



**DEMOGRAPHIC STUDY**

**FOR THE**

**YONKERS PUBLIC SCHOOLS**

**FEBRUARY 2011**

**PREPARED BY:**  
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## **Introduction**

Statistical Forecasting LLC was retained by the Yonkers Public Schools to perform enrollment projections for the ten-year period beginning with the 2011-12 school year and ending in 2020-21. Enrollment projections were performed using grade-by-grade total enrollments for the four major ethnicities in the Yonkers Public Schools: Non-Hispanic Asian, Non-Hispanic Black, Hispanic, and Non-Hispanic White. Although there were additional racial classifications, such as Native Americans and Multi-Racial students, they were kept as a constant value throughout the projection period since they are a very small segment of the student population.

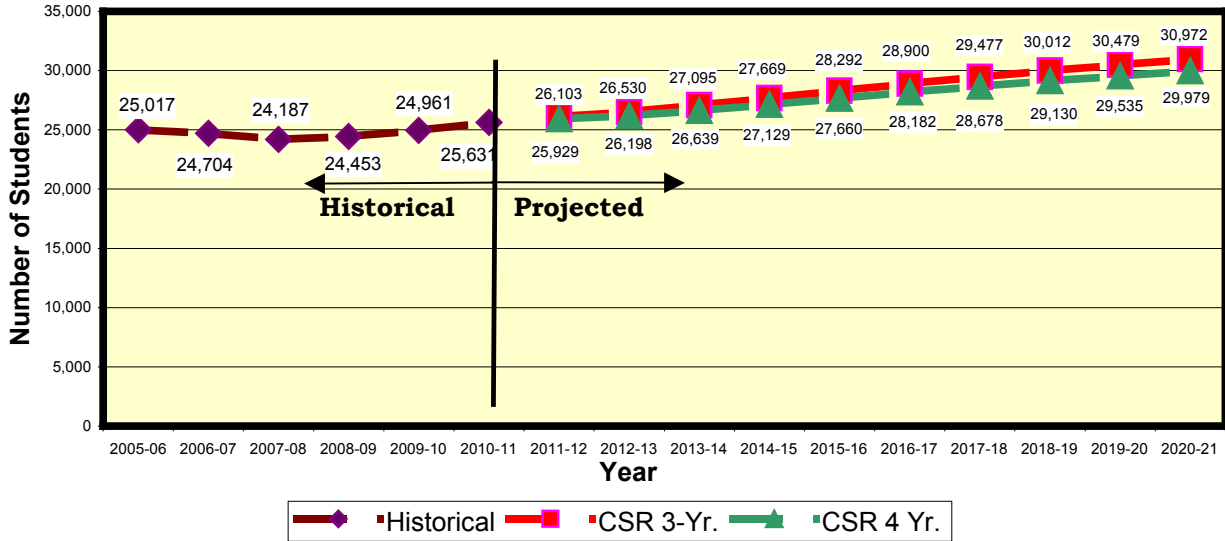
### **Historical and Projected Enrollment in the Yonkers Public Schools**

As of October 2010, enrollment in the Yonkers Public Schools was 25,631 students and represents the 3<sup>rd</sup> consecutive year in which the district has had an increase in enrollment. As shown in Figure 1, the reversal in trend occurred in 2008-09 after enrollment declines occurring in 2006-07 and 2007-08. The enrollment in 2010-11 reflects an increase of 670 students from the enrollment in 2009-10. Historical enrollments were obtained from the New York State BEDS report. Enrollment is projected to steadily increase throughout the ten-year projection period. To provide a range of the projected enrollment, two sets of projections were computed. In the first five years of the projection period, enrollment is projected to increase to 27,660-28,292, which would be a gain of 2,029-2,661 students from the 2010-11 enrollment. An additional 2,319-2,680 students are projected in the last five years of the projection period. At the end of the ten-year projection period, enrollment is projected to be 29,979-30,972, which would be a gain of 4,348-5,341 students.

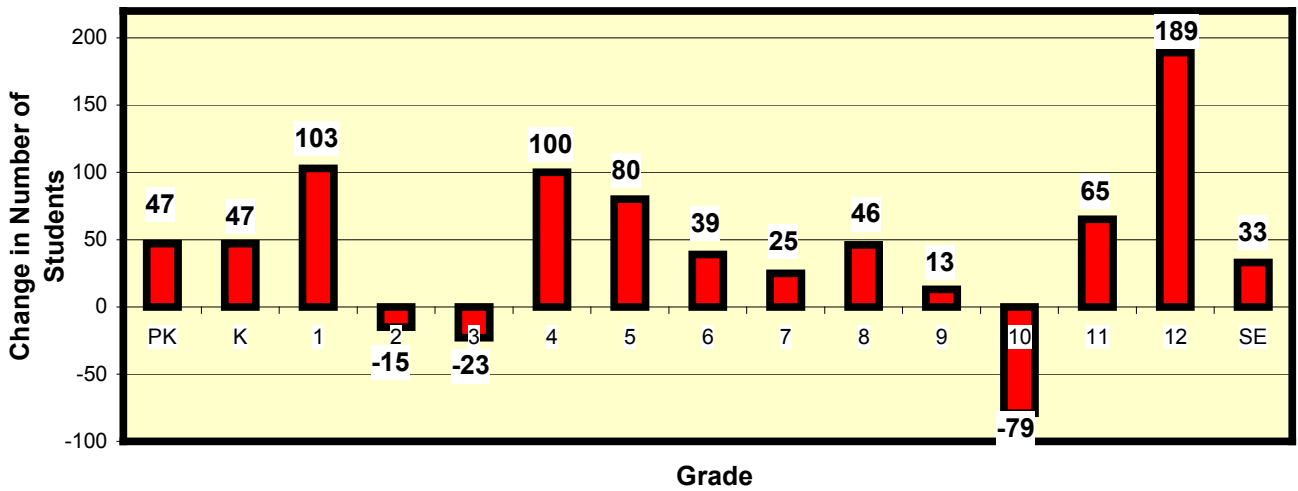
In Figure 2, the enrollment change by grade is shown from 2009-10 to 2010-11 for students in grades PK-12 and self-contained special education. The largest gains were in grades 12, 1, and 4 respectively, while the largest decline was in the 10<sup>th</sup> grade. Declines occurred in only three of the grades.

The projections performed in this study utilized the Cohort-Survival Ratio Method (CSR). Further information on this method is provided in the Appendix. CSR is able to capture the most recent enrollment trends and carry them forward into the future. The biggest assumption in using CSR is that the most recent historical trends will continue into the future. If there is a departure from these trends caused by, for example, numerous new housing starts, changes in school district policy, changes to immigration laws, an economic downturn, etc., the enrollment projections presented are less likely to be accurate in future years. 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 rates, movement of students into or out of the school district, the presence of alternative schools such as charter schools, private schools, or parochial schools, and school district policy changes.

**Figure 1**  
**Yonkers Public Schools PK-12 Enrollment History and Projections**  
**2005-06 to 2020-21**



**Figure 2**  
**Yonkers PK-12 Enrollment Change by Grade from**  
**2009-10 to 2010-11**



## Population Trends in the City of Yonkers

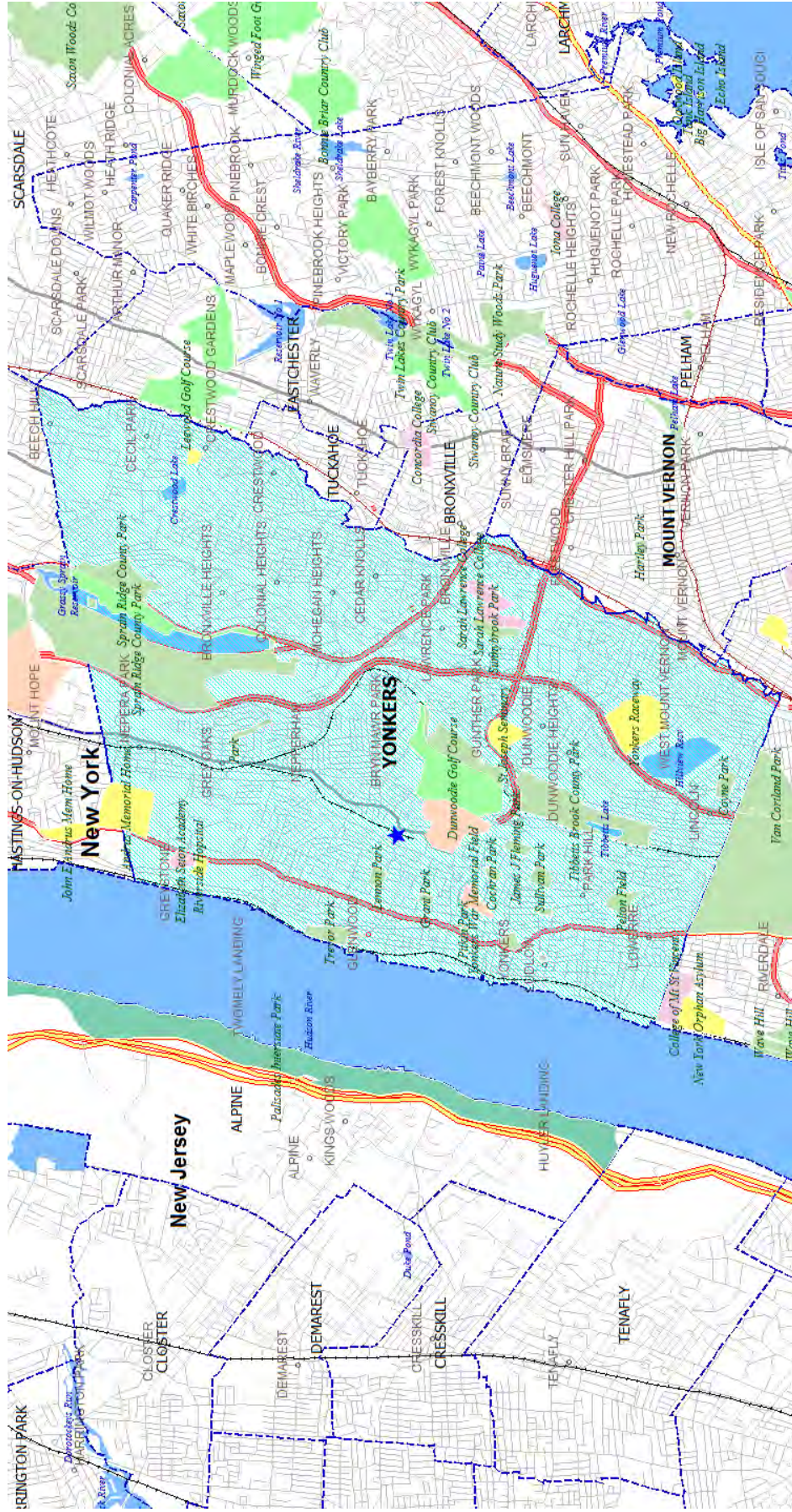
Located in Westchester County, the City of Yonkers (subsequently referred to as Yonkers) contains a land area of approximately 18.0 square miles. A map of Yonkers is provided in Figure 3. As of 2009, Yonkers was estimated to have 201,066 residents, which is approximately 11,170 persons per square mile. Historical populations for Yonkers from 1940 to 2009 are shown in Table 1 and Figure 4. After experiencing a 4.4% decline in population from 1970 to 1980 and an additional 3.7% decline from 1980 to 1990, Yonkers' population has been slowly rising. From 1990 to 2000, the population increased from 188,082 to 196,086, a gain of 4.3%. In addition, a population estimate for 2009, prepared by the United States Census Bureau, is also provided. The Census Bureau publishes estimates every July 1<sup>st</sup> following the last decennial census. Estimates are computed using the decennial census base counts, number of births and deaths in a community, and migration data (both domestic and international). The estimated population in 2009 is 201,066 persons, which would be a 2.5% increase from the population in 2000. The Westchester County Department of Planning was contacted regarding population projections for future years but this data were unavailable.

