STATISTICAL FORECASTING LLC

Demographic Study

for the

West Orange Public Schools

November 2022

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Executive Summary

Statistical Forecasting LLC ("Statistical Forecasting") completed a demographic study update for the West Orange Public Schools, projecting grade-by-grade enrollments from 2022-23 through 2026-27, a five-year period. The previous study was completed for the district in August 2017. 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 districtwide, by grade configuration (PK-5, 6-8, and 9-12), and by school,
- investigated historical enrollment trends with respect to race and poverty status in each school and districtwide,
- determined historical birth counts for each elementary attendance area,
- computed student yields by housing type (e.g., one- to four-family homes, townhouses/condominiums, and apartments),
- compared building capacities to current and projected enrollments, and
- researched new housing starts and the impact on the school district.

Community Overview

In the 2020 Census, West Orange Township ("West Orange") had 48,843 residents, which is a gain of 2,636 persons (+5.7%) from 2010. Forecasts prepared by the North Jersey Transportation Planning Authority project the population to be 51,426 in 2040, which would be a 5.3% increase from the 2020 Census and a gain of 2,583 persons.

While Whites are the largest race in West Orange, their population is declining. In the 2020 Census, West Orange was 39.2% White as compared to 47.9% in 2010, which is a loss of 8.7 percentage points. Blacks/African Americans ("Blacks") were the second-largest race at 28.5% in 2020, which is a gain of 2.9 percentage points from the 2010 percentage (25.6%). Hispanics were the third-largest race, consisting of 19.8% of the population in 2020, which is a gain of 3.6 percentage points from the 2010 percentage of 16.2%.

With respect to nativity, 30.8% of West Orange residents are foreign-born, which is greater than that of New Jersey (22.7%). Haiti and Jamaica are the largest sources of the township's foreign-born population.

Historical Enrollment Trends

Historical enrollments (PK-12) were analyzed from 2012-13 through 2021-22, a ten-year period. After peaking at 6,868 students in 2013-14, enrollments declined through 2016-17 before stabilizing. In 2021-22, enrollment is 6,556.5, which is a decline of 278.5 students from the 2012-13 enrollment of 6,835.

For grades PK-5, since peaking at 3,283 in 2013-14, enrollments have been generally declining. In 2021-22, enrollment is 2,886, which is a decline of 322 students from the 2012-13 enrollment of 3,208.

For grades 6-8, enrollments increased through 2016-17 before reversing trend and stabilizing. In 2021-22, enrollment is 1,532, which is a gain of 43 students from the 2012-13 enrollment of 1,489.

Finally, for grades 9-12 at West Orange High School, enrollments declined through 2016-17 before reversing trend. Enrollment is 2,138.5 in 2021-22, which is nearly identical to the 2012-13 enrollment of 2,138.

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 12th graders and the number of entering kindergarten students. The district has experienced negative kindergarten replacement in the last six years after experiencing positive kindergarten replacement for the three 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. Negative kindergarten replacement has ranged from 14-128 students per year while positive kindergarten replacement has ranged from 2-74.5 students per year. The change from positive to negative kindergarten replacement in recent years is due to the decreasing sizes of the entering kindergarten classes and increasing sizes of the graduating 12th grade classes.

In four of the last five years, the district's losses due to negative kindergarten replacement were partially offset (or totally, resulting in a net enrollment gain) by a net inward migration of students in the other grades (K to 1, 1 to 2, 2 to 3, etc.). This was confirmed as nine of the 13 average survival ratios in the five-year trend were above 1.000.

Birth Counts

The number of births from 2007-2020 in West Orange was used to project kindergarten enrollments five years later. After declining to 500 births in 2010, the annual number of births has been fairly stable, ranging from 479-545. In 2020, there were 481 births, which are 161 fewer births than in 2007 (642). As a result of the decline in the number of births, kindergarten enrollment has declined from 492 in 2012-13 to 416 in 2021-22, which is a loss of 76 students.

When comparing birth counts in 2007 to those in 2020 at the elementary attendance area level, all seven attendance areas had fewer births in 2020 as compared to 2007, with the largest difference occurring in the St. Cloud attendance area (-36).

Upon aggregating the number of births by elementary attendance area from 2007-2020, the Redwood attendance area had the greatest number of births (1,277) over this time period while the Hazel attendance area had the fewest (848).

Population Age Structure

Age-sex diagrams from the 2010 Census and the 2016-2020 American Community Survey ("ACS") were created for West Orange to show the percentage of males and females in each age class. In 2010, the largest number of individuals was aged 50-54 for males and 45-49 for females. In communities with little inward or outward migration and low mortality, the largest cohort in subsequent years is typically the next oldest cohort as people advance in age. As such, the largest cohort in the 2016-2020 ACS was aged 50-54 for females as they aged in place. However, the largest cohort for males was the 10-14 age group, which corresponds approximately with children in grades 5-9. As the largest group for males in the 2016-2020 ACS was not the next oldest cohort, migration is likely occurring in the township. Over this time period, the greatest declines occurred in the 0-4 age group for males and the 5-9 age group for females, which corresponds approximately with children in grades K-4. There were also declines in the 25-29, 30-34, and 35-39 age groups for females, which correspond to the ages when many females have their children. The greatest gains occurred in the 70-74 age group for males and females. If males and females were aggregated in each age class, there were gains in each age cohort for those aged 50-54 to 75-79, indicating a "graying" of the overall population over this time period.

Enrollments by Subgroup

a) Race

Enrollments by race were tabulated at the school level from 2016-17 to 2021-22. The population in the school district is racially diverse. Hispanics are the largest race in the district, surpassing Blacks in 2021-22. The Hispanic student percentage has increased from 30.0% in 2016-17 to 35.4% in 2021-22, a gain of 5.4 percentage points. While Blacks are the second-largest race in the school district, the Black percentage has been slowly declining over time. In 2021-22, 35.2% of the student population is Black as compared to 38.9% in 2016-17, a loss of 3.7 percentage points. Whites, which are the third-largest race, have declined from 21.4% to 18.0% over this time period, a loss of 3.4 percentage points. The Asian student percentage has slowly declined from 5.7% in 2016-17 to 4.8% in 2021-22. Of the four major races, Asians are the smallest race in the district.

At the elementary level (excluding Maddalena ELC), Hispanics are the largest race in Hazel, Kelly, Mt. Pleasant, and Washington. The Hispanic percentage ranges from a low of 17.3% at St. Cloud to a high of 61.8% at Washington. Blacks are the largest race in Redwood and St. Cloud and range from 25.7% at Gregory to 35.0% at Kelly. Whites are the largest race in Gregory and range from a low of 3.0% at Washington to a high of 37.1% at Gregory. Asians are the smallest race in each school, ranging from 0.3% at Hazel to 9.0% at Mt. Pleasant.

In the three middle schools (including Edison), Hispanics are the largest race in Liberty and Roosevelt in 2021-22 while Blacks are the largest race in Edison. The Hispanic percentage ranges from 28.7% at Edison to 39.3% at both Liberty and Roosevelt. Blacks range from 33.2% at Roosevelt to 40.2% at Edison. Whites are the third-largest race in each school, ranging from 16.7% at Liberty to 19.2% at Roosevelt. Asians are the smallest race in each school, ranging from 3.1%-5.9%.

At West Orange High School, Blacks are the largest race in 2021-22, representing 39.4% of the population, while Hispanics are second-largest (33.7%) followed by Whites (17.3%) and Asians (4.9%).

b) Economically Disadvantaged

Enrollments of students who are economically disadvantaged were tabulated at the school level from 2016-17 to 2021-22. At the district level, the number and percentage of students that are economically disadvantaged declined through 2020-21 before reversing trend in 2021-22. Whereas 2,859 students (43.2%) were economically disadvantaged in the school district in 2016-17, 3,053 (46.6%) are economically disadvantaged in 2021-22, which is a 3.4 percentage-point increase and a gain of 194 economically disadvantaged students.

At the elementary level, when comparing the percentage of economically disadvantaged students in 2021-22 to 2016-17, St. Cloud had the largest percentage-point increase (+22.7) over this time period while Washington had the largest percentage-point decline (-31.7). In the three middle schools, each school had a fairly similar increase in the percentage of economically disadvantaged students over this time period, ranging from 5.5-7.6 percentage points. The percentage of economically disadvantaged students at West Orange High School has not changed significantly over this time period.

Potential New Housing

West Orange municipal representatives provided information regarding current and future residential development in the community. In total, there is the potential for 633 non age-restricted housing units, the majority of which will consist of multi-family units such as apartments. Of this amount, 92 units (15%) will be set aside to meet affordable housing requirements. Of the seven elementary attendance areas, the largest impact will be on Mt. Pleasant, which will contain nearly three-quarters (71%) of the new housing units.

An estimate was made of the number of public school children (K-12) that could potentially come from the proposed housing developments. A total of 119 public school children (K-5 = 54, 6-8 = 27, and 9-12 = 38) in grades K-12 are projected to be generated.

Student Yields

Student yields by length of ownership were determined for one- to four-family homes by joining the parcel-level property database of West Orange with the 2021-22 student address database from the West Orange Public Schools. A total of 5,484 children living in 10,485 one-

to four-family homes were identified. The remaining children in the school district either live in apartments, townhouses/condominiums, or mixed-use units (commercial and residential properties) or do not live in West Orange.

Student yields increase with length of ownership, peaking at 0.90 children per housing unit with 15 years of ownership. Student yields then begin to decline as length of ownership increases. For homes with 25 or more years of ownership, student yields were typically below 0.40. The average student yield for one- to four-family homes in West Orange was computed to be 0.687.

Student yields were also computed for townhouses and condominiums in West Orange. A total of 342 children (K-12) were identified living in 2,866 units, which is an average student yield of 0.119. The largest student yields, in developments with at least 25 units, are in Briar Hill Villas (0.32) and The Villas at Crown View (0.28).

Finally, student yields were computed for apartment complexes in West Orange. A total of 385 public school children (K-12) were identified living in 2,385 units, which is an average student yield of 0.161. The largest student yields, in developments with at least 25 units, are in Hutton Park Gardens (0.43) and Northfield Townhouses (0.30).

Home Sales

Home sales in West Orange were analyzed from 2001-2019. Data for 2020 and 2021 were incomplete or unavailable. After peaking at 1,033 sales in 2004, the number of sales declined to 445 in 2010 due to the housing market crash and banking crisis. During this period (2009-2012), the annual number of home sales was low, ranging from 445-485. Since then, home sales have rebounded and have steadily increased. In 2019, there were 852 home sales, which is slightly lower than the annual number of sales prior to the peak total that occurred in 2004.

Enrollment Projections

PK-12 enrollments were computed for a five-year period, 2022-23 through 2026-27, in two separate projections (baseline and adjusted for housing growth). In the baseline projections, which assume that the proposed housing developments do not come to fruition or are not occupied within the anticipated construction timeline, enrollment is projected to be 6,319 in 2026-27, which would be a decline of 237.5 students from the 2021-22 enrollment of 6,556.5. In the adjusted projections, enrollment is projected to be 6,381 in 2026-27, which would be a decline of 175.5 students from the 2021-22 enrollment.

For grades PK-5, enrollments are projected to decline for the next 2-3 years before reversing trend in both the baseline and adjusted projections. In the baseline projections, enrollment is projected to be 2,867 in 2026-27, which would be a decline of 19 students from the 2021-22 enrollment of 2,886. In the adjusted projections, enrollment is projected to be 2,890 in 2026-27, which would be nearly unchanged (+4) from the 2021-22 enrollment.

For grades 6-8, enrollments are projected to decrease for the next two years before reversing trend and stabilizing in both the baseline and adjusted projections. In the baseline projections, enrollment is projected to be 1,415 in 2026-27, which would be a decline of 117 students from the 2021-22 enrollment of 1,532. In the adjusted projections, enrollment is projected to be 1,427 in 2026-27, which would be a decline of 105 students from the 2021-22 enrollment.

Finally, for grades 9-12 at West Orange High School, enrollments are projected to increase for the next two years before reversing trend in both the baseline and adjusted projections. In 2026-27, enrollment is projected to be 2,037 in the baseline projections, which would be a decline of 101.5 students from the 2021-22 enrollment of 2,138.5. In the adjusted projections, enrollment is projected to be 2,064 in 2026-27, which would be a decline of 74.5 students from the 2021-22 enrollment.

Enrollments were also computed for each elementary and middle school in the district. As these are smaller subgroups of the overall population as compared to using districtwide grade counts, the reliability of the school projections are lower than the overall districtwide projections. In general, the smaller the forecasted population, the higher the probability of error associated with the projection.

Building Capacities

The capacities of the schools in the district were compared to the current enrollments in 2021-22 and the enrollment projections in the 2026-27 school year. Using the building capacities from the district's Long Range Facilities Plan, 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-to-year based on classroom usage. For instance, additional special education classes in a building would reduce the 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 2021-22, there is surplus seating in six of the seven elementary schools (K-5), with the largest being at Redwood (+47). Only St. Cloud has a shortage of seating (-36). At the middle school level, Edison (+32) and Roosevelt (+104) have surplus seating while Liberty has a shortage of seating (-28). At West Orange High School, there are 507.5 surplus seats in 2021-22.

By 2026-27, five of the seven elementary schools are projected to have surplus seating, with the largest being at Washington (+49). Mt. Pleasant (-8) and St. Cloud (-45) are projected to have a shortage of seating. At the middle school level, Edison is projected to be at capacity due to a projected increase in enrollment. Due to a projected decline in enrollment, Liberty is now projected to have surplus seats (+36) while the number of surplus seats at Roosevelt (+176) is projected to increase. In West Orange High School, the number of surplus seats (+582) is also projected to increase due to declining enrollment in the school.

Final Thoughts

Enrollments (PK-12) are projected to decline in the West Orange Public Schools for the next five years. However, the projected decline is not expected to occur equally across each of the grade configurations, as the elementary enrollments (PK-5) are projected to be fairly stable while the middle (6-8) and high school (9-12) enrollments are projected to decline as the district's smaller existing elementary school cohorts move through the system.

In closing, it is difficult to measure the impact of the coronavirus on the school district's enrollments moving forward. In a New York Times article[1], families with financial means are leaving large metropolitan areas to reside in their second homes in rural 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. While the duration of the pandemic is unknown and available data are limited, we are continuing to monitor data as it becomes available to assess its future impact on enrollments both short- and long-term.

[1] (https://www.nytimes.com/2020/09/26/us/coronavirus-vermont-transplants.html)

Introduction

Statistical Forecasting LLC ("Statistical Forecasting") completed a demographic study update for the West Orange Public Schools, projecting grade-by-grade enrollments from 2022-23 through 2026-27, a five-year period. The previous study was completed for the district in August 2017. In addition, the following tasks were completed:

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- investigated historical enrollment trends with respect to race and poverty status in each school and districtwide,
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- researched new housing starts and the impact on the school district.

Enrollment Projections from August 2017 Report

In our previous demographic study completed in August 2017, enrollments were projected from 2017-18 through 2021-22, a five-year period. Table 1 compares the actual enrollments (PK-12) to the projected enrollments for each year of the projection period. The table shows the numerical differences and percent errors by year. Positive error rates indicate over-projections while negative error rates indicate under-projections.

Table 1
Comparison of Projected to Actual Enrollments (PK-12) from August 2017 Report

Year	Projected	Actual	Difference	% Error
2017-18	6,548	6,637.5	-89.5	**-1.3%**
2018-19	6,565	6,593.5	-28.5	**-0.4%**
2019-20	6,555	6,611	-56	**-0.8%**
2020-21	6,558	6,638	-80	**-1.2%**
2021-22	6,456	6,556.5	-100.5	**-1.5%**

In our previous study, enrollments were projected to be fairly stable before declining near the end of the projection period, which did occur. Enrollments were underestimated in each year of the projection period. Error rates ranged from 0.4%-1.5%. Expressed in numbers, the projections differed from actual enrollments by 28.5-100.5 students.

In a survey by Schellenberg and Stephens of educational planners who complete enrollment projections, two-thirds believe that an error rate of 1% per year for the total enrollment is acceptable[2]. For a five-year projection, this would mean that a 5% error rate in the fifth year would be acceptable. With the exception of the first year, the projections were within this parameter in each year of the projection period.

In Table 2, actual enrollments are compared to the projected enrollments for each year of the projection period for the elementary (PK-5), middle (6-8), and high school (9-12) grade configurations. At the elementary level (PK-5), enrollments were underestimated in each year where error rates ranged from 0.0%-2.4%. Expressed in numbers, the projections differed from actual enrollments by 1-70 students.

Table 2
Comparison of Projected to Actual Enrollments by Grade Configuration from August 2017 Report

Year		Projected	Actual	Difference	% Error
2017-18	**Elementary (PK-5)**	2,970	3,019	-49	**-1.6%**
2018-19		2,969	2,970	-1	**0.0%**
2019-20		2,921	2,975	-54	**-1.8%**
2020-21		2,816	2,869	-53	**-1.8%**
2021-22		2,816	2,886	-70	**-2.4%**
Year		**Projected**	**Actual**	**Difference**	**% Error**
2017-18	**Middle (6-8)**	1,525	1,529	-4	**-0.3%**
2018-19		1,518	1,508	+10	**+0.7%**
2019-20		1,546	1,539	+7	**+0.5%**
2020-21		1,584	1,587	-3	**-0.2%**
2021-22		1,537	1,532	5	**+0.3%**
Year		**Projected**	**Actual**	**Difference**	**% Error**
2017-18	**High (9-12)**	2,053	2,089.5	-36.5	**-1.7%**
2018-19		2,078	2,115.5	-37.5	**-1.8%**
2019-20		2,088	2,097	-9	**-0.4%**
2020-21		2,158	2,182	-24	**-1.1%**
2021-22		2,103	2,138.5	-35.5	**-1.7%**

[2] Schellenberg, S. J., & Stephens, C. E. (1987). Enrollment projection: variations on a theme. Paper presented at the Annual Meeting of the American Educational Research Association, Washington D.C., (ERIC Document Reproduction Service No. ED 283 879)

At the middle school level (6-8), enrollments were overestimated in three of five years. Error rates ranged from 0.2%-0.7%, which corresponds to a numerical difference range of 3-10 students. Of the three grade configurations, the middle school grades had the lowest percent errors in three of the five years of the projection period.

Finally, at West Orange High School (9-12), enrollments were underestimated in each year of the projection period. Error rates ranged from 0.4%-1.8%, which corresponds to a numerical difference range of 9-37.5 students.

At the school level, half of the survey respondents in the Schellenberg and Stephens survey believed an error rate of 3-5% in the first projection year was acceptable[3]. The elementary and middle school projections shown in Table 2 are not for an individual school, but are the aggregated enrollments of the individual schools in each grade configuration and therefore are not compared to the acceptable error rate. However, the high school error rate (West Orange High School) is below the range of 3-5% of what educational planners deem acceptable.

The accuracy of the projections is contingent on the most recent historical trends continuing into the future. If there is a departure from these trends caused by, for example, migration or withdrawal of students due to the coronavirus pandemic, numerous new housing starts (or planned housing starts that do not occur), changes in school district policy, changes to immigration laws, an economic downturn, a change in the housing resale market, etc., the enrollment projections presented are less likely to be accurate in future years, as this analysis does not forecast future trends. Therefore, the projections need to be revised annually to detect potential reversals in enrollment trends. Changes in enrollment are dependent on several factors such as birth counts, migration of students into or out of the school district, the presence of charter schools, private schools, or parochial schools, and school district policy changes.

[3] ibid.

Population Trends in West Orange

Located in Essex County, the Township of West Orange ("West Orange") contains a land area of 12.05 square miles, with an additional 0.13 square miles of water area. In the 2020 Census, West Orange had 48,843 residents, which is 4,053.4 persons per square mile. Historical and projected populations for West Orange from 1940-2040 are shown in Table 3 and Figure 1.

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

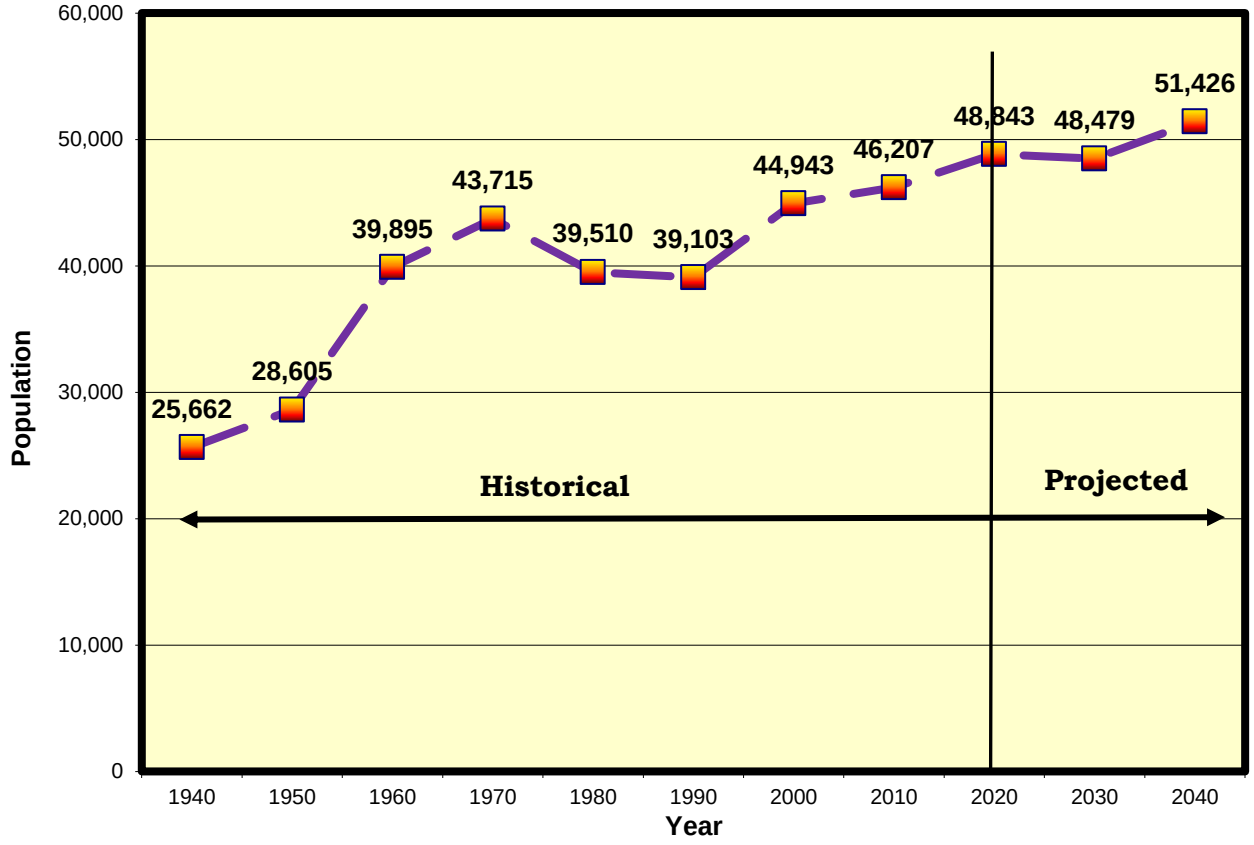
Year	Population	Percent Change
Historical[1]		
1940	25,662	N/A
1950	28,605	+11.5%
1960	39,895	+39.5%
1970	43,715	+9.6%
1980	39,510	-9.6%
1990	39,103	-1.0%
2000	44,943	+14.9%
2010	46,207	+2.8%
2020	48,843	+5.7%
Projected[2]		
2030	48,479	-0.7%
2040	51,426	+6.1%

Sources: [1]United States Census Bureau
[2]North Jersey Transportation Planning Authority, Inc. (2017)

From 1940-1970, West Orange's population steadily increased, with its greatest gain occurring in the 1950s (+39.5%). After declines in the 1970s and 1980s, the population reversed trend and has increased in the last three decades. In the most recent decade, there was a gain of 2,636 persons.

Population projections for 2030 and 2040, which were prepared by the North Jersey Transportation Planning Authority ("NJTPA"), indicate that the population will slowly increase. However, as the projections were based off of the 2010 Census, and the 2020 Census count has already surpassed the 2030 projection, the NJTPA needs to revise its projections now that the 2020 Census results are available. As it currently stands, the forecast projects the population to be 51,426 in 2040, which would be a 5.3% increase from the 2020 Census and a gain of 2,583 persons.

Figure 1
Historical and Projected Populations for West Orange
1940-2040



West Orange Demographic Profile

In Table 4, selected demographic characteristics of West Orange are compared from the 2010 and 2020 Censuses and the 2006-2010 and 2016-2020 American Community Surveys ("ACS"). At the time of this writing, a limited amount of demographic data was available from the 2020 Census, which was limited to total population counts and racial distributions from the Redistricting Data, which is used by states to redraw electoral district boundaries based on where populations have increased or decreased. 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 household 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 West Orange, ACS data represent a sample collected over a five-year time period, where the estimates represent the average characteristics between January 2016 and December 2020, 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 2016 to 2020, 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.

While Whites are the largest race in West Orange, their population is declining. In the 2020 Census, West Orange was 39.2% White as compared to 47.9% in 2010, which is a loss of 8.7 percentage points. Blacks/African Americans ("Blacks") were the second-largest race at 28.5% in 2020, which is a gain of 2.9 percentage points from the 2010 percentage (25.6%). Hispanics were the third-largest race, consisting of 19.8% of the population in 2020, which is a gain of 3.6 percentage points from the 2010 percentage of 16.2%. Figures 2-4 show the White, Black, and Hispanic percentages by Census block group, which are the three largest races in West Orange. In addition, the elementary attendance areas are shown to provide context of where the highest and lowest percentages are occurring. It should be noted that the center of the township (shown in gray) is not affiliated with any attendance area as it contains the Essex County Country Club. The White percentage is greatest in the southwestern section of the township, in the Mt. Pleasant and St. Cloud elementary attendance areas. The Black percentage is greatest in the eastern section of the township, which is located within the Kelly elementary attendance area. The Hispanic percentage is greatest in the central and eastern sections of the township in several elementary attendance areas.

Regarding nativity, 30.8% of West Orange residents were foreign-born in the 2016-2020 ACS, which is an increase of 5.1 percentage points from the 2006-2010 ACS percentage (25.7%). As a point of comparison, New Jersey's foreign-born resident percentage was 22.7% in the 2016-2020 ACS, which is lower than that of West Orange. While not shown in the table, place of birth, which serves as a proxy for country of origin, indicates that Haiti and Peru were the largest sources of immigrants in the 2006-2010 ACS, accounting for 9.4% and 9.1%, respectively, of the foreign-born population. In the 2016-2020 ACS, Haiti continues to be the largest source, but accounts for a greater share (13.4%) of the foreign-born population. Jamaica is now the second-largest source (6.1%).

Table 4
Selected Demographic Characteristics in West Orange

Race Origin[1]	2006-2010 ACS 2010 Census	2016-2020 ACS 2020 Census
White	22,140 (47.9%)	19,155 (39.2%)
Black or African American	11,841 (25.6%)	13,916 (28.5%)
Hispanic or Latino	7,487 (16.2%)	9,647 (19.8%)
American Indian and Alaska Native	80 (0.2%)	53 (0.1%)
Asian	3,641 (7.9%)	3,523 (7.2%)
Native Hawaiian and Other Pacific Islander	9 (0.0%)	18 (0.0%)
Other Race	142 (0.3%)	436 (0.9%)
Two or more Races	867 (1.9%)	2,095 (4.3%)
Place of Birth		
Foreign-Born	25.7%	30.8%
Age		
Under 18	23.7%	20.2%
18-64	60.4%	59.9%
65 and over	15.9%	19.9%
Median age	40.6 years	44.2 years
Educational Attainment		
Bachelor's degree or higher	48.2%	50.7%
Graduate or professional degree	20.2%	21.3%
Income		
Median household income	$88,917	$103,956
Percentage of Persons in Poverty ages 5-17	9.0%	11.8%
Housing Units		
Total number	17,612	17,907
Occupied units	16,790 (95.3%)	16,804 (93.8%)
Owner-occupied units	11,698 (69.7%)	11,497 (68.4%)
Renter-occupied units	5,092 (30.3%)	5,307 (31.6%)
Median value of an owner-occupied unit	$417,800	$391,200
Average household size	2.70	2.77
Housing Type[1]		
Total number	17,168	17,907
1-unit, attached or detached	11,198 (65.2%)	11,798 (65.9%)
Two units	1,791 (10.4%)	1,607 (9.0%)
Three or four units	1,395 (8.1%)	1,404 (7.8%)
Five to nine units	626 (3.6%)	422 (2.4%)
10 to 19 units	330 (1.9%)	508 (2.8%)
20 or more units	1,762 (10.3%)	2,168 (12.1%)
Mobile home, boat, RV, van, etc.	66 (0.4%)	0 (0.0%)

Sources: American Community Survey (2006-2010 and 2016-2020) and United States Census (2010 and 2020)
Notes: [1]Data may not sum to 100.0% due to rounding.
Cells shaded orange are from the decennial Census while cells shaded blue are from the American Community Survey.

Figures 5 and 6 show the percentage of foreign-born persons and the percentage of persons speaking English less than "Very Well" in West Orange by Census block group, which may potentially correlate with English as a New Language ("ENL") students in need of English language instruction. The foreign-born percentage is greatest in the eastern and southwestern sections of the township in several elementary attendance areas. The percentage of persons speaking English less than "Very Well" is greatest in the eastern section of the township in similar census block groups.

The median age in West Orange increased from 40.6 years in 2010 to 44.2 years in the 2016-2020 ACS, which is higher than the median age in New Jersey (40.0 years). During the same time period, the percentage of people under the age of 18 years, which predominantly corresponds to school-age children, declined from 23.7% to 20.2%. Figure 7 shows the percentage of school-age children (5-17) in West Orange by Census block group. The greatest percentages of school-age children are in the central and eastern sections of the township, which are predominantly located in the Kelly, Redwood, and St. Cloud elementary attendance areas.

Regarding educational attainment for adults aged 25 and over, 50.7% of the population had a bachelor's degree or higher in the 2016-2020 ACS as compared to 48.2% in the 2006-2010 ACS, which is a gain of 2.5 percentage points. West Orange's percentage of persons having a bachelor's degree or higher is greater than that of New Jersey (40.7%). The percentage of persons with graduate or professional degrees increased from 20.2% to 21.3% during this time period.

Median household income increased from $88,917 in the 2006-2010 ACS to $103,956 in the 2016-2020 ACS, a gain of 16.9%. By comparison, median household income in New Jersey is $85,245, which is $19,000 lower than West Orange's. During this time period, the percentage of school-age children (5-17) that are in poverty increased from 9.0% to 11.8%. Figure 8 shows the percentage of persons living in poverty in West Orange by Census block group. The percentage of persons living in poverty is greatest in the eastern section of the township predominantly in the Hazel, Kelly, and Washington elementary attendance areas.

Regarding housing, there were 17,907 housing units in West Orange in the 2016-2020 ACS, which is a gain of 295 housing units (+1.7%) from 2010. Over this time period, the occupancy rate decreased from 95.3% to 93.8%, while the average household size increased from 2.70 to 2.77 persons. Renter-occupied units accounted for 31.6% of the occupied units in West Orange in the 2016-2020 ACS, which is a gain of 1.3 percentage points from the 2010 percentage (30.3%). As a point of comparison, the percentage of renter-occupied units in West Orange is slightly lower than that of New Jersey (36.0%). Finally, the median home price of an owner-occupied unit in the 2016-2020 ACS was $391,200, which is a 6.4% decline from the value reported in the 2006-2010 ACS ($417,800).

