new children. The baseline enrollment projections should only be adjusted if the projected housing growth is significantly greater than prior housing growth. From 2015-2019, there was a gain of 36 housing units in Lambertville, Stockton, and West Amwell. Based on this data and that 16-17 housing units are planned, it appears that future residential construction will be less than that which occurred since 2015. Therefore, the baseline enrollment projections were not modified to account for additional children from the new housing developments.

## Student Withdrawals

As shown earlier in the report, the district's enrollment declined by 59.5 students in 202021 , which is partially due to the coronavirus pandemic. In Table 10, the number of students that withdrew from the district is shown by grade and school and only includes students who are being homeschooled or are attending private schools. It does not include students who have moved, as this typically occurs on an annual basis and may not be related to the pandemic. Approximately three-quarters ( $\mathrm{n}=18,78 \%$ ) of these students are being homeschooled while the remaining students are attending private school. As the table shows, 23 students withdrew in 2020-21, where nearly all of the students are in the elementary grades. If the pandemic had not occurred and these students had enrolled in the district, the decline in enrollment (-36.5) would have been less.

## Table 10 <br> Withdrawal of Students by Grade in South Hunterdon Regional 2020-21

| School | Grade |  |  |  |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PK | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |  |
| Lambertville P.S. (PK-6) | 4 | 0 | 3 | 0 | 1 | 0 | 1 | 1 |  |  |  |  |  |  | 10 |
| West Amwell Twp. E.S. (K-6) |  | 1 | 1 | 1 | 4 | 3 | 1 | 0 |  |  |  |  |  |  | 11 |
| South Hunterdon Regional H.S. $(7-12)$ |  |  |  |  |  |  |  |  | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Total | 4 | 1 | 4 | 1 | 5 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 23 |

Source: South Hunterdon Regional School District
Note: Data only show students who withdrew to be homeschooled or to attend private school. This does not include students who moved out of the school district.

## Enrollment Projections

In two separate projections, enrollments were calculated from 2021-22 through 2025-26, a five-year period. Due to the decline in enrollment in 2020-21, which is partially related to the coronavirus pandemic, the existing 2020-21 enrollments were modified before the projections were undertaken to prevent artificially low enrollments in the future when the pandemic ends. It was assumed that the students who withdrew from the district in 2020-21 (Table 10) would have attended South Hunterdon Regional in 2020-21 if the pandemic had not occurred. Therefore, these students were added back into the 2020-21 enrollments by grade for the purpose of increasing the most current survival ratios (four of the 13 ratios were the lowest in the last decade) and to provide a "higher base" for projecting future enrollments, as these students are likely to return to the district in September 2021 if the pandemic ends with the implementation of an effective vaccine.

Enrollments for the self-contained special education/ungraded classes were computed by calculating the historical proportions of self-contained special education/ungraded students with respect to the regular education subtotals at each grade configuration (PK-6 and 7-12) and multiplying an average proportion by the future regular education subtotals.

On September 10, 2010, former New Jersey Governor Chris Christie signed into law the Interdistrict School Choice Program ("Choice"), which took effect in the 2011-12 school year. This enables students the choice in attending a school outside their district of residence if the selected school is participating in the Choice program. The Choice district sets the number of openings per grade level. South Hunterdon Regional does participate in the program and will accept a limited number of students ( $\mathrm{n}=10$ ) in grades $\mathrm{K}-12$ in 2021-22 according to the district's Choice profile on the NJDOE website. The district has been accepting Choice students for approximately the last ten years. The preceding historical enrollments and the forthcoming projections include Choice students.

With respect to grade-level pre-kindergarten students at Lambertville Public School, enrollments were projected by computing an average based on historical data and using this value throughout the five-year projection period. In the last three years, pre-kindergarten enrollments have ranged from 24-29 students. It was estimated that there would be 28 students in the program annually in the future. Pre-kindergarten children with special needs were not included in these counts and were included instead with the self-contained special education/ungraded projections.

In 2018, the administration of Governor Phil Murphy announced the availability of Preschool Education Expansion Aid ("PEEA"). In September 2018, the first round of funding ( $\$ 20.6$ million) was publicized, where 31 districts received aid to expand their pre-kindergarten programs. A second round of funding was announced in January 2019, providing 33 additional school districts with roughly $\$ 27$ million in funding. The second round targeted districts whose free and reduced lunch percentage was above $20 \%$ and who had not previously received State preschool aid. South Hunterdon Regional did not receive a PEEA grant in either the first or second round of funding and therefore has no bearing on the outcome of this study.

Projected PK-12 enrollments, using cohort-survival ratios based on historical data from the last five years, follow in Table 11 and Figure 16. Enrollments are projected to decline throughout the projection period. Enrollment is projected to be 781 in 2025-26, which would be a loss of 80.5 students from the 2020-21 enrollment of 861.5.

Table 11
South Hunterdon Regional Projected Enrollments (PK-12) Using Cohort-Survival Ratios and 5 Years of Historical Data 2021-22 to 2025-26

| Year | PK | K | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ | SE | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 2 1 - 2 2}$ | 28 | 47 | 54 | 66 | 51 | 57 | 55 | 80 | 61 | 65 | 65 | 78 | 73 | 62 | 10 | $\mathbf{8 5 2}$ |
| $\mathbf{2 0 2 2 - 2 3}$ | 28 | 41 | 51 | 56 | 66 | 52 | 56 | 54 | 80 | 60 | 66 | 67 | 74 | 70 | 10 | $\mathbf{8 3 1}$ |
| $\mathbf{2 0 2 3 - 2 4}$ | 28 | 53 | 45 | 53 | 56 | 67 | 51 | 55 | 54 | 79 | 60 | 68 | 63 | 71 | 10 | $\mathbf{8 1 3}$ |
| $\mathbf{2 0 2 4 - 2 5}$ | 28 | 48 | 58 | 46 | 53 | 57 | 66 | 50 | 55 | 54 | 80 | 62 | 64 | 61 | 10 | $\mathbf{7 9 2}$ |
| $\mathbf{2 0 2 5 - 2 6}$ | 28 | 48 | 53 | 60 | 46 | 54 | 56 | 65 | 50 | 55 | 54 | 82 | 59 | 62 | 9 | $\mathbf{7 8 1}$ |

Figure 16
South Hunterdon Regional Enrollment Projections


Projected PK-12 enrollments, using cohort-survival ratios based on historical data from the last six years, follow in Table 12 and Figure 16. Enrollments are also projected to decline throughout the projection period, albeit at a slower rate. Enrollment is projected to be 800 in 2025-26, which would be a loss of 61.5 students from the 2020-21 enrollment.