**Table 1**  
**Historical Populations for**  
**Yonkers from 1940-2009**

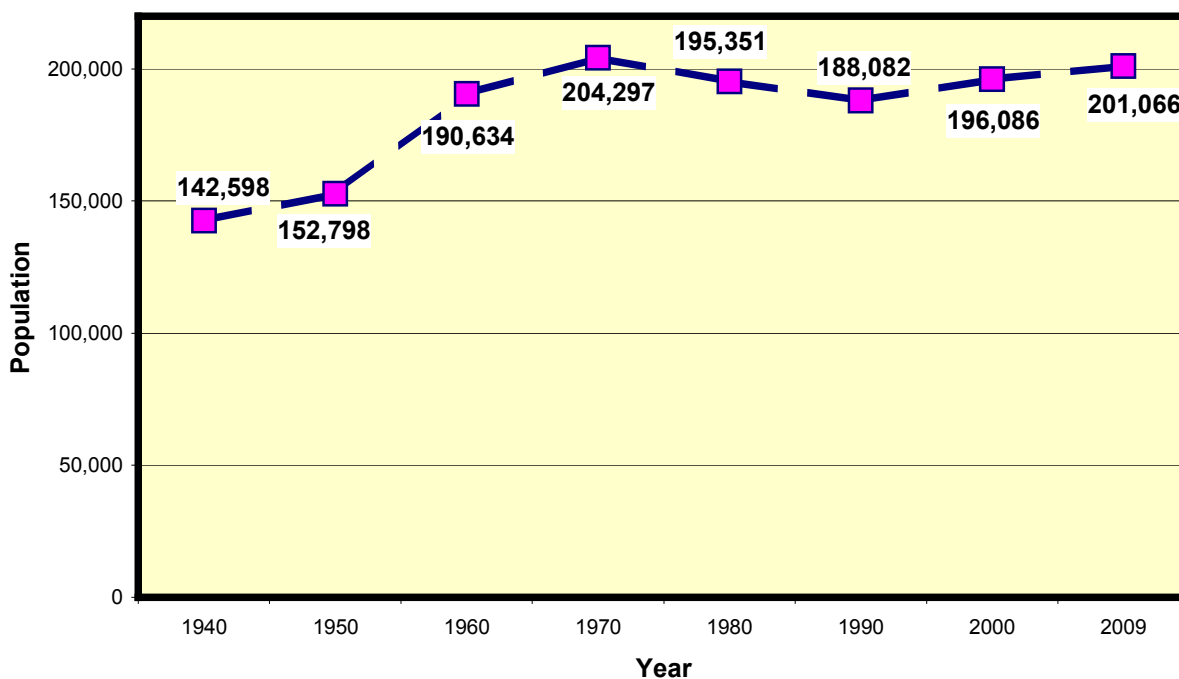
| <u>Year</u>        | <u>Population</u> | <u>Percent Change</u> |
|--------------------|-------------------|-----------------------|
| <b>1940</b>        | 142,598           | N/A                   |
| <b>1950</b>        | 152,798           | +7.2%                 |
| <b>1960</b>        | 190,634           | +24.8%                |
| <b>1970</b>        | 204,297           | +7.2%                 |
| <b>1980</b>        | 195,351           | -4.4%                 |
| <b>1990</b>        | 188,082           | -3.7%                 |
| <b>2000</b>        | 196,086           | +4.3%                 |
| <b>2009 (est.)</b> | 201,066           | +2.5%                 |

**Source:** United States Census Bureau

Figure 3  
City of Yonkers



**Figure 4**  
**Historical Populations for Yonkers from 1940-2009**



### **Selected Demographic Characteristics**

In Table 2 following, selected demographic characteristics of Yonkers are presented using the United States Census Bureau's 2005-2009 American Community Survey (ACS). ACS data is collected over a 5-year time period, where the estimates represent the average characteristics between January 2005 and December 2009. Unlike Census data, this information does not represent a single point in time. The majority of results from the 2010 Census (SF1 data) will not be available until the summer of 2011.

Regarding ethnicity, Yonkers is 58.4% White. The largest minority group in Yonkers is Blacks (18.9%). The Census Bureau does not consider Hispanic as a separate race; rather it identifies the percent of people having Hispanic origin. People of Hispanic origin can be of any race. The concentration of persons having Hispanic origin is 29.5%.

The median age in Yonkers is 37.5 years and 24.1% of the people are under the age of 18 years, which corresponds to school-age children. Of those residents aged 25 and over, 28.5% possess a bachelor's degree or higher.

Median family income is \$66,601 and 21.2% of children under the age of 18 are in poverty.

Regarding housing, 93.1% of the 79,166 housing units in Yonkers are occupied. Renter-occupied units account for 52.1% of the occupied units in Yonkers. The estimated median single-family home price was \$427,100. If the renter population contains a significant number of school-age children, a more mobile student population within the Yonkers Public Schools may result. Since the CSR method, which is used to project enrollments, depends upon stability within the student population, the forthcoming enrollment projections may be more susceptible to inaccuracies if the district has high mobility rates due to a high renter population.

**Table 2**  
**Selected Demographic Characteristics**

| <b>Race Origin</b>                            | <b>City of Yonkers</b> |
|---|------------------------|
| White   | 58.4%                  |
| Black/African American                        | 18.9%                  |
| American Indian/Alaska Native                 | 0.2%                   |
| Asian   | 5.9%                   |
| Native Hawaiian and Other Pacific Islander    | 0.0%                   |
| Other Race                                    | 14.6%                  |
| Two or more Races                             | 2.0%                   |
| Total   | <b>100.0%</b>          |
| Hispanic Origin                               | 29.5%                  |
| <b>Age</b>                                    |                        |
| Under 18                                      | 24.1%                  |
| 18-64   | 61.3%                  |
| 65 and over                                   | 14.6%                  |
| Median age                                    | 37.5 years             |
| <b>Educational Attainment</b>                 |                        |
| High school graduate or higher                | 80.9%                  |
| Bachelor's degree or higher                   | 28.5%                  |
| <b>Income</b>                                 |                        |
| Median family income                          | \$66,601               |
| Percentage of persons in poverty under age 18 | 21.2%                  |
| <b>Housing Units</b>                          |                        |
| Total number                                  | 79,166                 |
| Occupied units                                | 73,707 (93.1%)         |
| Owner-occupied units                          | 35,298 (47.9%)         |
| Renter-occupied units                         | 38,409 (52.1%)         |
| Median value of a single-family home          | \$427,100              |
| Median rent                                   | \$1,047                |

**Source:** American Community Survey (2005-2009)

**Note:** Data may not sum to 100.0% due to rounding.

## Poverty

In Figure 5 following, the percentage of persons under 18 in poverty in Yonkers is shown using annual ACS data from 2005 through 2009. This data is based on a 5% sample from the population and is therefore subject to sampling error. The percentage of persons in poverty was in decline in 2006 and 2007 before rapidly increasing in 2008 and 2009. This could be a direct effect of the overall decline in the economy in the United States.

**Figure 5**  
**Percentage of Persons Under 18 in Poverty in Yonkers**  
**2005-2009**

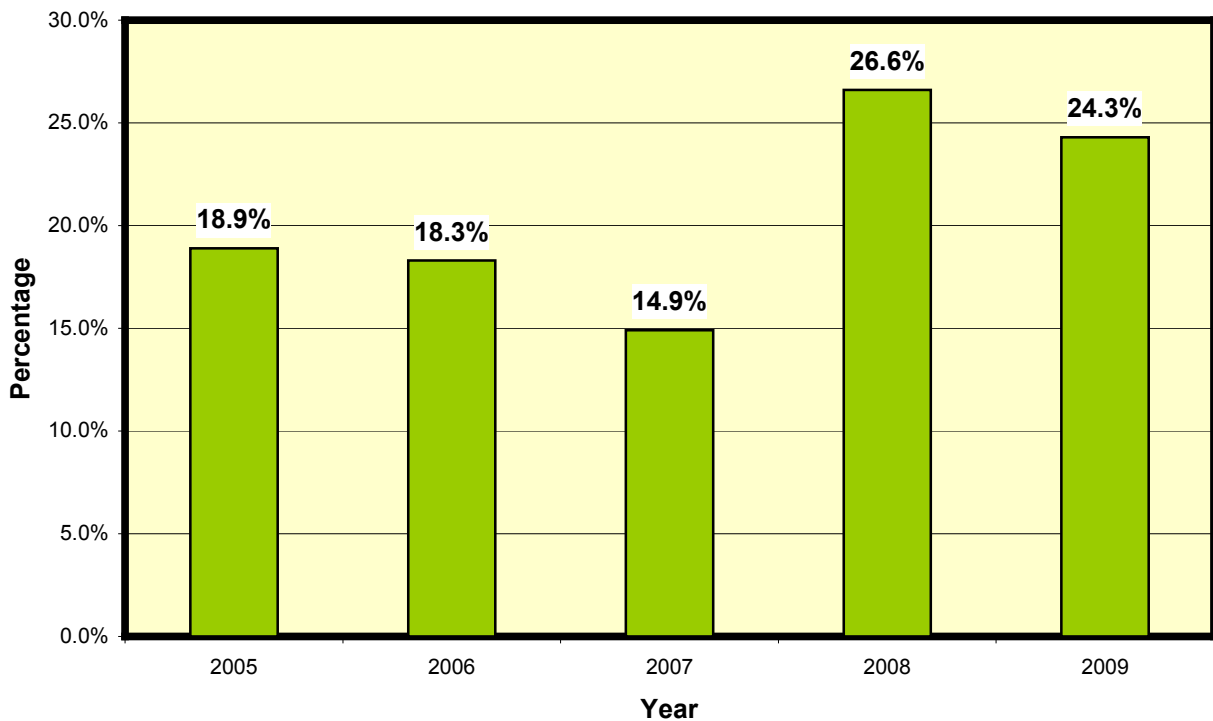
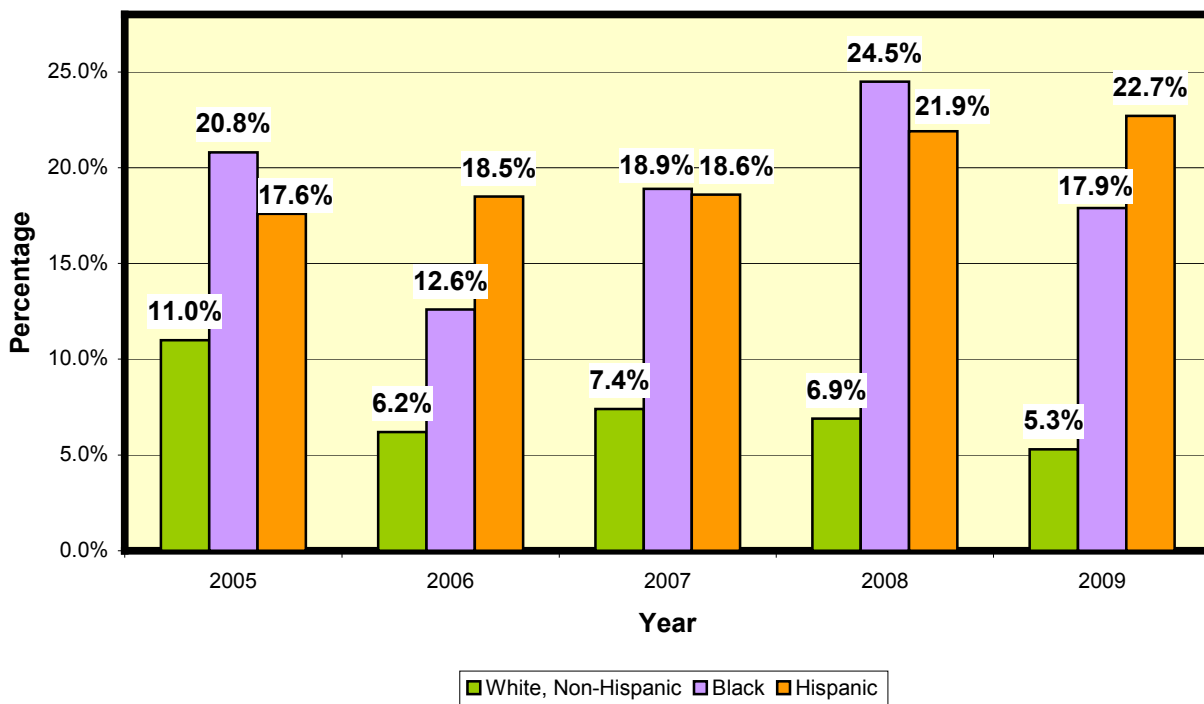


Figure 6 following shows the percentage of persons in poverty by race from 2005-2009. It was our intention to provide this data for the school-age population (5-17) or under 18 population, but data by age and race were unavailable. Data was collected from the ACS. The percentage of Hispanics in poverty was fairly stable from 2005-2007, ranging from 18-19%, before increasing to 22-23% in 2008 and 2009. The percentage of Blacks in poverty has been inconsistent over the five-year period, ranging from 13-25%. There has not been a clear trend, either increasing or decreasing for this ethnic group. Blacks could contain Hispanics since Non-Hispanic data for this group were not available. The percentage of Non-Hispanic Whites in poverty was fairly stable from 2006-2009, ranging from 5-7%. As the figure shows, Hispanics and Blacks are more likely to be in poverty than Non-Hispanic Whites. No data were available for Asians due to their small sample size.