With respect to housing type, 65.9% of the homes are one-unit, either attached or detached, which is nearly unchanged from the 2006-2010 ACS percentage (65.2%). Housing with 20 or more units, which contains renters, was the second-largest type of housing in the 2016-2020 ACS and consisted of 12.1% of the housing stock. Homes with two units (duplexes) had been the second-largest type of housing in the 2006-2010 ACS.

Figure 2
West Orange White Percentage

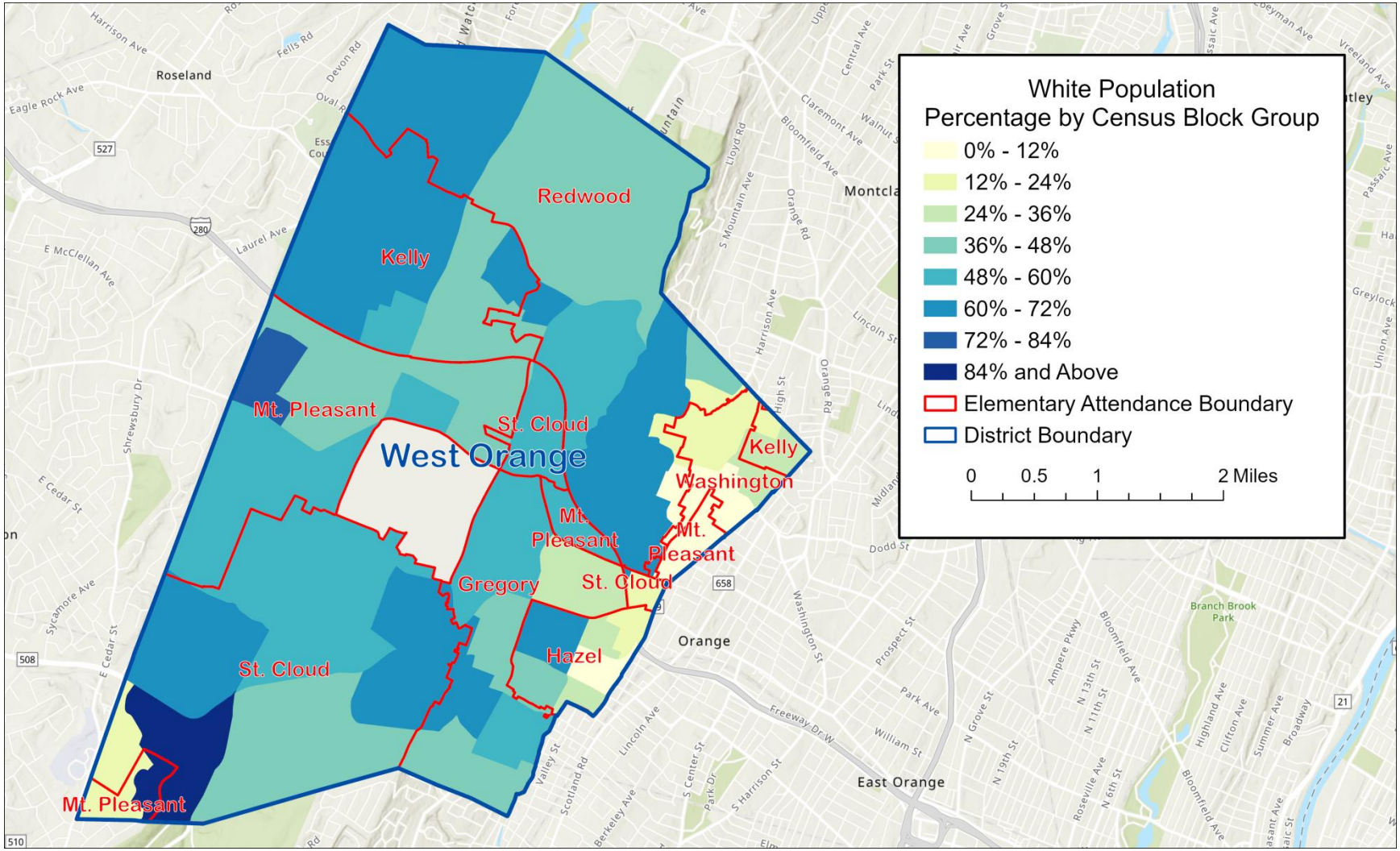


Figure 3
West Orange Black Percentage

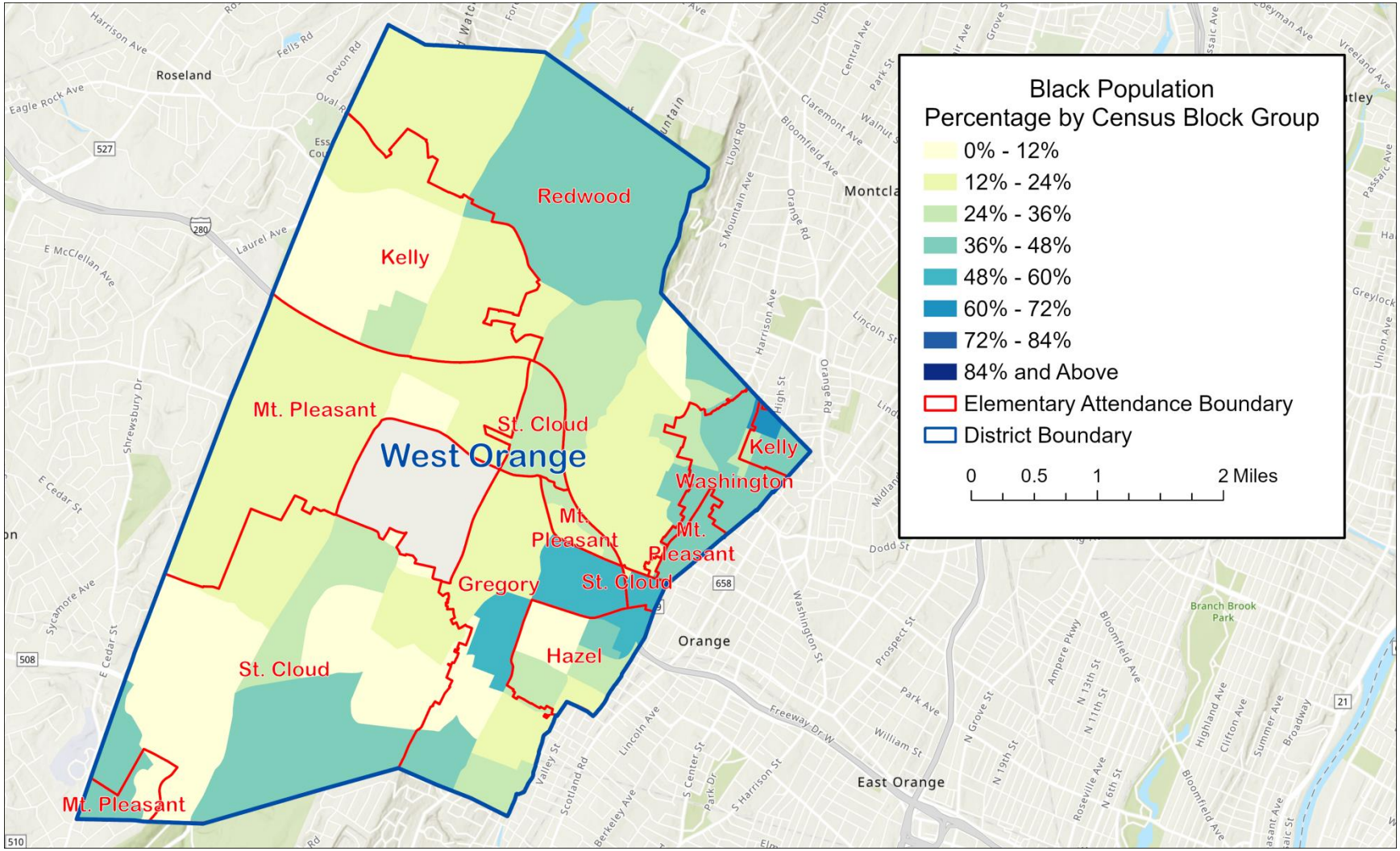


Figure 4
West Orange Hispanic Percentage

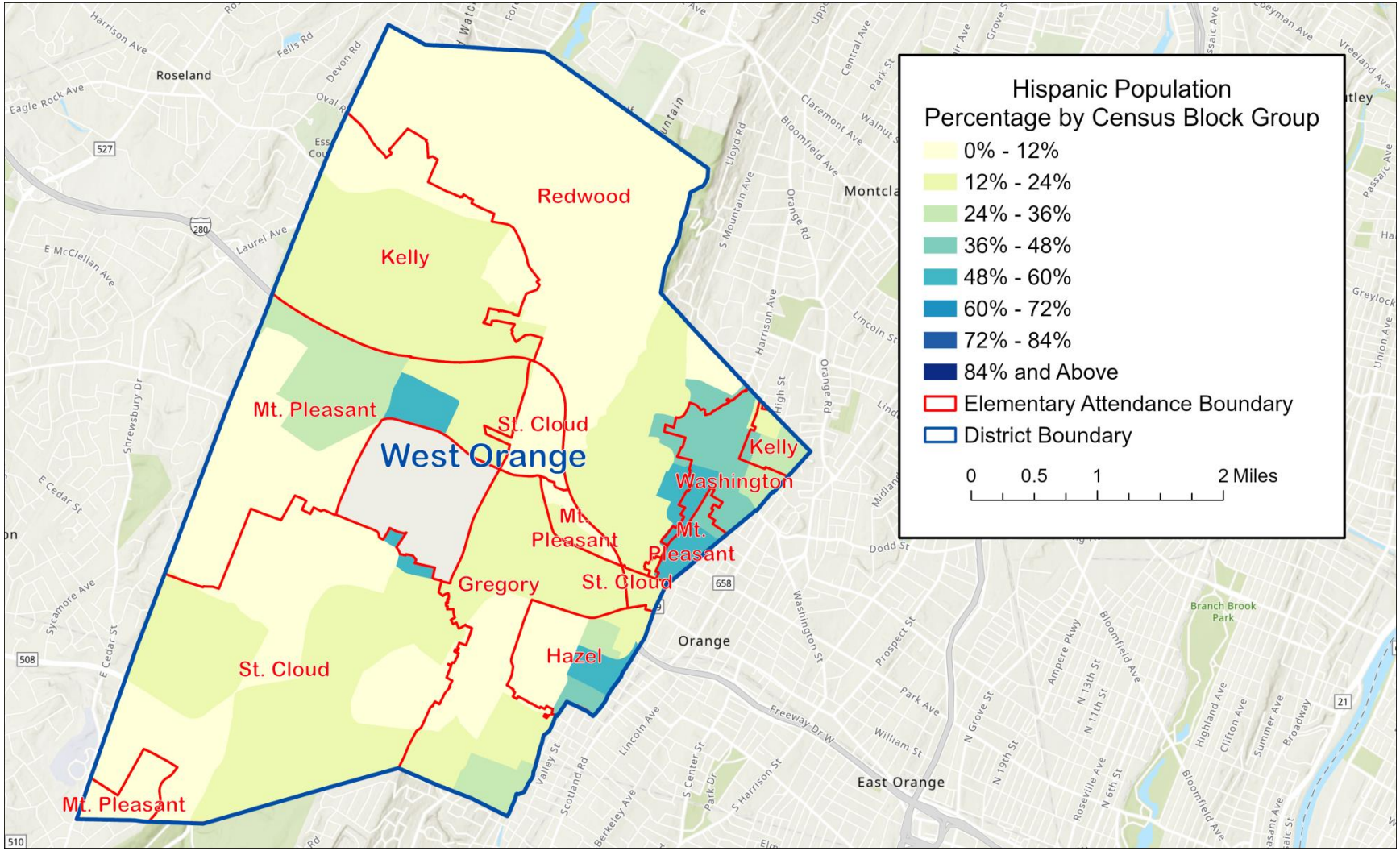


Figure 5
West Orange Foreign-Born Percentage

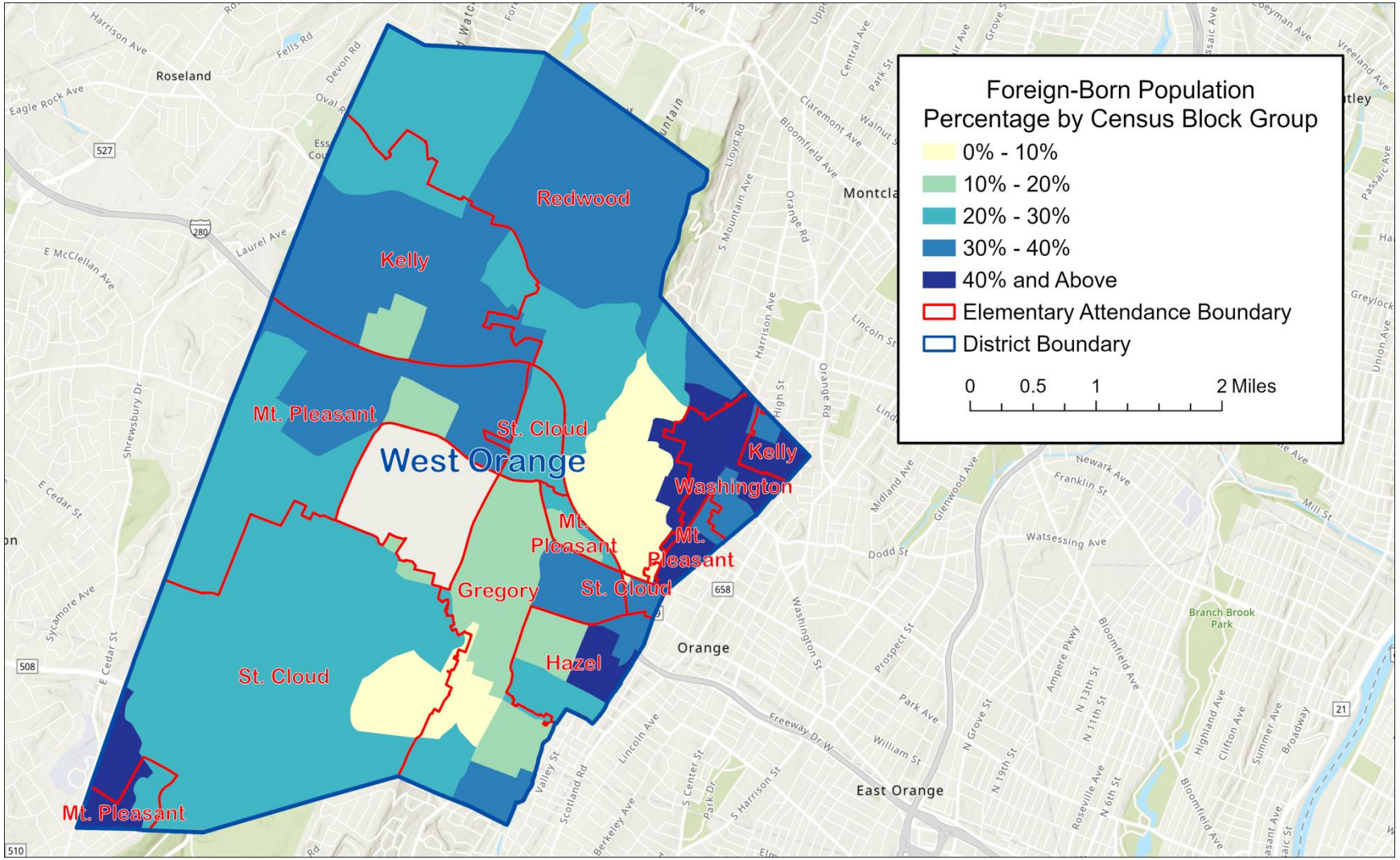


Figure 6
West Orange Percentage of Persons Speaking English Less than "Very Well"

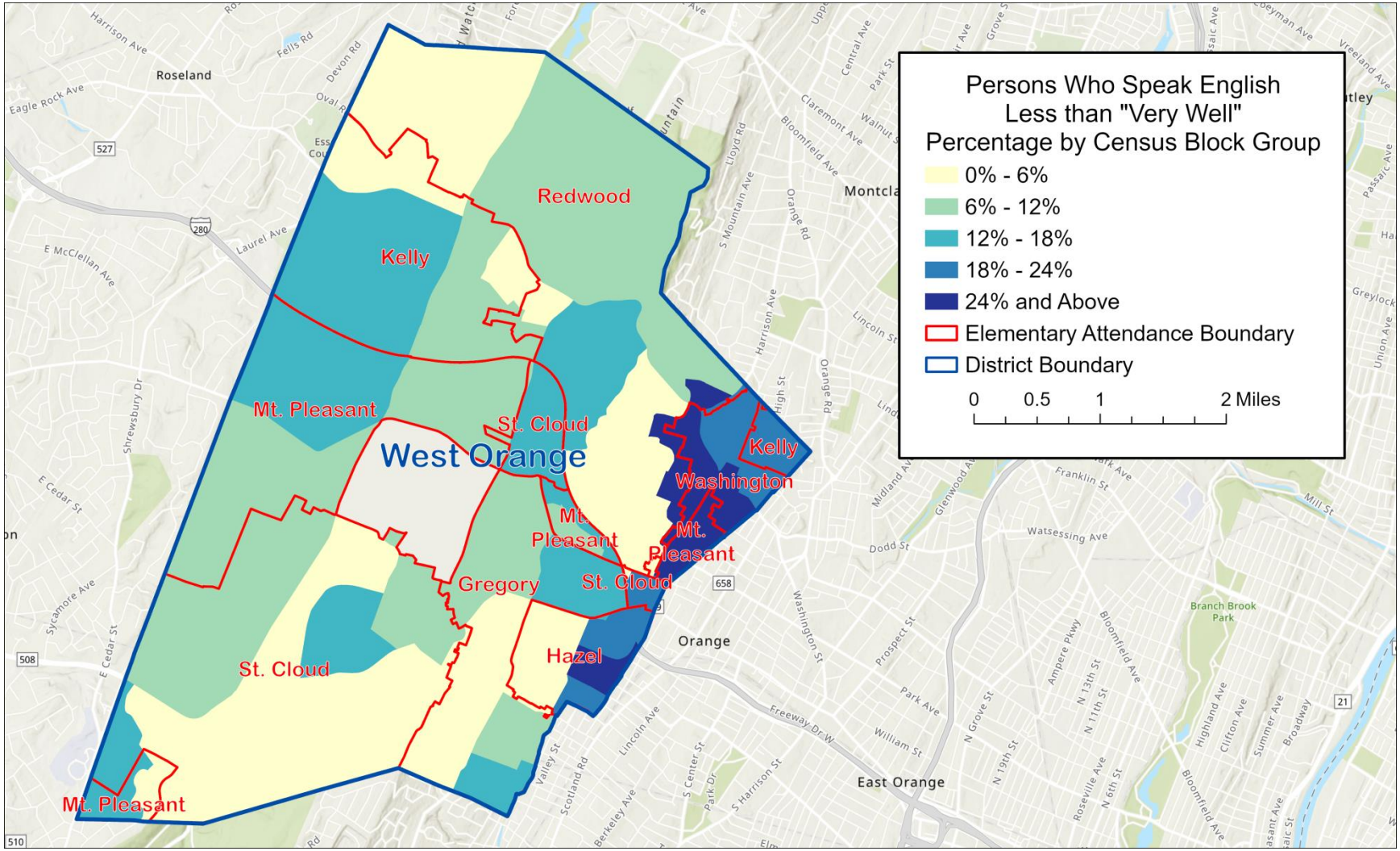


Figure 7
West Orange School-Age Population (5-17) Percentage

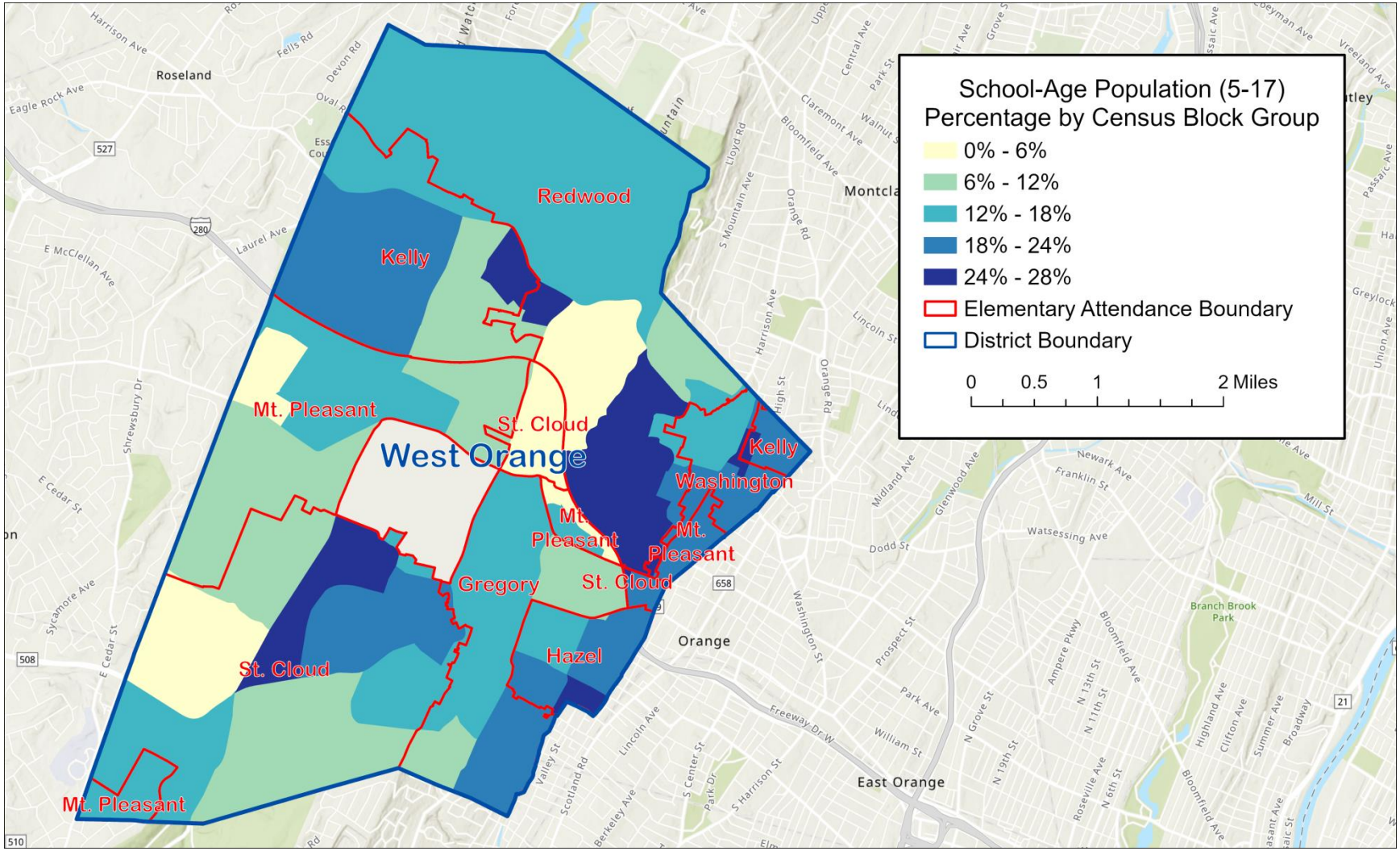
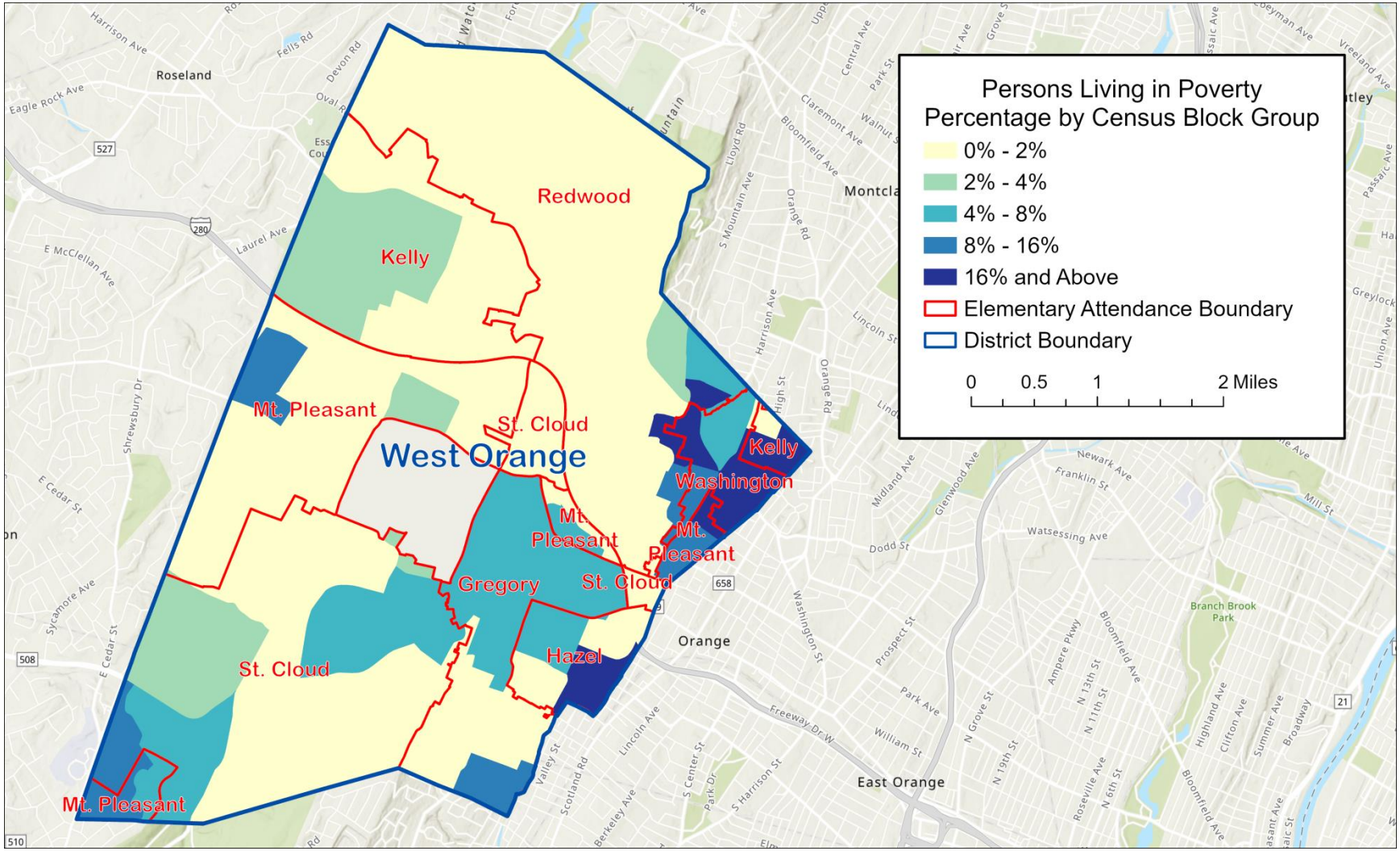


Figure 8
West Orange Percentage of Persons Living in Poverty



District Overview

The West Orange Public Schools has 12 schools that educate children in grades pre-kindergarten through twelve. In Figure 9, the location of each of the district's schools is shown with respect to the municipal boundaries. Grade-level and special education pre-kindergarten children attend Betty Maddalena Early Learning Center ("Maddalena"). Children in grades K-5 attend one of seven (7) elementary schools: Gregory Elementary School ("Gregory"), Hazel Elementary School ("Hazel"), Kelly Elementary School ("Kelly"), Mount Pleasant Elementary School ("Mt. Pleasant"), Redwood Elementary School ("Redwood"), St. Cloud Elementary School ("St. Cloud"), or Washington Elementary School ("Washington"). All children in the district then attend Thomas A. Edison Central Six School ("Edison") for grade six. Liberty Middle School ("Liberty") and Roosevelt Middle School ("Roosevelt") educate children in grades 7-8 while West Orange High School educates children in grades 9-12. Figure 10 shows the elementary schools and their respective attendance areas while Figure 11 shows the middle schools and their respective attendance areas. As discussed previously, it should be noted that the center of the township (shown in gray) is not affiliated with any attendance area as it contains the Essex County Country Club.