Table 12
South Hunterdon Regional Projected Enrollments (PK-12) Using Cohort-Survival Ratios and 6 Years of Historical Data 2021-22 to 2025-26

| Year | $\mathbf{P K}$ | K | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ | SE | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 2 1 - 2 2}$ | 28 | 49 | 53 | 65 | 50 | 57 | 55 | 81 | 61 | 66 | 66 | 78 | 74 | 62 | 10 | $\mathbf{8 5 5}$ |
| $\mathbf{2 0 2 2 - 2 3}$ | 28 | 43 | 53 | 54 | 64 | 51 | 56 | 55 | 81 | 61 | 68 | 68 | 75 | 71 | 10 | $\mathbf{8 3 8}$ |
| $\mathbf{2 0 2 3 - 2 4}$ | 28 | 55 | 47 | 54 | 53 | 65 | 50 | 56 | 55 | 81 | 63 | 70 | 65 | 72 | 10 | $\mathbf{8 2 4}$ |
| $\mathbf{2 0 2 4 - 2 5}$ | 28 | 51 | 60 | 48 | 53 | 54 | 64 | 50 | 56 | 55 | 84 | 65 | 67 | 62 | 10 | $\mathbf{8 0 7}$ |
| $\mathbf{2 0 2 5 - 2 6}$ | 28 | 50 | 56 | 61 | 47 | 54 | 53 | 64 | 50 | 56 | 57 | 87 | 63 | 64 | 10 | $\mathbf{8 0 0}$ |

Negative kindergarten replacement is expected to continue to occur in the future as shown in Figure 17. In the first projection, negative kindergarten replacement is projected to range from 13-29.5 students per year, while range from 12-27.5 students per year in the second projection. In general, the magnitude of the negative kindergarten replacements is projected to decrease over time as the $12^{\text {th }}$ grade cohorts decrease in size.

Figure 17
South Hunterdon Regional Projected Kindergarten Replacement


## Projected Enrollments by Grade Configuration

In Table 13, projected enrollments are shown by grade configuration (PK-6 and 7-12) in South Hunterdon Regional. Ungraded special education students were reassigned into each of the grade configurations.

For grades PK-6, enrollments are projected to be slightly lower by the end of the projection period. In the first projection using CSR based on five years of historical data, enrollment is projected to be 415 in 2025-26, which would be a loss of 17 students from the 2020-21 enrollment of 432. In the second projection using CSR based on six years of historical data, enrollment is projected to be 418 in 2025-26, which would be a loss of 14 students from the 2020-21 enrollment.

For South Hunterdon Regional High School (grades 7-12), enrollments are projected to decline, in general, throughout the projection period. The CSR method based on five years of historical data is projecting enrollment to be 366 in 2025-26, which would represent a loss of 63.5 students from the 2020-21 enrollment of 429.5 . The CSR method based on six years of historical data is projecting enrollment to be 382 in 2025-26, which would be a loss of 47.5 students from the 2020-21 enrollment.

Table 13
Projected Enrollments for Grades PK-6 and 7-12 2021-22 to 2025-26

| Historical | PK-6 |  | 7-12 |  |
| :---: | :---: | :---: | :---: | :---: |
| 2020-21 | 432 |  | 429.5 |  |
| Projected | PK-6 | CSR | CSR | 7-12 |
|  | 5-YR | CSR | C-12 |  |
| 2021-22 | 443 | 443 | 409 | 412 |
| 2022-23 | 409 | 409 | 422 | 429 |
| 2023-24 | 413 | 413 | 400 | 411 |
| 2024-25 | 411 | 413 | 381 | 394 |
| 2025-26 | 415 | 418 | 366 | 382 |
| 5-year Change | $\mathbf{- 1 7}$ | $\mathbf{- 1 4}$ | $\mathbf{- 6 3 . 5}$ | $\mathbf{- 4 7 . 5}$ |

## Capacity Analysis

Table 14 shows the educational capacities of the grade configurations (PK-6 and 7-12) in South Hunterdon Regional in comparison to both the current enrollments in 2020-21 and the enrollment projections in the 2025-26 school year. For the elementary grades (PK-6), capacity is shown by grade configuration since the enrollment projections were not performed at the school level. Using the building capacities from the district's LRFP, the differences between capacity and current/projected number of students were computed. Positive values indicate available extra seating while negative values indicate inadequate seating (also known as "unhoused students"). It should be noted that the capacity values are not fixed and can change from year-toyear based on classroom usage. For instance, additional special education classes in a building would reduce a building's capacity. On the other hand, districts with unhoused students can accommodate these children by increasing class sizes, which in turn increases the school's capacity. As such, the capacity of a school is not a fixed value and can be changed depending on how the building is used.

While there were two sets of projections, only the highest projection is shown. In the elementary configuration, there is currently a surplus of seating (+143) while South Hunterdon Regional High School is nearing capacity. By 2025-26, due to a projected decline in enrollment, the surplus at the elementary configuration is projected to increase ( +157 ). South Hunterdon Regional High School is projected to have a small surplus in seating ( +52 ) due to a projected decline in enrollment.

## Table 14 <br> Capacity Analysis <br> South Hunterdon Regional

| Grade Configuration | Capacity ${ }^{\mathbf{1 , 2}}$ | Current <br> Enrollment <br> $\mathbf{2 0 2 0 - 2 1}$ | Difference | Projected <br> Enrollment <br> $\mathbf{2 0 2 5 - 2 6}$ | Difference |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Elementary <br> (PK-6) | 575 | 432 | $\mathbf{+ 1 4 3}$ | 418 | $\mathbf{+ 1 5 7}$ |
| South Hunterdon <br> Regional H.S. <br> (7-12) | 434 | 429.5 | $\mathbf{+ 4 . 5}$ | 382 | $\mathbf{+ 5 2}$ |

Note: ${ }^{1}$ District Practices Capacity from the South Hunterdon Regional Long Range Facility Plan (2019)
${ }^{2}$ As the capacities were last calculated in 2019, the actual capacities of the buildings in 2021 may have changed if the buildings' instructional spaces are being used differently than in 2019.