**Figure 6**  
**Percent of Population in Poverty by Race**  
**2005-2009**



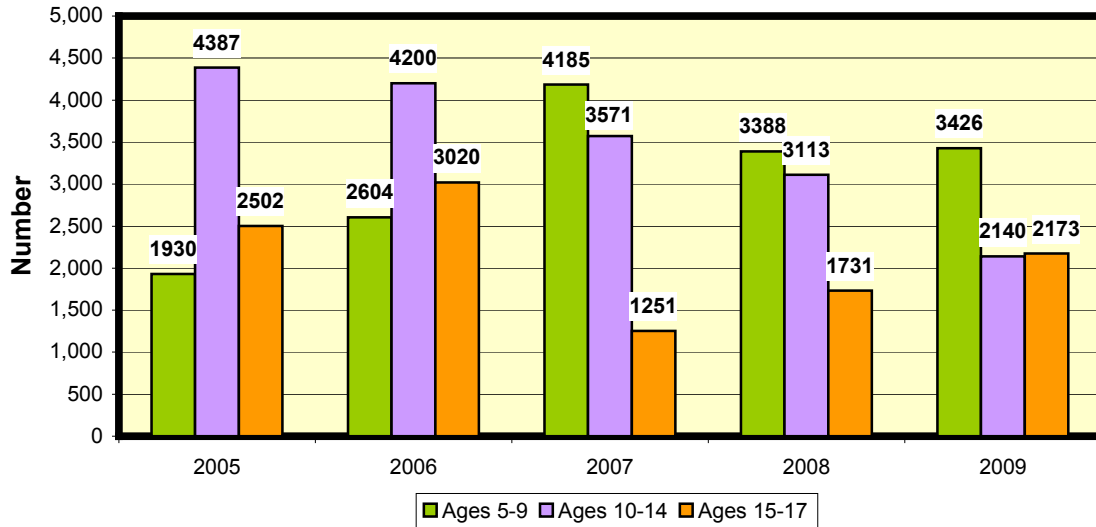
### *Age by Race*

Figures 7-10 following show age by race trends for school-age children in Yonkers. Data are from the 2005-2009 annual ACS, which is based on a 5% sample from the population and is therefore subject to sampling error. The following age groupings were available: 5-9, 10-14, and 15-17. The four ethnicities analyzed were Non-Hispanic White, Black, Asian, and Hispanic. Blacks and Asians could contain Hispanics since Non-Hispanic data for these races were not available.

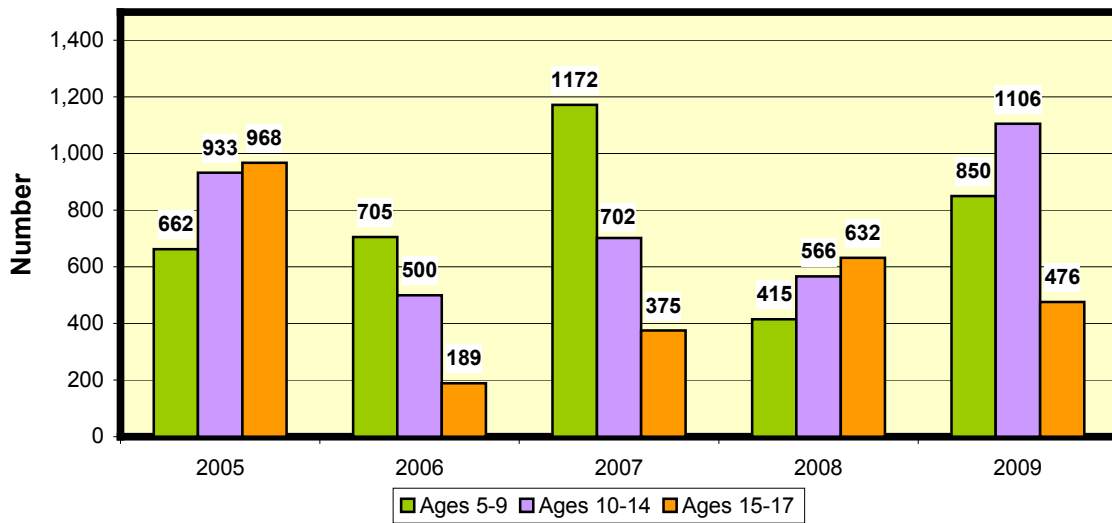
Regarding Non-Hispanic Whites (Figure 7), the number of children aged 5-9 grew in 2006 and 2007 before declining in 2008 and holding relatively constant in 2009. The number of children aged 10-14 has been steadily declining since 2005. Children aged 15-17 have been rising since 2008 after experiencing a large decline from 2006 to 2007.

Age groups for Asians are shown in Figure 8. Like Non-Hispanic Whites, the number of children aged 5-9 grew in 2006 and 2007 before declining in 2008. Growth in this age group was observed in 2009. The number of children aged 10-14 has been inconsistent, alternately rising and falling over the five-year period. Similarly, the number of children aged 15-17 has also been quite inconsistent, rising and falling in the last five years.

**Figure 7**  
**White Non-Hispanic Age Groups (5-9, 10-14, and 15-17)**  
**2005-2009**



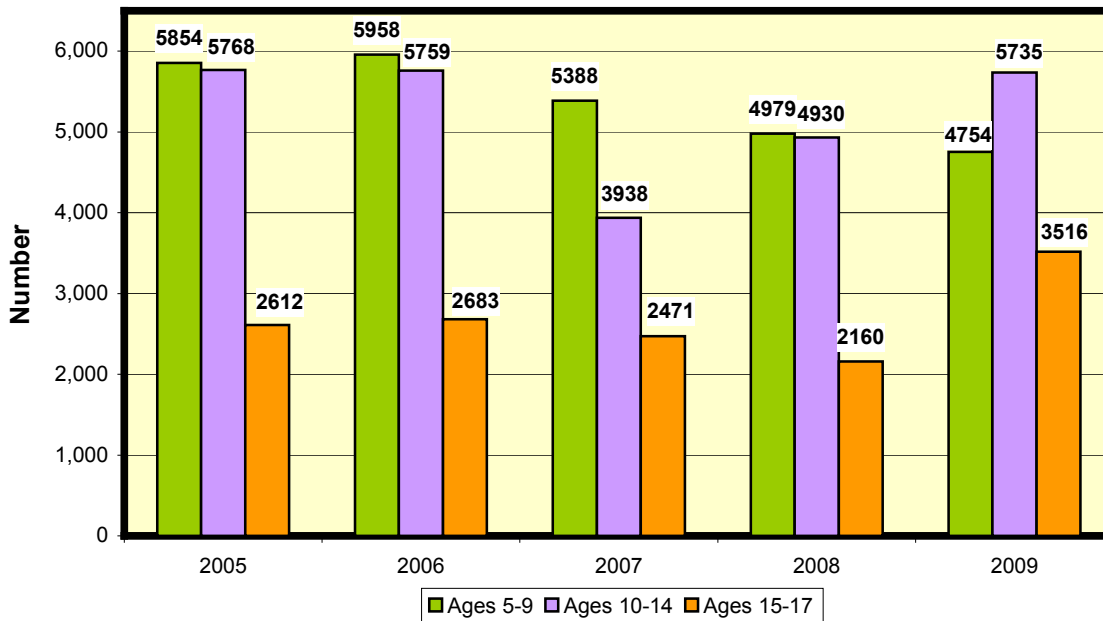
**Figure 8**  
**Asian Age Groups (5-9, 10-14, and 15-17)**  
**2005-2009**



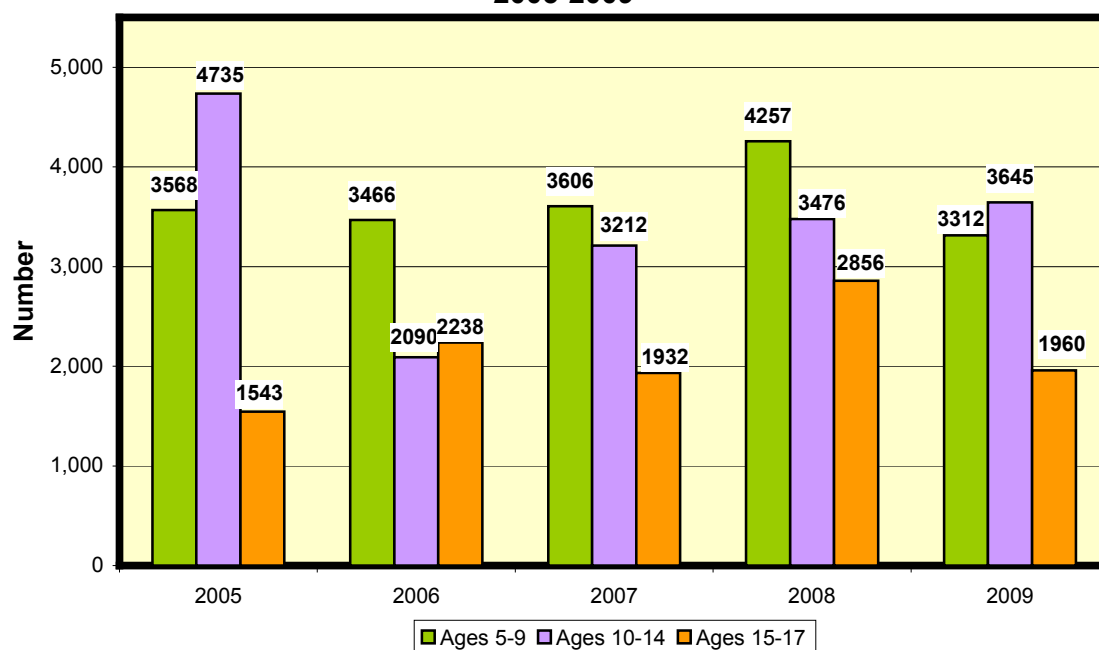
Age groups for Hispanics are shown in Figure 9. The number of children aged 5-9 has been steadily declining. The number of children aged 10-14 declined in 2007 before rising in both 2008 and 2009. Children aged 15-17 slowly declined in 2007 and 2008 before rising in 2009.

Age groups for Blacks are shown in Figure 10. After being relatively constant from 2005-2007, the number of children aged 5-9 grew in 2008 before declining in 2009. The number of children aged 10-14 has been increasing since 2007, after experiencing a large decline from 2005 to 2006. The number of children aged 15-17 has been inconsistent, alternately rising and falling over the five-year period.

**Figure 9**  
**Hispanic Age Groups (5-9, 10-14, and 15-17)**  
**2005-2009**



**Figure 10**  
**Black Age Groups (5-9, 10-14, and 15-17)**  
**2005-2009**



### **Private, Parochial, and Charter Schools**

Enrollment data on Yonkers' resident students who are attending schools other than the Yonkers Public Schools were collected from the school district from 2005-06 through 2010-11. These schools include private, parochial, or charter schools located in Yonkers, private or parochial schools located outside of Yonkers, and public schools outside of Yonkers. The specific grades that these schools serve were unavailable. The data shown in Table 3 and Figure 11 is for children in grades K-12 and does not include pre-kindergarten or special education students. In some instances when data were unavailable from a school, the Yonkers Public Schools used the last year's value instead. Despite this, the results demonstrate an overall declining trend in the number of students residing in Yonkers attending schools outside of the public school district.

From 2005-06 to 2010-11, the number of Yonkers residents attending private, parochial, or charter schools in Yonkers has declined annually. Over the last five years, K-12 enrollment in these schools has declined from 3,973 in 2005-06 to 3,223 in 2010-11, a loss of 750 students. During the same time period, the number of students attending private or parochial schools *outside* of Yonkers declined from 2,992 students in 2005-06 to 2,470 in 2010-11, a loss of 522 students. Regarding students attending other public schools outside Yonkers, the number of students has been approximately 100 students per year. In summary, the total number of K-12 students living in Yonkers and attending schools besides the Yonkers Public Schools has declined by 1,257 students since the 2005-06 school year.