According to the district's Long Range Facility Plan ("LRFP"), total educational capacity in the district is 7,218 using District Practices methodology and 5,080 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, while the FES methodology utilizes FES-recommended class sizes. 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 school'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 9
School Locations – West Orange Public Schools

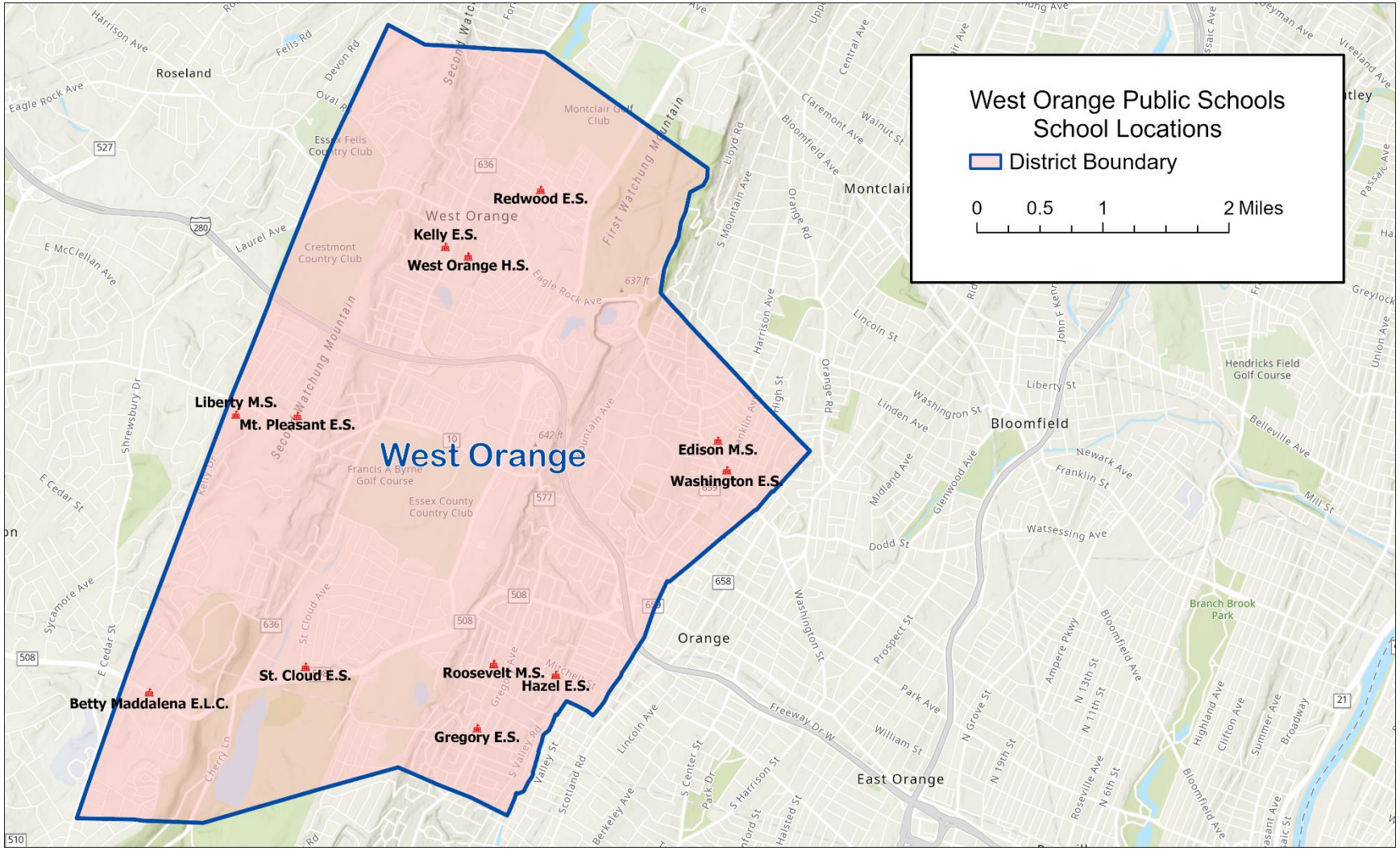


Figure 10
Elementary School Locations and Attendance Areas – West Orange Public Schools

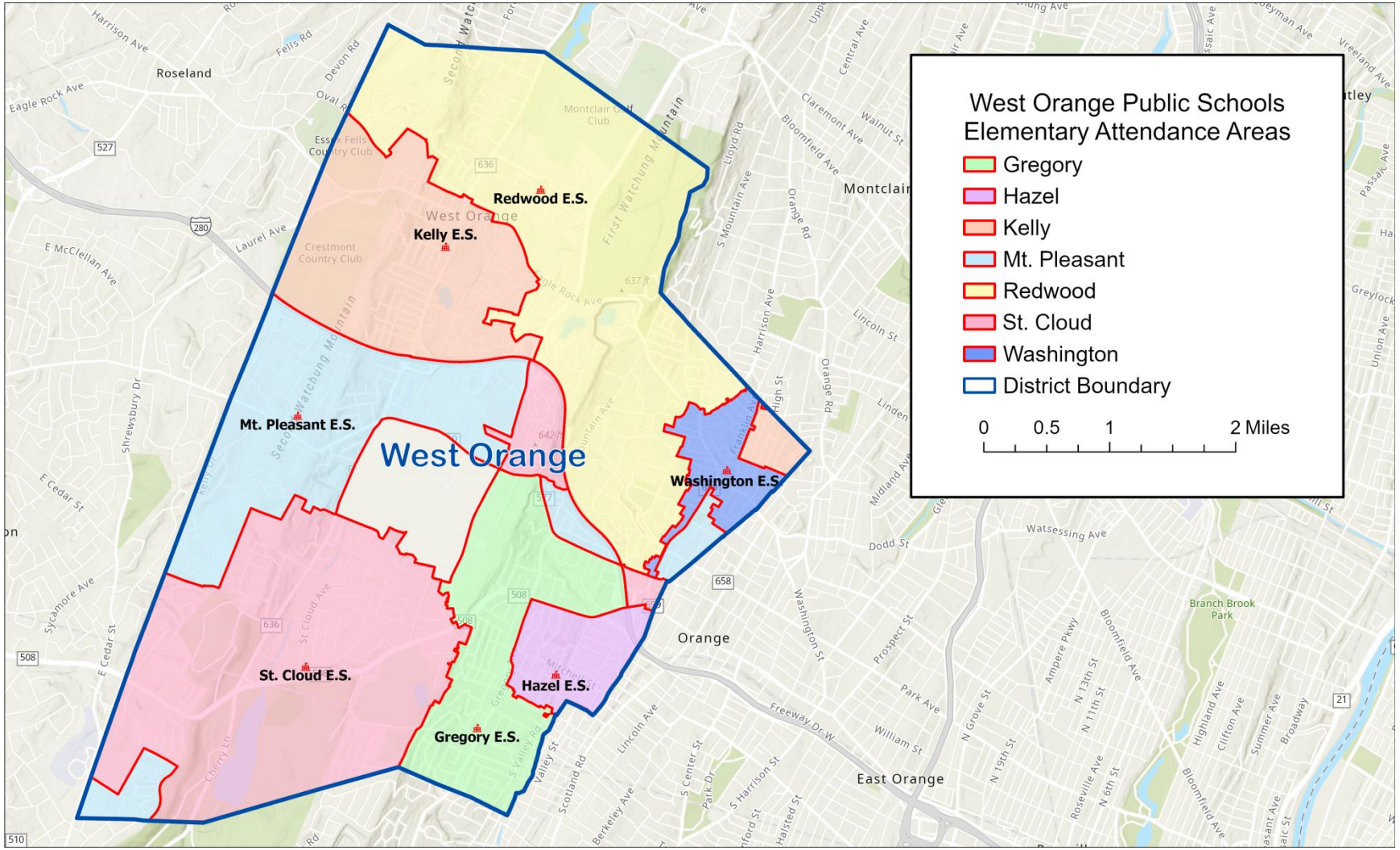
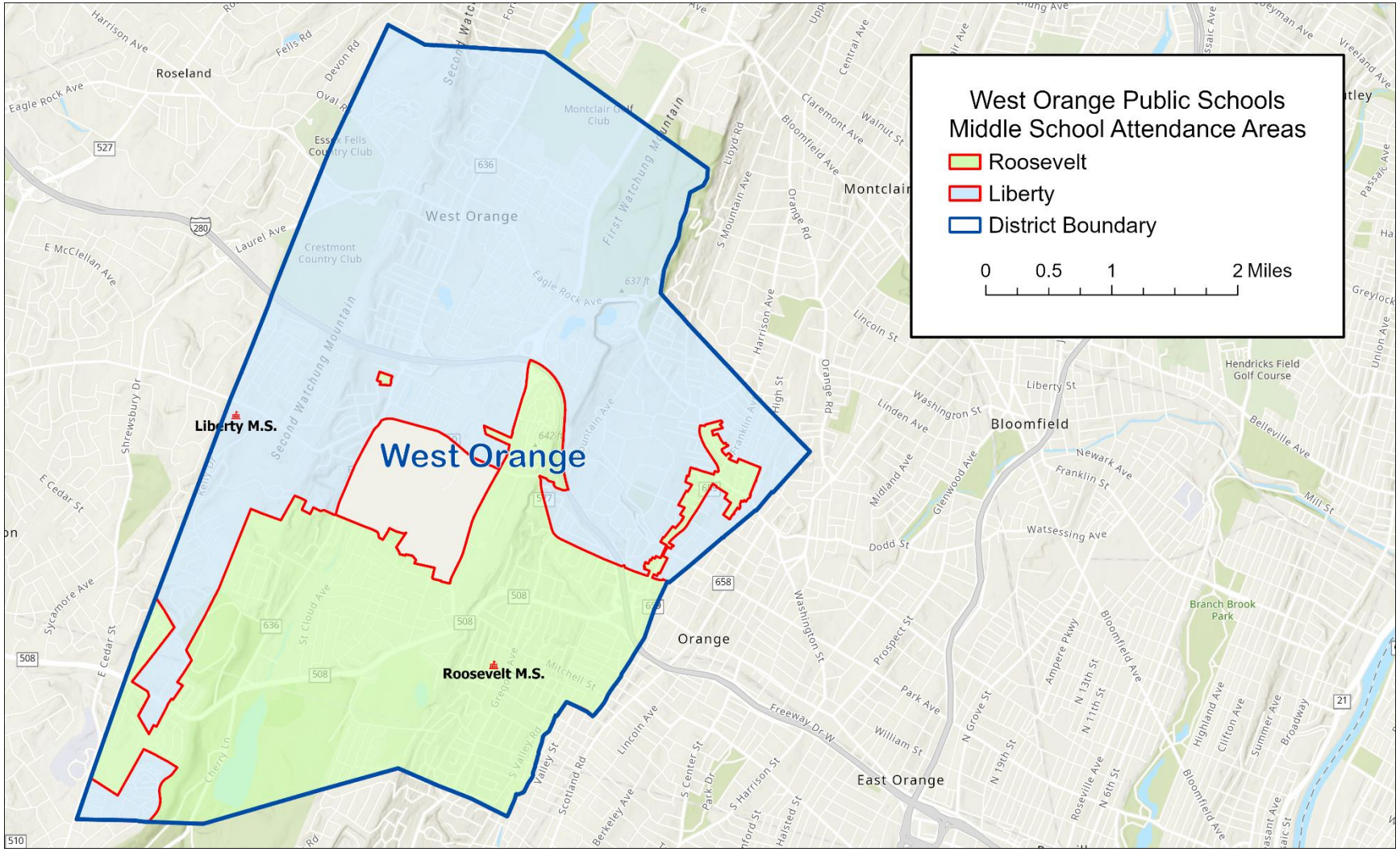


Figure 11
Middle School Locations and Attendance Areas – West Orange Public Schools



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 and outward migration, while greater than 1.00 indicates increasing enrollment and inward migration. 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 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

Historical enrollments (PK-12) for the West Orange Public Schools from 2012-13 through 2021-22, a ten-year period, are shown in Figure 12 and Table 5. After peaking at 6,868 students in 2013-14, enrollments declined through 2016-17 before stabilizing. In 2021-22, enrollment is 6,556.5, which is a decline of 278.5 students (-4.1%) from the 2012-13 enrollment of 6,835.

Figure 12
West Orange Public Schools Historical Enrollments
2012-13 to 2021-22

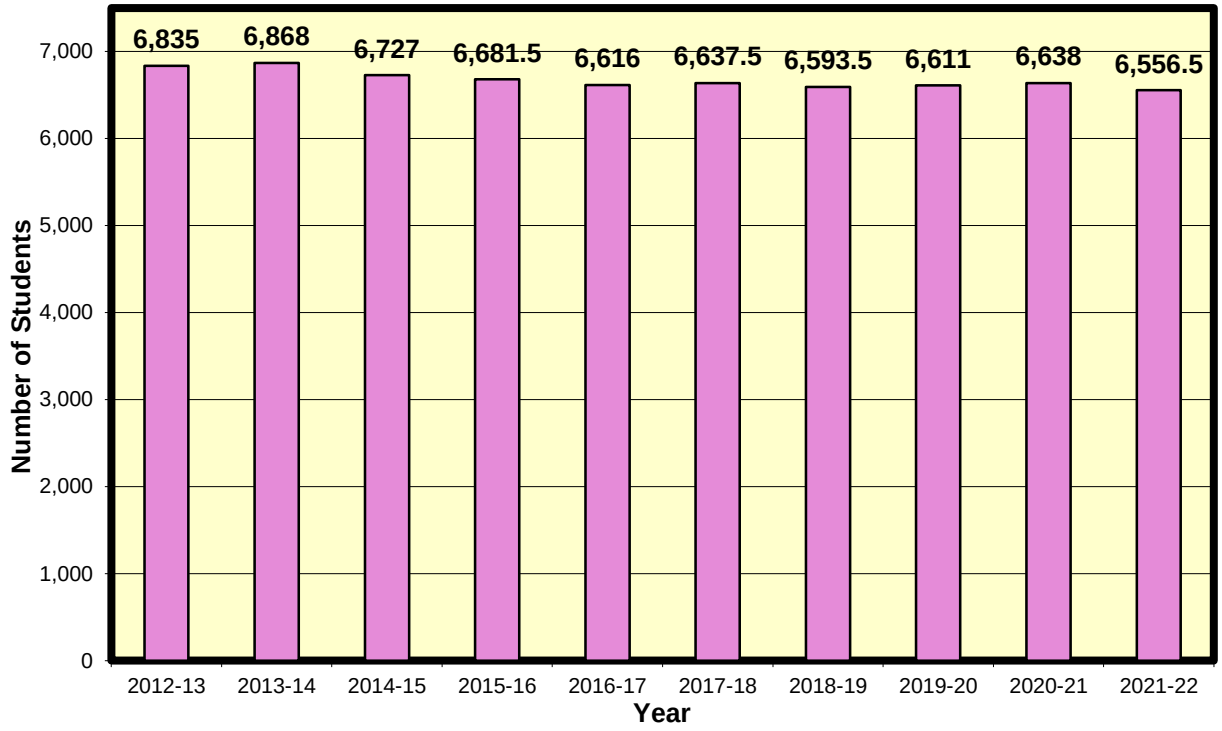


Table 6 shows computed grade-by-grade survival ratios from 2012-13 to 2021-22. In addition, the average, minimum, and maximum survival ratios are shown for the past ten years along with the five-year averages, which were used to project enrollments. The average survival ratios also indicate the net migration by grade, where values over 1.000 reflect net inward migration and values below 1.000 reflect net outward migration. Nine of the 13 average survival ratios in the five-year trend were above 1.000, indicating a general net inward migration of students. Of the four average survival ratios that were below 1.000, two were in the lower elementary grades. In 2021-22, four survival ratios were the lowest value in the last decade. The decline in the ratios may be due to the coronavirus pandemic, as parents are seeking alternative educational experiences for their children (private or parochial schools, homeschooling, etc.), or may have had to relocate. In comparing the five-year averages with the ten-year averages, the differences were very small, demonstrating the long-term stability of the survival ratios over the last decade, although 8 of 13 differences were positive, indicating an increase in the ratios in the short term.

Table 5
West Orange Public Schools Historical Enrollments
2012-13 to 2021-22

Year[1]	PK[2]	K	1	2	3	4	5	SE[3]	PK-5 Total	6	7	8	SE[4]	6-8 Total	9	10	11	12	SE[5]	9-12 Total	PK-12 Total
2012-13	26	492	498	493	507	538	438	216	**3,208**	472	472	468	77	**1,489**	551	506	520	466.5	94.5	**2,138**	**6,835**
2013-14	28	541	489	485	480	497	546	217	**3,283**	432	470	483	82	**1,467**	515	542.5	475.5	489	96	**2,118**	**6,868**
2014-15	28	501	502	488	479	476	511	186	**3,171**	525	439	462	89	**1,515**	507	499.5	497.5	436	101	**2,041**	**6,727**
2015-16	19	438	506	486	466	487	474	179	**3,055**	491	534	439	85	**1,549**	495	503.5	488.5	485	105.5	**2,077.5**	**6,681.5**
2016-17	21	448	426	522	479	470	480	189	**3,035**	464	493	533	88	**1,578**	439.5	508.5	494.5	462	98.5	**2,003**	**6,616**
2017-18	24	448	455	421	507	489	479	196	**3,019**	461	479	503	86	**1,529**	537	450.5	510.5	488.5	103	**2,089.5**	**6,637.5**
2018-19	16	446	445	446	422	501	499	195	**2,970**	477	469	485	77	**1,508**	511	544.5	453	497.5	109.5	**2,115.5**	**6,593.5**
2019-20	27	432	460	453	454	436	517	196	**2,975**	492	484	481	82	**1,539**	490.5	521	540	441	104.5	**2,097**	**6,611**
2020-21	4	405	436	453	460	457	433	221	**2,869**	528	489	485	85	**1,587**	509.5	494.5	527	544	107	**2,182**	**6,638**
2021-22	22	416	446	421	454	452	450	225	**2,886**	412	516	499	105	**1,532**	518.5	513	494	512	101	**2,138.5**	**6,556.5**

Notes: [1]Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2]Pre-kindergarten regular education enrollment
[3]Self-contained special education enrollment/ungraded students at the elementary school level
[4]Self-contained special education enrollment/ungraded students at the middle school level
[5]Self-contained special education enrollment/ungraded students at the high school level

Table 6
West Orange Public Schools Historical Survival Ratios
2012-13 to 2021-22

Progression Years	B-K	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
2012-13 to 2013-14	0.8285	0.9939	0.9739	0.9736	0.9803	1.0149	0.9863	0.9958	1.0233	1.1004	0.9846	0.9397	0.9404
2013-14 to 2014-15	0.8094	0.9279	0.9980	0.9876	0.9917	1.0282	0.9615	1.0162	0.9830	1.0497	0.9699	0.9171	0.9169
2014-15 to 2015-16	0.8760	1.0100	0.9681	0.9549	1.0167	0.9958	0.9609	1.0171	1.0000	1.0714	0.9931	0.9780	0.9749
2015-16 to 2016-17	0.8220	0.9726	1.0316	0.9856	1.0086	0.9856	0.9789	1.0041	0.9981	1.0011	1.0273	0.9821	0.9458
2016-17 to 2017-18	0.8533	1.0156	0.9883	0.9713	1.0209	1.0191	0.9604	1.0323	1.0203	1.0075	1.0250	1.0039	0.9879
2017-18 to 2018-19	0.8528	0.9933	0.9802	1.0024	0.9882	1.0204	0.9958	1.0174	1.0125	1.0159	1.0140	1.0055	0.9745
2018-19 to 2019-20	0.8623	1.0314	1.0180	1.0179	1.0332	1.0319	0.9860	1.0147	1.0256	1.0113	1.0196	0.9917	0.9735
2019-20 to 2020-21	0.7864	1.0093	0.9848	1.0155	1.0066	0.9931	1.0213	0.9939	1.0021	1.0593	1.0082	1.0115	1.0074
2020-21 to 2021-22	0.8685	1.1012	0.9656	1.0022	0.9826	0.9847	0.9515	0.9773	1.0204	1.0691	1.0069	0.9990	0.9715
Maximum Ratio	0.8760	1.1012	1.0316	1.0179	1.0332	1.0319	1.0213	1.0323	1.0256	1.1004	1.0273	1.0115	1.0074
Minimum Ratio	0.7864	0.9279	**0.9656**	0.9549	0.9803	**0.9847**	**0.9515**	**0.9773**	0.9830	1.0011	0.9699	0.9171	0.9169
Avg. 5-Year Ratios	0.8447	1.0338	0.9871	1.0095	1.0026	1.0075	0.9886	1.0008	1.0152	1.0389	1.0121	1.0019	0.9817
Avg. 10-Year Ratios	0.8399	1.0061	0.9898	0.9901	1.0032	1.0082	0.9781	1.0076	1.0095	1.0429	1.0054	0.9810	0.9659
Diff. Between 5-Year and 10-Year Ratios	+0.0047	+0.0277	-0.0027	+0.0194	-0.0005	-0.0007	+0.0106	-0.0068	+0.0057	-0.0040	+0.0068	+0.0210	+0.0159

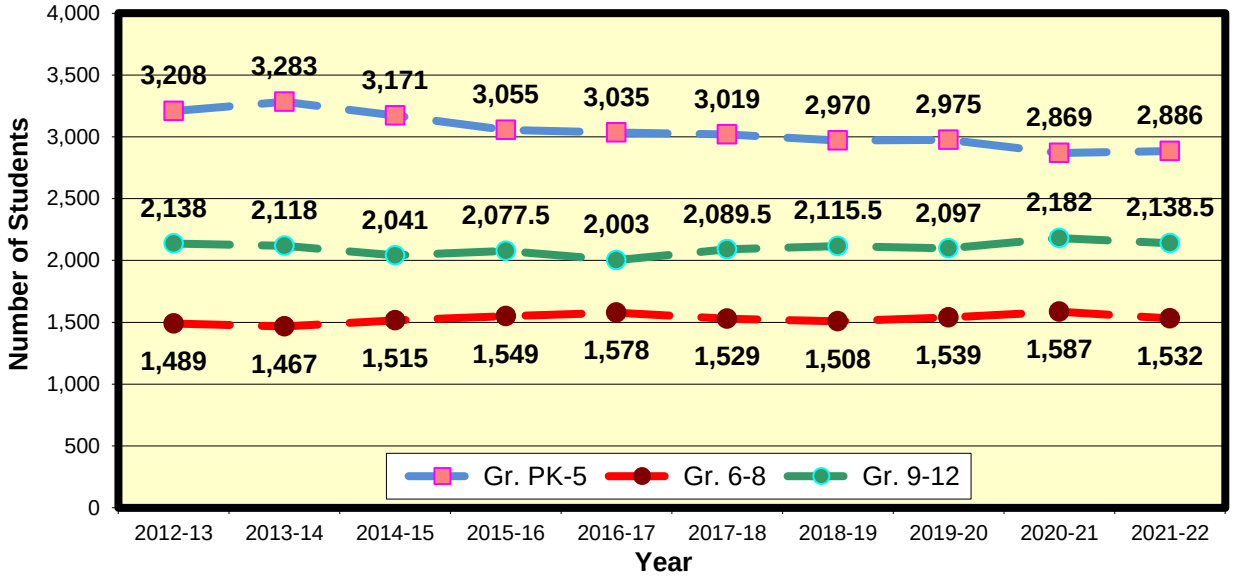
Bolded values reflect survival ratios from 2020-21 to 2021-22

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 West Orange to be close to work, 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 the West Orange Public Schools, 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 13 by the school district's grade configuration (PK-5, 6-8, and 9-12). Self-contained special education/ungraded students were incorporated into the totals for each grade configuration. Students in grade 6 at Edison and grades 7-8 at Liberty and Roosevelt were grouped together for reporting purposes. For grades PK-5, since peaking at 3,283 in 2013-14, enrollments have been generally declining. In 2021-22, enrollment is 2,886, which is a decline of 322 students from the 2012-13 enrollment of 3,208.

For grades 6-8, enrollments increased through 2016-17 before reversing trend and stabilizing. In 2021-22, enrollment is 1,532, which is a gain of 43 students from the 2012-13 enrollment of 1,489. Finally, for grades 9-12 at West Orange High School, enrollments declined through 2016-17 before reversing trend. Enrollment is 2,138.5 in 2021-22, which is nearly identical to the 2012-13 enrollment of 2,138.

Figure 13
West Orange Public Schools
Historical Enrollments by Grade Configuration
2012-13 to 2021-22



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 12th graders and the number of entering kindergarten students. The district has experienced negative kindergarten replacement in the last six years after experiencing positive kindergarten replacement for the three 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 14, negative kindergarten replacement has ranged from 14-128 students per year while positive kindergarten replacement has ranged from 2-74.5 students per year. The change from positive to negative kindergarten replacement in recent years is due to the decreasing sizes of the entering kindergarten classes and increasing sizes of the graduating 12th grade classes. In 2021-22, there was a loss of 128 students due to kindergarten replacement, as 544 twelfth graders graduated in 2020-21 and were replaced by 416 kindergarten students in 2021-22.

Figure 14
West Orange Public Schools
Historical Kindergarten Replacement

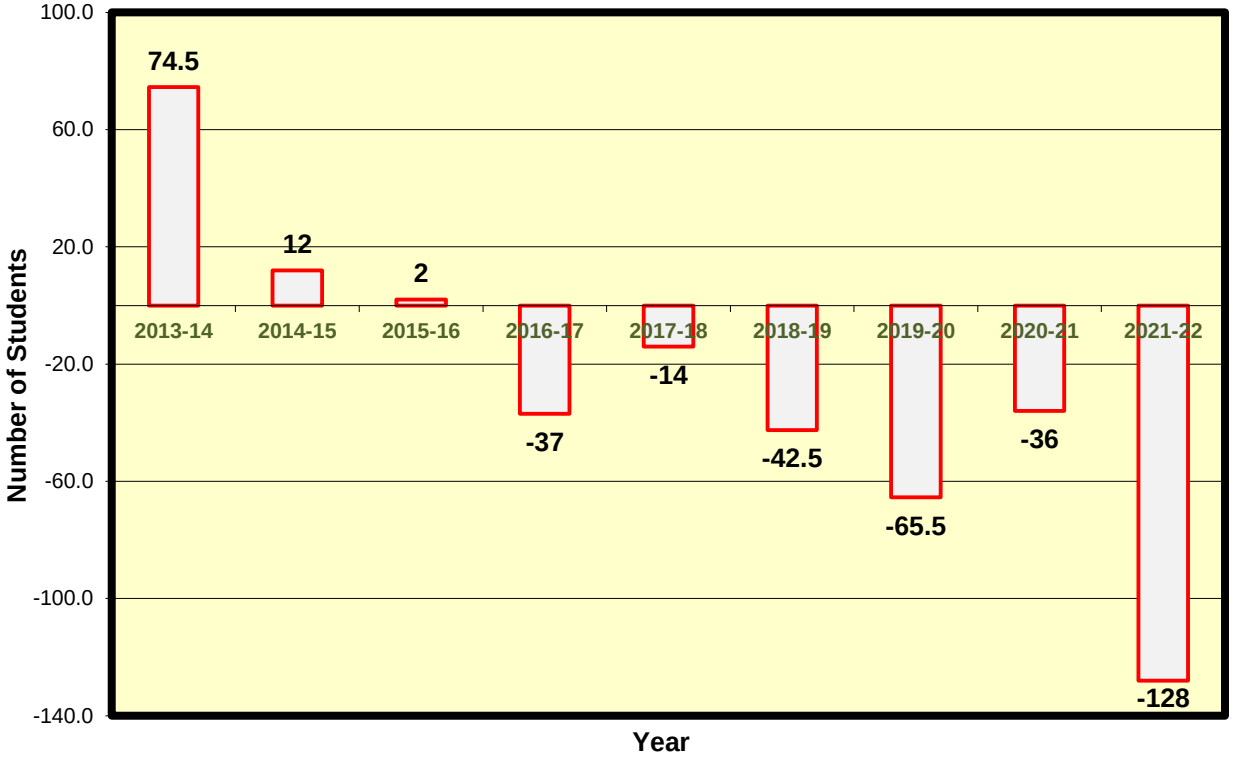
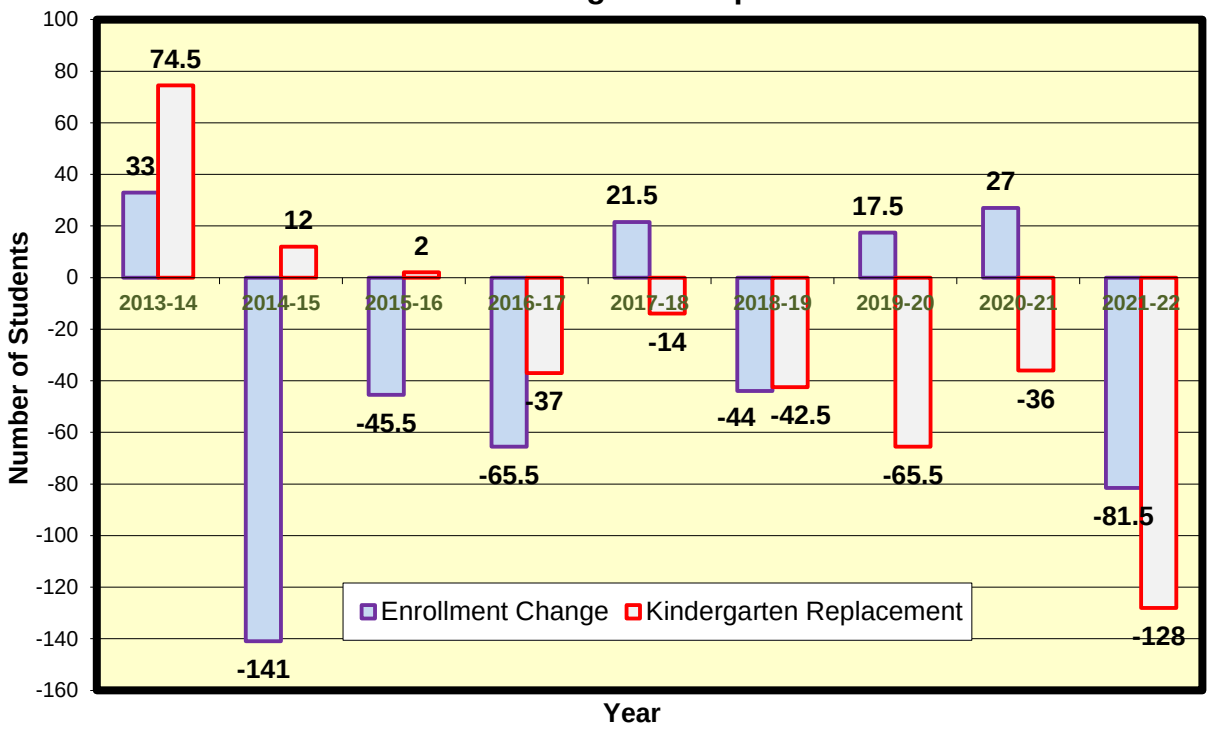


Figure 15 shows the annual change in total enrollment compared to kindergarten replacement. As the figure demonstrates, there appears to be a weak relationship, statistically speaking, between the overall change in enrollment and kindergarten replacement. Although this data represents a small sample, the correlation coefficient between the two variables was +0.214. 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 +0.214, there appears to be a weak relationship between kindergarten replacement and enrollment change in the school district in the last nine years.

In four of the last five years, the district's losses due to negative kindergarten replacement were partially offset (or totally, resulting in a net enrollment gain) by a net inward migration of students in the other grades (K to 1, 1 to 2, 2 to 3, etc.). This was confirmed previously as nine of the 13 average survival ratios in the five-year trend were above 1.000.

Figure 15
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 are lagged five years behind their respective kindergarten classes, were used to calculate the survival ratio for each birth-to-kindergarten cohort. For instance, in 2016, there were 479 births in West Orange. Five years later (the 2021-22 school year), 416 children enrolled in kindergarten, which is equal to a survival ratio of 0.868 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
Birth Counts and Historical Birth-to-Kindergarten Survival Ratios
West Orange Public Schools

Birth Year	Number of Births West Orange[1]	Kindergarten Students Five Years Later	Birth-to-Kindergarten Survival Ratio
2007	642	492	0.766
2008	653	541	0.828
2009	619	501	0.809
2010	500	438	0.876
2011	545	448	0.822
2012	525	448	0.853
2013	523	446	0.853
2014	501	432	0.862
2015	515	405	0.786
2016	479	416	0.868
2017	486	N/A	N/A
2018	484	N/A	N/A
2019	518	N/A	N/A
2020	481	N/A	N/A

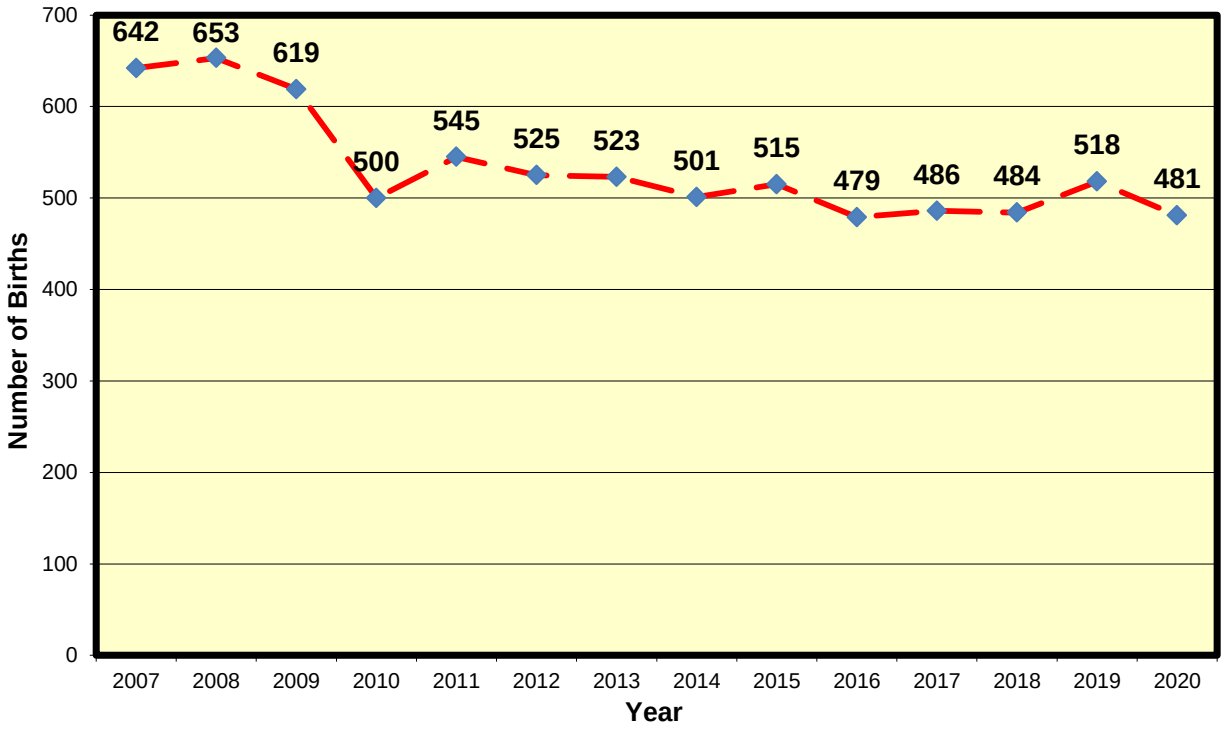
Note: [1]Birth data were provided by the New Jersey Center for Health Statistics.