## Housing Turnover Analysis

In a completely independent analysis, historical housing turnover rates by length of ownership in Lambertville, Stockton, and West Amwell (henceforth described as South Hunterdon Regional) were used along with current student yields by length of ownership to project the number of students from 2020-2024, a five-year period. To accomplish this task, housing turnover rates for one- to four-family homes were analyzed. Mixed-use properties (commercial and residential combined) were removed from the database. Apartments were also excluded since the length of time a tenant occupies a residence cannot be determined. Agerestricted units were also excluded from this investigation. To complete this analysis, three inputs were needed:

1. housing turnover rates by length of ownership,
2. current distribution of homes by length of ownership, and
3. student yields by length of ownership.

## Turnover Rates

To compute turnover rates for one- to four-family homes, parcel-level data were once again obtained from the Monmouth County Tax Board database for each community, which possesses tax records for all counties and municipalities in the state. The parcel-level data includes the year the home was built, the most recent sale dates, and the sale prices. The earliest sale date recorded in the database was 1990, providing 29 years of historical sale data through 2019. Data were not collected for homes built or sold in 2020 as the data were incomplete. Due to the small number of homes in each community, the data were combined for this analysis.

Each cohort of homes was followed to see when it was sold next to compute the housing turnover rate by length of ownership. As an example, we will assume that a house was built in 1980 and its three most recent sale dates in the database were 1999, 2005, and 2009. We cannot assume that the first length of ownership is 19 years since the house may have been sold prior to 1990, the earliest year sales were recorded. The first length of ownership is six years (1999 to 2005) whereby the home then becomes part of the 2005 cohort. After being sold four years later in 2009, the house becomes part of the 2009 cohort. Each time a home is sold, it becomes part of a different cohort of homes. In this example, the house was in three separate cohorts. Turnover rates were then computed by dividing the number of homes sold at a particular length of ownership by the total number of homes in the cohort. For instance, in South Hunterdon Regional's 2002 cohort, nine (9) homes sold in the first year of ownership out of 167 homes, resulting in a turnover rate of $5.4 \%$. An additional five (5) homes were sold in the second year of ownership, resulting in a turnover rate of $3.0 \%$. Turnover rates by length of ownership were computed and capped at 17 years for this cohort, since 2019 is the most recent year that sales data were available. Since the oldest sales were from 1990, computing turnover rates was possible on homes with lengths of ownership up to 29 years. Unfortunately, one of the drawbacks of the study was that sales data were not available prior to 1990, which prevented computation of turnover rates on long-held homes exceeding 29 years of ownership.

In short, for each year from 1990-2019, there is a distribution of turnover rates by length of ownership. Obviously, there is not much information for homes with recent sale dates, such as 2016, since these homes may not have been sold again or would only have turnover rates by length of ownership of up to three years.

Turnover rates by length of ownership also vary according to the housing market. For instance, when the housing market was very strong in the early and mid-2000s, the turnover rate for the first year of ownership in South Hunterdon Regional ranged from 5-9\%, as sellers tried to maximize their housing profits or move up into a bigger home. However, in the period following the housing market crash of 2008, the turnover rate in the first year of ownership was approximately $1-2 \%$, which is a significantly lower rate, as homeowners had difficulty selling their homes or fewer homeowners put their homes up for sale.

Figure 18 shows the distribution of turnover rates by length of ownership for one- to four-family homes in South Hunterdon Regional from 1990-2014. Although data were collected from 1990-2019, the turnover rates for homes from 2015-2019 are not shown, as they would only have maximum lengths of ownership of four years or less. Figure 19 shows the distribution of turnover rates by length of ownership for one- to four-family homes using a 3 -year moving average to smooth out unusual year-to-year variations in the turnover rates. While there is still a lot of variation even after using the three-year moving average, both figures shows that turnover rates decrease as lengths of ownership increase.

In Figure 20, the weighted average turnover rates by length of ownership are shown, which combines length of ownership data from all of the historical years. This data take into account all housing market cycles, both when the housing market was very strong, such as the early to mid-2000s, and when it was weak, such as the period after the banking and financial crises of 2008. As the figure shows, turnover rates are greatest in South Hunterdon Regional with three years of ownership ( $4.6 \%$ ) before declining, as turnover rates are lowest for longer lengths of ownership. For homes with 14 or more years of ownership, average turnover rates were less than $2.0 \%$. While it appears that turnover rates are rising at 24 years of ownership, this is misleading since there are fewer homes at this length of ownership and one or two additional sales had a great impact on the turnover rate. Based on our experience with school districts that had 35-40 years of sales data available to compute lengths of ownership, turnover rates remain low, or decline further, at the longest lengths of ownership.

One of the central tenets of the housing turnover analysis is to better understand the relationship between residents aging in place and student yields. While most of the homes are owner-occupied, some are occupied by renters. In our analysis, the property address and the owner's address matched for $88.5 \%$ of the housing units, which are likely owner-occupied. For the remaining units ( $11.5 \%$ ) that are likely occupied by renters, they are included in the study as the analysis captures the turnover rates of all properties since 1990, irrespective of ownership.

Figure 18
South Hunterdon Regional Historical Turnover Rates by Length of Ownership One- to Four-Family Homes

1990-2014


Figure 19
South Hunterdon Regional Turnover Rates by Length of Ownership 3-Year Moving Average
One- to Four-Family Homes
1992-2013


Figure 20
Historical Weighted-Average of South Hunterdon Regional Turnover Rates by Length of Ownership

One- to Four-Family Homes


## Current Distribution of Homes by Length of Ownership

The second input variable, current length of ownership, was computed by simply subtracting the most recent sale date from 2019. Paper sales were excluded and the next most recent sale date was used instead. Table 15 and Figure 21 show the current length of ownership distribution for one- to four-family homes in South Hunterdon Regional. Since some homes did not have a sale date, they have been owned at least 29 years, as the oldest sales data were from 1990. The greatest number of homes occurs at two years of ownership. The number of homes then declines through eight (8) years of ownership before stabilizing. The number of homes then begins to increase at 12 years of ownership before stabilizing again. After 17 years of ownership, the number of homes begins to slowly decline as length of ownership increases. A total of 639 homes $(23.0 \%)$ have never been sold, which is a relatively large percentage of the housing population, and therefore have been owned more than 29 years. This is not shown in the figure, as it would skew the end of the distribution.