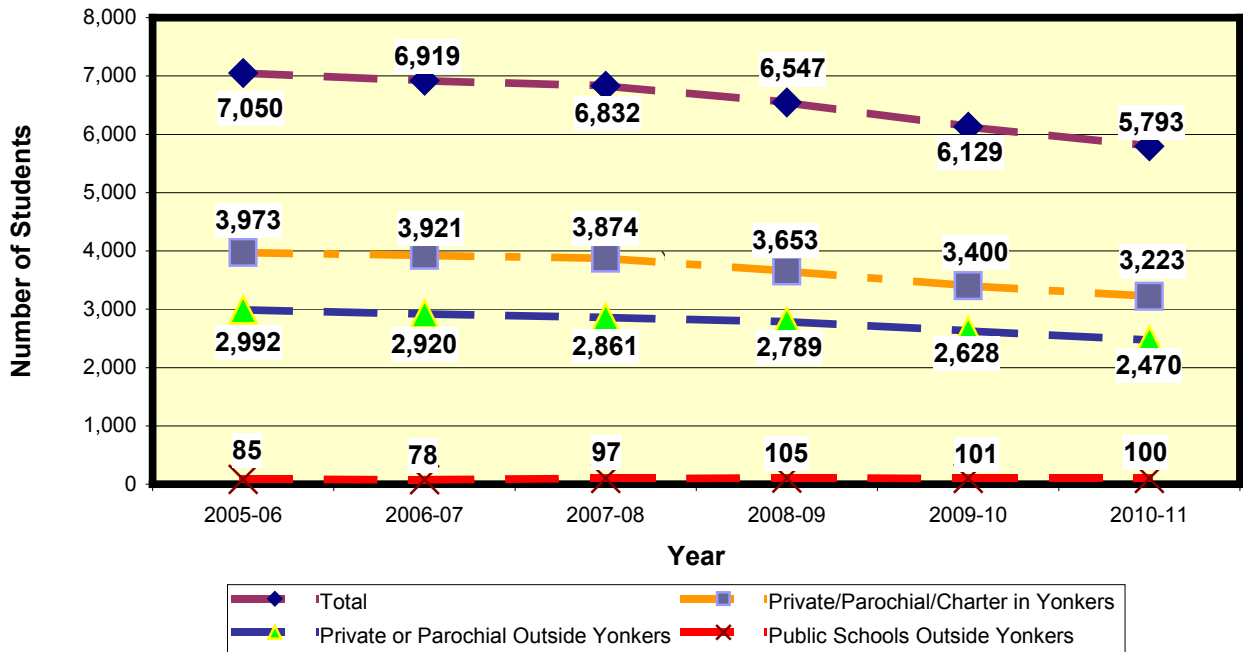
**Table 3**  
**Number of Yonkers Residents**  
**Not Attending Yonkers Public Schools**

| <b>Year</b>             | <b>Number of Yonkers Residents in Private/Parochial/Charter Schools in Yonkers</b> | <b>Number of Yonkers Residents in Private/Parochial Schools Outside Yonkers</b> | <b>Number of Yonkers Residents in Public Schools Outside Yonkers</b> | <b>Total Number of Students</b> | <b>Yonkers Public Schools Total Enrollment</b> |
|-------------------------|--|---|--|---------------------------------|--|
| <b>2005-06</b>          | 3,973  | 2,992   | 85   | <b>7,050</b>                    | <b>25,017</b>                                  |
| <b>2006-07</b>          | 3,921  | 2,920   | 78   | <b>6,919</b>                    | <b>24,704</b>                                  |
| <b>2007-08</b>          | 3,874  | 2,861   | 97   | <b>6,832</b>                    | <b>24,187</b>                                  |
| <b>2008-09</b>          | 3,653  | 2,789   | 105  | <b>6,547</b>                    | <b>24,453</b>                                  |
| <b>2009-10</b>          | 3,400  | 2,628   | 101  | <b>6,129</b>                    | <b>24,961</b>                                  |
| <b>2010-11</b>          | 3,223  | 2,470   | 100  | <b>5,793</b>                    | <b>25,631</b>                                  |
| <b>Five-Year Change</b> | <b>-750</b>  | <b>-522</b>   | <b>+15</b>   | <b>-1,257</b>                   | <b>+614</b>                                    |

Source: Yonkers Public Schools

What effect are the charter, private, or parochial schools having on enrollment in the Yonkers Public Schools? As enrollment in these schools decrease, we would assume that Yonkers Public School enrollment would increase. As shown in Table 3, enrollment in the Yonkers Public Schools has increased by 614 students since 2005-06 while the total number of K-12 students living in Yonkers and attending schools besides the Yonkers Public Schools has declined by 1,257 students over the same time period. While the rate of increase in Yonkers Public School enrollment is not equivalent to the decline of students attending schools outside of the public school district, there appears to be some correlation in the trends.

**Figure 11**  
**K-12 Schools Attended by Yonkers Residents**  
**Not Attending Yonkers Public Schools**  
**2005-2010**



## Historical Enrollment Growth

Historical enrollment data for the Yonkers Public Schools from 2005-06 through 2010-11 are shown in Table 4 and Figure 12. Historical enrollments were obtained from the New York State BEDS report. Historical enrollment is shown by elementary school level (PK-6), middle school level (7-8), elementary and middle school combined (PK-8), high school level (9-12), and total enrollment (PK-12). Self-contained special education counts by level are also shown and were incorporated into the totals by level as well as for the district-wide total.

Enrollment in the district as of October 2010 was 25,631 students and represents a 2.5% gain (+614 students) in enrollment from the 2005-06 year. Enrollment has been slowly rising since the 2008-09 school year, after declining in both 2006-07 and 2007-08, which signified a change in trend. Overall, total enrollment has been in a rather narrow range, ranging between 24,153 and 25,631 during the historical six-year period.

At the elementary school level (PK-6), the enrollment trend has mirrored that of the total school population by declining for the first two years of the historical period before rising in 2008-09 and subsequent years. Elementary enrollment in the district as of October 2010 was 15,064 students and represents a 6.1% gain (+866 students) in enrollment from the 2005-06 year.

At the middle school level (7-8), enrollment declined through 2009-10 before increasing in 2010-11, two years later than when the change in trend occurred at the elementary school level. This is not surprising since it takes time for the larger elementary school cohorts that are moving through the system to impact the enrollment of the upper levels. Middle school enrollment in the district as of October 2010 was 3,531 students and represents a 4.2% decline (-156 students) in enrollment from the 2005-06 year.

When analyzing combined elementary school and middle school enrollment (PK-8), enrollment declined through 2007-08 before changing trend and increased the last three years. PK-8 enrollment in the district as of October 2010 was 18,595 students and represents a 4.0% gain (+710 students) in enrollment from the 2005-06 year.

Finally, at the high school level, enrollment declined through 2008-09 before changing trend and increased the last two years. High school enrollment in the district as of October 2010 was 7,036 students and represents a 1.3% decline (-96 students) in enrollment from the 2005-06 year.

**Table 4**  
**Yonkers Public Schools Historical Enrollments for 2005-2010**

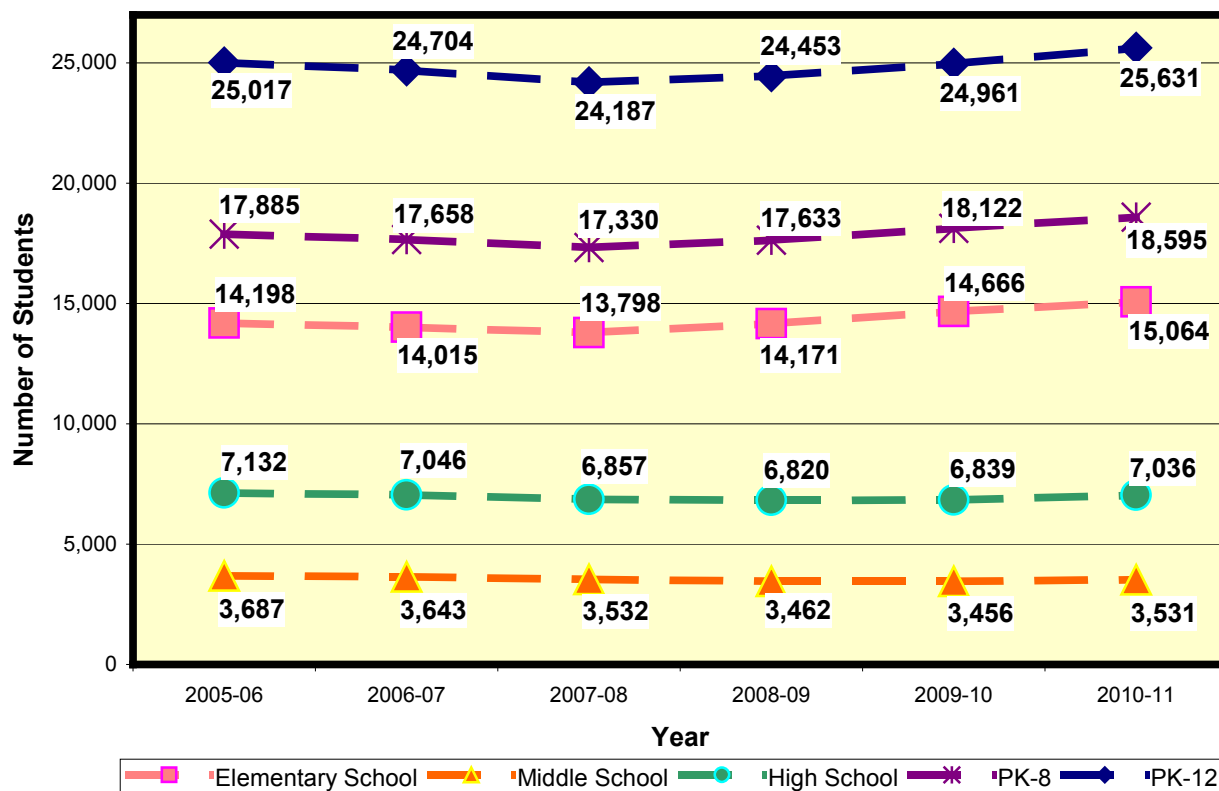
| Year <sup>1</sup> | PK RE <sup>2</sup> | K     | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | PK-6 SE <sup>3</sup> | 7-8 SE <sup>3</sup> | 9-12 SE <sup>3</sup> | PK-6 Total | 7-8 Total | 9-12 Total | PK-8 Total | PK-12 Total |
|-------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|---------------------|----------------------|------------|-----------|------------|------------|-------------|
| <b>2005-06</b>    | 1,356              | 1,744 | 1,838 | 1,749 | 1,679 | 1,670 | 1,710 | 1,710 | 1,792 | 1,647 | 2,483 | 1,672 | 1,271 | 1,084 | 742                  | 248                 | 622                  | 14,198     | 3,687     | 7,132      | 17,885     | 25,017      |
| <b>2006-07</b>    | 1,392              | 1,777 | 1,803 | 1,730 | 1,646 | 1,617 | 1,592 | 1,704 | 1,663 | 1,698 | 2,204 | 1,800 | 1,392 | 1,068 | 754                  | 282                 | 582                  | 14,015     | 3,643     | 7,046      | 17,658     | 24,704      |
| <b>2007-08</b>    | 1,451              | 1,752 | 1,775 | 1,710 | 1,656 | 1,583 | 1,552 | 1,547 | 1,662 | 1,607 | 2,105 | 1,622 | 1,400 | 1,134 | 772                  | 263                 | 596                  | 13,798     | 3,532     | 6,857      | 17,330     | 24,187      |
| <b>2008-09</b>    | 1,559              | 1,834 | 1,817 | 1,757 | 1,662 | 1,599 | 1,587 | 1,569 | 1,579 | 1,614 | 1,874 | 1,835 | 1,262 | 1,276 | 787                  | 269                 | 573                  | 14,171     | 3,462     | 6,820      | 17,633     | 24,453      |
| <b>2009-10</b>    | 1,579              | 1,913 | 1,837 | 1,816 | 1,796 | 1,681 | 1,633 | 1,633 | 1,606 | 1,572 | 1,819 | 1,797 | 1,509 | 1,159 | 778                  | 278                 | 555                  | 14,666     | 3,456     | 6,839      | 18,122     | 24,961      |
| <b>2010-11</b>    | 1,626              | 1,960 | 1,940 | 1,801 | 1,773 | 1,781 | 1,713 | 1,672 | 1,631 | 1,618 | 1,832 | 1,718 | 1,574 | 1,348 | 798                  | 282                 | 564                  | 15,064     | 3,531     | 7,036      | 18,595     | 25,631      |