Birth-to-kindergarten survival ratios have been below 1.000 in each of the last ten years and have been fairly consistent, ranging from 0.766-0.876. As the birth-to-kindergarten survival ratios have been below 1.000, this indicates that some children who were born in the township have likely enrolled in private or parochial schools, or moved out before school age and are attending other public school districts for kindergarten, reflecting outward migration.

Geocoded birth data were provided by the New Jersey Center for Health Statistics ("NJCHS") from 2007-2020 by assigning geographic coordinates to a birth mother based on her street address. Since the NJCHS did not have birth data for 2021, an estimate was formulated by averaging historical births. Birth counts were needed for 2021 since this cohort will become the kindergarten class of 2026.

Figure 16 shows the annual number of births in West Orange from 2007-2020. After declining to 500 births in 2010, the annual number of births has been fairly stable, ranging from 479-545. In 2020, there were 481 births, which are 161 fewer births than in 2007 (642). As a result of the decline in the number of births, kindergarten enrollment has declined from 492 in 2012-13 to 416 in 2021-22, which is a loss of 76 students.

Figure 16
West Orange Historical Birth Counts
2007-2020



Using mapping software, elementary school attendance area boundaries, and NJCHS birth data by Census block, the number of births from 2007-2020 was determined for each elementary school attendance area and is displayed in Table 8. In each year, some addresses of the mothers within West Orange were unknown. For the purpose of projecting enrollments, the unknown addresses were redistributed into the seven elementary attendance areas using proportional allocations of the births in each school attendance area with respect to the total number of births.

Table 8
Births by Elementary School Attendance Area
West Orange Public Schools
2007-2020

Birth Year	Gregory	Hazel	Kelly	Mt. Pleasant	Redwood	St. Cloud	Washington	Unknown
2007	79	67	94	74	115	101	94	18
2008	89	66	135	84	87	90	78	24
2009	90	58	96	72	86	93	101	23
2010	65	69	71	59	103	69	47	17
2011	64	59	88	81	97	68	64	24
2012	60	65	68	88	95	59	66	24
2013	72	53	87	54	88	71	85	13
2014	70	59	69	66	83	76	59	19
2015	67	74	72	75	78	60	70	19
2016	76	50	64	60	85	66	63	15
2017	69	51	62	67	96	62	63	16
2018	79	51	78	61	90	67	48	10
2019	68	77	67	72	92	70	63	9
2020	78	49	74	52	82	65	70	11
Total 2007-2020	**1,026**	**848**	**1,125**	**965**	**1,277**	**1,017**	**971**	
Difference 2007-2020	**-1**	**-18**	**-20**	**-22**	**-33**	**-36**	**-24**	

For comparison purposes, Figures 17 and 18 show the number of births by elementary attendance area in 2007 and 2020 (using the same scale). As discussed previously, there is an area in the center of West Orange that is not associated with an attendance zone, as it contains a golf course. In both 2007 and 2020, the greatest number of births occurred in the Redwood attendance area while the Hazel attendance area had the fewest number of births.

Figure 19 shows the differences in the birth counts by attendance area when comparing birth counts in 2007 to 2020. Each attendance area had fewer births in 2020 as compared to 2007. The St. Cloud attendance area had the largest decline (-36) in the birth count over this time period.

Figure 20 shows the aggregated number of births by attendance area from 2007-2020. The Redwood attendance area had the greatest number of births (1,277) over this time period while the Hazel attendance area had the fewest (848).

In addition, as the elementary attendance areas in the school district are fairly large, it is sometimes difficult to determine the specific location(s) where birth counts are changing. As such, Figures 21 and 22 show the specific locations where births are occurring, as births by census block were mapped for 2007 and 2020. Census blocks are the smallest geographic unit in which data are collected by the Census Bureau. Blocks are typically bound by streets, roads, or bodies of water. For comparison purposes, the same scale was used for both maps, whereby dark blue reflects the greatest number of births in a census block. In 2007, the greatest number of births occurred in the eastern and southwestern sections of the township, primarily in the Redwood, St. Cloud, and Washington attendance areas. In 2020, the greatest number of births occurred in the northern section of the township in the Kelly and Redwood attendance areas. In comparing the two figures, there are more census blocks shaded green, aqua, or blue in 2020 as compared to 2007, which indicates an increase in the number of births in those census blocks.

Figure 23 shows the aggregated number of births by census block from 2007-2020. The greatest number of births, which is shaded dark blue, occurred in the northern section of the township in the Kelly and Redwood attendance areas.

Figure 17
West Orange Births by Elementary Attendance Area
2007

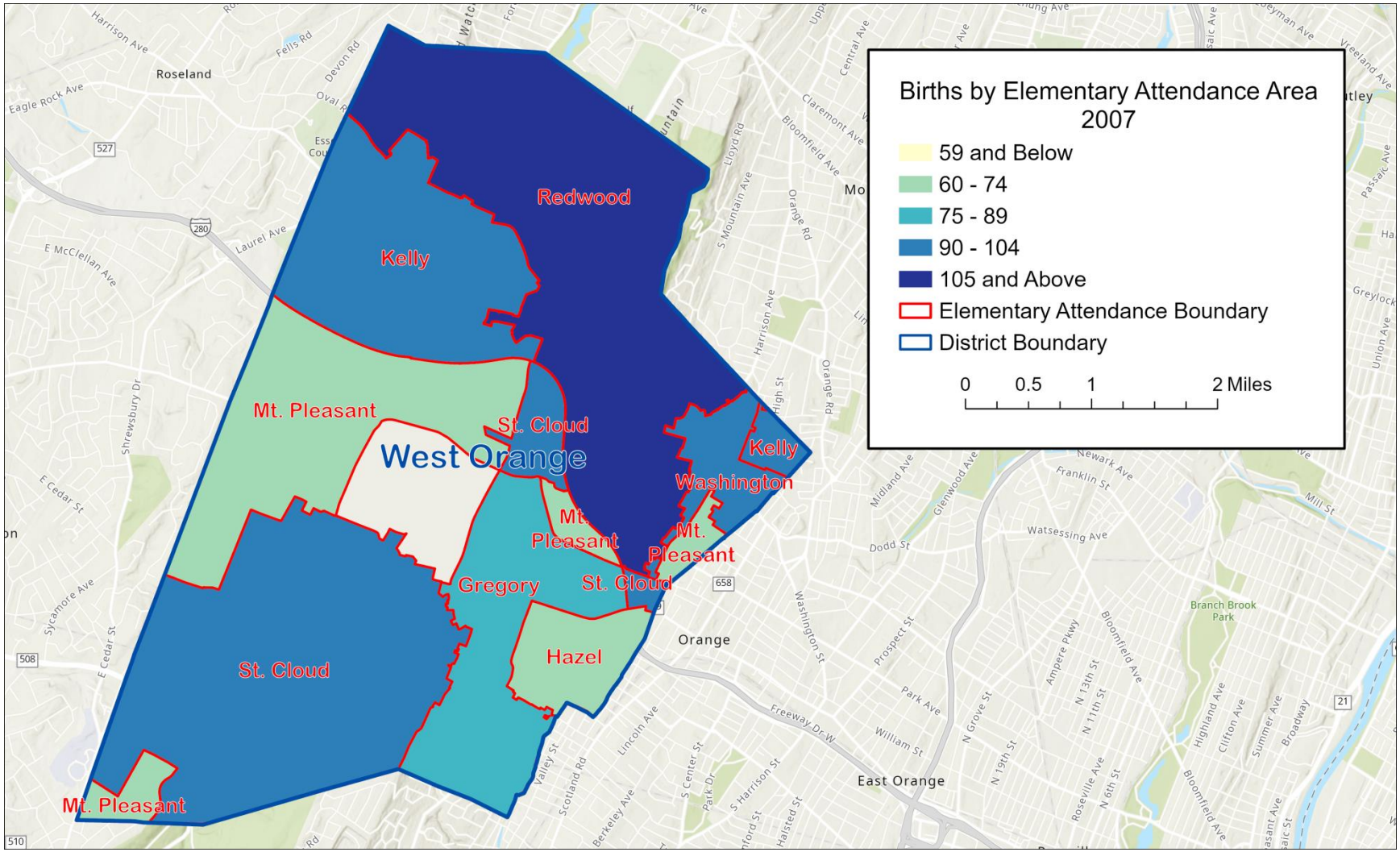


Figure 18
West Orange Births by Elementary Attendance Area
2020

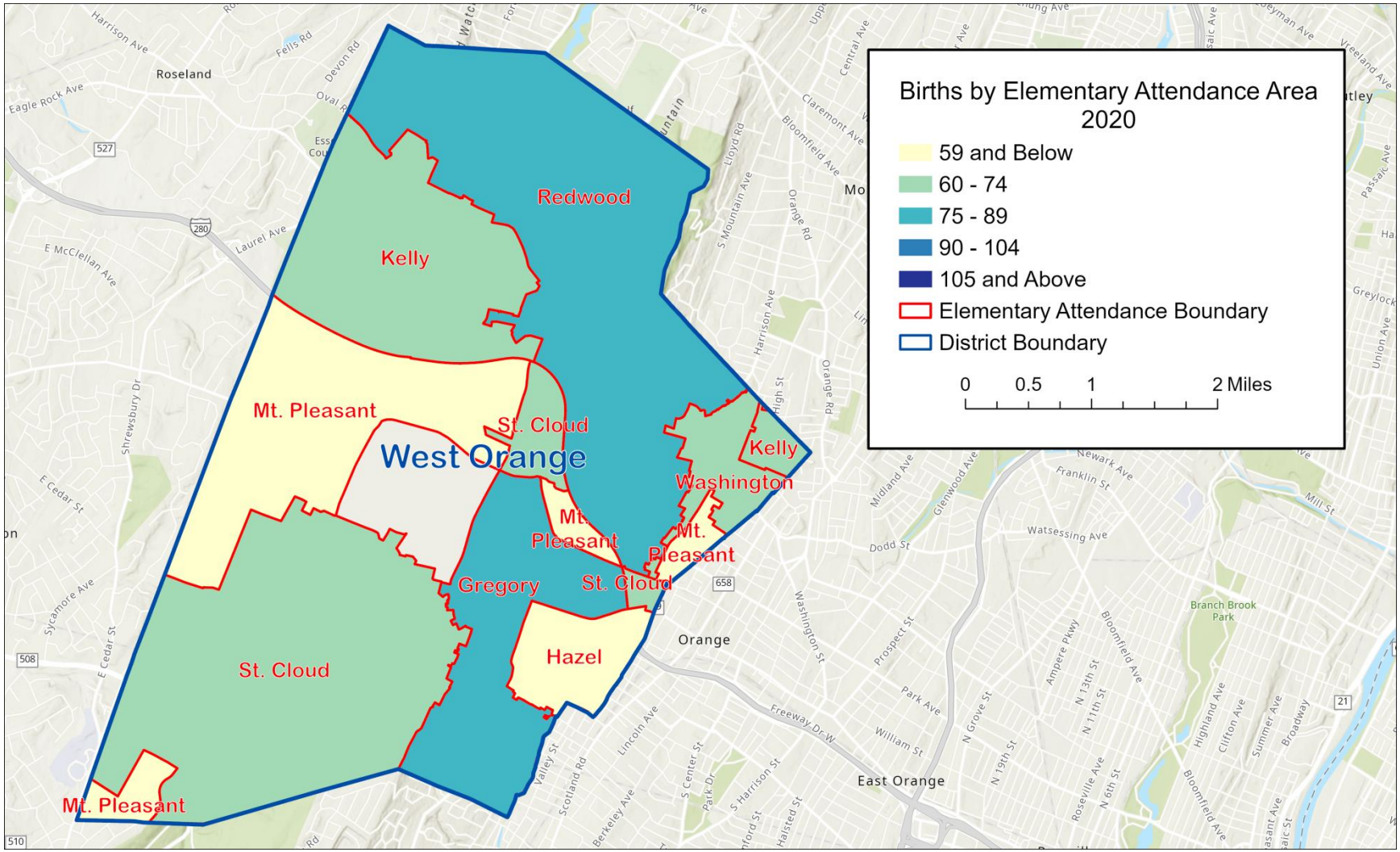


Figure 19
Change in the Number of Births by Elementary Attendance Area
2007-2020

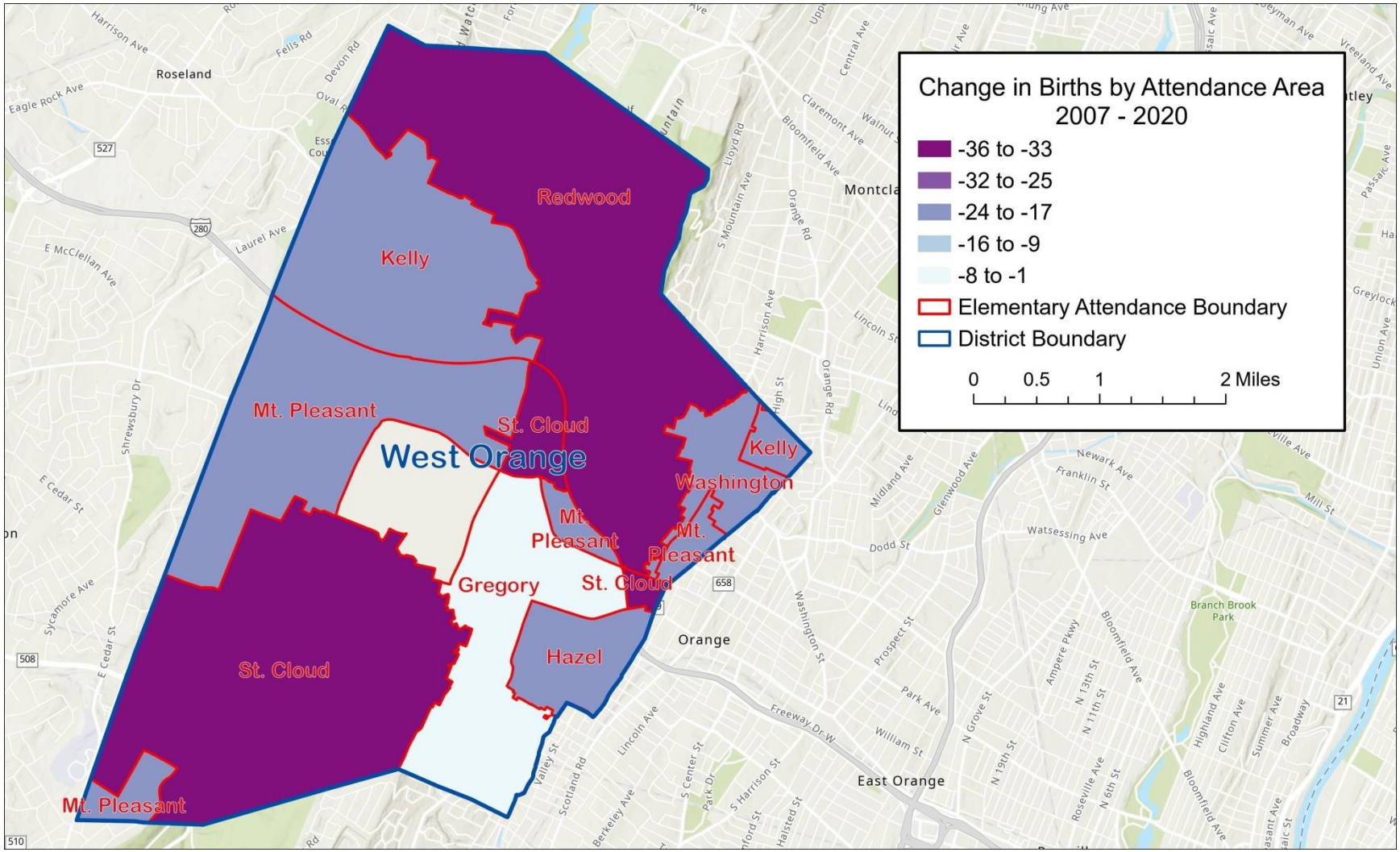


Figure 20
West Orange Total Number of Births by Elementary Attendance Area
2007-2020

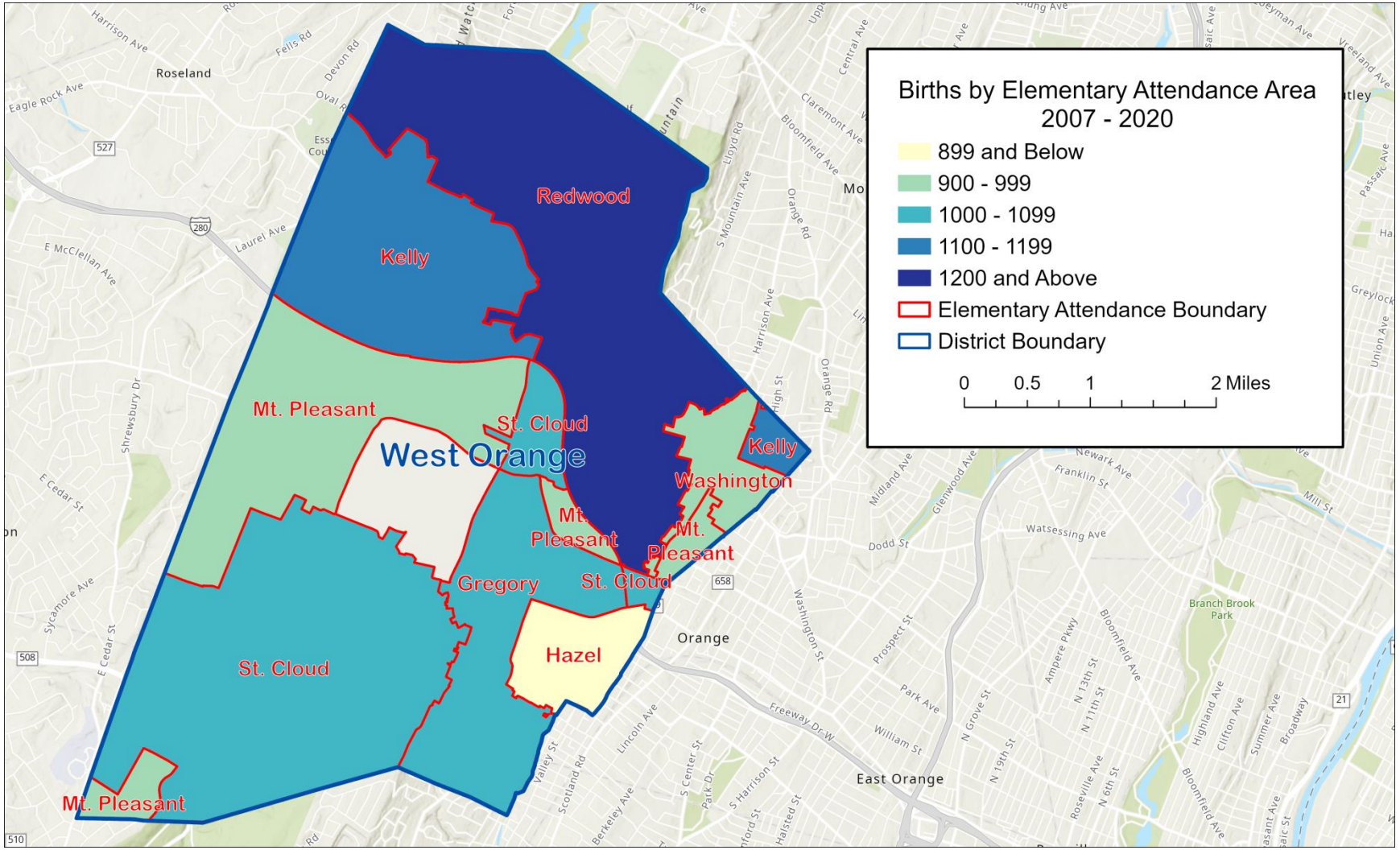


Figure 21
West Orange Births by Census Block
2007

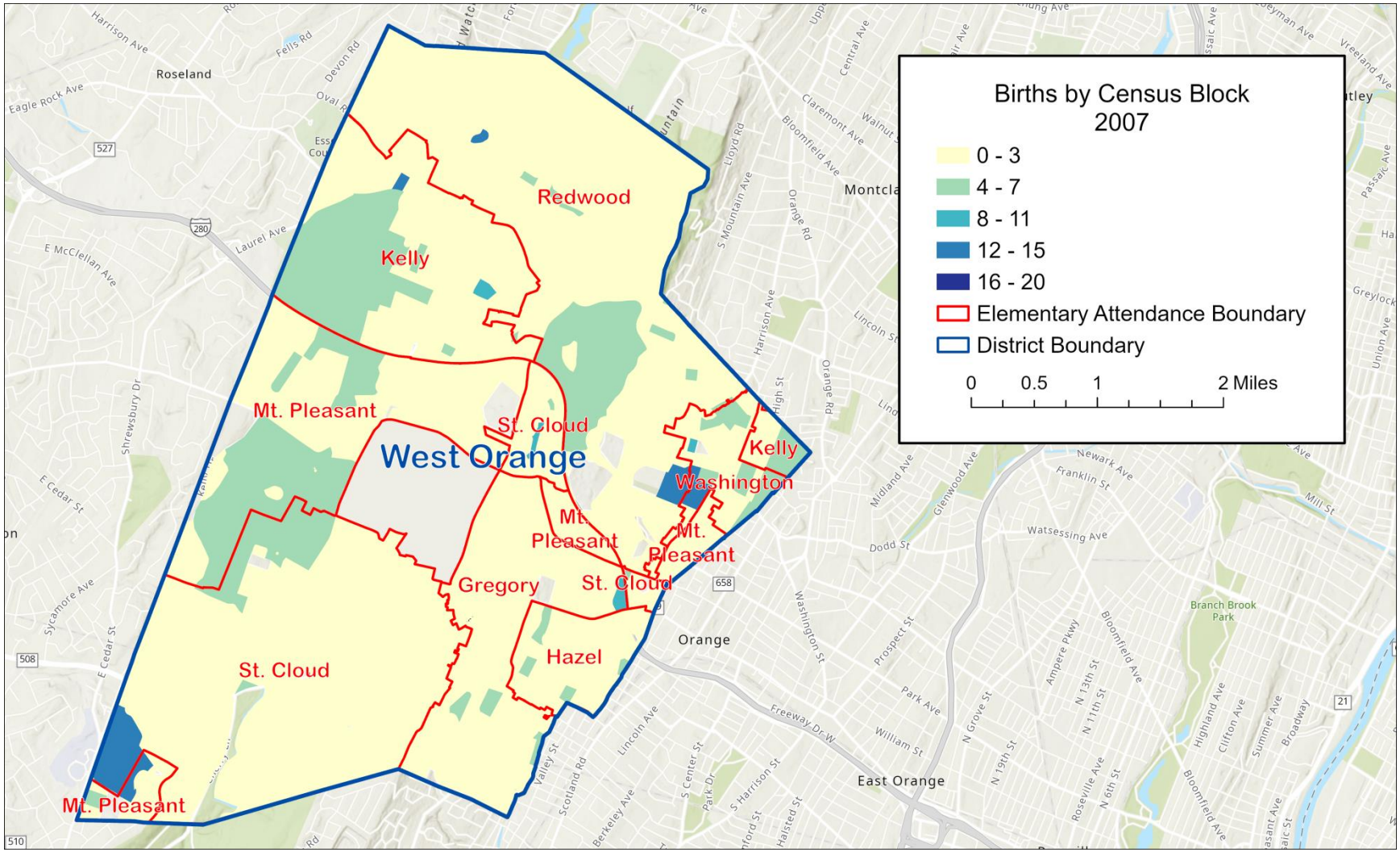


Figure 22
West Orange Births by Census Block
2020

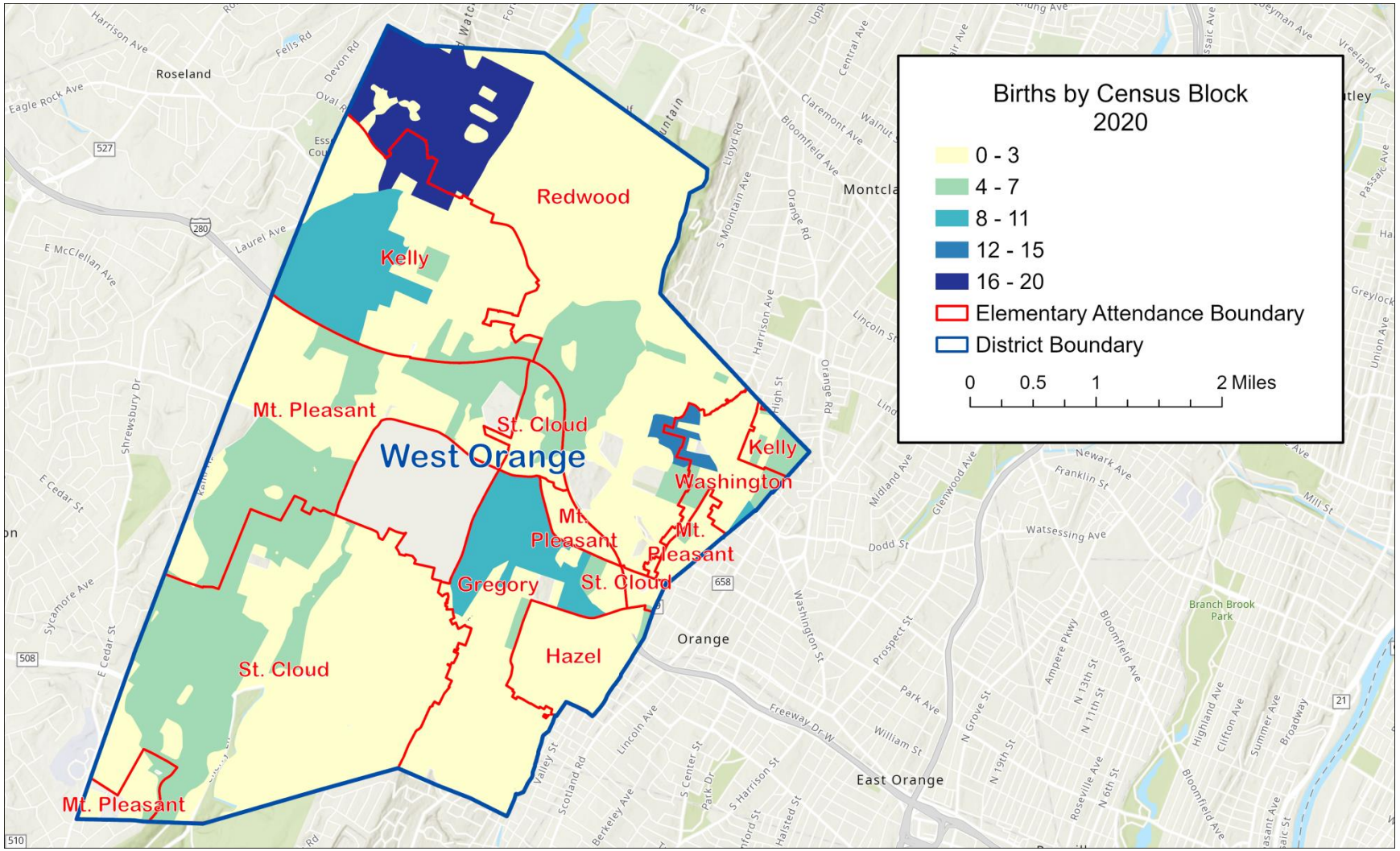
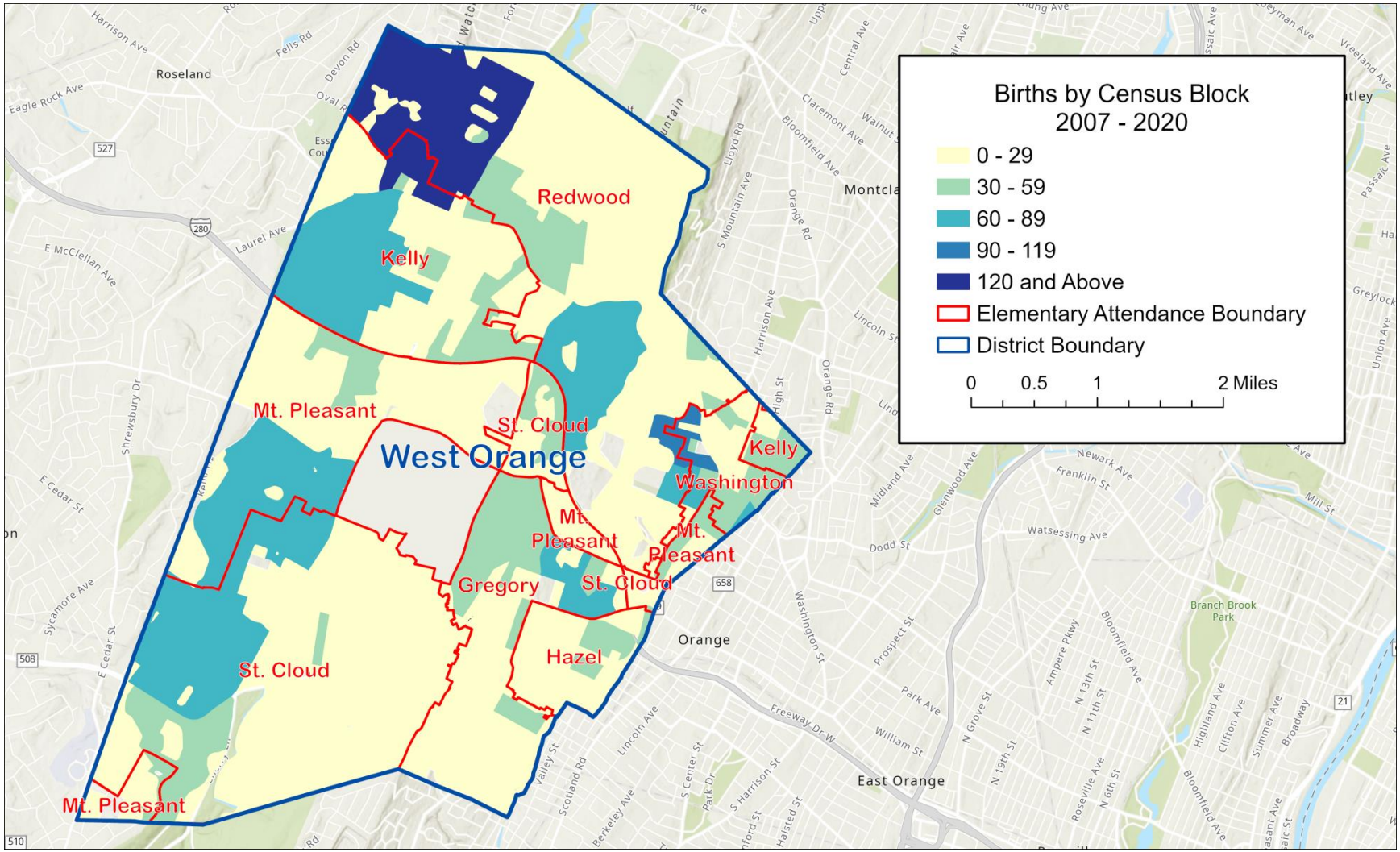


Figure 23
West Orange Births by Census Block
2007-2020



The fertility rate in West Orange is much lower than the rate in both Essex County and New Jersey. According to the 2016-2020 ACS, the fertility rate of women aged 15 to 50 in West Orange was 41 births per 1,000 women. In comparison, as reported by the NJCHS, the 2020 fertility rate in Essex County was 59.2 births per 1,000 women (ages 15-49) and was 58.1 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 West Orange data has a margin of error that is much higher than the county and state data and may not reflect the community's "true" fertility rate.