## Student Yields by Length of Ownership

The third variable, student yields by length of ownership, was determined by joining the South Hunterdon Regional parcel-level property database with 2019-20 student address data, which was provided by the school district. While 2020-21 student address data were available, the prior year's student data were used to be consistent with the property databases that had sale dates through 2019. Table 15 and Figure 22 show the student yields by length of ownership for one- to four-family homes. It is expected that longer-held homes will have fewer children, as they would have graduated from the district. In 2019-20, there were 993 students in the South Hunterdon Regional database ${ }^{6}$. Of this number, we were able to match 713 South Hunterdon Regional resident students ( $71.8 \%$ ) to an address in the South Hunterdon Regional property database. Of the unmatched students, 129 children lived in apartments, mixed use units, or multi-family units and were excluded from the analysis. As South Hunterdon Regional is a Choice school district, it receives students from other communities outside of the regional's attendance area. An additional 125 students had addresses outside of the regional's attendance area and were excluded from the analysis.

Excluding the high yield at six years of ownership, Figure 22 shows that student yields slowly increase with length of ownership, peaking at 0.45 children per housing unit with 15 years of ownership. Student yields then decline through 22 years of ownership before stabilizing. After 21 years of ownership, student yields are below 0.20 children per home.

It should be noted that student yields by length of ownership may change over time. The distribution shown represents the student yields based on the 2019-20 enrollment data and should be considered as a "snapshot" in time. The student yield distribution can be affected by a number of factors, such as an inward migration of students due to a school district's excellent reputation, or perhaps a change in the age structure of the community where there may be more or less children as a percentage of the population. There is no way of predicting what the future student yield distribution by length of ownership will be.

[^3]Table 15
Student Yields by Current Length of Ownership in South Hunterdon Regional One- to Four-Family Homes

| Years of Ownership | Housing Units | $\begin{gathered} \hline \text { Students } \\ 2019-20 \end{gathered}$ | Student Yield |
| :---: | :---: | :---: | :---: |
| 0 | 133 | 22 | 0.17 |
| 1 | 123 | 27 | 0.22 |
| 2 | 149 | 47 | 0.32 |
| 3 | 128 | 29 | 0.23 |
| 4 | 114 | 24 | 0.21 |
| 5 | 90 | 23 | 0.26 |
| 6 | 88 | 52 | 0.59 |
| 7 | 75 | 21 | 0.28 |
| 8 | 48 | 16 | 0.33 |
| 9 | 57 | 20 | 0.35 |
| 10 | 50 | 21 | 0.42 |
| 11 | 53 | 19 | 0.36 |
| 12 | 68 | 19 | 0.28 |
| 13 | 88 | 32 | 0.36 |
| 14 | 84 | 35 | 0.42 |
| 15 | 84 | 38 | 0.45 |
| 16 | 73 | 32 | 0.44 |
| 17 | 87 | 32 | 0.37 |
| 18 | 65 | 28 | 0.43 |
| 19 | 54 | 16 | 0.30 |
| 20 | 60 | 20 | 0.33 |
| 21 | 37 | 12 | 0.32 |
| 22 | 44 | 4 | 0.09 |
| 23 | 53 | 9 | 0.17 |
| 24 | 45 | 3 | 0.07 |
| 25 | 43 | 8 | 0.19 |
| 26 | 33 | 5 | 0.15 |
| 27 | 45 | 5 | 0.11 |
| 28 | 29 | 1 | 0.03 |
| 29 | 35 | 1 | 0.03 |
| 30+ | 639 | 92 | 0.14 |
| Total | 2,774 | 713 | 0.26 |

Figure 21
South Hunterdon Regional Current Number of One- to Four-Family Homes by Length of Ownership


Figure 22
South Hunterdon Regional Student Yields by Length of Ownership One- to Four-Family Homes


## Enrollment Projections Based on Housing Turnover

Projecting enrollment based on housing turnover is a process very similar to the CohortSurvival Ratio ("CSR") method, which is often used by demographers to project future student enrollments. As discussed previously, when using CSR, enrollments are projected based on historical "survival" ratios of students from one grade to the next. Average survival ratios are used to advance the current number of students into future grades. In the housing turnover method ${ }^{7}$, instead of students, the current length of home ownership distribution and historical turnover rates are used to project the future number of homes by either advancing homes to one more year of ownership, or if they are sold, returning them to zero years of ownership. For example, if there are 100 homes with eight years of ownership and the historical turnover rate for this length of ownership is $3 \%, 97$ homes will gain another year of ownership while three homes will be sold and will have zero years of ownership in the next year. In the forthcoming section, this process of aging homes based on historical turnover rates was completed for a five-year period.

Table 16 shows the process in greater detail. The South Hunterdon Regional historical average turnover rates by length of ownership for one- to four-family homes are shown along with the current length of ownership distribution. The projected number of turnovers is computed (Column D) by multiplying the turnover rate at a length of ownership (Column B) by the number of homes at that same length of ownership (Column C). The number of homes that "survive" to be one year older is shown in Column E. Column F is identical to Column E except that the projected total number of homes sold in 2020, 60 from Column D, becomes the number of homes with zero years of ownership in the following year. However, if the regional's average turnover rates are used in this analysis, the predicted annual number of home sales ( 60 as shown in the table) would be much lower than the current number of homes with zero years of ownership ( $\mathrm{n}=133$ ), which reflects the number of one- to four-family homes sold in 2019. The average turnover rates reflect home selling patterns from an older historical period that may not be reflective of the current housing market. Therefore, two scenarios were modeled to increase the number of sales to current levels.