**Notes:** <sup>1</sup>Data as provided by the Yonkers Public Schools – BEDS reports

<sup>2</sup>Pre-kindergarten regular education enrollment

<sup>3</sup>Special education enrollment

**Figure 12**  
**Historical Enrollment from 2005-2010 in the**  
**Yonkers Public Schools**

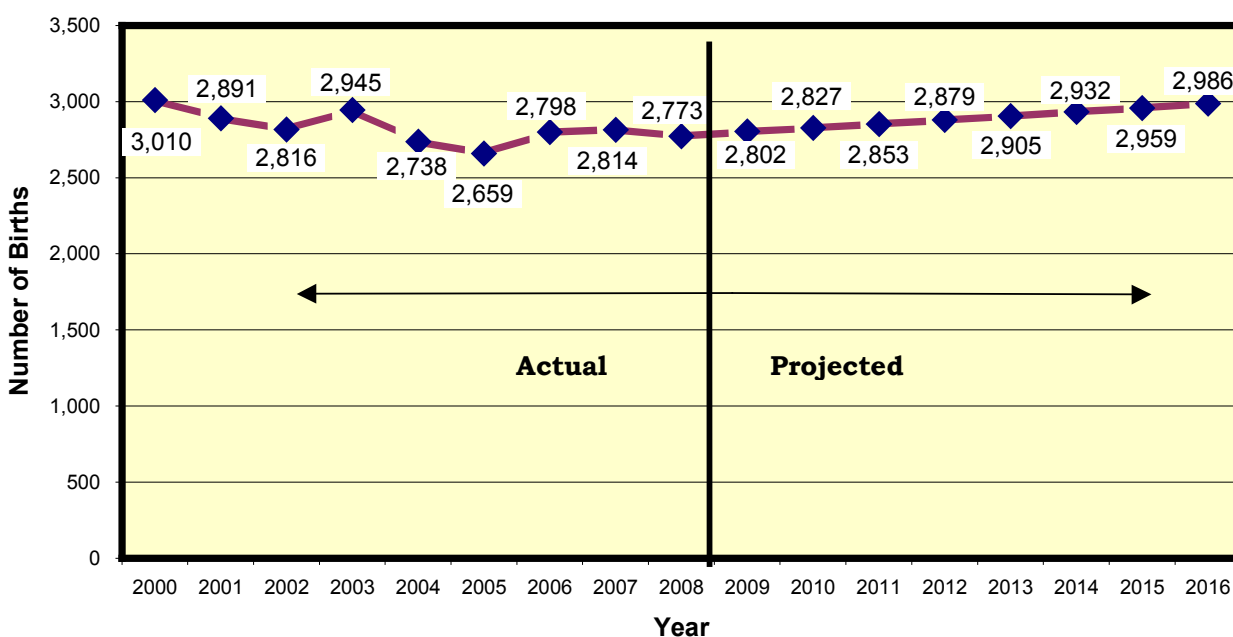


### Birth Data

Historical and projected Yonkers birth data for 2000-2016 are shown in Figure 13. The New York State Department of Health, Bureau of Biometrics and Health Statistics, provided historical birth data from 2000-2008 by the mother's ethnicity, which was categorized as Hispanic, Asian Non-Hispanic, White Non-Hispanic, Black Non-Hispanic, or Other/Unknown Non-Hispanic. Historical data for 2009 were not yet available. The Department of Health geocoded the birth data by assigning geographic coordinates to a birth mother based on her residence. Birth data are needed to calculate survival ratios for each birth-to-pre-kindergarten and birth-to-kindergarten cohort. Future birth rates for the years 2009-2016 were estimated to project pre-kindergarten and kindergarten cohorts through the 2020-21 school year. The process of birth estimation is explained in the methodology section in the Appendix. Since the Other/Unknown Non-Hispanic group was so small, ranging from 41-54 births per year, the future number of births in this category was computed by averaging the number of births from 2004 to 2008 and using this value (45) for all future years.

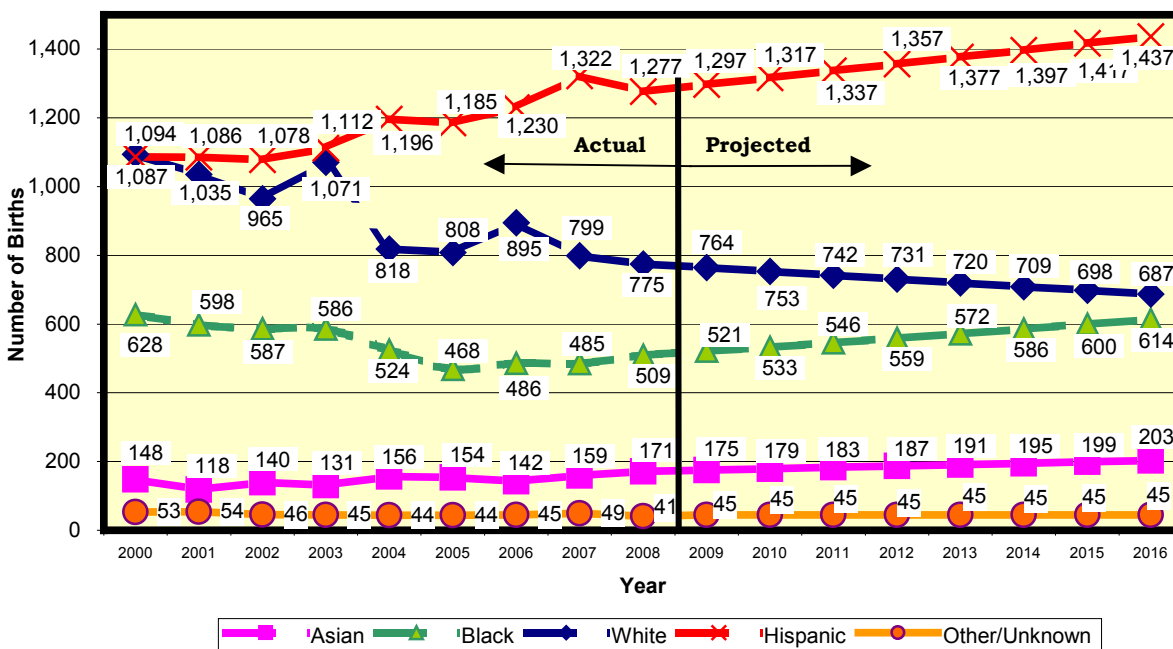
In 2008, the number of births in Yonkers was 2,773, which represents a decline of 237 births from the 3,010 births registered in 2000. There does not appear to be a defining trend, either increasing or decreasing, in the birth rate. Since 2000, the number of births has ranged from a low of 2,659 in 2005 to a high of 3,010 in 2000. The number of births has been within a relatively narrow range, approximately 350 births, for the last nine years. Estimated birth counts from 2009-2016 were computed by aggregating the birth projections by race which will be discussed in the following section. The number of births in Yonkers is projected to slowly increase to 2,986 in 2016, which is still within the nine-year historical range.

**Figure 13**  
**City of Yonkers Birth History and Projections**  
**2000-2016**



When analyzing births by race, the number of births to Hispanics has been steadily increasing since 2000, while births to Whites have been in decline as shown in Figure 14. During this nine-year period, the number of births to Hispanics has increased from 1,087 to 1,277 children per year, a 17.5% gain. Births to Whites declined from 1,094 in 2000 to 775 in 2008, a loss of 319 children per year (-29.2%). In 2001, Hispanics surpassed Whites in having the most births of the four major ethnic groups and are projected to maintain that status. Hispanics accounted for 46% of all births in Yonkers in 2008 while Whites and Blacks accounted for 28% and 18% respectively. The number of births to Blacks has slowly declined from 628 in 2000 to 509 in 2008, a loss of 119 births per year (-18.9%). Regarding Asians, the number of births has been relatively consistent over the last five years, ranging from 142 to 171 births per year. The Other/Unknown Non-Hispanic group has been very small, ranging from 41-54 births per year since 2000.

**Figure 14**  
**City of Yonkers Historical and Projected Births by Race**  
**2000-2016**



## Immigration

As shown in Table 5, the percentage of foreign-born residents in Yonkers has been increasing since 1990. Data collected from 1990 and 2000 are from the decennial census while data from 2005-2009 are from the ACS. The ACS, which replaced the long form on the decennial census, collects information on a sample and therefore is subject to sampling error. This information was based on data collected over a 5-year time period, where the estimates represent the average characteristics between January 2005 and December 2009. In 1990, 20.2% of the population in Yonkers was foreign-born, which was approximately 38,000 people. By 2000, the percentage of foreign-born persons in Yonkers increased to 26.4%. The 2005-2009 ACS has estimated the number of foreign-born persons to be almost 57,000, which corresponds to 28.6% of the Yonkers population. In the 2005-2009 ACS, the percentage of foreign-born children aged 5-17 (school-aged) was 36.3%. This value exceeds that of the city, indicating that a larger proportion of Yonkers' foreign-born population is in the younger age group.

Using data from the 2000 Census and the 2005-2009 ACS, Table 6 lists the place of birth of the Yonkers' foreign-born population for the five most-reported countries. During this timeframe, the Dominican Republic and Mexico have been the largest sources of foreign-born persons. Jamaica, which was the fifth largest source of foreign-born persons in 2000, was the fourth largest source in 2005-2009, surpassing Italy. India became the third largest source of foreign-born persons in Yonkers in 2005-2009 after being the fourth largest source in 2000.

**Table 5**  
**Number and Percent of Foreign-Born Persons in Yonkers**

| <b>Year</b>                    | <b>Foreign-Born<br/>in Yonkers</b> | <b>Total Population<br/>in Yonkers</b> | <b>Percent<br/>Foreign-Born</b> |
|--------------------------------|------------------------------------|--|---------------------------------|
| 1990                           | 38,067                             | 188,082                                | 20.2%                           |
| 2000                           | 51,687                             | 196,086                                | 26.4%                           |
| 2005-2009<br>(5-Year Estimate) | 56,968                             | 199,055                                | 28.6%                           |

**Sources:** 1990 and 2000 Censuses, 2005-2009 American Community Survey

**Table 6**  
**Yonkers Foreign-Born Population Place of Birth  
for Five Largest Sources for 2000 and 2005-2009**

| <b>Country</b>                    | <b>2000</b>   |                             | <b>Country</b>                    | <b>2005-2009</b> |                             |
|-----------------------------------|---------------|-----------------------------|-----------------------------------|------------------|-----------------------------|
|                                   | <b>Number</b> | <b>Percent<br/>of Total</b> |                                   | <b>Number</b>    | <b>Percent<br/>of Total</b> |
| Dominican Republic                | 6,321         | 12.2%                       | Dominican Republic                | 8,275            | 14.5%                       |
| Mexico                            | 4,376         | 8.5%                        | Mexico                            | 6,165            | 10.8%                       |
| Italy                             | 3,959         | 7.7%                        | India                             | 3,775            | 6.6%                        |
| India                             | 3,163         | 6.1%                        | Jamaica                           | 3,050            | 5.4%                        |
| Jamaica                           | 3,110         | 6.0%                        | Italy                             | 2,946            | 5.2%                        |
| <b>Sum of Top 5<br/>Countries</b> | <b>20,929</b> | <b>40.5%</b>                | <b>Sum of Top 5<br/>Countries</b> | <b>24,211</b>    | <b>42.5%</b>                |
| <b>Sum of All<br/>Countries</b>   | <b>51,687</b> | <b>100.0%</b>               | <b>Sum of All<br/>Countries</b>   | <b>56,968</b>    | <b>100.0%</b>               |

**Sources:** United States Census Bureau (2000), American Community Survey (2005-2009)

Regarding the school-age population, the Yonkers Public Schools collects data on the place of birth of foreign-born students. While this may not be the country the student originated from, the place of birth serves as a proxy for country of origin. In 2009-10, the most recent year in which data were available, there were approximately 2,700 foreign-born students in the school district, which represents nearly 11% of the student population.

In Table 7, the number of immigrant students by country is shown for the five largest sources in the Yonkers Public Schools for the 2009-10 school year. A total of 58.7% of the immigrant children in the school district came from the five largest sources. The Dominican Republic is the largest source, providing 23.4% of the immigrant students. Mexico is the second largest source and provided 20.4% of the immigrant student population in 2009-10. After the

Dominican Republic and Mexico, there is a sharp drop-off in the size of the foreign born sources. Jamaica, India, and El Salvador are the 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> largest sources of immigrant students respectively, but only provide 4-5% of the immigrant student population.