Population Age Structure

Figures 24 and 25 show the age pyramids of males and females in West Orange from both the 2010 Census and the 2016-2020 ACS. In 2010, the largest number of individuals was aged 50-54 for males and 45-49 for females. In communities with little inward or outward migration and low mortality, the largest cohort in subsequent years is typically the next oldest cohort as people advance in age. As such, the largest cohort in the 2016-2020 ACS was aged 50-54 for females as they aged in place. However, the largest cohort for males was the 10-14 age group, which corresponds approximately with children in grades 5-9. As the largest group for males in the 2016-2020 ACS was not the next oldest cohort, migration is likely occurring in the township. As shown in Table 9, the greatest declines (shaded red) over this time period, both in number and percentage points, occurred in the 0-4 age group for males and the 5-9 age group for females, which corresponds approximately with children in grades K-4. There were also declines in the 25-29, 30-34, and 35-39 age groups for females, which correspond to the ages when many females have their children. The greatest gains (shaded blue), both in number and percentage points, occurred in the 70-74 age group for males and females. If males and females were aggregated in each age class, there were gains in each age cohort for those aged 50-54 to 75-79, indicating a "graying" of the overall population over this time period.

Figure 24
Population Pyramid of West Orange
2010 Census

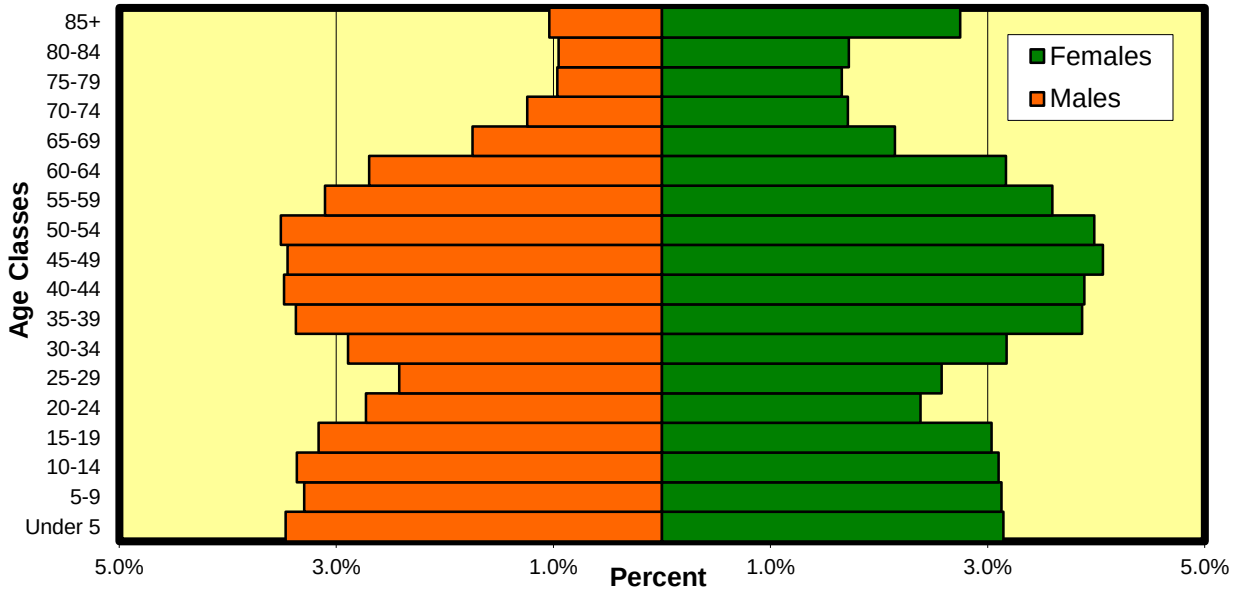


Figure 25
Population Pyramid of West Orange
2016-2020 ACS

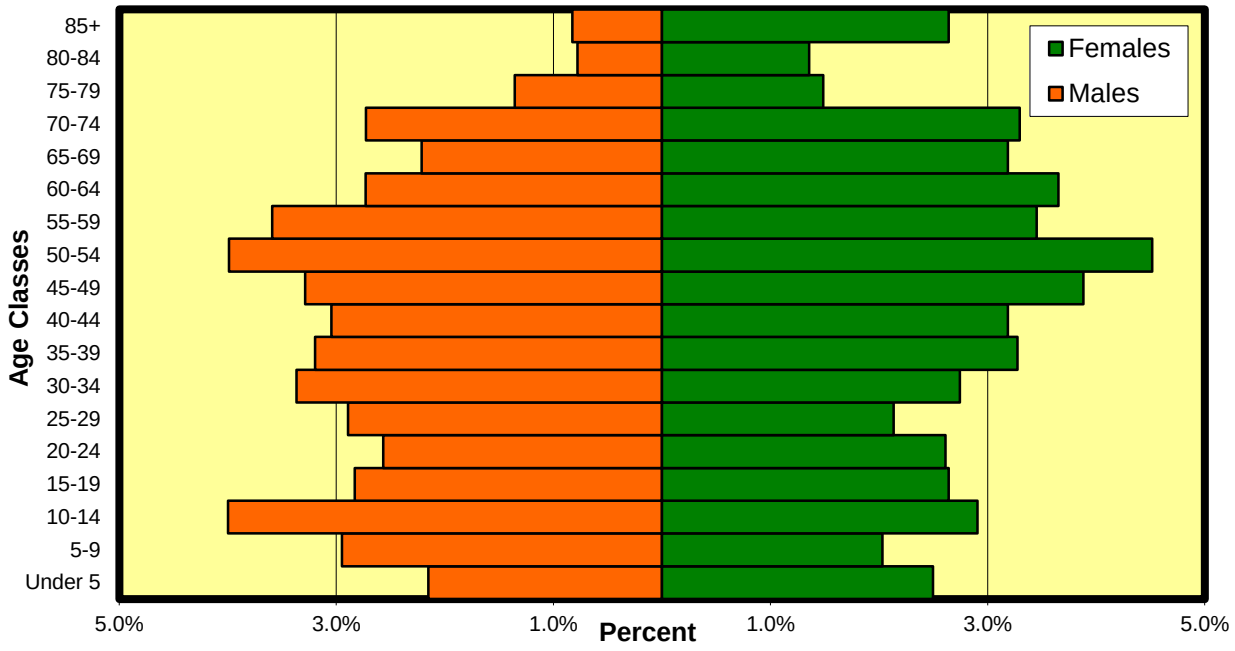


Table 9
Numerical and Percentage Point Changes of Males and Females
West Orange
2010 Census to 2016-2020 ACS

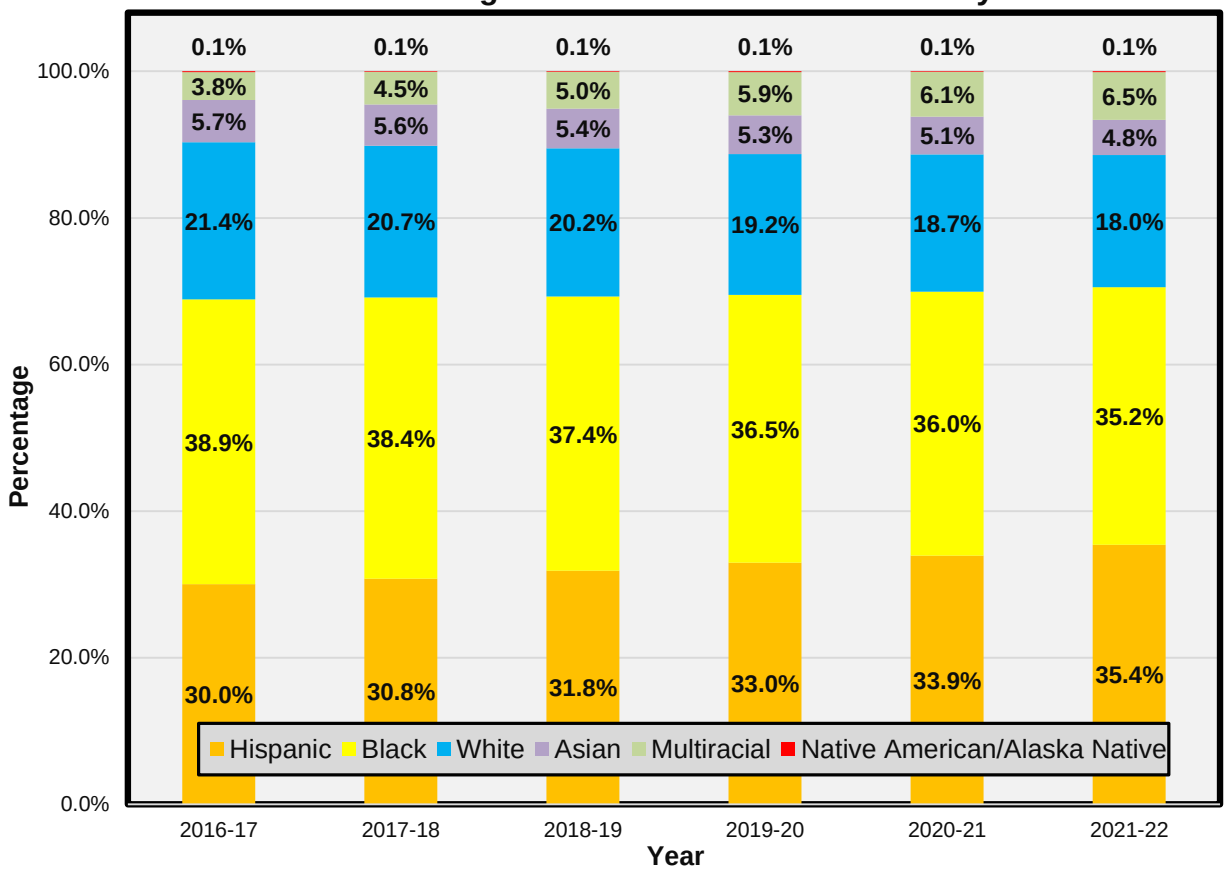
Age Group	Males		Females	
	Numerical Change	Percentage Point Change	Numerical Change	Percentage Point Change
Under 5	-579	-1.3	-267	-0.6
5-9	-122	-0.3	-479	-1.1
10-14	+346	+0.6	-52	-0.2
15-19	-117	-0.3	-147	-0.4
20-24	-39	-0.2	+142	+0.2
25-29	+256	+0.5	-176	-0.4
30-34	+263	+0.5	-163	-0.4
35-39	-40	-0.2	-232	-0.6
40-44	-161	-0.4	-283	-0.7
45-49	-32	-0.2	-31	-0.2
50-54	+274	+0.5	+305	+0.5
55-59	+273	+0.5	-21	-0.1
60-64	+50	0.0	+272	+0.5
65-69	+246	+0.5	+523	+1.0
70-74	+722	+1.5	+774	+1.6
75-79	+199	+0.4	-60	-0.2
80-84	-70	-0.2	-151	-0.4
85+	-88	-0.2	-14	-0.1

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.

Historical Enrollments by Race

In Figure 26, enrollments are shown by race for the West Orange Public Schools from 2016-17 to 2021-22. In the NJDOE enrollment database, the races listed are White, Hispanic/Latino ("Hispanic"), Asian or Native Hawaiian/Other Pacific Islander ("Asian"), Black or African American ("Black"), Native American or Alaska Native, and Two or more races ("Multiracial"). The population in the school district is racially diverse. Hispanics are the largest race in the district, surpassing Blacks in 2021-22. The Hispanic student percentage has increased from 30.0% in 2016-17 to 35.4% in 2021-22, a gain of 5.4 percentage points. While Blacks are the second-largest race in the school district, the Black percentage has been slowly declining over time. In 2021-22, 35.2% of the student population is Black as compared to 38.9% in 2016-17, a loss of 3.7 percentage points. Whites, which are the third-largest race, have declined from 21.4% to 18.0% over this time period, a loss of 3.4 percentage points. The Asian student percentage has slowly declined from 5.7% in 2016-17 to 4.8% in 2021-22. Of the four major races, Asians are the smallest race in the district. The percentage of Multiracial students has slowly increased from 3.8% to 6.5% over this time period. The number and percentage of Native American or Alaska Native students were insignificant.

Figure 26
West Orange Public Schools Enrollments by Race



In Table 10, enrollments by race from 2016-17 are displayed for each of the schools[4] in the district, as well as the districtwide totals. The largest race in each school is shaded blue. At the elementary level, the largest race was Hispanic in three schools (Hazel, Kelly, and Washington) and ranged from 15.3% at St. Cloud to 53.6% at Washington. Blacks were the largest race in two schools (Mt. Pleasant and Redwood). The Black percentage was fairly similar in each of the elementary schools, ranging from 31.3%-38.3%. Whites were the largest race in two schools (Gregory and St. Cloud) and ranged from a low of 3.0% at Washington to a high of 37.3% at Gregory. Asians were the smallest race in each elementary school, ranging from 1.6% at Washington to 10.4% at Mt. Pleasant. The Multiracial percentages ranged from 3.2%-10.1%. The number and percentage of Native American or Alaska Native students were insignificant.

Table 10
Enrollments by Race and School in the West Orange Public Schools 2016-17

School	White	Black	Hispanic	Asian	Alaska Native/ Native American	Multiracial	Total
Gregory E.S.	188	161	101	16	1	37	**504**
	37.3%	31.9%	20.0%	3.2%	0.2%	7.3%	**100.0%**
Hazel E.S.	31	107	169	10	0	20	**337**
	9.2%	31.8%	50.1%	3.0%	0.0%	5.9%	**100.0%**
Kelly E.S.	81	156	173	22	0	24	**456**
	17.8%	34.2%	37.9%	4.8%	0.0%	5.3%	**100.0%**
Mt. Pleasant E.S.	83	123	99	38	1	21	**365**
	22.7%	33.7%	27.1%	10.4%	0.3%	5.8%	**100.0%**
Redwood E.S.	168	186	138	46	2	33	**573**
	29.3%	32.5%	24.1%	8.0%	0.3%	5.8%	**100.0%**
St. Cloud E.S.	133	115	56	26	0	37	**367**
	36.2%	31.3%	15.3%	7.1%	0.0%	10.1%	**100.0%**
Washington E.S.	13	166	232	7	1	14	**433**
	3.0%	38.3%	53.6%	1.6%	0.2%	3.2%	**100.0%**
Edison Central Six	104	188	148	25	0	22	**487**
	21.4%	38.6%	30.4%	5.1%	0.0%	4.5%	**100.0%**
Liberty M.S.	109	216	157	38	0	13	**533**
	20.5%	40.5%	29.5%	7.1%	0.0%	2.4%	**100.0%**
Roosevelt M.S.	138	229	153	31	0	7	**558**
	24.7%	41.0%	27.4%	5.6%	0.0%	1.3%	**100.0%**
West Orange H.S.	370	924	561	121	1	26	**2,003**
	18.5%	46.1%	28.0%	6.0%	0.0%	1.3%	**100.0%**
Total	**1,418**	**2,571**	**1,987**	**380**	**6**	**254**	**6,616**
	21.4%	**38.9%**	**30.0%**	**5.7%**	**0.1%**	**3.8%**	**100.0%**

Source: New Jersey Department of Education (http://www.nj.gov/education/data/enr/)
Note: Cells highlighted blue are the largest race in the school.

[4] It should be noted that Betty Maddalena Early Learning Center did not exist in 2016-17.

In the three middle schools (including Edison), Blacks were the largest race in each of the schools. The Black percentage was fairly similar in each school, ranging from 38.6%-41.0%. Hispanics were the second-largest race in each school, ranging from 27.4%-30.4%, while Whites were the third-largest race in each school, ranging from 20.5%-24.7%. Asians were the smallest race in each school, ranging from 5.1%-7.1%. The Multiracial percentages were small, ranging from 1.3%-4.5%. There were no Native American or Alaska Native students.

At West Orange High School, Blacks were the largest race in 2016-17, representing 46.1% of the population, while Hispanics were second-largest (28.0%) followed by Whites (18.5%) and Asians (6.0%). The Multiracial percentage was 1.3%. The number and percentage of Native American or Alaska Native students were insignificant.

In Table 11, enrollments by race from 2021-22 are displayed for each of the schools in the district, as well as the districtwide totals. The largest race in each school is shaded blue. Figures 27-29 show the Hispanic, Black, and White student percentages by elementary school, which are the three largest races in the district. At the elementary level (excluding Maddalena ELC), Hispanics are the largest race in Hazel, Kelly, Mt. Pleasant, and Washington. The Hispanic percentage ranges from a low of 17.3% at St. Cloud to a high of 61.8% at Washington. With the exception of Hazel, each of the elementary schools had a percentage-point gain in the Hispanic population since 2016-17, with the largest occurring at Washington (+8.2 percentage points). Blacks are the largest race in Redwood and St. Cloud and range from 25.7% at Gregory to 35.0% at Kelly. Three schools had a percentage-point decline in the Black population over this time period, with the largest occurring at Washington (-9.2 percentage points). For the four schools that had percentage-point gains in the Black population, the gains were insignificant. Whites are the largest race in Gregory and range from a low of 3.0% at Washington to a high of 37.1% at Gregory. With the exception of Washington, each of the elementary schools had a percentage-point decline in the White population over this time period, with the largest occurring at St. Cloud (-8.6 percentage points). Asians are the smallest race in each school, ranging from 0.3% at Hazel to 9.0% at Mt. Pleasant. The change in the Asian student population in each of the schools over this time period was relatively insignificant. The Multiracial percentages range from 3.5%-13.3%. The number and percentage of Native American or Alaska Native students were insignificant.

In the three middle schools (including Edison), Hispanics are the largest race in Liberty and Roosevelt in 2021-22 while Blacks are the largest race in Edison. The Hispanic percentage ranges from 28.7% at Edison to 39.3% at both Liberty and Roosevelt. In the last five years, the Hispanic percentage has increased in both Liberty (+9.8 percentage points) and Roosevelt (+11.9 percentage points). Blacks range from 33.2% at Roosevelt to 40.2% at Edison. In two of the three schools, the Black percentage has declined in the last five years, with the largest decline occurring at Roosevelt (-7.8 percentage points). Whites are the third-largest race in each school, ranging from 16.7% at Liberty to 19.2% at Roosevelt. Each school had a percentage-point decline in the White percentage over this time period, with the largest (-5.5 percentage points) occurring at Roosevelt. Asians are the smallest race in each school, ranging from 3.1%-5.9%. The racial percentages of the Asian student population have not changed significantly from 2016-17 to 2021-22. The Multiracial percentages range from 4.2%-7.9%. The number and percentage of Native American or Alaska Native students were insignificant.

Table 11
Enrollments by Race and School in the West Orange Public Schools
2021-22

School	White	Black	Hispanic	Asian	Alaska Native/ Native American	Multiracial	Total
Maddalena ELC	14	22	20	3	1	1	**61**
	23.0%	36.1%	32.8%	4.9%	1.6%	1.6%	**100.0%**
Gregory E.S.	166	115	108	11	1	47	**448**
	37.1%	25.7%	24.1%	2.5%	0.2%	10.5%	**100.0%**
Hazel E.S.	28	105	157	1	0	27	**318**
	8.8%	33.0%	49.4%	0.3%	0.0%	8.5%	**100.0%**
Kelly E.S.	48	164	199	18	1	39	**469**
	10.2%	35.0%	42.4%	3.8%	0.2%	8.3%	**100.0%**
Mt. Pleasant E.S.	59	109	121	31	0	26	**346**
	17.1%	31.5%	35.0%	9.0%	0.0%	7.5%	**100.0%**
Redwood E.S.	105	152	127	32	0	35	**451**
	23.3%	33.7%	28.2%	7.1%	0.0%	7.8%	**100.0%**
St. Cloud E.S.	110	133	69	33	0	53	**398**
	27.6%	33.4%	17.3%	8.3%	0.0%	13.3%	**100.0%**
Washington E.S.	12	115	244	10	0	14	**395**
	3.0%	29.1%	61.8%	2.5%	0.0%	3.5%	**100.0%**
Edison Central Six	76	178	127	26	1	35	**443**
	17.2%	40.2%	28.7%	5.9%	0.2%	7.9%	**100.0%**
Liberty M.S.	95	198	223	28	0	24	**568**
	16.7%	34.9%	39.3%	4.9%	0.0%	4.2%	**100.0%**
Roosevelt M.S.	100	173	205	16	0	27	**521**
	19.2%	33.2%	39.3%	3.1%	0.0%	5.2%	**100.0%**
West Orange H.S.	369	841.5	720.5	105.5	2	100	**2,138.5**
	17.3%	39.4%	33.7%	4.9%	0.1%	4.7%	**100.0%**
Total	**1,182**	**2,305.5**	**2,320.5**	**314.5**	**6**	**428**	**6,556.5**
	18.0%	**35.2%**	**35.4%**	**4.8%**	**0.1%**	**6.5%**	**100.0%**

Source: New Jersey Department of Education (http://www.nj.gov/education/data/enr/)
Note: Cells highlighted blue are the largest race in the school.

At West Orange High School, Blacks are the largest race in 2021-22, representing 39.4% of the population, while Hispanics are second-largest (33.7%) followed by Whites (17.3%) and Asians (4.9%). The Multiracial percentage is 4.7%. The number and percentage of Native American or Alaska Native students were insignificant. In the last five years, Blacks declined by 6.7 percentage points while Hispanics increased by 5.7 percentage points. The racial percentages of the White and Asian student populations have not changed significantly from 2016-17 to 2021-22.

Figure 27
West Orange Public Schools Hispanic Percentage by Elementary School
2021-22

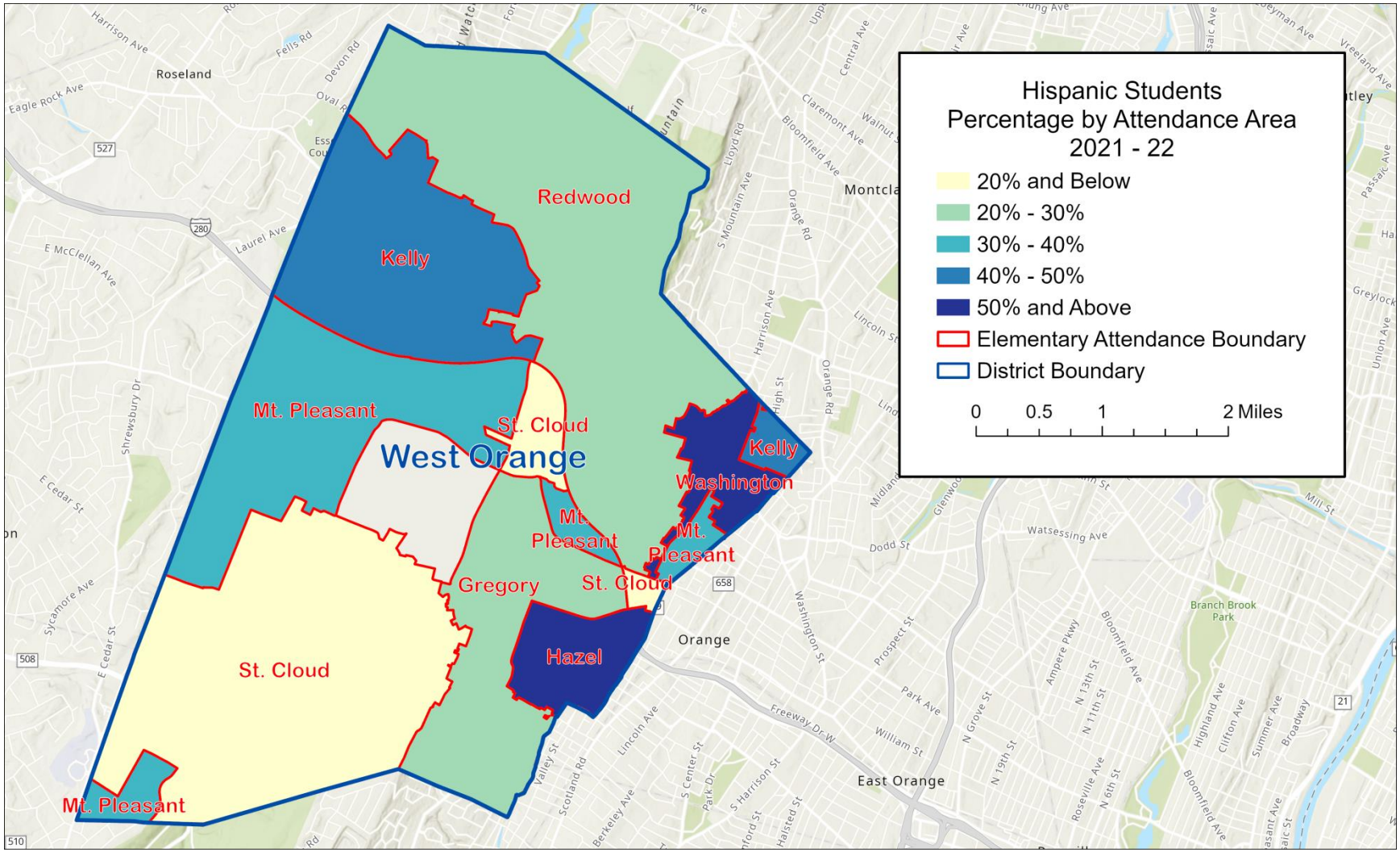


Figure 28
West Orange Public Schools Black Percentage by Elementary School
2021-22

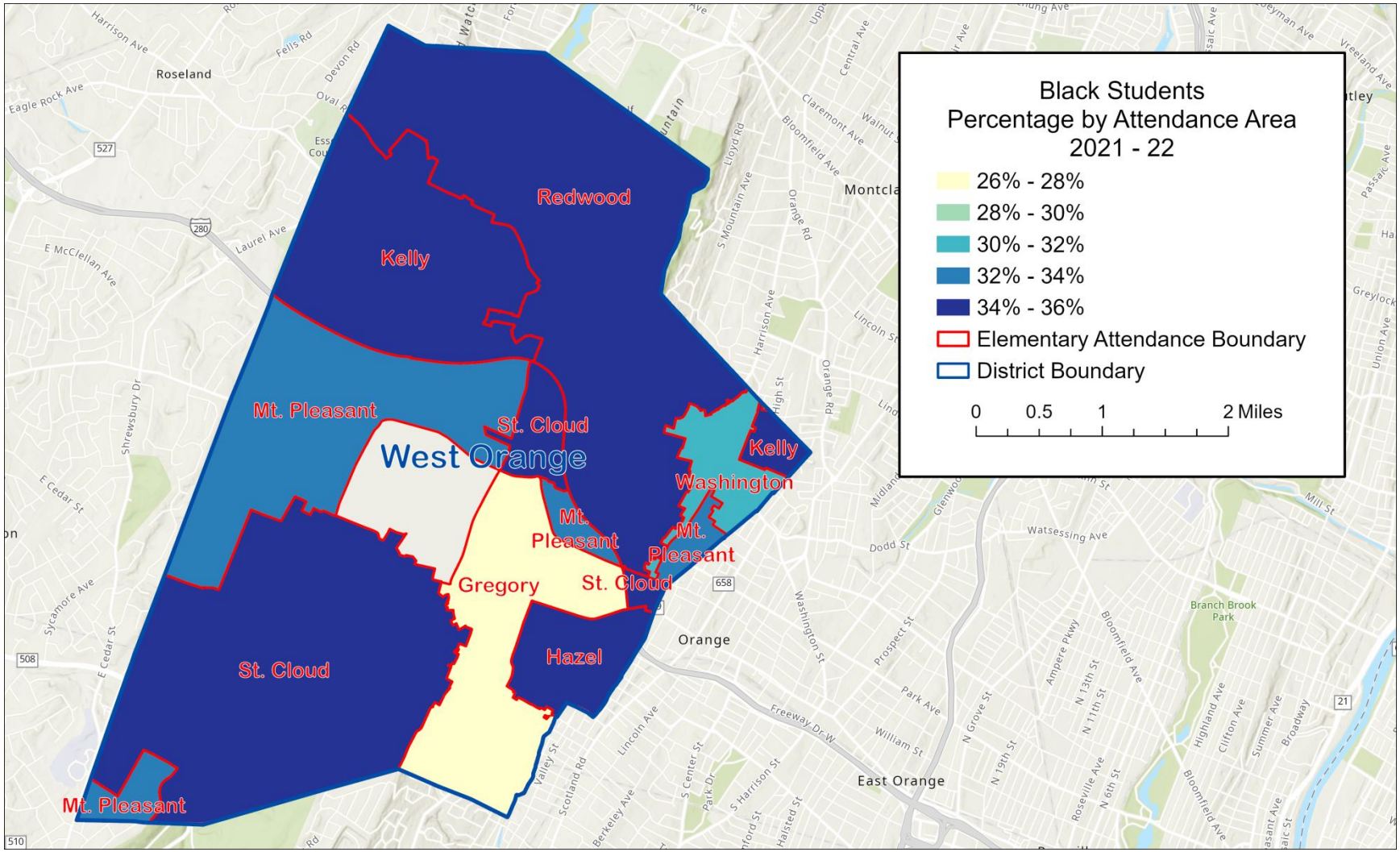
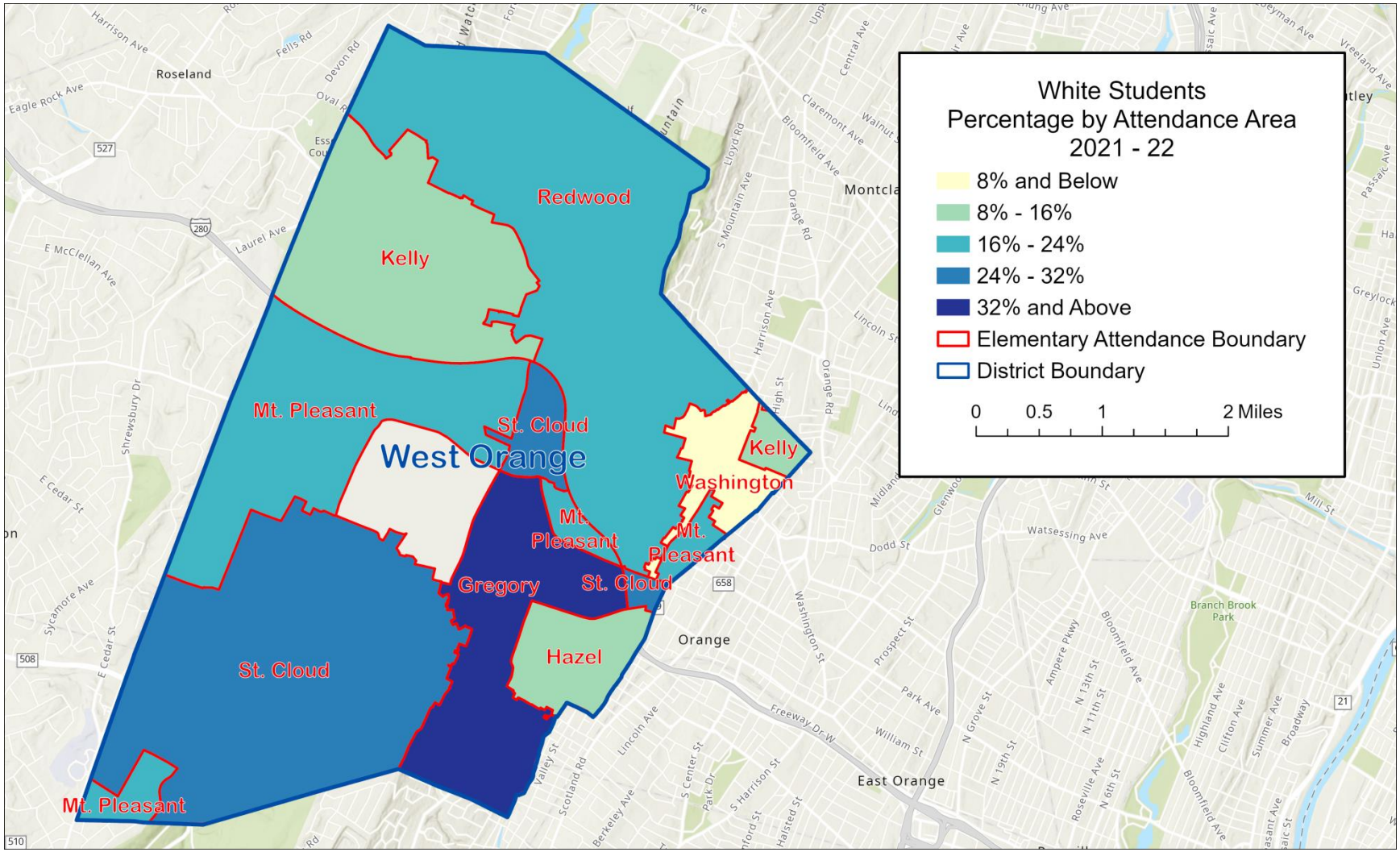


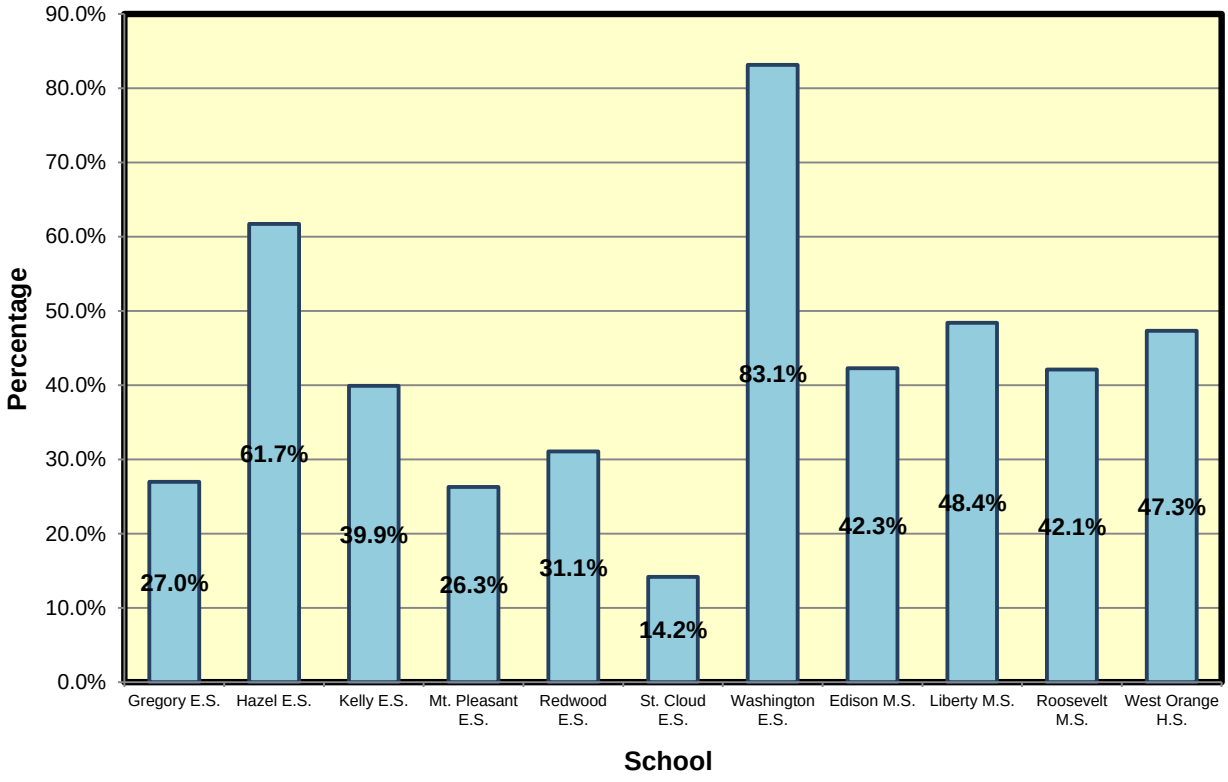
Figure 29
West Orange Public Schools White Percentage by Elementary School
2021-22



Economically Disadvantaged Students

As a proxy for measuring poverty in the school district, counts of students receiving free or reduced lunch were compiled from 2016-17 through 2021-22. In Figure 30, the percentage of students that are economically disadvantaged is shown for each school in 2016-17. At the elementary level, Washington (83.1%) had the highest percentage of economically disadvantaged students while St. Cloud (14.2%) had the lowest percentage. In the middle schools, the percentage of economically disadvantaged students was fairly similar, ranging from 42.1%-48.4%. At West Orange High School, the percentage of economically disadvantaged students was 47.3%.