## Scenario 1

In the first scenario, the average turnover rate at each length of ownership from each of the last 29 years was used to project the number of future homes. In addition, one of the key variables affecting future enrollments in the housing turnover model is the number of long-held homes ( 30 or more years). As shown previously, the student yield for homes with 30 or more years of ownership is very low (0.14). The greater the number of long-held homes in a district, the greater the probability that enrollment will decline since yields are low for long-held homes. For enrollments to be stable (or to increase), turnover rates would need to be higher for homes with 30 or more years of ownership. Therefore, the turnover rate for homes with 30 or more years of ownership was increased to $12.5 \%$. The higher turnover rate also simulates a greater percentage of baby boomers/empty nesters selling their homes than experienced currently.

[^4]Table 16
Sample of Process in Forecasting Length of Ownership

| A | B | C | D | E | F |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Years of Ownership | Turnover Rate | Current Number of Homes by Length of Ownership In Year Y | Turnovers During Year Y $\left(D=B^{*} C\right)$ | Unsold Homes During Year Y Homes Now Have One More Year of Ownership ( $\mathrm{E}=\mathrm{C}-\mathrm{D}$ ) | Forecasted Length of Ownership Distribution (Year Y + 1) |
| 0 | 2.3\% | 133 | 3 |  | 60 |
| 1 | 4.1\% | 123 | 5 | 130 | 130 |
| 2 | 4.0\% | 149 | 6 | 118 | 118 |
| 3 | 4.6\% | 128 | 6 | 143 | - 143 |
| 4 | 4.5\% | 114 | 5 | 122 | 122 |
| 5 | 4.3\% | 90 | 4 | 109 | 109 |
| 6 | 4.3\% | 88 | 4 | 86 | 86 |
| 7 | 4.0\% | 75 | 3 | 84 | 84 |
| 8 | 3.1\% | 48 | 1 | 72 | 72 |
| 9 | 3.1\% | 57 | 2 | 47 | 47 |
| 10 | 2.3\% | 50 | 1 | 55 | 55 |
| 11 | 2.2\% | 53 | 1 | 49 | 49 |
| 12 | 2.6\% | 68 | 2 | 52 | 52 |
| 13 | 2.5\% | 88 | 2 | 66 | 66 |
| 14 | 1.3\% | 84 | 1 | 86 | 86 |
| 15 | 1.5\% | 84 | 1 | 83 | 83 |
| 16 | 1.1\% | 73 | 1 | 83 | 83 |
| 17 | 1.3\% | 87 | 1 | 72 | 72 |
| 18 | 1.4\% | 65 | 1 | 86 | 86 |
| 19 | 1.2\% | 54 | 1 | 64 | 64 |
| 20 | 0.8\% | 60 | 0 | 53 | 53 |
| 21 | 0.4\% | 37 | 0 | 60 | 60 |
| 22 | 0.7\% | 44 | 0 | 37 | 37 |
| 23 | 1.0\% | 53 | 1 | 44 | 44 |
| 24 | 1.3\% | 45 | 1 | 52 | 52 |
| 25 | 0.2\% | 43 | 0 | 44 | 44 |
| 26 | 0.8\% | 33 | 0 | 43 | 43 |
| 27 | 0.3\% | 45 | 0 | 33 | 33 |
| 28 | 1.2\% | 29 | 0 | 45 | 45 |
| 29 | 1.0\% | 35 | 0 | 29 | 29 |
| 30 and up | $1.1 \%^{1}$ | 639 | 7 | 667 | 667 |
| Total |  | 2,774 | 60 |  | 2,774 |

Note: ${ }^{1}$ Homes not sold since 1990 were assumed to have a future turnover rate of $1.1 \%$.

Table 17 shows the projected number of homes by length of ownership for one- to fourfamily homes in South Hunterdon Regional for 2020-2024 using the method described above, assuming that the turnover rates presented in the table will continue into the future. Increasing the turnover rate for homes with 30 or more years of ownership has the added effect of raising the number of sales to current levels. In this scenario, the predicted annual number of home sales ranges from 117-133 (homes with zero years of ownership), which is comparable to the number of sales that occurred in 2019.

## Table 17 <br> Projected Number of South Hunterdon Regional One- to Four-Family Homes by Length of Ownership Scenario 1