The countries of immigrant students and the orders of magnitude are similar to the five largest sources of foreign-born persons in Yonkers as reported in the 2005-2009 ACS and displayed previously in Table 6. The Dominican Republic and Mexico are ranked first and second respectively in both tables. While Italy was the fifth largest source of foreign-born persons in the 2005-2009 ACS, there were only 9 students born in Italy in the Yonkers Public Schools for 2009-10, indicating that resident Italians belong to an older age group and are not of school-age. Jamaica and India are currently the third- and fourth-largest sources of immigrant students and the fourth- and third-largest sources of foreign-born persons. El Salvador is the 5<sup>th</sup> largest source of immigrant students.

**Table 7**  
**Number of Immigrant Students from Countries of Largest Sources in the Yonkers Public Schools in 2009-10**

| <b>Country</b>                | <b>Number of Students</b> | <b>Percent of Total</b> |
|-------------------------------|---------------------------|-------------------------|
| Dominican Republic            | 630                       | 23.4%                   |
| Mexico                        | 548                       | 20.4%                   |
| Jamaica                       | 144                       | 5.4%                    |
| India                         | 142                       | 5.3%                    |
| El Salvador                   | 114                       | 4.2%                    |
| <b>Sum of Top 5 Countries</b> | <b>1,578</b>              | <b>58.7%</b>            |
| <b>Sum of All Countries</b>   | <b>2,688</b>              |                         |

**Source:** Yonkers Public Schools- BEDS Report

## New Housing

In Table 8 following, the number of permits issued for new residential construction from 2005-2010 is shown. Over the six-year period, a total of 129 permits were issued for single-family homes while 137 were issued for two-family homes. In addition, permits were issued for apartment buildings and smaller multi-family dwellings, most of which were issued in 2007 and 2009. If all the multi-family dwellings were to be built, an additional 2,150 housing units would be created in Yonkers.

**Table 8**  
**Number of Residential Housing Permits**  
**for New Housing Units by Year**

| <b>Year</b>                              | <b>One-Family</b> | <b>Two-Family</b>      | <b>Other</b>  |
|--|-------------------|------------------------|---|
| <b>2005</b>                              | 42                | 18                     | 1 4-Family  |
| <b>2006</b>                              | 30                | 24                     | 0   |
| <b>2007</b>                              | 29                | 62                     | 1 Alexander St.- 560 units<br>193 Ashburton Avenue - 60 units<br>304 Warburton Ave.- 12 units<br>77 Cole Street – 341 units<br>701 Ridge Hill Blvd. – 500 units |
| <b>2008</b>                              | 14                | 26                     | 0   |
| <b>2009</b>                              | 8                 | 4                      | 330 Riverdale Avenue – 170 units<br>9 Vineyard Ave. – 15 units<br>1 Whelan Place – 28 units<br>5 Whelan Place – 28 units<br>9 Whelan Place – 29 units           |
| <b>2010</b>                              | 6                 | 3                      |   |
| <b>Total</b>                             | <b>129 units</b>  | <b>137 (274 units)</b> | <b>1,747 units</b>  |
| <b>Grand Total = 2,150 housing units</b> |                   |                        |   |

**Source:** City of Yonkers Department of Housing & Buildings

The issuance of a permit does not guarantee that a residence will be constructed. Often, there is a lag time between the issuing of a permit and when the unit is actually constructed. With the overall slowdown of the housing market, it is conceivable that many builders will delay new construction until the housing market is more favorable. Table 9 shows the number of new housing units receiving temporary certificates of occupancy (TCOs) or certificates of occupancy (COs) from 2005-2009. The table's last column shows the number of new separate residential units, not buildings, which were constructed during this time period. For example, one four-family building would yield four new residential units.

While a total of 266 permits were issued for either single- or two-family homes from 2005-2010, only 214 were constructed (80.5%) and issued TCOs or COs. Two large apartment buildings were constructed in 2007: Hudson Park Apartments (1 Alexander St.) consisting of 560 1-2 bedroom market-rate apartment units and Croton Heights (193 Ashburton Avenue) consisting of 60 1-3 bedroom affordable housing units. These two new complexes skew the amount of residential construction that has occurred in Yonkers, which has been less than 80 new residential units per year except for 2007. Since 2005, more than 955 new building units have been constructed in Yonkers. In Figure 15 following, the number of new units constructed in new buildings in Yonkers from 2005-2009 is shown and reflects Hudson Park Apartments and Croton Heights, which were built in 2007.

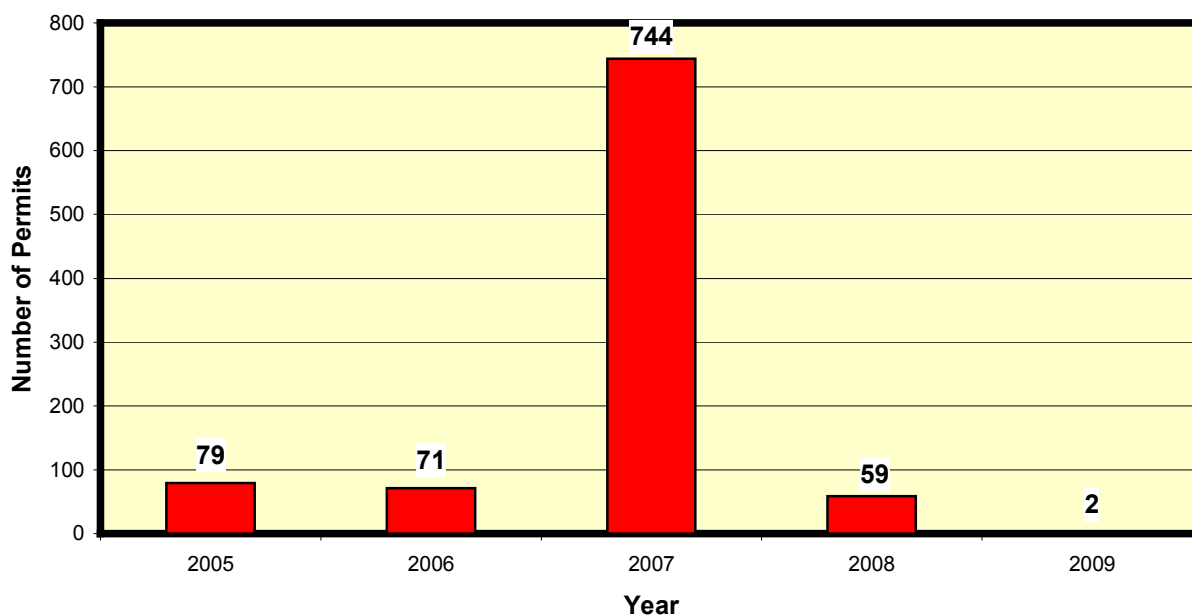
**Table 9**  
**Number of Residential TCOs or COs**  
**and Total Number of New Residential Units in New Buildings**

| Year         | Number of TCOs or COS |                                  |   | Total Number of New Residential Units in New Residential Buildings |
|--------------|-----------------------|----------------------------------|---|--|
|              | One-Family            | Two-Family                       | Other   |  |
| <b>2005</b>  | 39                    | 18                               | 1 4-Family  | 79   |
| <b>2006</b>  | 25                    | 23                               | 0   | 71   |
| <b>2007</b>  | 22                    | 51                               | Hudson Park Apts.- 560 units<br>Croton Heights - 60 units | 744  |
| <b>2008</b>  | 9                     | 25                               | 0   | 59   |
| <b>2009</b>  | 2                     | 0                                | 0   | 2  |
| <b>Total</b> | <b>97</b>             | <b>117</b><br><b>(234 units)</b> | <b>624 units</b>  | <b>955 units</b>   |

**Source:** City of Yonkers Department of Housing & Buildings

If the number and type of new housing units planned for the future greatly exceeds that which was built historically, school enrollment is likely to rise, assuming all other variables are controlled. However, if the number and type of future housing units is similar to that which was built historically, it is unlikely that a significant enrollment increase would occur since the historical cohort-survival ratios do capture enrollment growth due to new housing.

**Figure 15**  
**Number of New Residential Units in New Residential Buildings**  
**from 2005 to 2009 in Yonkers**



### *Future Residential Construction*

A number of residential housing projects are either approved and not yet under construction, or are under construction in Yonkers. Those developments are shown in Table 10. A total of 1,468 units are under construction and an additional 1,846 units are in developments that have been approved but are not under construction. The largest development, Ridge Hill, is to consist of 1,000 housing units and currently has approximately 150 units under construction. As shown in Table 10, 2,455 children are projected from pre-kindergarten to 12<sup>th</sup> grade as a result of the new residential construction (3,314 housing units).

In the process of determining how many children will come from a proposed housing development, the 2000 Public Use Microdata Sample (PUMS) from the United States Census was considered. PUMS files provide records of a 5% sample of new housing units built between 1990 and 2000 with information on the characteristics of each unit and each person in it. A total of 2,213 housing units were built in Yonkers between 1990 and 2000. Unfortunately, since the sample is only 5%, the number of housing units to be considered in Yonkers is too small to conduct a meaningful analysis. Instead, due to its geographical proximity, the Bronx in New York City was used as a proxy in determining student multipliers (yields) for Yonkers. The New York City Environmental Quality Review (CEQR) technical manual, published in May 2010, provides multipliers estimating the number of public school students generated by new housing units of all types for each of New York City's five boroughs. The multipliers for the Bronx are shown in Table 11.

**Table 10**  
**Projected Housing Growth and Expected Number**  
**of Children from New Housing Starts**

| Development Identification <sup>1</sup>                 | Number of Units | Number of Bedrooms  | Potential PK-6 | Potential 7-8 | Potential 9-12 | Notes  |
|---|-----------------|---|----------------|---------------|----------------|--|
| <b>Developments Under Construction</b>                  |                 |   |                |               |                |  |
| <b>314-330 Riverdale</b>                                | 137             | Studio (19)<br>1-BR (28)<br>2-BR (73)<br>3-BR (16)<br>3+ BR (1) | 60             | 15            | 26             |  |
| <b>304 Warburton</b>                                    | 12              | 2-BR (6)<br>3-BR (6)  | 6              | 1             | 2              |  |
| <b>1077 Warburton</b>                                   | 79              | Studio (11)<br>1-BR (3)<br>2-BR (62)<br>3-BR (3)                | 35             | 8             | 15             | Has been under construction for several years with only foundations constructed. May be several years before completion, if at all.  |
| <b>Mulford</b>  | 240             | 1-BR (67)<br>2-BR (136)<br>3-BR (37)                            | 107            | 26            | 46             |  |
| <b>Ridge Hill</b>                                       | 1,000           | 1-BR (406)<br>2-BR (557)<br>3-BR (37)                           | 443            | 107           | 190            | Approximately 150+/- are under construction to be available for residency within next 6-12 months. Rest of the development will be constructed according to market conditions. |
| <b>Sub-Total</b>  | <b>1,468</b>    |   | <b>651</b>     | <b>157</b>    | <b>279</b>     |  |
| <b>Developments Approved But Not Under Construction</b> |                 |   |                |               |                |  |
| <b>1105 Warburton</b>                                   | 353             | Studio (10)<br>1-BR (105)<br>2-BR (214)<br>3-BR (24)            | 157            | 38            | 67             | Has been receiving renewals but does not appear to start construction soon   |
| <b>49 North Broadway</b>                                | 95              | Studio (6)<br>1-BR (41)<br>2-BR (42)<br>3-BR (6)                | 42             | 10            | 18             |  |
| <b>2 Manor House Square</b>                             | 12              | 1-BR (6)<br>2-BR (6)  | 6              | 1             | 2              |  |
| <b>River Park Center</b>                                | 950             | N/A   | 422            | 101           | 181            | Part of SFC project and likely to see major changes before construction. Up for planning board re-review in summer 2011.   |
| <b>Palisade Point</b>                                   | 436             | N/A   | 193            | 47            | 83             | Part of SFC project and likely to see major changes before construction. Up for planning board re-review in summer 2011.   |
| <b>Sub-Total</b>  | <b>1,846</b>    |   | <b>820</b>     | <b>197</b>    | <b>351</b>     |  |
| <b>Grand Total</b>                                      | <b>3,314</b>    |   | <b>1,471</b>   | <b>354</b>    | <b>630</b>     | <b>Total of 2,455 PK-12 Students</b>   |

Notes: <sup>1</sup>As provided by Yonkers Planning Bureau

**Table 11**  
**Public School Multipliers by Age of Children**  
**for New Housing Units of All Sizes**

| Borough   | Age of Children       |                       |                        |
|---|-----------------------|-----------------------|------------------------|
|   | 4-10<br>(Grades PK-5) | 11-13<br>(Grades 6-8) | 14-17<br>(Grades 9-12) |
| Bronx   | 0.39                  | 0.16                  | 0.19                   |
| <b>Total Public School Children Ages 4-17 (Grades PK-12) = 0.74</b> |                       |                       |                        |

Source: CEQR Technical Manual, May 2010

The multipliers used are not without a few caveats. First, the multipliers are an average based on all housing types (detached single-family homes, townhouses, apartment buildings, etc.) and also does not account for the number of bedrooms, which influence the number of children in a housing unit. As discussed before, since PUMS is based on a 5% sample, to break down the Bronx new housing stock built between 1990 and 2000 by housing type and bedroom would further reduce the sample size for each of these categories and prevent a meaningful analysis. Second, while Yonkers is close in proximity to the Bronx, the type of housing stock built between 1990 and 2000 is not similar. For instance, as shown in Table 12, 14.9% of housing units built in the Bronx between 1990 and 2000 were single-family homes as compared to 32.2% in Yonkers. In addition, 45.6% of the housing units built in the Bronx contained 20 or more units as compared to 24.7% in Yonkers.