Figure 30
West Orange Public Schools
Economically Disadvantaged by School
2016-17



In Figure 31, the percentage of students that are economically disadvantaged in 2021-22 is shown for each school. At the elementary level (excluding Maddalena), Hazel (54.7%) has the highest percentage of economically disadvantaged students while Gregory (32.8%) has the lowest. In the middle schools, the percentage of economically disadvantaged students was fairly similar, ranging from 49.0% at Edison to 53.9% at Liberty. At West Orange High School, the percentage of economically disadvantaged students is 48.0%. Figures 32 and 33 display the percentage of students that are economically disadvantaged in 2016-17 and 2021-22 for each of the elementary schools.

Figure 31
West Orange Public Schools
Economically Disadvantaged by School
2021-22

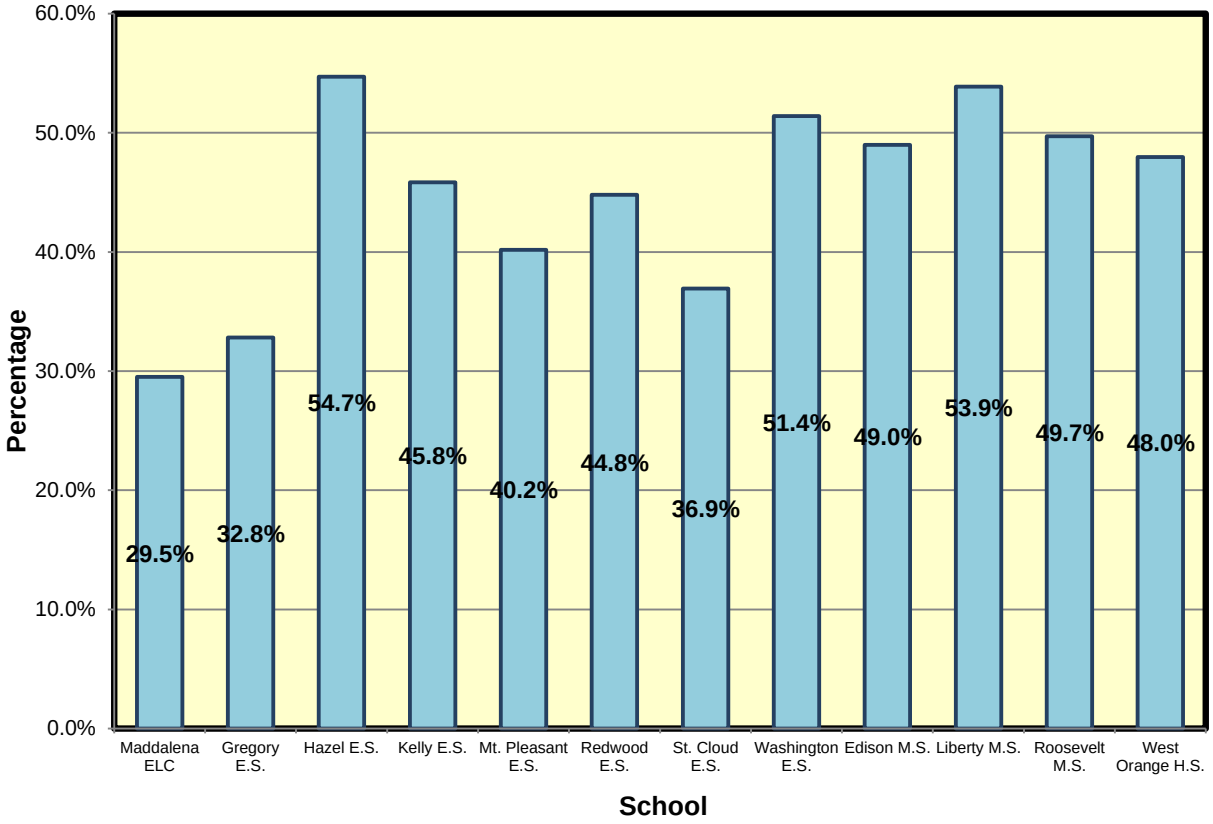


Figure 32
West Orange Public Schools Economically Disadvantaged Percentages by Elementary School
2016-17

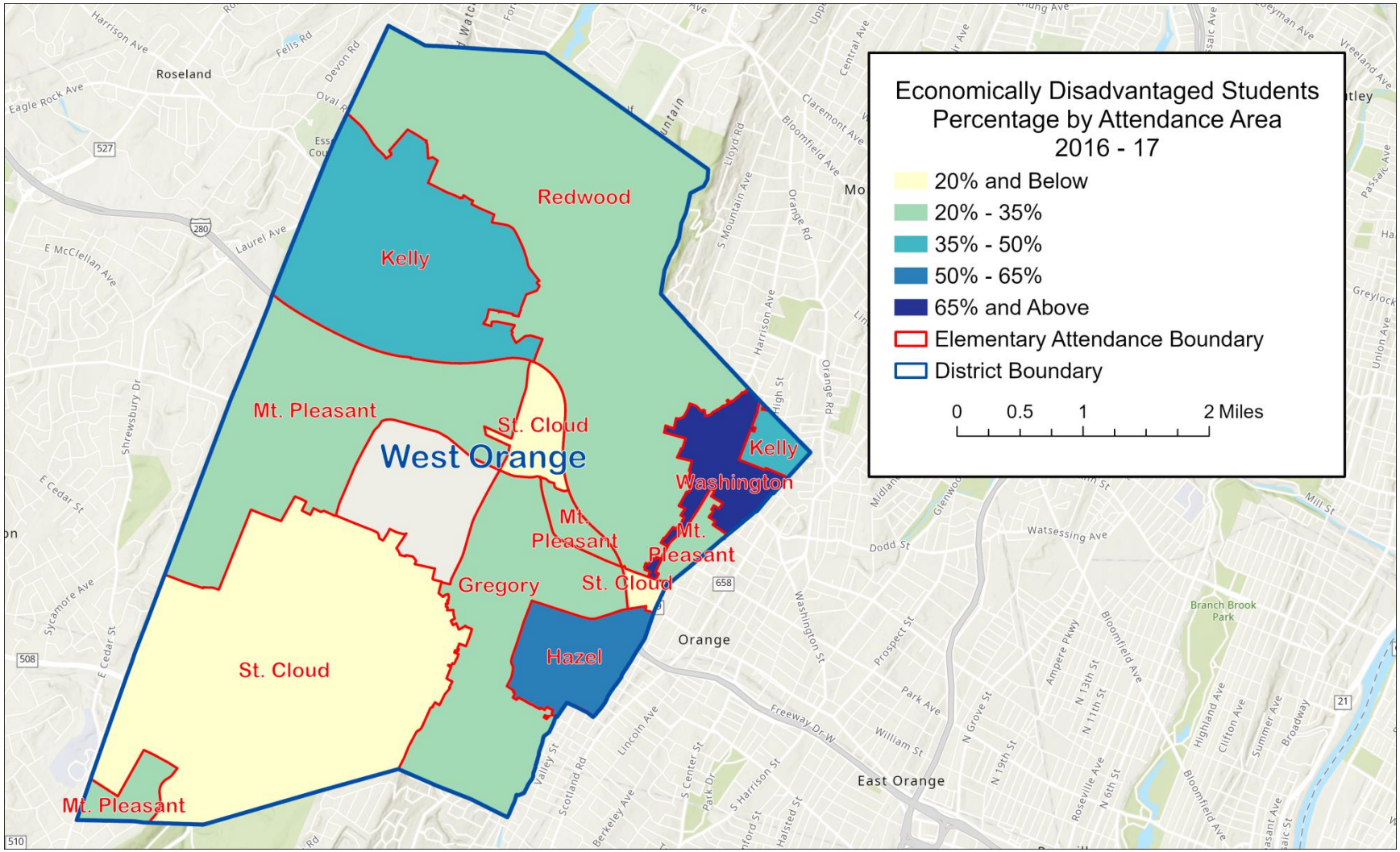
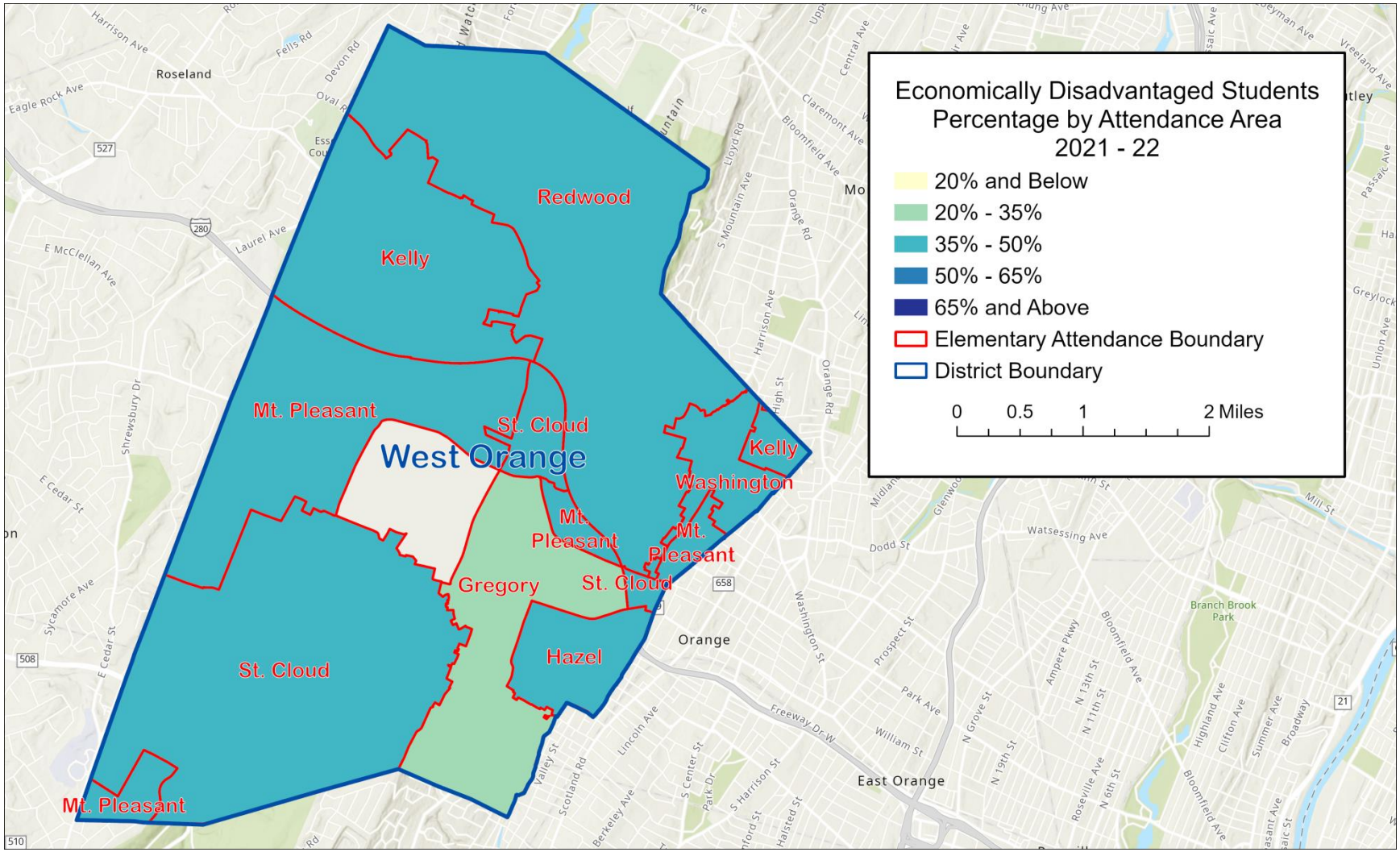


Figure 33
West Orange Public Schools Economically Disadvantaged Percentages by Elementary School 2021-22



In Table 12, the total number of economically disadvantaged students was compiled by school from 2016-17 through 2021-22, while the within school percentages are shown in Table 13. Table 12 also shows the overall percentage of students that are economically disadvantaged with respect to the district's total enrollment. At the district level, the number and percentage of students that are economically disadvantaged declined through 2020-21 before reversing trend in 2021-22. Whereas 2,859 students (43.2%) were economically disadvantaged in the school district in 2016-17, 3,053 (46.6%) are economically disadvantaged in 2021-22, which is a 3.4 percentage-point increase and a gain of 194 economically disadvantaged students.

Table 12
West Orange Public Schools Economically Disadvantaged Students
2016-17 to 2021-22

School	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	Five-Year Change
Maddalena E.S.	N/A[1]	21	17	17	9	18	**N/A**
Gregory E.S.	136	118	102	87	76	147	**+11**
Hazel E.S.	208	203	198	189	161	174	**-34**
Kelly E.S.	182	181	191	186	175	215	**+33**
Mt. Pleasant E.S.	96	91	85	90	73	139	**+43**
Redwood E.S.	178	150	158	160	124	202	**+24**
St. Cloud E.S.	52	59	54	52	49	147	**+95**
Washington E.S.	360	333	353	335	280	203	**-157**
Edison M.S.	206	217	209	228	252	217	**+11**
Liberty M.S.	258	242	250	246	222	306	**+48**
Roosevelt M.S.	235	207	206	211	207	259	**+24**
West Orange H.S.	948	921	947.5	902	938	1026	**+78**
Total	**2,859**	**2,743**	**2,770.5**	**2,703**	**2,566**	**3,053**	
Total District Enrollment	**6,616**	**6,637.5**	**6,593.5**	**6,611**	**6,638**	**6,556.5**	
Percent of Total	**43.2%**	**41.3%**	**42.0%**	**40.9%**	**38.7%**	**46.6%**	

Source: New Jersey Department of Education (http://www.nj.gov/education/data/enr/)
[1]School opened in 2017-18.

At the elementary level (excluding Maddalena), five schools have a greater number of economically disadvantaged students in 2021-22 as compared to 2016-17. The largest gains over this time period occurred in St. Cloud (+95) and Mt. Pleasant (43). In the middle schools, each school has a greater number of economically disadvantaged students in 2021-22 as compared to 2016-17, with the largest increase occurring at Liberty (+48). West Orange High School (+78) also has a greater number of economically disadvantaged students in 2021-22 as compared to 2016-17.

The percentages of students that are economically disadvantaged within each school are shown from 2016-17 through 2021-22 in Table 13. At the elementary level, St. Cloud had the largest percentage-point increase (+22.7) of economically disadvantaged students over this time period, while Washington had the largest percentage-point decline (-31.7). In the three middle schools, each school had a fairly similar increase in the percentage of economically disadvantaged students over this time period, ranging from 5.5-7.6 percentage points. The percentage of economically disadvantaged students at West Orange High School has not changed significantly over this time period.

Table 13
West Orange Public Schools Economically Disadvantaged Students Within School Percentages 2016-17 to 2021-22

School	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	Percentage Point Change
Maddalena E.S.	N/A[1]	25.0%	24.6%	23.9%	20.9%	29.5%	**N/A**
Gregory E.S.	27.0%	25.3%	23.1%	19.2%	17.2%	32.8%	**+5.8**
Hazel E.S.	61.7%	61.1%	59.1%	59.1%	50.3%	54.7%	**-7.0**
Kelly E.S.	39.9%	40.5%	41.5%	40.9%	38.2%	45.8%	**+5.9**
Mt. Pleasant E.S.	26.3%	25.0%	24.7%	25.5%	21.4%	40.2%	**+13.9**
Redwood E.S.	31.1%	28.1%	30.7%	31.4%	26.4%	44.8%	**+13.7**
St. Cloud E.S.	14.2%	15.6%	14.3%	13.1%	12.4%	36.9%	**+22.7**
Washington E.S.	83.1%	80.6%	82.5%	80.3%	70.0%	51.4%	**-31.7**
Edison M.S.	42.3%	45.0%	42.4%	44.2%	45.7%	49.0%	**+6.7**
Liberty M.S	48.4%	47.3%	47.3%	45.9%	39.6%	53.9%	**+5.5**
Roosevelt M.S.	42.1%	38.7%	42.3%	43.3%	43.5%	49.7%	**+7.6**
West Orange H.S.	47.3%	44.1%	44.8%	43.0%	43.0%	48.0%	**+0.7**

Note: [1]School opened in 2017-18.

New Housing in West Orange

West Orange municipal representatives provided information regarding current and future residential development in the community. A list of approved and proposed developments, location, affected elementary and middle school attendance areas, number of units, bedroom distribution (if available), housing type, and project status is shown in Table 14. 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.

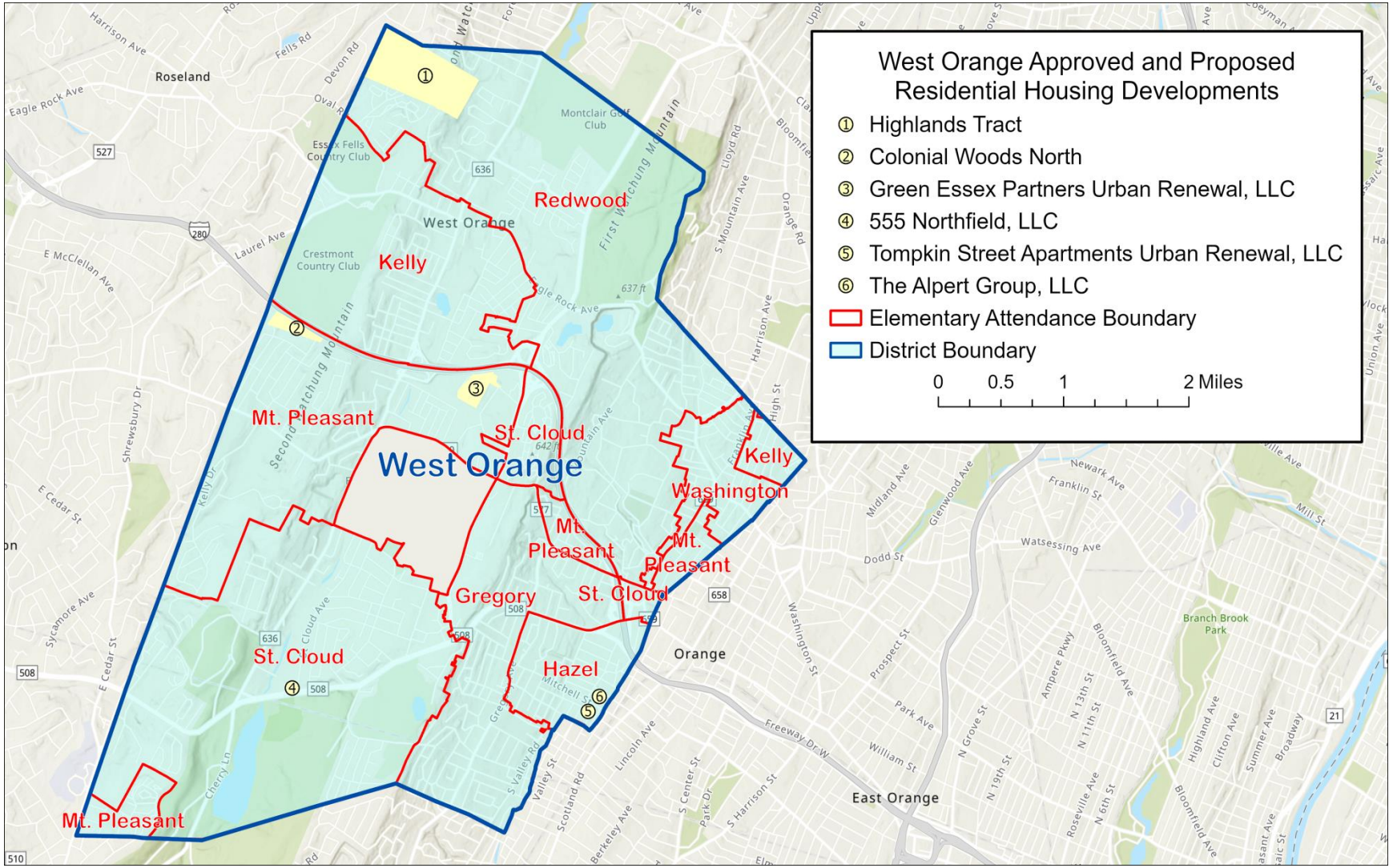
In total, there is the potential for 633 non age-restricted housing units, the majority of which will consist of multi-family units such as apartments. Of this amount, 92 units (15%) will be set aside to meet affordable housing requirements. Of the seven elementary attendance areas, the largest impact will be on Mt. Pleasant, which will contain nearly three-quarters (71%) of the new housing units. The location of each of the developments is shown in Figure 34.

Table 14
Approved and Proposed Residential Developments in West Orange

Development/ (Location)	Elementary/ Middle School Attendance Areas	Number of Units	Bedroom Distribution	Housing Type	Notes/Project Status
Colonial Woods North (Colonial Woods Drive)	Mt. Pleasant/Liberty	27	N/A	Detached Single-Family	Approximately 15 homes have been completed.
The Alpert Group, LLC (18 Central Avenue)	Hazel/Roosevelt	94	49 1-BR 45 2-BR	Apartment (Market-Rate)	Approved but construction has not yet begun. Mix of retail and residential units in 5-story building.
Tompkin Street Apartments Urban Renewal, LLC (Tompkin Street)	Hazel/Roosevelt	17	3 1-BR 10 2-BR 4 3-BR	Apartment (Affordable)	Approved but construction has not yet begun.
Green Essex Partners Urban Renewal, LLC (Executive Drive)	Mt. Pleasant/Liberty	425	180 1-BR 232 2-BR 13 3-BR	Apartment (Market-Rate and Affordable)	Approved and under construction. 64 units will be set aside for Low-Moderate Income households.
555 Northfield, LLC (555 Northfield Avenue)	St. Cloud/Roosevelt	70	10 1-BR 58 2-BR 2 3-BR	Apartment (Market-Rate and Affordable)	Mixed use development to include apartments, retail, and a child care facility. 11 units will be set aside for Low-Moderate Income households.
Highlands Tract (Sullivan Drive, Marmon Terrace, Nestro Road, Mayfair Drive, and Rosemont Terrace)	Redwood/Liberty	N/A	N/A	N/A	Land approved for roughly 60 single-family homes. Developer wants to build 782 market-rate and affordable apartment units. Continued litigation.
Total	**633 Units**				

Source: West Orange Township Planning and Development

Figure 34
West Orange Approved and Proposed Housing Developments



Since the August 2017 demographic study, two developments have been completed (Edison Lofts Phase I and Harvard Printing II) and were removed from the table. In addition, Main Street Development Phase II (296 townhouse units) was removed from the table as most of the development at this location will instead be commercial properties.

It should be noted that Table 14 does not include the West Orange Senior Housing project of 65 affordable age-restricted units on Mt. Pleasant Avenue, an assisted-living/senior housing facility consisting of 180 age-restricted units by Monarch Development (481 Eagle Rock Avenue), or an assisted-living facility of 85 age-restricted units by CSH Development (609 Eagle Rock Avenue) which would have no impact on the school district. While there should be no direct impact on the West Orange Public Schools, there could be an indirect impact if current West Orange residents move into the new housing units and sell their existing homes to families with children. While the potential for new schoolchildren exists under this scenario, it is unknown whether current residents will purchase/rent these units and what the demographic characteristics of the buyers will be of the existing homes in West Orange.

Of the developments shown in the table, the largest is by Green Essex Partners Urban Renewal, LLC and will consist of 425 apartment units, whereby 64 units will be set aside to meet affordable housing requirements. The project, which is under construction, will consist of primarily one- and two-bedroom units.

In addition, there is the potential for the development of the Highlands Tract, which has been in litigation since the August 2017 demographic study. While the land has been approved for 60 detached single-family homes, the developer is seeking to build 782 market-rate and affordable apartment units. As it is unclear if this development will get constructed and the type of housing units that will be built, the potential impact on the school district was not considered.

Student Yield Analysis of One- to Four-Family Homes

To determine the number of children per housing unit (student yield) in West Orange, the township's parcel-level MOD IV database was joined to the school district's 2021-22 student database. Age-restricted housing units, condominiums, and townhouses were removed from the property database, whereby the majority of remaining homes were detached single-family or duplexes. A total of 5,484 children living in 10,485 one- to four-family homes were identified. The remaining children in the school district either live in apartments, townhouses/condominiums, or mixed-use units (commercial and residential properties) or do not live in West Orange.

The simplest way to compute student yields is to divide the total number of students by the total number of homes. However, there are several drawbacks in computing yields in this fashion. First, the *type* of housing unit helps determine the magnitude of the student yield, as yields are typically greatest for detached single-family homes and smallest for multi-family homes such as apartments and townhouses/condominiums. A second drawback of this computation is that the student yield would include homes owned by all age segments of the population, such as empty-nesters and senior citizens, which would lower the overall student yield. Yields computed in this fashion are likely underestimating the future number of children

in proposed developments or from home resales, where families with children are likely to be the buyers, particularly if the school district has an excellent reputation.

Instead, the length of ownership of the housing unit was considered, as student yields are typically highest from 0-10 years of ownership and are lowest at 20 or more years of ownership. As such, a unique student yield distribution by length of ownership was created for West Orange. It also should be noted that the forthcoming student yield distribution is a snapshot in time. If the percentage of children in the population changes, or the demographics of the community change where ethnic groups of larger or smaller sizes enter, or if the school district's reputation changes and more or less children attend the district, student yields are likely to change as well.

To determine length of ownership, parcel-level records of all one- to four-family homes in West Orange were obtained from the Monmouth County Tax Board[5] MOD IV database. Besides the property address, other variables include block and lot, sale dates and prices, and in most instances, the year that the home was built. To compute student yields by length of ownership, it was necessary to know the year of the most recent sale, where reliable sales data in the database were available from 1983-2021[6], a 38-year period. Determining the most recent sale date was not always obvious. Some of the most recent sales had a sales price of $1 or $100. These "paper sales" were coded as a non-usable deed transaction and were excluded from the analysis. These transactions include sales between members of the immediate family, resulting in a change in title but often not a change of the occupant. If there were no secondary sale dates, the length of ownership exceeded 38 years but the exact number of years was unknown.

One of the limitations of the database was the lack of recorded sales prior to 1983. Since many of the homes (n = 1,481) have never been sold since 1983, the earliest sale date recorded, the length of ownership exceeded 38 years for these homes but the exact length of ownership was unknown. West Orange also had homes constructed after 1983 that had never been sold. However, in these instances, the length of ownership could be computed by simply subtracting the year that the home was built from 2021.

Student Yields by Length of Ownership for One- to Four-Family Homes

Student yields by length of ownership for one- to four-family homes was determined by joining West Orange's parcel-level property database with 2021-22 student address data, which was provided by the school district. It is expected that longer-held homes will have fewer children, as they would have graduated from the district. Figure 35 shows that student yields increase with length of ownership, peaking at 0.90 children per housing unit with 15 years of ownership. Student yields then begin to decline as length of ownership increases. For homes with 25 or more years of ownership, student yields were typically below 0.40. Table 15 shows the student yields by length of ownership for the K-12 student population (public school students only).

[5] The database provides information for all municipalities in the state.
[6] Data for 2022 were incomplete and not used in the analysis.