| Years of <br> Ownership | Average <br> Turnover <br> Rate | Turnover <br> Rate <br> Used | $\mathbf{2 0 1 9}$ <br> (Actual) | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0}$ | $2.3 \%$ | $2.3 \%$ | 133 | 133 | 128 | 122 | 122 | 117 |
| $\mathbf{1}$ | $4.1 \%$ | $4.1 \%$ | 123 | 130 | 130 | 125 | 119 | 119 |
| $\mathbf{2}$ | $4.0 \%$ | $4.0 \%$ | 149 | 118 | 125 | 125 | 120 | 114 |
| $\mathbf{3}$ | $4.6 \%$ | $4.6 \%$ | 128 | 143 | 113 | 120 | 120 | 115 |
| $\mathbf{4}$ | $4.5 \%$ | $4.5 \%$ | 114 | 122 | 136 | 108 | 115 | 115 |
| $\mathbf{5}$ | $4.3 \%$ | $4.3 \%$ | 90 | 109 | 116 | 130 | 103 | 110 |
| $\mathbf{6}$ | $4.3 \%$ | $4.3 \%$ | 88 | 86 | 104 | 111 | 124 | 99 |
| $\mathbf{7}$ | $4.0 \%$ | $4.0 \%$ | 75 | 84 | 82 | 100 | 106 | 119 |
| $\mathbf{8}$ | $3.1 \%$ | $3.1 \%$ | 48 | 72 | 81 | 79 | 96 | 102 |
| $\mathbf{9}$ | $3.1 \%$ | $3.1 \%$ | 57 | 47 | 70 | 78 | 77 | 93 |
| $\mathbf{1 0}$ | $2.3 \%$ | $2.3 \%$ | 50 | 55 | 46 | 68 | 76 | 75 |
| $\mathbf{1 1}$ | $2.2 \%$ | $2.2 \%$ | 53 | 49 | 54 | 45 | 66 | 74 |
| $\mathbf{1 2}$ | $2.6 \%$ | $2.6 \%$ | 68 | 52 | 48 | 53 | 44 | 65 |
| $\mathbf{1 3}$ | $2.5 \%$ | $2.5 \%$ | 88 | 66 | 51 | 47 | 52 | 43 |
| $\mathbf{1 4}$ | $1.3 \%$ | $1.3 \%$ | 84 | 86 | 64 | 50 | 46 | 51 |
| $\mathbf{1 5}$ | $1.5 \%$ | $1.5 \%$ | 84 | 83 | 85 | 63 | 49 | 45 |
| $\mathbf{1 6}$ | $1.1 \%$ | $1.1 \%$ | 73 | 83 | 82 | 84 | 62 | 48 |
| $\mathbf{1 7}$ | $1.3 \%$ | $1.3 \%$ | 87 | 72 | 82 | 81 | 83 | 61 |
| $\mathbf{1 8}$ | $1.4 \%$ | $1.4 \%$ | 65 | 86 | 71 | 81 | 80 | 82 |
| $\mathbf{1 9}$ | $1.2 \%$ | $1.2 \%$ | 54 | 64 | 85 | 70 | 80 | 79 |
| $\mathbf{2 0}$ | $0.8 \%$ | $0.8 \%$ | 60 | 53 | 63 | 84 | 69 | 79 |
| $\mathbf{2 1}$ | $0.4 \%$ | $0.4 \%$ | 37 | 60 | 53 | 62 | 83 | 68 |
| $\mathbf{2 2}$ | $0.7 \%$ | $0.7 \%$ | 44 | 37 | 60 | 53 | 62 | 83 |
| $\mathbf{2 3}$ | $1.0 \%$ | $1.0 \%$ | 53 | 44 | 37 | 60 | 53 | 62 |
| $\mathbf{2 4}$ | $1.3 \%$ | $1.3 \%$ | 45 | 52 | 44 | 37 | 59 | 52 |
| $\mathbf{2 5}$ | $0.2 \%$ | $0.2 \%$ | 43 | 44 | 51 | 43 | 37 | 58 |
| $\mathbf{2 6}$ | $0.8 \%$ | $0.8 \%$ | 33 | 43 | 44 | 51 | 43 | 37 |
| $\mathbf{2 7}$ | $0.3 \%$ | $0.3 \%$ | 45 | 33 | 43 | 44 | 51 | 43 |
| $\mathbf{2 8}$ | $1.2 \%$ | $1.2 \%$ | 29 | 45 | 33 | 43 | 44 | 51 |
| $\mathbf{2 9}$ | $1.0 \%$ | $1.0 \%$ | 35 | 29 | 44 | 33 | 42 | 43 |
| $\mathbf{3 0} \mathbf{a n d}$ up | $1.1 \%$ | $12.5 \%$ | 639 | 594 | 549 | 524 | 491 | 472 |
| $\mathbf{T o t a l}$ |  |  | $\mathbf{2 , 7 7 4}$ | $\mathbf{2 , 7 7 4}$ | $\mathbf{2 , 7 7 4}$ | $\mathbf{2} \% 774$ | $\mathbf{2 , 7 7 4}$ | $\mathbf{2 9 , 7 7 4}$ |

Table 18 shows the projected number of South Hunterdon Regional students by length of ownership for one- to four-family homes from 2020-2024. This was computed by multiplying the projected number of homes by length of ownership with the student yields by length of ownership. After summing the projected number of students at each length of ownership, the output is the total number of students residing in one- to four-family homes in each year. These values are then added to the number of resident students living in apartments or mixed-use units, or those who had no address, lived out of town, or was unmatched. These values were assumed to remain constant throughout the projection period. As the table shows, the total number of students is projected to be fairly stable throughout the five-year projection period, ranging from 996-1,010, with the assumption that the turnover rates of long-held homes ( 30 or more years) would be much higher than experienced historically.

## Projected Number of South Hunterdon Regional Students Based on Length of Ownership and Student Yields Scenario 1

| Years of Ownership | Student Yield | 2020 | 2021 | 2022 | 2023 | 2024 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0.17 | 22 | 21 | 20 | 20 | 19 |
| 1 | 0.22 | 29 | 29 | 27 | 26 | 26 |
| 2 | 0.32 | 37 | 39 | 39 | 38 | 36 |
| 3 | 0.23 | 32 | 26 | 27 | 27 | 26 |
| 4 | 0.21 | 26 | 29 | 23 | 24 | 24 |
| 5 | 0.26 | 28 | 30 | 33 | 26 | 28 |
| 6 | 0.59 | 51 | 61 | 66 | 73 | 59 |
| 7 | 0.28 | 24 | 23 | 28 | 30 | 33 |
| 8 | 0.33 | 24 | 27 | 26 | 32 | 34 |
| 9 | 0.35 | 16 | 25 | 27 | 27 | 33 |
| 10 | 0.42 | 23 | 19 | 29 | 32 | 32 |
| 11 | 0.36 | 18 | 19 | 16 | 24 | 27 |
| 12 | 0.28 | 15 | 13 | 15 | 12 | 18 |
| 13 | 0.36 | 24 | 19 | 17 | 19 | 16 |
| 14 | 0.42 | 36 | 27 | 21 | 19 | 21 |
| 15 | 0.45 | 38 | 38 | 29 | 22 | 20 |
| 16 | 0.44 | 36 | 36 | 37 | 27 | 21 |
| 17 | 0.37 | 26 | 30 | 30 | 31 | 22 |
| 18 | 0.43 | 37 | 31 | 35 | 34 | 35 |
| 19 | 0.30 | 19 | 25 | 21 | 24 | 23 |
| 20 | 0.33 | 18 | 21 | 28 | 23 | 26 |
| 21 | 0.32 | 19 | 17 | 20 | 27 | 22 |
| 22 | 0.09 | 3 | 5 | 5 | 6 | 8 |
| 23 | 0.17 | 7 | 6 | 10 | 9 | 11 |
| 24 | 0.07 | 3 | 3 | 2 | 4 | 3 |
| 25 | 0.19 | 8 | 9 | 8 | 7 | 11 |
| 26 | 0.15 | 7 | 7 | 8 | 7 | 6 |
| 27 | 0.11 | 4 | 5 | 5 | 6 | 5 |
| 28 | 0.03 | 2 | 1 | 1 | 2 | 2 |
| 29 | 0.03 | 1 | 1 | 1 | 1 | 1 |
| 30 and up | 0.14 | 86 | 79 | 75 | 71 | 68 |
| Students from One- to Four-Family Homes |  | 719 | 721 | 729 | 730 | 716 |
| Students from mixed-use units, apartments, out of town, no address, or unmatched (constant) |  | 280 | 280 | 280 | 280 | 280 |
| Total |  | 999 | 1,001 | 1,009 | 1,010 | 996 |