**Table 12**  
**Number and Type of New Housing Units Built Between 1990 and 2000**

| Units in Structure             | Yonkers      |              | Bronx         |              |
|--------------------------------|--------------|--------------|---------------|--------------|
|                                | Number       | Percent      | Number        | Percent      |
| <b>1, detached or attached</b> | 714          | 32.2         | 3,405         | 14.9         |
| <b>2-4</b>                     | 544          | 24.6         | 5,863         | 25.7         |
| <b>5-19</b>                    | 409          | 18.5         | 3,130         | 13.7         |
| <b>20-49</b>                   | 270          | 12.2         | 5,848         | 25.7         |
| <b>50+</b>                     | 276          | 12.5         | 4,526         | 19.9         |
| <b>Other</b>                   | 0            | 0.0          | 25            | 0.1          |
| <b>Total</b>                   | <b>2,213</b> | <b>100.0</b> | <b>22,797</b> | <b>100.0</b> |

Source: United States Census (2000), SF3 data

It is our opinion that the projected number of children from the new residential units, 2,455, is relatively high. Upon inspection of the existing housing stock from the 2000 Census, there are an additional 0.16 children per occupied housing unit in the Bronx as compared to Yonkers. The results in Table 10 assume that all listed residential developments will be occupied by 2021, which is the end of the enrollment projection period. As shown in Table 11, there are approximately 0.74 public school children per new housing unit in the Bronx. If this number is adjusted for Yonkers, there may be approximately 0.58 public school children per new housing unit in Yonkers. If this is the case, approximately 1,922 children ( $3,314 \times 0.58$ ) may come out of the new housing units instead of the 2,455 shown above, 533 students fewer.

In addition, student yields in one-bedroom units or studios are typically very low. A total of 702 units that are proposed or are under construction are studios or one-bedroom units. As discussed before, the student multipliers in Table 11 do not take into account the number of bedrooms so yields in these types of units may be overestimated.

Finally, due to the weak housing market, many of these housing units may not be built. This would further limit the number of children from new housing units that would impact the Yonkers Public Schools.

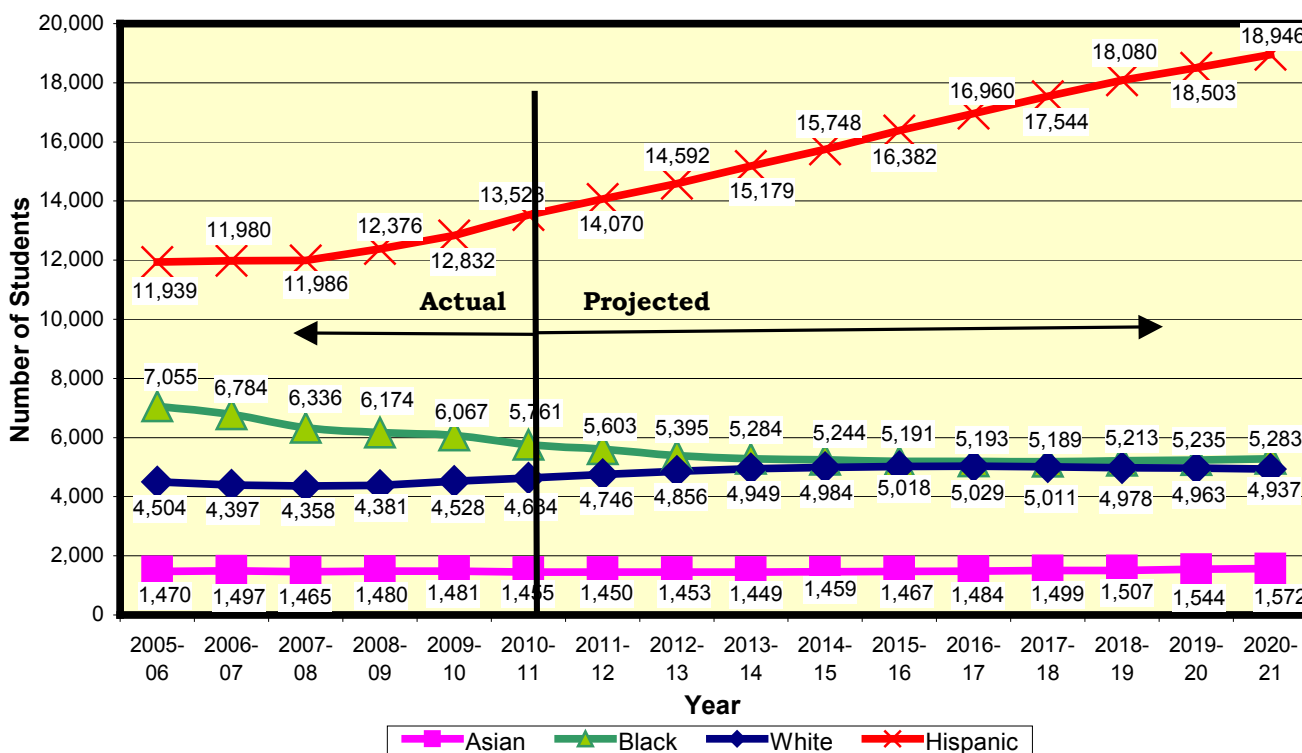
For these reasons, the baseline enrollment projections for the Yonkers Public Schools were not modified to account for additional children from new housing developments. Since the baseline enrollment projections utilize cohort survival ratios that do take into account prior new home construction growth, the baseline enrollment projections should only be adjusted if the projected housing growth is significantly different than prior housing growth. From 2005-2009, a total of 955 TCOs or COs were issued in Yonkers. While the number of future housing units is projected to be more than that which was built in the last five years, the baseline enrollment projections were not modified to account for additional children from new housing due to the uncertainty of whether some of the projects would be completed and that the multipliers may be overestimating the number of students to come out of the new developments.

## Historical and Projected Enrollment by Race

Historical enrollment trends by race were analyzed from the 2005-06 school year through the 2010-11 school year. Historical enrollments by race were obtained from the New York State BEDS report. Enrollment projections were performed using grade-by-grade total enrollments for the four major ethnicities in the Yonkers Public Schools: Non-Hispanic Asian (subsequently referred to as Asian), Non-Hispanic Black (subsequently referred to as Black), Hispanic, and Non-Hispanic White (subsequently referred to as White). Although there were additional racial classifications, such as Native Americans and Multi-Racial students, they were kept as a constant value throughout the projection period since they are a very small segment of the student population.

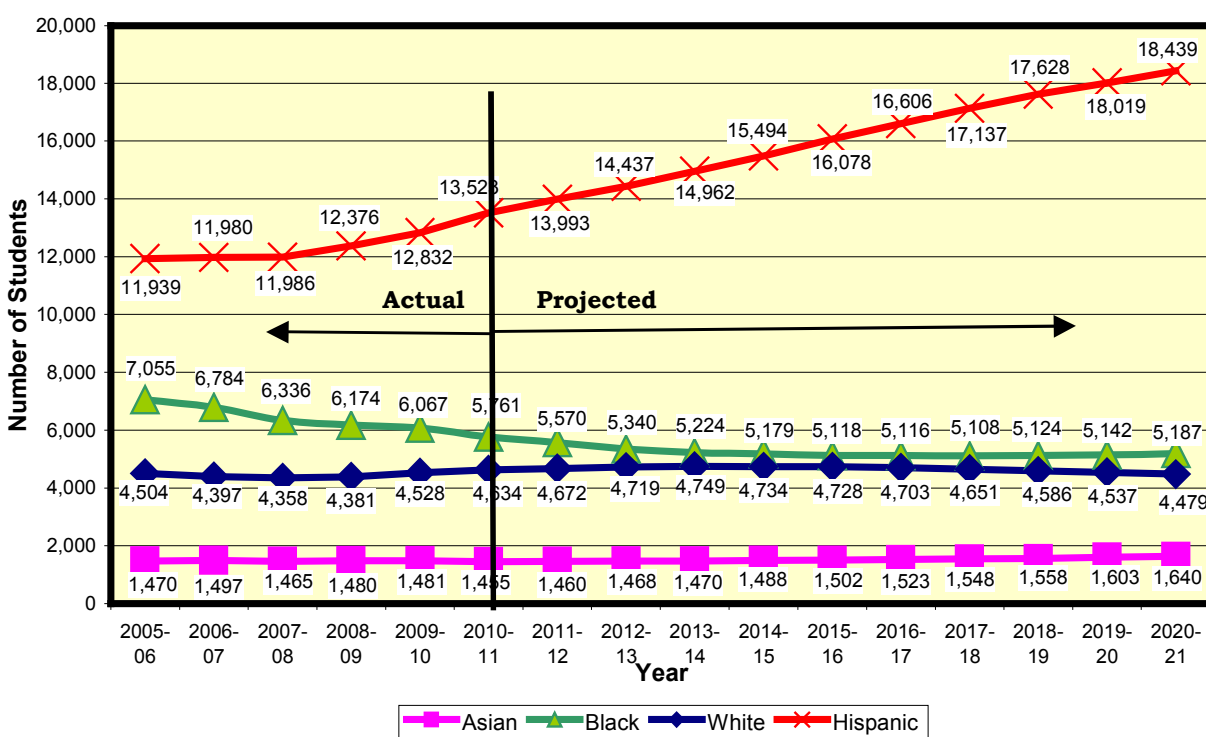
Figures 16 and 17 and Table 13 show the historical enrollment by race in the Yonkers Public Schools as well as the projected enrollment by race through 2020-21. Projections using the CSR method and 3 years of historical data are shown in Figure 16 while Figure 17 shows the projections using the CSR method and 4 years of historical data. Native Americans and Multi-Racial students are not shown in the table or figures and were held constant throughout the projection period with 52 and 182 students respectively.

**Figure 16**  
**Yonkers Public Schools Historical and Projected Enrollment by Race**  
**Using CSR 3-YR**  
**2005-06 to 2020-21**



Based on October 2010 enrollment, Hispanics were the largest ethnicity with 13,523 students, which represents 52.8% of the student population. Blacks, whose enrollment has continually declined over the last five years, currently comprise 22.5% of the student population. Whites are the 3<sup>rd</sup> largest ethnic group in the Yonkers Public Schools and currently represent 18.1% of the student population. Asians are the smallest ethnic group, consisting of only 5.7% of the student population.

**Figure 17**  
**Yonkers Public Schools Historical and Projected Enrollment by Race**  
**Using CSR 4-YR**  
**from 2005-06 to 2020-21**



In the last five years, Black enrollment has declined by 1,294 students. During this same time period, White enrollment declined through 2007-08 before reversing trend and rising through 2010-11, gaining 130 students since 2005-06. Hispanic enrollment was essentially constant from 2005-06 through 2007-08 but has increased in the last three years, gaining 1,584 students since 2005-06. Asian enrollment has been essentially constant since 2005-06, ranging between 1,455-1,497 students.