Figure 35
West Orange Student Yields by Length of Ownership
One- to Four-Family Homes

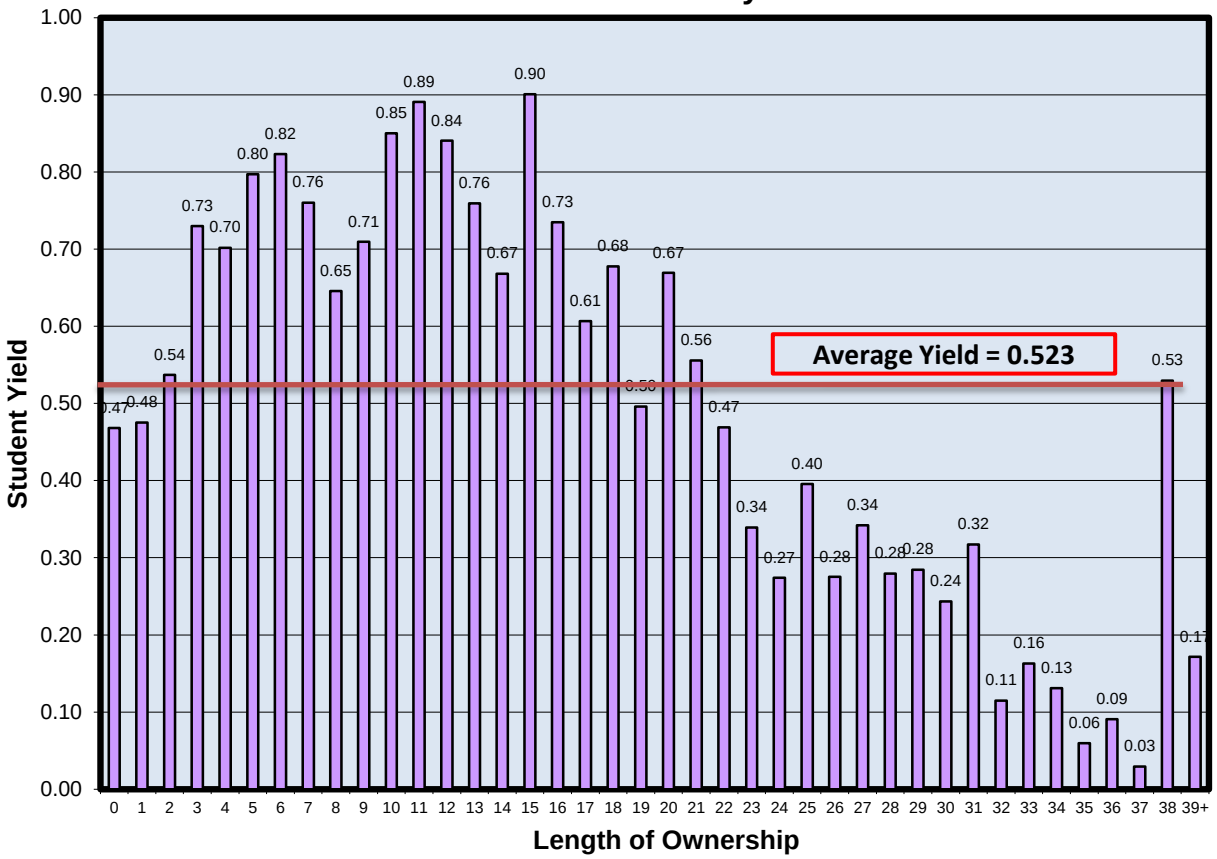


Table 15
Student Yields by Current Length of Ownership in West Orange
One- to Four-Family Homes

Years of Ownership	Housing Units	2021-22 Students	Student Yield
0	359	168	0.47
1	629	299	0.48
2	501	269	0.54
3	548	400	0.73
4	446	313	0.70
5	414	330	0.80
6	339	279	0.82
7	271	206	0.76
8	237	153	0.65
9	203	144	0.71
10	180	153	0.85
11	165	147	0.89
12	188	158	0.84
13	162	123	0.76
14	226	151	0.67
15	232	209	0.90
16	283	208	0.73
17	338	205	0.61
18	307	208	0.68
19	246	122	0.50
20	269	180	0.67
21	261	145	0.56
22	307	144	0.47
23	283	96	0.34
24	230	63	0.27
25	220	87	0.40
26	149	41	0.28
27	152	52	0.34
28	136	38	0.28
29	123	35	0.28
30	111	27	0.24
31	82	26	0.32
32	87	10	0.11
33	86	14	0.16
34	61	8	0.13
35	67	4	0.06
36	55	5	0.09
37	34	1	0.03
38	17	9	0.53
39+	1481	254	0.17
Total	**10,485**	**5,484**	**0.523**

Since the length of ownership is a distribution, how can one determine what is the likely student yield in a home resale or newly constructed unit? Since the distribution is a snapshot in time, what is a reasonable student yield to use? Computing an average over the entire length of

ownership underestimates the number of children, since there are so few children at longer lengths of ownership as children graduate from the school district. Unfortunately, there is no research-based metric to determine what part of the distribution should be used to estimate future schoolchildren. Instead, we propose computing an average using all of the years up to the peak student yield, which estimates the maximum impact before student yields begin to decline.

As discussed above, the average student yield computed from the entire housing stock, which is 0.523 children per home, likely underestimates the actual student yield when a family either moves into a new (or resale) one- to four-family home. If the average student yield is computed for the first 15 years of ownership when the peak student yield occurs, the yield increases to 0.687. This is likely a better estimate of the student yield of one- to four-family homes in West Orange.

Student Yield Analysis for Townhouses and Condominiums

Student yields were also computed for townhouses and condominiums in West Orange, which are shown for each development in Table 16. Counts of students are shown by grades K-5, 6-8, and 9-12, which is the school district's grade configuration. Unlike the prior analysis, lengths of ownership were not computed as there is a lot of variation of the student yields based on the development's bedroom distribution and whether it has child-friendly amenities, such as a playground or swimming pool. Through internet research, we were able to identify the approximate sales price, the year the development was built, bedroom distribution, and the number of units. Student yields are shown by housing development for 2021-22 and are compared to the student yields in 2016-17 as previously shown in the August 2017 demographic study. A total of 342 children (K-12) were identified living in 2,866 units, which is an average student yield of 0.119. The largest student yields, in developments with at least 25 units, are in Briar Hill Villas (0.32) and The Villas at Crown View (0.28). The township's average student yield for townhouses and condominiums in 2021-22 is almost identical to that of 2016-17 (0.106).

Student Yield Analysis for Apartments

Student yields were also computed for apartment complexes in West Orange as shown in Table 17. Counts of students are shown by grades K-5, 6-8, and 9-12, which is the school district's grade configuration. The table is not an all-inclusive list of all apartment units, as it only includes large apartment complexes. The list does not include small multi-family buildings with fewer than five units or mixed-use properties with apartments above retail space. Through internet research, we were able to identify the rental price (if available), the year the development was built, bedroom distribution (if available), and the number of units. Student yields are shown for 2021-22 and are compared to the student yields in 2016-17 as previously shown in the August 2017 demographic study. A total of 385 public school children (K-12) were identified living in 2,385 units, which is an average student yield of 0.161. The largest student yields, in developments with at least 25 units, are in Hutton Park Gardens (0.43) and Northfield Townhouses (0.30). The township's average student yield for apartments in 2021-22 is lower than that of 2016-17 (0.209).

Table 16
West Orange Student Yields for Condominiums and Townhouses

Development	Price ($)[1]	Year Built	Bedrooms	Number of Units[2]	K-5 Students	6-8 Students	9-12 Students	K-12 Students[3]	2016-17 Student Yield	2021-22 Student Yield
Barringer Court	475,000 +/-	1984	2-BR	20	1	0	0	**1**	**0.10**	**0.05**
Bel Air at West Orange	730,000- 820,000	2007	3-4 BR	249	11	8	8	**27**	**0.14**	**0.11**
Briar Hill Villas	310,000-360,000	1980	2-BR	41	6	4	3	**13**	**0.37**	**0.32**
Carriage House Manor	155,000- 240,000	1968	1-2 BR	36	0	0	1	**1**	**0.06**	**0.03**
Condos at West Orange (The)	130,000 +/-	1966	1-BR	17	0	0	1	**1**	**0.12**	**0.06**
Crestmont Gardens	200,000 - 240,000	1967	1-2 BR	98	3	0	1	**4**	**0.05**	**0.04**
Crown View Manor	215,000-475,000	1993	1-3 BR	225	1	0	2	**3**	**0.01**	**0.01**
Crystal Woods	365,000 - 500,000	1993	2-3 BR	268	13	8	8	**29**	**0.10**	**0.11**
Eagle Ridge	340,000-425,000	1982, 1987, 1988	2-3 BR	407	24	12	22	**58**	**0.13**	**0.14**
Essex Green Villas	320,000 - 350,000	1980	1-3 BR	79	8	4	3	**15**	**0.15**	**0.19**
Forest Creek	400,000-470,000	1999	3-BR	40	0	1	1	**2**	**0.15**	**0.05**
Highlands at West Essex (The)	400,000-500,000	1989	2-3 BR	300	36	15	17	**68**	**0.18**	**0.23**
Hilltop Villas	295,000 +/-	1984	2-BR	36	0	0	0	**0**	**0.00**	**0.00**
Llewellyn Gates	175,000-255,000	1956	1-2 BR	81	12	3	6	**21**	**0.19**	**0.26**
Normandie Estates	430,000-475,000	1997	3-BR	46	7	2	1	**10**	**0.22**	**0.22**
Pointe at Crystal Lake (The)	600,000-660,000	2000	3-BR	150	4	5	5	**14**	**0.11**	**0.09**
Scenic Hill	275,000-405,000	1992	1-2 BR	352	9	6	12	**27**	**0.06**	**0.08**
Skyline	650,000 +/-	1990	3-4 BR	4	0	0	0	**0**	**0.00**	**0.00**
Valley Condos	350,000 and up	2008	3-BR	5	4	1	2	**7**	**0.60**	**1.40**
Villas at Crown View (The)	425,000-575,000	1993, 1998	2-3 BR	105	16	8	5	**29**	**0.22**	**0.28**
Vizcaya	800,000-1,900,000	2009-2015	3-BR	127	1	1	0	**2**	**0.00**	**0.02**
Woodlands	400,000-560,000	1987	2-3 BR	174	3	0	6	**9**	**0.02**	**0.05**
587-591 Valley Road	145,000 and up	1987	1-BR	6	1	0	0	**1**	**0.00**	**0.17**
Total				**2,866**	**160**	**78**	**104**	**342**	**0.106**	**0.119**

Notes: [1]Sale price information was obtained from www.njcondos.net or public sale records.
[2]As derived from the West Orange Township property database
[3]Based on 2021-22 enrollments in the West Orange Public Schools

Table 17
West Orange Student Yields for Apartments

Development (Property Address)	Rent ($)[1]	Year Built	Bedrooms	Number of Units	K-5 Students	6-8 Students	9-12 Students	K-12 Students[2]	2016-17 Student Yield	2021-22 Student Yield
Crest Ridge (200 Mt. Pleasant Avenue)	1,900 - 2,650	1967	1-2 BR	178	7	6	13	**26**	**0.08**	**0.15**
Devon Gardens (90 Northfield Avenue)	N/A	N/A	1-2 BR	40	4	0	1	**5**	**0.13**	**0.13**
Eagle Rock (23 Wilfred Street)	1,585 - 2,250	1960	1-2 BR	151	4	2	9	**15**	**0.31**	**0.10**
Edison Lofts (33 Ashland Avenue)	2,225 - 3,185	2018	1-2 BR	334	5	2	3	**10**	**N/A[3]**	**0.03**
Harvard Printing II (22 Central Avenue)	1,525 - 1,675	2020	1-2 BR	100	9	4	1	**14**	**N/A[3]**	**0.14**
Hutton Lafayette at West Orange (160 Randolph Place)	2,165 -3,125	1949	1-2 BR	234	0	0	1	**1**	**0.11**	**0.00**
Hutton Park Gardens (125 Northfield Avenue)	1,430 - 1,700	1945	1-2 BR	95	14	8	19	**41**	**0.53**	**0.43**
Llewelyn Terrace (234 Eagle Rock Avenue)	N/A	1957	1-2 BR	50	8	4	2	**14**	**0.08**	**0.28**
Northfield Townhouses (595 Northfield Avenue)	2,655-3,120	1955	2-BR	103	12	9	10	**31**	**0.15**	**0.30**
Rockspring (425 Northfield Avenue)	N/A	N/A	N/A	24	2	0	2	**4**	**0.11**	**0.17**
Summit Hill (12 Summit Street)	2,100 - 2,750	1954	1-2 BR	40	1	0	0	**1**	**N/A[4]**	**0.03**
Summit House (6 Summit Street)	1,550-1,695	1971	1-BR	108	0	0	1	**1**	**0.05**	**0.01**
The Regis (47 Watson Avenue)	1,350 - 1,695	1931	1-2 BR	6	0	0	0	**0**	**0.67**	**0.00**
West Mill Gardens (115 Old Short Hills Road)	1,870-2,160	1965	1-3 BR	635	42	18	32	**92**	**0.12**	**0.14**
10 Mitchell Street	N/A	1911	1-BR	5	0	0	0	**0**	**N/A[4]**	**0.00**
100 Chestnut Street	1,600 +/-	1951	2-BR	8	2	1	2	**5**	**0.50**	**0.63**
120 Elm Street	N/A	1926	N/A	5	1	1	0	**2**	**0.50**	**0.40**
16 Ridge Avenue	N/A	1911	N/A	6	2	2	3	**7**	**1.33**	**1.17**
18 Chestnut Street	N/A	1910	N/A	7	4	0	1	**5**	**0.86**	**0.71**
19 Freeman Street	N/A	1917	N/A	5	4	0	0	**4**	**N/A[4]**	**0.80**
20 Ridge Avenue	N/A	1931	N/A	6	1	2	3	**6**	**0.83**	**1.00**

21 Hutton Avenue	N/A	1945	N/A	10	3	0	2	**5**	**0.70**	**0.50**
230 Watchung Avenue	1,775	1931	1-2 BR	6	0	0	0	**0**	**0.33**	**0.00**
26 Lindsley Avenue	N/A	1932	1-2 BR	6	0	0	0	**0**	**0.50**	**0.00**
269 Main Street	1,350 +/-	1909	1-2 BR	12	0	3	1	**4**	**0.25**	**0.33**
27-29 Freeman Street	N/A	1910	N/A	11	0	1	1	**2**	**1.18**	**0.18**
275 Northfield Avenue	N/A	1960	N/A	44	2	1	2	**5**	**0.14**	**0.11**
284 Watchung Avenue	N/A	1911	N/A	6	3	2	0	**5**	**0.83**	**0.83**
29 Ridge Avenue	N/A	1945	N/A	6	0	1	1	**2**	**1.00**	**0.33**
30 Ridge Avenue	N/A	1910	N/A	6	2	4	4	**10**	**1.17**	**1.67**
31-33 Park Avenue	N/A	1931	1-2 BR	10	2	0	0	**2**	**0.20**	**0.20**
3-5 Chestnut Street	N/A	1921	N/A	6	2	2	0	**4**	**0.33**	**0.67**
409-411 Main Street	N/A	1926	N/A	8	1	0	2	**3**	**1.50**	**0.38**
41 Watchung Avenue	N/A	1921	N/A	6	2	0	0	**2**	**0.17**	**0.33**
45 Watson Avenue	1,350 - 1,695	1931	1-2 BR	6	1	1	1	**3**	**0.83**	**0.50**
5 Summit Street	N/A	1983	N/A	18	1	1	0	**2**	**N/A**	**0.11**
61-63 Chestnut Street	N/A	1915	1-2 BR	9	3	2	2	**7**	**0.50**	**0.78**
77 Ashland Avenue	N/A	1916	1-2 BR	7	2	1	2	**5**	**0.71**	**0.71**
79 Ashland Avenue	N/A	1916	N/A	5	1	2	0	**3**	**0.60**	**0.60**
83 Ashland Avenue	N/A	1916	1-2 BR	5	2	2	0	**4**	**1.60**	**0.80**
84 Chestnut Street	N/A	1929	1-2 BR	6	2	0	0	**2**	**0.17**	**0.33**
85 Ashland Avenue	N/A	1916	N/A	5	0	1	0	**1**	**1.00**	**0.20**
88 Ashland Avenue	N/A	1926	N/A	6	3	0	2	**5**	**0.75**	**0.83**
9 Freeman Street	1,850 +/-	1946	2-BR	6	2	0	1	**3**	**0.33**	**0.50**
90-92 Ashland Avenue	N/A	1911	N/A	6	3	1	3	**7**	**1.17**	**1.17**
91 Ashland Avenue	N/A	1912	1-BR	6	1	0	0	**1**	**0.50**	**0.17**
93 Franklin Avenue	N/A	1925	1-BR	5	0	0	0	**0**	**0.00**	**0.00**
95 Ashland Avenue	N/A	1916	N/A	12	4	2	1	**7**	**0.17**	**0.58**
99-101 High Street	N/A	1921	2-BR	6	3	2	2	**7**	**0.58**	**1.17**
Total				**2,385**	**167**	**88**	**130**	**385**	**0.209**	**0.161**

Notes: [1]As derived from internet research

[2] Based on 2021-22 enrollments in the West Orange Public Schools

[3] Development did not exist in 2017.

[4] Development was not listed in prior report.

Unit counts shaded red were estimated through satellite imagery as unit count was unavailable

Table 18 summarizes the student yields for townhouses/condominiums and apartments for the K-5, 6-8, and 9-12 grade configurations. Student yields are greatest for grades K-5 in each housing type, which is not unexpected since there are six grades. The overall student yield for apartments is higher than that of townhouses/condominiums.

Table 18
Student Yields by Housing Type in West Orange

Housing Type	K-5 Student Yield	6-8 Student Yield	9-12 Student Yield	K-12 Student Yield[1]
Townhouse/ Condominium	0.056	0.027	0.036	**0.119**
Apartment	0.070	0.037	0.054	**0.161**

Note: [1]Student yields are based on 2021-22 enrollments in the West Orange Public Schools.

Historical Residential Construction

With respect to historical new construction, the number of homes constructed in West Orange from 2017-2021 is shown by elementary attendance area in Table 19. A total of 474 homes were built over this time period, with the greatest number (350) occurring in the Mt. Pleasant attendance area. Of this number, 334 were apartment units in Edison Lofts. In addition, 100 units located in the Hazel attendance area are related to the construction of Harvard Printing II. While not shown in the table, there were eight (8) homes demolished during this time period, which results in a net gain of 466 housing units since 2017.

Table 19
Number of New Homes by Elementary Attendance Area
2017-2021

Year	Elementary Attendance Area[1]							
	Gregory	Hazel	Kelly	Mt. Pleasant	Redwood	St. Cloud	Washington	Total
2017	0	0	3	2	0	10	0	**15**
2018	0	0	0	340	0	6	0	**346**
2019	0	0	1	3	0	4	0	**8**
2020	0	100	0	1	0	0	0	**101**
2021	0	0	0	4	0	0	0	**4**
Total	**0**	**100**	**4**	**350**	**0**	**20**	**0**	**474**

Note: [1]As derived from the West Orange Township property tax database

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 2017-2021, there was a net gain of 466 non age-restricted housing units in West Orange. With respect to future construction, there is the potential for 633 non age-restricted housing units, which would be greater than the number built since 2017. Therefore, the baseline enrollment projections were subsequently modified to account for additional children from the new housing. The modifications occurred in the attendance areas where the new housing is being constructed. **The modification to the enrollment projections assumes that all potential developments listed in Table 14 will be built and occupied in the next five years.**

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 approved and proposed housing developments in West Orange. Since there are a limited number of comparable affordable housing developments in West Orange, *Who Lives in New Jersey Housing?*[7], published by the Rutgers University Center for Urban Policy Research ("CUPR"), was also 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.

To project the number of public school children from the new housing units, 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 West Orange.

2. When not available, all affordable apartment units were assumed to have the following bedroom distribution: 1-bedroom = 20%, 2-bedroom = 60%, 3-bedroom = 20%.

3. The estimated number of students from Colonial Woods North only reflects units yet to be constructed.

4. All detached single-family homes were assumed to have the township's average student yield multiplier for detached single-family homes: 0.687.

[7] Listokin, David, and Voicu, Alexandru. (2018). Who Lives in New Jersey Housing? Updated New Jersey Demographic Multipliers. Rutgers University Center for Urban Policy Research.

5. All affordable apartment units were assumed to have the following student yield multipliers: 1-bedroom = 0.088, 2-bedroom = 0.408, 3-bedroom = 1.087.

6. All market-rate apartment units with 1-2 bedrooms were assumed to have the average West Orange student yield multiplier for 1-2 bedroom apartments: 0.130.

7. The full build-out and occupation of Tompkin Street Apartments Urban Renewal, LLC would be completed in the 2024-25 school year.

8. The full build-out and occupation of Colonial Woods North and 555 Northfield, LLC would be completed over a two-year period (2023-24 and 2024-25).

9. The full build-out and occupation of The Alpert Group, LLC and Green Essex Partners Urban Renewal, LLC would be completed over a two-year period (2024-25 and 2025-26).

10. Due to the uncertainty of whether the Highlands Tract development will be constructed and the type of units, as it is in litigation, no estimates of children were computed.

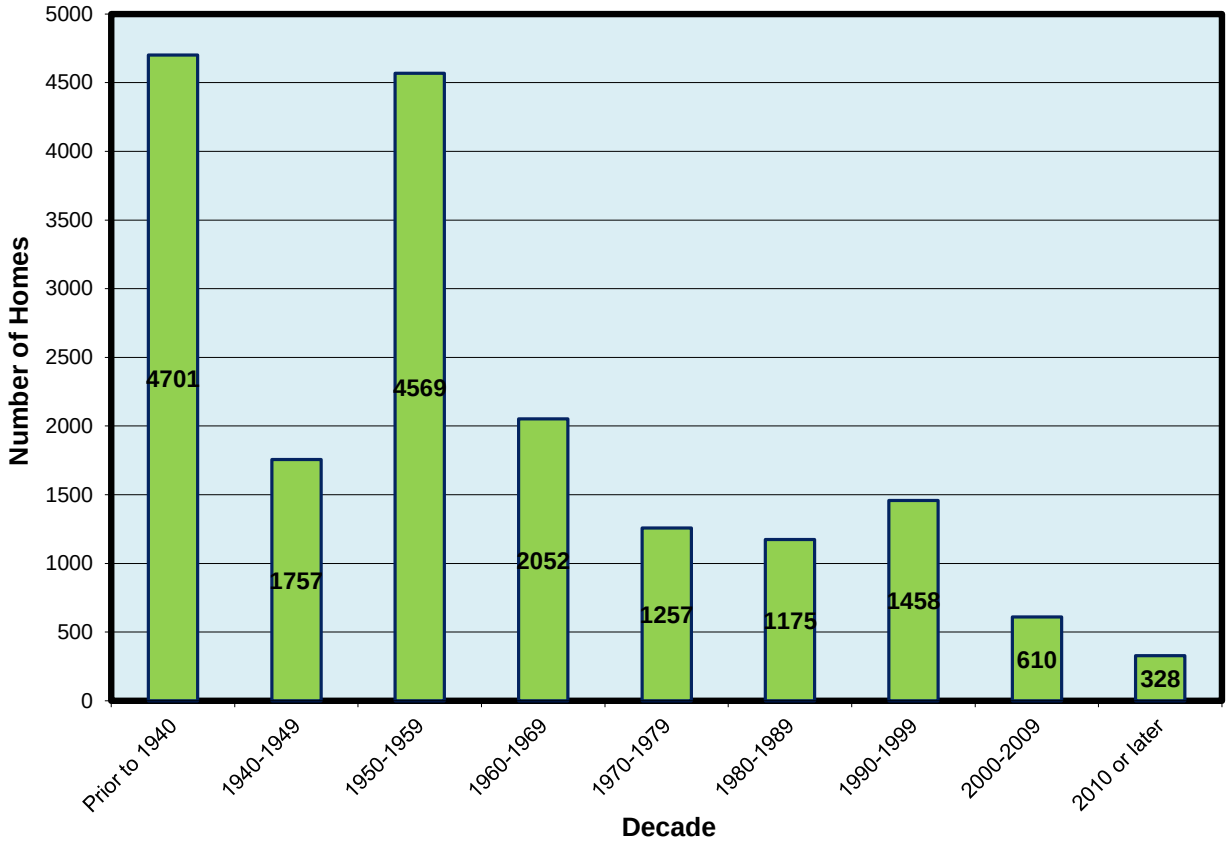
In total, 119 public school children (K-5 = 54, 6-8 = 27, and 9-12 = 38) in grades K-12 are projected according to the following distribution:

- Colonial Woods North – 8 (4 K-5, 2 6-8, 2 9-12)
- The Alpert Group, LLC – 12 (5 K-5, 3 6-8, 4 9-12)
- Tompkin Street Apartments Urban Renewal, LLC – 9 (4 K-5, 2 6-8, 3 9-12)
- Green Essex Partners Urban Renewal, LLC – 77 (35 K-5, 17 6-8, 25 9-12)
- 555 Northfield, LLC – 13 (6 K-5, 3 6-8, 4 9-12)

Distribution of Homes by Decade Built

Figure 36 shows the number of homes built by decade in West Orange as provided by the 2016-2020 ACS. As shown in the figure, West Orange has an older housing stock, as 80% of the homes were built before 1980. After peaking in the 1950s, the number of homes built per decade has been generally declining. Since 2010, new home construction has been very limited. Of the decades shown, the largest number of homes was built in the 1950s, which is approximately one-quarter (26%) of the housing stock and corresponds to the sizeable population gain in West Orange (+39.5%) shown previously in Table 3.

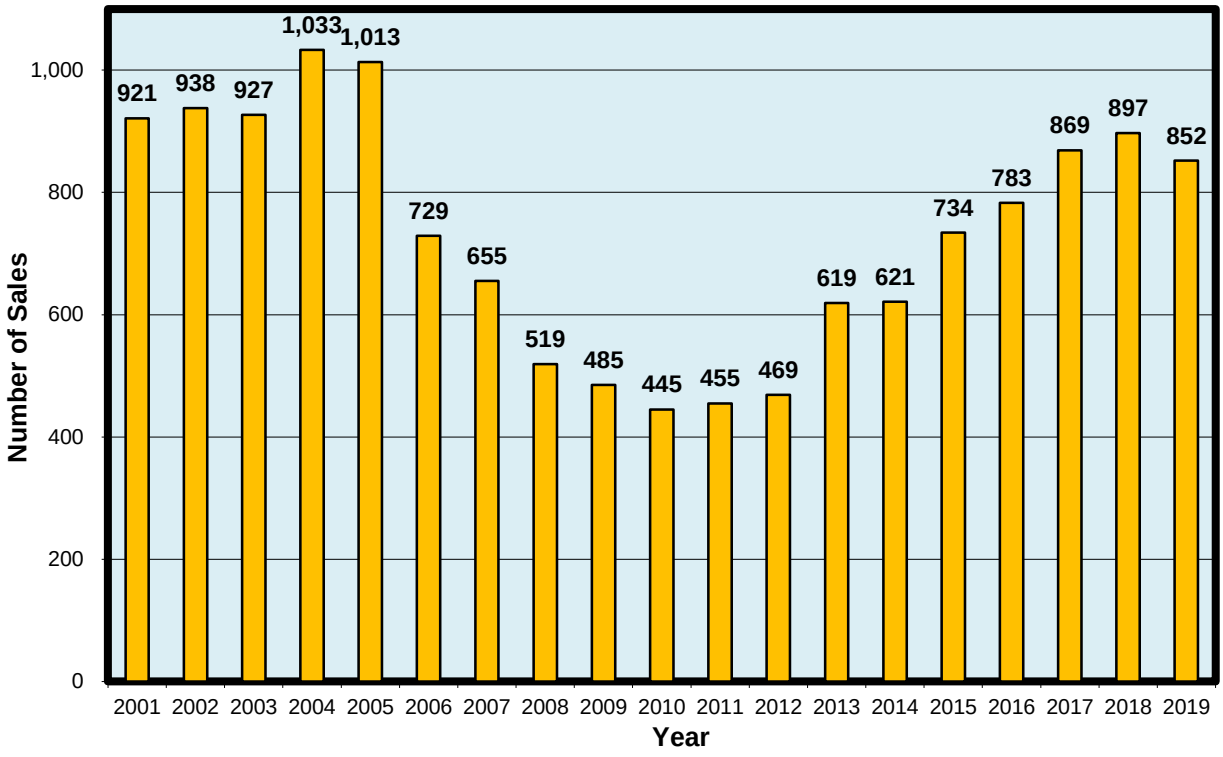
Figure 36
Number of Homes Built by Decade in West Orange



Home Sales

In Figure 37, the number of annual home sales in West Orange is shown from 2001-2019. Data for 2020 and 2021 were incomplete or unavailable. 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" were once again excluded from the totals below. After peaking at 1,033 sales in 2004, the number of sales declined to 445 in 2010 due to the housing market crash and banking crisis. During this period (2009-2012), the annual number of home sales was low, ranging from 445-485. Since then, home sales have rebounded and have steadily increased. In 2019, there were 852 home sales, which is slightly lower than the annual number of sales prior to the peak total that occurred in 2004.

Figure 37
West Orange Home Sales
2001-2019



Enrollment Projections

In two separate projections, enrollments were calculated at the school level from 2022-23 through 2026-27, a five-year period. The first set of projections (referred to as "baseline") do not reflect the anticipated housing growth in West Orange. If the housing developments shown previously do not come to fruition or are not built within the anticipated construction timeline, the baseline enrollment projections would best reflect the future enrollments in the school district. The second set of projections (referred to as "adjusted") reflects projected enrollments adjusted for housing growth, assuming the timeline of construction and occupancy discussed previously. In the latter projections, it was also assumed that the number of pre-kindergarten and special education students shown in the baseline projections would remain the same. Since the grade counts in the school-level projections are smaller as compared to computing districtwide grade counts, the reliability of the school projections are lower than the overall districtwide projections. In general, the smaller the forecasted population, the higher the probability of error associated with the projection.

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 in each school and multiplying an average proportion by the future regular education subtotals. The proportions will be shown in the forthcoming tables.

With respect to grade-level pre-kindergarten students at Maddalena, enrollments were projected by computing an average based on historical data from the last five years (with the 2020-21 outlier count from the pandemic excluded) and using this value throughout the five-year projection period. Since 2017-18, grade-level pre-kindergarten enrollments have been fairly stable, ranging from 16-27 students per year. It was estimated that there would be 22 students in the program annually in the future. Pre-kindergarten children with special needs were not included in these counts and were instead included with the special education projections.

On September 10, 2010, former New Jersey Governor Chris Christie signed into law the Choice Program, 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 school sets the number of openings per grade level. The West Orange Public Schools does not participate in the program and therefore has no impact on the enrollment projections.

As part of the School Funding Reform Act of 2008 ("SFRA"), all school districts in New Jersey are to provide expanded Abbott-quality pre-school programs for at-risk 3- and 4-year olds as outlined in N.J.A.C. 6A:13A. The State of New Jersey intends to provide aid for the full-day program based on projected enrollment. School districts categorized as District Factor Group[8] ("DFG") A, B, and CD with a concentration of at-risk pupils equal to or greater than 40 percent, must offer a pre-school program to all pre-school aged children regardless of income, known as "Universal" pre-school. For all other school districts, a pre-school program must be offered only

[8] Introduced by the New Jersey Department of Education in 1975, DFG provides a system of ranking school districts in the state by their socio-economic status. While the system is no longer used, the number of pre-kindergarten students was determined by the former DFG rankings.

to at-risk children, known as "Targeted" preschool. School districts may educate the pre-school children in district, by outside providers, or through Head Start programs. School districts were required to offer these programs to at least 90% of the eligible pre-school children by 2013-14.