## Scenario 2

In the first scenario, the average turnover rates utilized likely reflect home selling patterns from an older historical period that may not be reflective of the current housing market. Figure 23 shows the minimum, maximum, and average turnover rates by length of ownership in South Hunterdon Regional for the last 29 years. While it is not likely that the communities will experience the maximum historical turnover rates at each length of ownership simultaneously going forward, they are likely to experience turnover rates in between the average and maximum values. Figure 23 also shows a modified turnover rate, which reflects an increase of the historical average turnover rate by a constant (typically $175 \%$ of the average turnover rate) so that each turnover rate is above the historical average turnover rate, yet is below the historical maximum turnover rate. In the second scenario, the modified turnover rates were used to project the number of homes by length of ownership, which is shown in Table 19. In addition, for homes with 30 or more years of ownership, the turnover rate was estimated to be $6.1 \%$, which is significantly lower than in the previous scenario. In this scenario, the predicted annual number of home sales ranges from 131-133, which is comparable to the number of sales that occurred in 2019.

Figure 23
Historical Housing Turnover Rates in South Hunterdon Regional One- to Four-Family Homes 1990-2019


Table 19
Projected Number of South Hunterdon Regional One- to Four-Family Homes by Length of Ownership Scenario 2

| Years of <br> Ownership | Average <br> Turnover <br> Rate | Turnover <br> Rate <br> Used | $\mathbf{2 0 1 9}$ <br> (Actual) | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0}$ | $2.3 \%$ | $4.0 \%$ | 133 | 133 | 132 | 131 | 132 | 132 |
| $\mathbf{1}$ | $4.1 \%$ | $7.3 \%$ | 123 | 128 | 128 | 127 | 126 | 127 |
| $\mathbf{2}$ | $4.0 \%$ | $7.0 \%$ | 149 | 114 | 119 | 119 | 118 | 117 |
| $\mathbf{3}$ | $4.6 \%$ | $8.0 \%$ | 128 | 139 | 106 | 111 | 111 | 110 |
| $\mathbf{4}$ | $4.5 \%$ | $7.9 \%$ | 114 | 118 | 128 | 98 | 102 | 102 |
| $\mathbf{5}$ | $4.3 \%$ | $7.5 \%$ | 90 | 105 | 109 | 118 | 90 | 94 |
| $\mathbf{6}$ | $4.3 \%$ | $7.6 \%$ | 88 | 83 | 97 | 101 | 109 | 83 |
| $\mathbf{7}$ | $4.0 \%$ | $6.9 \%$ | 75 | 81 | 77 | 90 | 93 | 101 |
| $\mathbf{8}$ | $3.1 \%$ | $5.4 \%$ | 48 | 70 | 75 | 72 | 84 | 87 |
| $\mathbf{9}$ | $3.1 \%$ | $5.4 \%$ | 57 | 45 | 66 | 71 | 68 | 79 |
| $\mathbf{1 0}$ | $2.3 \%$ | $4.0 \%$ | 50 | 54 | 43 | 62 | 67 | 64 |
| $\mathbf{1 1}$ | $2.2 \%$ | $3.9 \%$ | 53 | 48 | 52 | 41 | 60 | 64 |
| $\mathbf{1 2}$ | $2.6 \%$ | $4.5 \%$ | 68 | 51 | 46 | 50 | 39 | 58 |
| $\mathbf{1 3}$ | $2.5 \%$ | $4.3 \%$ | 88 | 65 | 49 | 44 | 48 | 37 |
| $\mathbf{1 4}$ | $1.3 \%$ | $2.2 \%$ | 84 | 84 | 62 | 47 | 42 | 46 |
| $\mathbf{1 5}$ | $1.5 \%$ | $2.5 \%$ | 84 | 82 | 82 | 61 | 46 | 41 |
| $\mathbf{1 6}$ | $1.1 \%$ | $1.9 \%$ | 73 | 82 | 80 | 80 | 59 | 45 |
| $\mathbf{1 7}$ | $1.3 \%$ | $2.3 \%$ | 87 | 72 | 80 | 78 | 78 | 58 |
| $\mathbf{1 8}$ | $1.4 \%$ | $2.4 \%$ | 65 | 85 | 70 | 78 | 76 | 76 |
| $\mathbf{1 9}$ | $1.2 \%$ | $2.0 \%$ | 54 | 63 | 83 | 68 | 76 | 74 |
| $\mathbf{2 0}$ | $0.8 \%$ | $1.4 \%$ | 60 | 53 | 62 | 81 | 67 | 74 |
| $\mathbf{2 1}$ | $0.4 \%$ | $0.7 \%$ | 37 | 59 | 52 | 61 | 80 | 66 |
| $\mathbf{2 2}$ | $0.7 \%$ | $1.3 \%$ | 44 | 37 | 59 | 52 | 61 | 79 |
| $\mathbf{2 3}$ | $1.0 \%$ | $1.8 \%$ | 53 | 43 | 37 | 58 | 51 | 60 |
| $\mathbf{2 4}$ | $1.3 \%$ | $2.3 \%$ | 45 | 52 | 42 | 36 | 57 | 50 |
| $\mathbf{2 5}$ | $0.2 \%$ | $0.3 \%$ | 43 | 44 | 51 | 41 | 35 | 56 |
| $\mathbf{2 6}$ | $0.8 \%$ | $1.5 \%$ | 33 | 43 | 44 | 51 | 41 | 35 |
| $\mathbf{2 7}$ | $0.3 \%$ | $0.6 \%$ | 45 | 33 | 42 | 43 | 50 | 40 |
| $\mathbf{2 8}$ | $1.2 \%$ | $2.1 \%$ | 29 | 45 | 33 | 42 | 43 | 50 |
| $\mathbf{2 9}$ | $1.0 \%$ | $1.0 \%$ | 35 | 28 | 44 | 32 | 41 | 42 |
| $\mathbf{3 0} \mathbf{a n d}$ up | $1.1 \%$ | $6.1 \%$ | 639 | 635 | 624 | 630 | 624 | 627 |
| $\mathbf{T o t a l}$ |  |  | $\mathbf{2 , 7 7 4}$ | $\mathbf{2 , 7 7 4}$ | $\mathbf{2 , 7 7 4}$ | $\mathbf{2 , 7 7 4}$ | $\mathbf{2 , 7 7 4}$ | $\mathbf{2 9 , 7 7 4}$ |