Due to budgetary constraints, the NJDOE postponed the roll-out of the program, which was scheduled for the 2009-10 school year. According to a recent conversation with Ms. Karin Garver, Educational Program Development Specialist in the NJDOE Early Childhood Education, there are no plans in the imminent future by the State Legislature to fund the program, which would prevent school districts from implementing the program. Since it is unclear if and when the program will be funded and subsequently mandated, the forthcoming enrollment projections do not include additional pre-kindergarten students from the SFRA. The pre-school program would have been rolled out over a five-year period according to the following schedule:

- At least 20% of the eligible pre-school universe in Year 1
- At least 35% of the universe in Year 2
- At least 50% of the universe in Year 3
- At least 65% of the universe in Year 4
- At least 90% of the universe in Year 5

The universe of pre-school children in "Universal" districts is computed by multiplying the 1st grade enrollment in 2007-08 by two. The universe of pre-school children in "Targeted" districts is computed by multiplying the 1st grade enrollment in 2007-08 by two and then multiplying by the percentage of students having free or reduced lunch in the district. The West Orange Public Schools is a "Targeted" district since its DFG is "GH" with a concentration of at-risk pupils less than 40 percent (27.45%). In Table 20, the estimated number of total eligible pre-school students is provided with the five-year rollout. For the purpose of this study, it has been assumed that the district would educate its pre-school children in-house. As the table shows, there is the potential for 231 pre-kindergarten students as a result of the SFRA. Since it is unclear if and when the program will be funded and subsequently mandated, the forthcoming enrollment projections do not include additional pre-kindergarten students from the SFRA.

Table 20
Estimated Number of Eligible Pre-School Students as Per School Funding Reform Act of 2008

DFG (2000)	Total eligible	Year 1	Year 2	Year 3	Year 4	Year 5
GH	**231**	46	81	116	150	208

Source: New Jersey Department of Education, Division of Early Childhood Education

In a different pre-school initiative, the administration of Governor Phil Murphy announced the availability of Preschool Education Expansion Aid ("PEEA") in 2018. 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 have not previously received State preschool aid. Some districts that were eligible to apply for PEEA would fall under the "Universal" category under SFRA while others would be considered "Targeted" districts. However, the main difference with this expansion aid is that districts under SFRA were restricted to serve low-income children where now districts can educate all pre-school age children through PEEA. It appears that the Murphy administration may be moving towards a pre-school program for all children, rather than just for those who are low-income. The West Orange Public Schools 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 follow in Table 21. In both the baseline and adjusted projections, enrollments are projected to decline throughout the projection period. In the baseline projections, enrollment is projected to be 6,319 in 2026-27, which would be a decline of 237.5 students from the 2021-22 enrollment of 6,556.5. In the adjusted projections, enrollment is projected to be 6,381 in 2026-27, which would be a decline of 175.5 students from the 2021-22 enrollment.

For grades PK-5, enrollments are projected to decline for the next 2-3 years before reversing trend in both the baseline and adjusted projections. In the baseline projections, enrollment is projected to be 2,867 in 2026-27, which would be a decline of 19 students from the 2021-22 enrollment of 2,886. In the adjusted projections, enrollment is projected to be 2,890 in 2026-27, which would be nearly unchanged (+4) from the 2021-22 enrollment.

For grades 6-8, enrollments are projected to decrease for the next two years before reversing trend and stabilizing in both the baseline and adjusted projections. In the baseline projections, enrollment is projected to be 1,415 in 2026-27, which would be a decline of 117 students from the 2021-22 enrollment of 1,532. In the adjusted projections, enrollment is projected to be 1,427 in 2026-27, which would be a decline of 105 students from the 2021-22 enrollment.

Finally, for grades 9-12 at West Orange High School, enrollments are projected to increase for the next two years before reversing trend in both the baseline and adjusted projections. In 2026-27, enrollment is projected to be 2,037 in the baseline projections, which would be a decline of 101.5 students from the 2021-22 enrollment of 2,138.5. In the adjusted projections, enrollment is projected to be 2,064 in 2026-27, which would be a decline of 74.5 students from the 2021-22 enrollment.

Table 21
West Orange Public Schools Projected Enrollments
2022-23 to 2026-27

Year	PK	K	1	2	3	4	5	SE[1]	PK-5 Total	6	7	8	SE[2]	6-8 Total	9	10	11	12	SE[3]	9-12 Total	PK-12 Total
Baseline																					
2022-23	22	416	422	441	425	456	457	220	**2,859**	445	412	524	84	**1,465**	518	525	514	485	106	**2,148**	**6,472**
2023-24	22	415	422	418	445	427	460	218	**2,827**	452	445	419	78	**1,394**	544	524	526	505	109	**2,208**	**6,429**
2024-25	22	444	423	418	420	447	430	214	**2,818**	455	452	452	81	**1,440**	435	551	525	516	105	**2,132**	**6,390**
2025-26	22	415	450	419	422	423	452	217	**2,820**	425	456	459	81	**1,421**	470	440	552	515	103	**2,080**	**6,321**
2026-27	22	485	421	445	422	425	427	220	**2,867**	447	425	463	80	**1,415**	477	476	441	542	101	**2,037**	**6,319**
Adjusted for Housing Growth																					
2022-23	22	416	422	441	425	456	457	220	**2,859**	445	412	524	84	**1,465**	518	525	514	485	106	**2,148**	**6,472**
2023-24	22	415	422	418	445	427	460	218	**2,827**	452	446	419	78	**1,395**	545	525	526	506	109	**2,211**	**6,433**
2024-25	22	447	425	421	422	450	432	214	**2,833**	456	455	455	81	**1,447**	439	556	530	520	105	**2,150**	**6,430**
2025-26	22	417	455	423	427	427	457	217	**2,845**	429	458	464	81	**1,432**	476	447	561	523	103	**2,110**	**6,387**
2026-27	22	488	423	450	426	430	431	220	**2,890**	452	430	465	80	**1,427**	482	482	448	551	101	**2,064**	**6,381**

Notes: [1]Self-contained special education enrollment/ungraded students at the elementary school level
[2]Self-contained special education enrollment/ungraded students at the middle school level
[3]Self-contained special education enrollment/ungraded students at the high school level

Projections by School

Betty Maddalena Early Learning Center

Historical enrollments for Maddalena from 2017-18 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 22. Pre-kindergarten students were educated in Kelly prior to 2017-18. In the last five years, enrollments have ranged from 43-84. The lower enrollment in 2020-21 is likely due to the coronavirus pandemic, as parents sought alternative educational experiences for their children, or may have had to relocate. In 2021-22, enrollment is 61. In the baseline projections, enrollment is projected to be 69 throughout the projection period, since a historical average was used to project future enrollments. As enrollment in the school is likely to be influenced by other factors, such as the number of students needing special education, the baseline projections were not adjusted for the new housing planned in West Orange.

Table 22
Historical and Projected Enrollments of Betty Maddalena Early Learning Center

Year	PK	SE[2]	Total
Historical[1]			
2017-18	24	60	**84**
2018-19	16	53	**69**
2019-20	27	44	**71**
2020-21	3	40	**43**
2021-22	21	40	**61**
Projected – Baseline			
2022-23	22	47	**69**
2023-24	22	47	**69**
2024-25	22	47	**69**
2025-26	22	47	**69**
2026-27	22	47	**69**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students

Gregory Elementary School

Historical enrollments for Gregory from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 23. Enrollments declined through 2018-19 before stabilizing. Enrollment is 448 in 2021-22, which is a decline of 127 students from the 2012-13 enrollment of 575. In the baseline projections, enrollments are projected to be fairly stable throughout the projection period. In 2026-27, enrollment is projected to be 469, which would be a gain of 21 students from the 2021-22 enrollment. As there are no new housing units planned in the Gregory attendance area, the baseline projections were not adjusted.

Table 23
Historical and Projected Enrollments of Gregory Elementary School

Year	PK	K	1	2	3	4	5	SE[2]	Total
Historical[1]									
2012-13	0	83	99	86	94	90	85	38	**575**
2013-14	0	91	76	92	82	97	93	40	**571**
2014-15	0	89	83	77	84	81	94	38	**546**
2015-16	0	69	95	83	75	85	75	39	**521**
2016-17	0	78	66	95	77	71	81	36	**504**
2017-18	0	73	87	67	93	73	74	0	**467**
2018-19	0	70	68	80	66	87	71	0	**442**
2019-20	0	79	73	70	73	71	88	0	**454**
2020-21	0	69	86	74	67	73	68	6	**443**
2021-22	0	74	77	84	70	65	68	10	**448**
CSR 5-Yr. Ratios		1.0271[3]	1.0447	0.9848	0.9502	0.9953	0.9683	0.0183[4]	
Projected – Baseline									
2022-23	0	74	77	76	80	70	63	8	**448**
2023-24	0	83	77	76	72	80	68	8	**464**
2024-25	0	71	87	76	72	72	77	8	**463**
2025-26	0	82	74	86	72	72	70	8	**464**
2026-27	0	78	86	73	82	72	70	8	**469**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students
[3] Birth-to-kindergarten survival ratio based on birth data five years prior
[4] Average proportion of self-contained special education/ungraded students with respect to PK-5 subtotals based on the last two years of historical data.

Hazel Elementary School

Historical enrollments for Hazel from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 24. Enrollments have been generally declining over the last decade. In 2021-22, enrollment is 318, which is a decline of 62 students from the 2012-13 enrollment of 380. In the baseline projections, enrollments are projected to decline for the next two years before stabilizing. In 2026-27, enrollment is projected to be 315, which would be slightly lower (-3) than the 2021-22 enrollment. As the number of housing units planned in the Hazel attendance area is similar to what was constructed in the last five years, the baseline projections were not adjusted.

Table 24
Historical and Projected Enrollments of Hazel Elementary School

Year	PK	K	1	2	3	4	5	SE[2]	Total
Historical[1]									
2012-13	0	58	60	69	70	61	62	0	**380**
2013-14	0	68	57	58	70	65	58	0	**376**
2014-15	0	60	65	63	59	68	66	0	**381**
2015-16	0	46	62	65	59	61	73	0	**366**
2016-17	0	52	40	66	64	56	59	0	**337**
2017-18	0	57	50	41	61	69	54	0	**332**
2018-19	0	50	55	51	45	60	74	0	**335**
2019-20	0	52	50	54	56	43	65	0	**320**
2020-21	0	55	55	48	57	59	46	0	**320**
2021-22	0	46	58	52	48	58	56	0	**318**
CSR 5-Yr. Ratios		0.8680[3]	1.0193	0.9768	1.0628	1.0026	1.0437	0.0000[4]	
Projected – Baseline									
2022-23	0	46	47	57	55	48	61	0	**314**
2023-24	0	45	47	46	61	55	50	0	**304**
2024-25	0	68	46	46	49	61	57	0	**327**
2025-26	0	43	69	45	49	49	64	0	**319**
2026-27	0	56	44	67	48	49	51	0	**315**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students
[3] Birth-to-kindergarten survival ratio based on birth data five years prior with outlier ratio from 2020-21 removed
[4] Average proportion of self-contained special education/ungraded students with respect to PK-5 subtotals

Kelly Elementary School

Historical enrollments for Kelly (formerly known as Pleasantdale) from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 25. After moving pre-kindergarten students from Kelly to Maddalena in 2017-18, enrollments have been fairly stable in the last five years, ranging from 447-469. In 2021-22, enrollment is 469, which is nearly identical to the 2012-13 enrollment of 468. In the baseline projections, enrollments are projected to decline in 2022-23 before stabilizing. In 2026-27, enrollment is projected to be 438, which would be a decline of 31 students from the 2021-22 enrollment. As there are no new housing units planned in the Kelly attendance area, the baseline projections were not adjusted.

Table 25
Historical and Projected Enrollments of Kelly Elementary School

Year	PK	K	1	2	3	4	5	SE[2]	Total
Historical[1]									
2012-13	26	63	49	48	58	57	41	126	**468**
2013-14	28	67	48	51	47	55	70	126	**492**
2014-15	28	58	54	44	51	46	61	103	**445**
2015-16	19	56	53	57	37	52	50	96	**420**
2016-17	21	65	58	57	56	35	54	110	**456**
2017-18	0	60	62	60	47	63	45	110	**447**
2018-19	0	56	58	67	59	47	63	110	**460**
2019-20	0	44	62	60	68	62	48	111	**455**
2020-21	0	53	44	56	65	65	58	117	**458**
2021-22	0	45	55	51	61	57	71	129	**469**
CSR 5-Yr. Ratios		0.6948[3]	1.0279	1.0444	1.0427	0.9709	1.0123	0.3613[4]	
Projected – Baseline									
2022-23	0	44	46	57	53	59	58	115	**432**
2023-24	0	56	45	48	59	51	60	115	**434**
2024-25	0	47	58	47	50	57	52	112	**423**
2025-26	0	53	48	61	49	49	58	115	**433**
2026-27	0	56	54	50	64	48	50	116	**438**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students
[3] Birth-to-kindergarten survival ratio based on birth data five years prior
[4] Average proportion of self-contained special education/ungraded students with respect to PK-5 subtotals based on the last two years of historical data.

Mt. Pleasant Elementary School

Historical enrollments for Mt. Pleasant from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 26. Enrollments declined through 2018-19 before stabilizing. Enrollment is 346 in 2021-22, which is a decline of 78 students from the 2012-13 enrollment of 424. In the baseline projections, enrollments are projected to decline for the next four years before reversing trend near the end of the projection period. In 2026-27, enrollment is projected to be 333, which would be slightly lower (-13) than the 2021-22 enrollment. In the adjusted projections, enrollments are projected to be fairly stable before increasing near the end of the projection period. Enrollment is projected to be 356 in 2026-27, which would be slightly higher (+10) than the 2021-22 enrollment.

Table 26
Historical and Projected Enrollments of Mt. Pleasant Elementary School

Year	PK	K	1	2	3	4	5	SE[2]	Total
Historical[1]									
2012-13	0	66	75	64	66	68	71	14	**424**
2013-14	0	66	68	72	62	62	70	14	**414**
2014-15	0	65	62	66	62	63	67	9	**394**
2015-16	0	58	63	57	68	63	62	9	**380**
2016-17	0	54	64	58	57	65	57	10	**365**
2017-18	0	57	55	61	59	60	63	9	**364**
2018-19	0	52	54	52	62	57	61	6	**344**
2019-20	0	49	60	53	56	63	62	10	**353**
2020-21	0	45	55	57	55	59	59	11	**341**
2021-22	0	46	57	53	61	52	65	12	**346**
CSR 5-Yr. Ratios		0.7271[3]	1.0605[4]	0.9601	1.0503	0.9953	1.0356	0.0328[5]	
Projected – Baseline									
2022-23	0	50	49	55	56	61	54	11	**336**
2023-24	0	45	53	47	58	56	63	11	**333**
2024-25	0	54	48	51	49	58	58	10	**328**
2025-26	0	39	57	46	54	49	60	10	**315**
2026-27	0	73	41	55	48	54	51	11	**333**
Projected – Adjusted for Housing Growth									
2022-23	0	50	49	55	56	61	54	11	**336**
2023-24	0	45	53	47	58	56	63	11	**333**
2024-25	0	57	50	54	51	61	60	10	**343**
2025-26	0	41	62	50	59	53	65	10	**340**
2026-27	0	76	43	60	52	59	55	11	**356**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students
[3] Birth-to-kindergarten survival ratio based on birth data five years prior with outlier ratio from 2020-21 removed
[4] Outlier survival ratio from 2021-22 was not used in the computation of the average ratio.
[5] Average proportion of self-contained special education/ungraded students with respect to PK-5 subtotals based on the last three years of historical data.

Redwood Elementary School

Historical enrollments for Redwood from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 27. Enrollments have been generally declining over the last decade. Enrollment is 451 in 2021-22, which is a decline of 118 students from the 2012-13 enrollment of 569. In the baseline projections, enrollments are projected to be fairly stable throughout the projection period. In 2026-27, enrollment is projected to be 458, which would be slightly higher (+7) than the 2021-22 enrollment. As there are no new housing units planned in the Redwood attendance area, the baseline projections were not adjusted.

Table 27
Historical and Projected Enrollments of Redwood Elementary School

Year	PK	K	1	2	3	4	5	SE[2]	Total
Historical[1]									
2012-13	0	94	93	89	83	105	67	38	**569**
2013-14	0	97	103	88	89	78	100	36	**591**
2014-15	0	80	97	97	87	85	84	36	**566**
2015-16	0	79	79	90	94	84	85	35	**546**
2016-17	0	85	76	91	96	102	90	33	**573**
2017-18	0	74	84	73	92	93	100	17	**533**
2018-19	0	78	77	76	68	96	94	26	**515**
2019-20	0	66	79	81	87	71	94	31	**509**
2020-21	0	63	63	80	78	83	73	29	**469**
2021-22	0	69	60	61	86	75	80	20	**451**
CSR 5-Yr. Ratios		0.7872[3]	0.9901	0.9844	1.0286	1.0008	0.9955	0.0527[4]	
Projected – Baseline									
2022-23	0	78	68	59	63	86	75	23	**452**
2023-24	0	72	77	67	61	63	86	22	**448**
2024-25	0	74	71	76	69	61	63	22	**436**
2025-26	0	66	73	70	78	69	61	22	**439**
2026-27	0	79	65	72	72	78	69	23	**458**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students
[3] Birth-to-kindergarten survival ratio based on birth data five years prior
[4] Average proportion of self-contained special education/ungraded students with respect to PK-5 subtotals

St. Cloud Elementary School

Historical enrollments for St. Cloud from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 28. Enrollments have ranged from 367-401 students per year in the last decade with no apparent increasing or declining trend. In 2021-22, enrollment is 398, which is slightly higher (+21) than the 2012-13 enrollment of 377. In the baseline projections, enrollments are projected to be fairly stable throughout the projection period. In 2026-27, enrollment is projected to be 407, which would be slightly higher (+9) than the 2021-22 enrollment. As the number of housing units planned in the St. Cloud attendance area is similar to what was constructed in the last five years, the baseline projections were not adjusted.

Table 28
Historical and Projected Enrollments of St. Cloud Elementary School

Year	PK	K	1	2	3	4	5	SE[2]	Total
Historical[1]									
2012-13	0	60	49	62	69	76	61	0	**377**
2013-14	0	80	67	50	60	68	69	0	**394**
2014-15	0	74	76	64	58	62	67	0	**401**
2015-16	0	74	72	66	61	58	57	0	**388**
2016-17	0	57	60	71	58	66	55	0	**367**
2017-18	0	69	56	62	72	54	66	0	**379**
2018-19	0	75	69	58	53	65	57	0	**377**
2019-20	0	77	74	66	53	59	67	0	**396**
2020-21	0	63	70	73	68	60	61	0	**395**
2021-22	0	74	79	58	67	67	53	0	**398**
CSR 5-Yr. Ratios		1.0439[3]	0.9696[4]	0.9518	0.9292	1.0333	1.0009	0.0000[5]	
Projected – Baseline									
2022-23	0	67	72	75	54	69	67	0	**404**
2023-24	0	71	65	69	70	56	69	0	**400**
2024-25	0	74	69	62	64	72	56	0	**397**
2025-26	0	69	72	66	58	66	72	0	**403**
2026-27	0	84	67	69	61	60	66	0	**407**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students
[3] Birth-to-kindergarten survival ratio based on birth data five years prior
[4] Outlier survival ratio from 2021-22 was not used in the computation of the average ratio.
[5] Average proportion of self-contained special education/ungraded students with respect to PK-5 subtotals

Washington Elementary School

Historical enrollments for Washington from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 29. In general, enrollments have been slowly declining over the last decade. In 2021-22, enrollment is 395, which is a decline of 20 students from the 2012-13 enrollment of 415. In the baseline projections, enrollments are projected to decline in 2023-24 before stabilizing. In 2026-27, enrollment is projected to be 378, which would be a decline of 17 students from the 2021-22 enrollment. As there are no new housing units planned in the Washington attendance area, the baseline projections were not adjusted.

Table 29
Historical and Projected Enrollments of Washington Elementary School

Year	PK	K	1	2	3	4	5	SE[2]	Total
Historical[1]									
2012-13	0	68	73	75	67	81	51	0	**415**
2013-14	0	72	70	74	70	72	86	1	**445**
2014-15	0	75	65	77	78	71	72	0	**438**
2015-16	0	56	82	68	72	84	72	0	**434**
2016-17	0	57	62	84	71	75	84	0	**433**
2017-18	0	58	61	57	83	77	77	0	**413**
2018-19	0	65	64	62	69	89	79	0	**428**
2019-20	0	65	62	69	61	67	93	0	**417**
2020-21	1	57	63	65	70	58	68	18	**400**
2021-22	1	62	60	62	61	78	57	14	**395**
CSR 5-Yr. Ratios		0.8776[3]	1.0198	1.0318	1.0368	1.0271	1.0172	0.0419[4]	
Projected – Baseline									
2022-23	0	57	63	62	64	63	79	16	**404**
2023-24	0	43	58	65	64	66	64	15	**375**
2024-25	0	56	44	60	67	66	67	15	**375**
2025-26	0	63	57	45	62	69	67	15	**378**
2026-27	0	59	64	59	47	64	70	15	**378**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students
[3] Birth-to-kindergarten survival ratio based on birth data five years prior
[4] Average proportion of self-contained special education/ungraded students with respect to PK-5 subtotals based on the last two years of historical data

Thomas A. Edison Central Six School

Historical enrollments for Edison from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 30. As there is only grade in the school, enrollments have fluctuated from 443-545 in the last decade. In 2021-22, enrollment is 443, which is a decline of 50 students from the 2012-13 enrollment of 493. In the baseline and adjusted projections, enrollments are projected to be fairly stable throughout the projection period. In 2026-27, enrollment is projected to be 469 in the baseline projections, which would be a gain of 26 students from the 2021-22 enrollment. In the adjusted projections, enrollment is projected to be 474 in 2026-27, which would be a gain of 31 students from the 2021-22 enrollment.

Table 30
Historical and Projected Enrollments of Thomas A. Edison Central Six School

Year	6	SE[2]	Total
Historical[1]			
2012-13	472	21	**493**
2013-14	432	17	**449**
2014-15	525	20	**545**
2015-16	491	26	**517**
2016-17	464	23	**487**
2017-18	461	21	**482**
2018-19	477	16	**493**
2019-20	492	24	**516**
2020-21	528	23	**551**
2021-22	412	31	**443**
CSR 5-Yr. Ratios	0.9886[3]	0.0493[4]	
Projected – Baseline			
2022-23	445	22	**467**
2023-24	452	22	**474**
2024-25	455	22	**477**
2025-26	425	21	**446**
2026-27	447	22	**469**
Projected – Adjusted for Housing Growth			
2022-23	445	22	**467**
2023-24	452	22	**474**
2024-25	456	22	**478**
2025-26	429	21	**450**
2026-27	452	22	**474**

Notes: [1]Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2]Self-contained special education enrollment/ungraded students
[3]Grade 5-6 ratio based on aggregated 5th grade enrollments of elementary schools
[4]Average proportion of self-contained special education/ungraded students with respect to grade 6 subtotals

Liberty Middle School

Historical enrollments for Liberty from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 31. After a period of decline, enrollments have increased in each of the last four years. In 2021-22, enrollment is 568, which is a gain of 61 students from the 2012-13 enrollment of 507. In the baseline and adjusted projections, enrollments are projected to decline for the next two years before reversing trend and stabilizing. In 2026-27, enrollment is projected to be 500 in the baseline projections, which would be a decline of 68 students from the 2012-13 enrollment. In the adjusted projections, enrollment is projected to be 504 in 2026-27, which would be a decline of 64 students from the 2021-22 enrollment.

Table 31
Historical and Projected Enrollments of Liberty Middle School

Year	7	8	SE[2]	Total
Historical[1]				
2012-13	252	236	19	**507**
2013-14	232	251	20	**503**
2014-15	203	222	24	**449**
2015-16	274	205	18	**497**
2016-17	230	275	28	**533**
2017-18	250	233	29	**512**
2018-19	241	259	28	**528**
2019-20	278	237	21	**536**
2020-21	266	276	18	**560**
2021-22	271	270	27	**568**
CSR 5-Yr. Ratios	0.5399[3]	1.0068	0.0480[4]	
Projected – Baseline				
2022-23	222	273	24	**519**
2023-24	240	224	22	**486**
2024-25	244	242	23	**509**
2025-26	246	246	24	**516**
2026-27	229	248	23	**500**
Projected – Adjusted for Housing Growth				
2022-23	222	273	24	**519**
2023-24	240	224	22	**486**
2024-25	246	243	23	**512**
2025-26	247	250	24	**521**
2026-27	232	249	23	**504**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students
[3] Grade 6-7 ratio based on 6th grade enrollments at Edison
[4] Average proportion of self-contained special education/ungraded students with respect to 7-8 subtotals

Roosevelt Middle School

Historical enrollments for Roosevelt from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 32. Enrollments increased through 2016-17 before reversing trend. However, after declining from 2017-18 to 2020-21, enrollment increased by 45 students in the past year. In 2021-22, enrollment is 521, which is a gain of 32 students from the 2012-13 enrollment of 489. In the baseline and adjusted projections, enrollments are projected to decline for the next two years before reversing trend and stabilizing. In 2026-27, enrollment is projected to be 446 in the baseline projections, which would be a decline of 75 students from the 2012-13 enrollment. In the adjusted projections, enrollment is projected to be 449 in 2026-27, which would be a decline of 72 students from the 2021-22 enrollment.

Table 32
Historical and Projected Enrollments of Roosevelt Middle School

Year	7	8	SE[2]	Total
Historical[1]				
2012-13	220	232	37	**489**
2013-14	238	232	45	**515**
2014-15	236	240	45	**521**
2015-16	260	234	41	**535**
2016-17	263	258	37	**558**
2017-18	229	270	36	**535**
2018-19	228	226	33	**487**
2019-20	206	244	37	**487**
2020-21	223	209	44	**476**
2021-22	245	229	47	**521**
CSR 5-Yr. Ratios	0.4609[3]	1.0246	0.0856[4]	
Projected – Baseline				
2022-23	190	251	38	**479**
2023-24	205	195	34	**434**
2024-25	208	210	36	**454**
2025-26	210	213	36	**459**
2026-27	196	215	35	**446**
Projected – Adjusted for Housing Growth				
2022-23	190	251	38	**479**
2023-24	206	195	34	**435**
2024-25	209	212	36	**457**
2025-26	211	214	36	**461**
2026-27	198	216	35	**449**

Notes: [1] Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2] Self-contained special education enrollment/ungraded students
[3] Grade 6-7 ratio based on 6th grade enrollments at Edison
[4] Average proportion of self-contained special education/ungraded students with respect to 7-8 subtotals

West Orange High School

Historical enrollments for West Orange High School from 2012-13 to 2021-22, and projected enrollments from 2022-23 to 2026-27, are shown in Table 33. Enrollments declined through 2016-17 before reversing trend. Enrollment is 2,138.5 in 2021-22, which is nearly identical to the 2012-13 enrollment of 2,138. In the baseline and adjusted projections, enrollments are projected to increase for the next two years before reversing trend. In 2026-27, enrollment is projected to be 2,037 in the baseline projections, which would be a decline of 101.5 students from the 2012-13 enrollment. In the adjusted projections, enrollment is projected to be 2,064 in 2026-27, which would be a decline of 74.5 students from the 2021-22 enrollment.

Table 33
Historical and Projected Enrollments of West Orange High School

Year	9	10	11	12	SE[2]	Total
Historical[1]						
2012-13	551	506	520	466.5	94.5	**2,138**
2013-14	515	542.5	475.5	489	96	**2,118**
2014-15	507	499.5	497.5	436	101	**2,041**
2015-16	495	503.5	488.5	485	105.5	**2,077.5**
2016-17	439.5	508.5	494.5	462	98.5	**2,003**
2017-18	537	450.5	510.5	488.5	103	**2,089.5**
2018-19	511	544.5	453	497.5	109.5	**2,115.5**
2019-20	490.5	521	540	441	104.5	**2,097**
2020-21	509.5	494.5	527	544	107	**2,182**
2021-22	518.5	513	494	512	101	**2,138.5**
CSR 5-Yr. Ratios	1.0389[3]	1.0121	1.0019	0.9817	0.0520[4]	
Projected – Baseline						
2022-23	518	525	514	485	106	**2,148**
2023-24	544	524	526	505	109	**2,208**
2024-25	435	551	525	516	105	**2,132**
2025-26	470	440	552	515	103	**2,080**
2026-27	477	476	441	542	101	**2,037**
Projected – Adjusted for Housing Growth						
2022-23	518	525	514	485	106	**2,148**
2023-24	545	525	526	506	109	**2,211**
2024-25	439	556	530	520	105	**2,150**
2025-26	476	447	561	523	103	**2,110**
2026-27	482	482	448	551	101	**2,064**

Notes: [1]Data were provided by the New Jersey Department of Education (http://www.nj.gov/education/data/enr/).
[2]Self-contained special education enrollment/ungraded students
[3]Grade 8-9 ratio is based on aggregated 8th grade enrollments of middle schools.
[4]Average proportion of self-contained special education/ungraded students with respect to 9-12 subtotals

Capacity Analysis

Table 34 shows the educational capacities of the school buildings in the West Orange Public Schools in comparison to both the current enrollments in 2021-22 and the enrollment projections in the 2026-27 school year. Since there were two sets of projections (baseline and adjusted for housing growth), only the adjusted projections are shown, as this reflects the full impact on the school district if all of the proposed housing is constructed and occupied. 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-to-year based on classroom usage. For instance, additional special education classes in a building would reduce the 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 2021-22, there is surplus seating in six of the seven elementary schools (K-5), with the largest being at Redwood (+47). Only St. Cloud has a shortage of seating (-36). At the middle school level, Edison (+32) and Roosevelt (+104) have surplus seating while Liberty has a shortage of seating (-28). At West Orange High School, there are 507.5 surplus seats in 2021-22.

Table 34
Capacity Analysis
West Orange Public Schools

School	Capacity[1,2,3]	Current Enrollment 2021-22	Difference	Projected Enrollment 2026-27	Difference
Gregory (K-5)	481	448	**+33**	469	**+12**
Hazel Avenue (K-5)	332	318	**+14**	315	**+17**
Kelly (K-5)	485	469	**+16**	438	**+47**
Mt. Pleasant (K-5)	348	346	**+2**	356	**-8**
Redwood (K-5)	498	451	**+47**	458	**+40**
St. Cloud (K-5)	362	398	**-36**	407	**-45**
Washington (K-5)	427	395	**+32**	378	**+49**
Edison Central Six School (Gr. 6)	475	443	**+32**	474	**+1**
Liberty Middle School (7-8)	540	568	**-28**	504	**+36**
Roosevelt Middle School (7-8)	625	521	**+104**	449	**+176**
West Orange High School (9-12)	2,646	2,138.5	**+507.5**	2,064	**+582**

Notes: [1]District Practices Capacity from the West Orange Public Schools LRFP (2005)
[2]As the capacities were last calculated in 2005, the actual capacities of the buildings in 2022 may have changed if the buildings' instructional spaces are being used differently than when the capacities were computed.
[3]The capacity of Betty Maddalena Early Learning Center was not available.

By 2026-27, five of the seven elementary schools are projected to have surplus seating, with the largest being at Washington (+49). Mt. Pleasant (-8) and St. Cloud (-45) are projected to have a shortage of seating. At the middle school level, Edison is projected to be at capacity due to a projected increase in enrollment. Due to a projected decline in enrollment, Liberty is now projected to have surplus seats (+36) while the number of surplus seats at Roosevelt (+176) is projected to increase. In West Orange High School, the number of surplus seats (+582) is also projected to increase due to declining enrollment in the school.