Table 20 shows the projected number of South Hunterdon Regional students by length of ownership from 2020-2024. Unlike the prior scenario, enrollments are projected to slowly decline throughout the five-year period. In 2024, enrollment is projected to be 962 , which would be slightly lower than the 2019-20 enrollment (993).

Table 20
Projected Number of South Hunterdon Regional Students Based on Length of Ownership and Student Yields Scenario 2

| Years of Ownership | Student Yield | 2020 | 2021 | 2022 | 2023 | 2024 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0.17 | 22 | 22 | 22 | 22 | 22 |
| 1 | 0.22 | 28 | 28 | 28 | 28 | 28 |
| 2 | 0.32 | 36 | 38 | 38 | 37 | 37 |
| 3 | 0.23 | 31 | 24 | 25 | 25 | 25 |
| 4 | 0.21 | 25 | 27 | 21 | 21 | 21 |
| 5 | 0.26 | 27 | 28 | 30 | 23 | 24 |
| 6 | 0.59 | 49 | 57 | 60 | 64 | 49 |
| 7 | 0.28 | 23 | 22 | 25 | 26 | 28 |
| 8 | 0.33 | 23 | 25 | 24 | 28 | 29 |
| 9 | 0.35 | 16 | 23 | 25 | 24 | 28 |
| 10 | 0.42 | 23 | 18 | 26 | 28 | 27 |
| 11 | 0.36 | 17 | 19 | 15 | 22 | 23 |
| 12 | 0.28 | 14 | 13 | 14 | 11 | 16 |
| 13 | 0.36 | 24 | 18 | 16 | 17 | 13 |
| 14 | 0.42 | 35 | 26 | 20 | 18 | 19 |
| 15 | 0.45 | 37 | 37 | 28 | 21 | 19 |
| 16 | 0.44 | 36 | 35 | 35 | 26 | 20 |
| 17 | 0.37 | 26 | 29 | 29 | 29 | 21 |
| 18 | 0.43 | 37 | 30 | 34 | 33 | 33 |
| 19 | 0.30 | 19 | 25 | 20 | 23 | 22 |
| 20 | 0.33 | 18 | 21 | 27 | 22 | 25 |
| 21 | 0.32 | 19 | 17 | 20 | 26 | 21 |
| 22 | 0.09 | 3 | 5 | 5 | 6 | 7 |
| 23 | 0.17 | 7 | 6 | 10 | 9 | 10 |
| 24 | 0.07 | 3 | 3 | 2 | 4 | 3 |
| 25 | 0.19 | 8 | 9 | 8 | 7 | 10 |
| 26 | 0.15 | 7 | 7 | 8 | 6 | 5 |
| 27 | 0.11 | 4 | 5 | 5 | 6 | 4 |
| 28 | 0.03 | 2 | 1 | 1 | 1 | 2 |
| 29 | 0.03 | 1 | 1 | 1 | 1 | 1 |
| 30 and up | 0.14 | 91 | 90 | 91 | 90 | 90 |
| Students from One- to Four-Family Homes |  | 711 | 709 | 713 | 704 | 682 |
| Students from mixed-use units, apartments, out of town, no address, or unmatched (constant) |  | 280 | 280 | 280 | 280 | 280 |
| Total |  | 991 | 989 | 993 | 984 | 962 |

In comparing the projections from both scenarios, the enrollments in Scenario 2 are more plausible as it reflects turnovers rates that are more likely to occur in the next five years as opposed to historical averages, which reflect a period with lower turnover rates. In addition, the turnover rate used for homes owned 30 or more years in Scenario $2(6.1 \%)$ is more realistic than the one used in Scenario 1 ( $12.5 \%$ ).

The projections assume that student yields and turnover rates by length of ownership will remain constant over the five-year projection period. As previously stated, student yields are likely to change over time, but there is no way of projecting what they might be. Similarly, the model assumes that turnover rates by length of ownership will remain constant over the five-year projection period. Figure 18 showed the variability in the turnover rates with length of ownership.

It should be clearly stated that the purpose of this analysis is not to use the projections for future planning since the CSR method is the most accurate method available. Rather, it is an independent process to see whether future enrollments may be affected by housing turnover. In the second scenario, which is more plausible, it appears enrollments are likely to slowly decline, controlling for all other factors, such as fertility rates, births, inward migration, or new residential construction.


[^0]:    ${ }^{1}$ (https://www.nytimes.com/2020/09/26/us/coronavirus-vermont-transplants.html)
    ${ }^{2}$ https://www.npr.org/2020/10/09/920316481/enrollment-is-dropping-in-public-schools-around-the-country
    ${ }^{3}$ ibid.

[^1]:    ${ }^{4}$ Due to the erroneous counts in the 2010 Census for West Amwell Township, the 2005-2009 ACS data were used instead.

[^2]:    ${ }^{5}$ Listokin, David, and Voicu, Alexandru. (2018). Who Lives in New Jersey Housing? Updated New Jersey Demographic Multipliers. Rutgers University Center for Urban Policy Research.

[^3]:    ${ }^{6}$ While this is higher than the 921 students reported to the state through NJ SMART, it also includes students that were educated outside of the school district.

[^4]:    ${ }^{7}$ The rationale behind this method was taken from An Alternate K-12 Enrollment Forecast Method for Older Neighborhoods by Shelley Lapkoff Ph.D. of Lapkoff and Gobalet Demographic Research, Inc.