**Table 13**  
**Yonkers Historical and Projected Enrollment by Race**

|                               | Asians              |                     | Blacks              |                     | Hispanics           |                     | Whites              |                     |
|-------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>HISTORICAL<sup>1</sup></b> |                     |                     |                     |                     |                     |                     |                     |                     |
| <b>2005-06</b>                | 1,470               |                     | 7,055               |                     | 11,939              |                     | 4,504               |                     |
| <b>2006-07</b>                | 1,497               |                     | 6,784               |                     | 11,980              |                     | 4,397               |                     |
| <b>2007-08</b>                | 1,465               |                     | 6,336               |                     | 11,986              |                     | 4,358               |                     |
| <b>2008-09</b>                | 1,480               |                     | 6,174               |                     | 12,376              |                     | 4,381               |                     |
| <b>2009-10</b>                | 1,481               |                     | 6,067               |                     | 12,832              |                     | 4,528               |                     |
| <b>2010-11</b>                | 1,455               |                     | 5,761               |                     | 13,523              |                     | 4,634               |                     |
| <b>PROJECTED</b>              |                     |                     |                     |                     |                     |                     |                     |                     |
|                               | <b>CSR<br/>3-YR</b> | <b>CSR<br/>4-YR</b> | <b>CSR<br/>3-YR</b> | <b>CSR<br/>4-YR</b> | <b>CSR<br/>3-YR</b> | <b>CSR<br/>4-YR</b> | <b>CSR<br/>3-YR</b> | <b>CSR<br/>4-YR</b> |
| <b>2011-12</b>                | 1,450               | 1,460               | 5,603               | 5,570               | 14,070              | 13,993              | 4,746               | 4,672               |
| <b>2012-13</b>                | 1,453               | 1,468               | 5,395               | 5,340               | 14,592              | 14,437              | 4,856               | 4,719               |
| <b>2013-14</b>                | 1,449               | 1,470               | 5,284               | 5,224               | 15,179              | 14,962              | 4,949               | 4,749               |
| <b>2014-15</b>                | 1,459               | 1,488               | 5,244               | 5,179               | 15,748              | 15,494              | 4,984               | 4,734               |
| <b>2015-16</b>                | 1,467               | 1,502               | 5,191               | 5,118               | 16,382              | 16,078              | 5,018               | 4,728               |
| <b>5-Year Change</b>          | <b>+12</b>          | <b>+47</b>          | <b>-570</b>         | <b>-643</b>         | <b>+2,859</b>       | <b>+2,555</b>       | <b>+384</b>         | <b>+94</b>          |
| <b>2016-17</b>                | 1,484               | 1,523               | 5,193               | 5,116               | 16,960              | 16,606              | 5,029               | 4,703               |
| <b>2017-18</b>                | 1,499               | 1,548               | 5,189               | 5,108               | 17,544              | 17,137              | 5,011               | 4,651               |
| <b>2018-19</b>                | 1,507               | 1,558               | 5,213               | 5,124               | 18,080              | 17,628              | 4,978               | 4,586               |
| <b>2019-20</b>                | 1,544               | 1,603               | 5,235               | 5,142               | 18,503              | 18,019              | 4,963               | 4,537               |
| <b>2020-21</b>                | 1,572               | 1,640               | 5,283               | 5,187               | 18,946              | 18,439              | 4,937               | 4,479               |
| <b>5-Year Change</b>          | <b>+105</b>         | <b>+138</b>         | <b>+92</b>          | <b>+69</b>          | <b>+2,564</b>       | <b>+2,361</b>       | <b>-81</b>          | <b>-249</b>         |
| <b>10-Year Change</b>         | <b>+117</b>         | <b>+185</b>         | <b>-478</b>         | <b>-574</b>         | <b>+5,423</b>       | <b>+4,916</b>       | <b>+303</b>         | <b>-155</b>         |

**Source:** <sup>1</sup>New York State BEDS reports

Regarding future enrollment, it is projected that the Black student population will slowly decline through 2017-18 before reversing trend. Blacks are projected to decline by 478-574 students over the ten-year projection period, yet still remain the 2<sup>nd</sup> largest racial subgroup in the school district.

Hispanics are projected to steadily increase throughout the ten-year projection period. Enrollment is projected to be 18,439-18,946 in 2020-21, which would be a gain of 4,916-5,423 students over the ten-year period. Most of the overall gain in the school district can be attributed

to enrollment growth for this ethnic subgroup. As would be expected, Hispanics are projected to remain the largest ethnic group in the Yonkers Public Schools.

Asian enrollment is projected to be essentially constant for the first five years of the projection period before slowly increasing for the remaining five years of the projection period. Enrollment is projected to be 1,572-1,640 in 2020-21, which would be a gain of 117-185 students over the ten-year period. Asians are projected to remain the smallest ethnic group in the school district.

Regarding White enrollment, the trends projected are slightly different, depending upon the enrollment projection method. When using CSR based on 3 historical years, enrollment is projected to increase through 2016-17 before reversing trend and slowly declining for the remaining four years of the projection period. Enrollment in 2020-21 is projected to be 4,937, which would be a gain of 303 students over the ten-year projection period. However, when projecting using CSR based on 4 years of historical data, enrollment is projected to increase only through 2013-14 before reversing trend and declining throughout the remaining seven years of the projection period. Due to this difference, enrollment in 2020-21 is projected to be 4,479, a *decline* of 155 students over the ten-year projection period.

### **Projected Enrollment by Level**

In Table 14 and Figures 18 and 19 following, projected enrollments are broken down by elementary school level (PK-6), middle school level (7-8), elementary and middle school combined (PK-8), and high school level (9-12) for both enrollment projection calculations. The enrollment projections by race (including Native Americans and Multi-Racial students) were aggregated to derive these totals.

For the elementary school configuration serving grades PK-6, enrollment is projected to rise through 2020-21. The CSR method based on three and four years of historical data is projecting enrollment to be 17,251-17,595 students in 2020-21, which would represent a gain of 2,187-2,531 students from the 2010-11 enrollment of 15,064 students.

For the middle school configuration containing grades 7-8, enrollment is also projected to rise through 2020-21. The CSR method based on three and four years of historical data is projecting enrollment to be 4,441-4,608 students in 2020-21, which would represent a gain of 910-1,077 students from the 2010-11 enrollment of 3,531 students.

When analyzing combined elementary school and middle school enrollment (PK-8), enrollment is projected to increase through 2020-21. The CSR method based on three and four years of historical data is projecting enrollment to be 21,692-22,203 students in 2020-21, which would represent a gain of 3,097-3,608 students from the 2010-11 enrollment of 18,595 students.

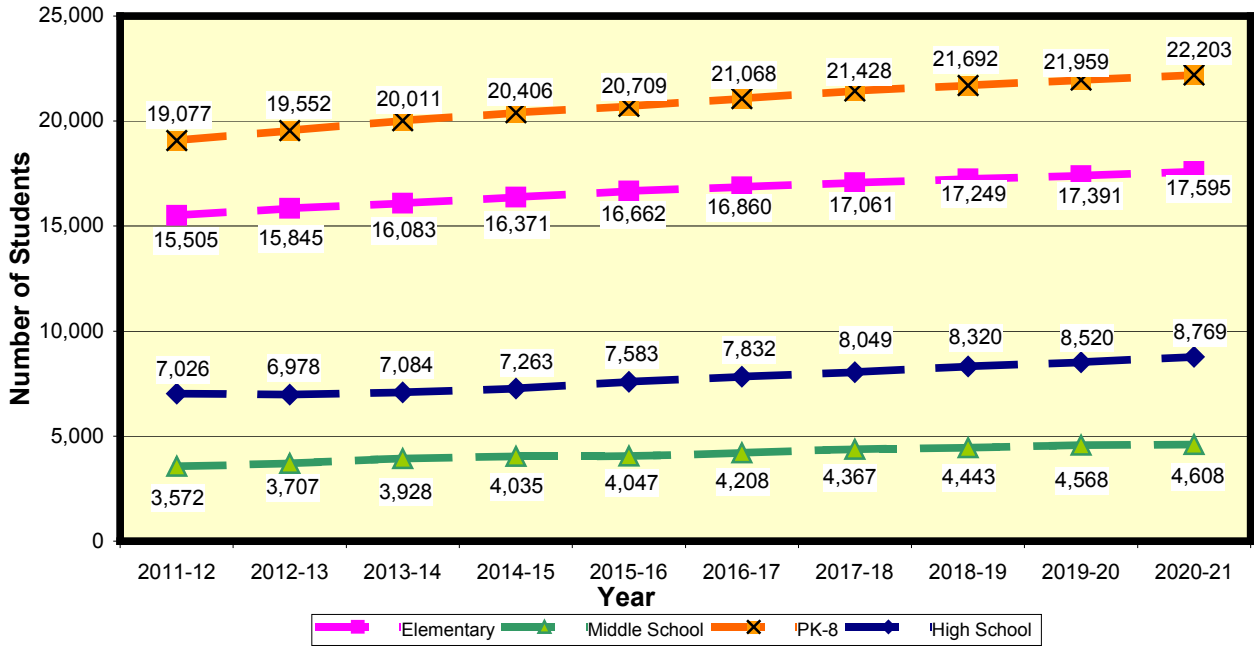
Regarding the high school configuration, which contains grades 9-12, enrollment is projected to decline slightly through 2012-13 before reversing trend and increasing for the remaining years of the projection period. The change in trend can be attributed to the larger

elementary and middle school cohorts advancing into the upper grades. The CSR method based on three and four years of historical data is projecting enrollment to be 8,287-8,769 students in 2020-21, which would represent a gain of 1,251-1,733 students from the 2010-11 enrollment of 7,036 students.

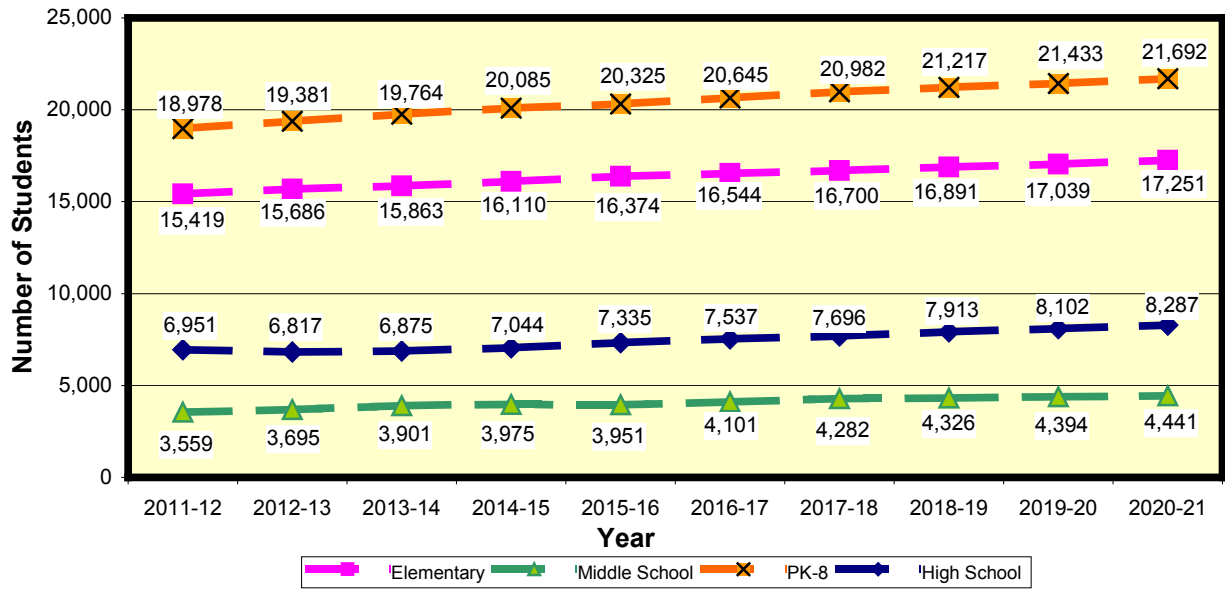
**Table 14**  
**Projected Enrollments for Grades PK-6, 7-8, PK-8,**  
**and 9-12 for Each Projection Method**

| <b>HISTORICAL</b>         | <b>PK-6</b>             |                         | <b>7-8</b>             |                        | <b>PK-8</b>             |                         | <b>9-12</b>             |                         |
|---------------------------|-------------------------|-------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>2010-11</b>            | <b>15,064</b>           |                         | <b>3,531</b>           |                        | <b>18,595</b>           |                         | <b>7,036</b>            |                         |
| <b>PROJECTED</b>          | <b>PK-6<br/>CSR-3YR</b> | <b>PK-6<br/>CSR-4YR</b> | <b>7-8<br/>CSR-3YR</b> | <b>7-8<br/>CSR-4YR</b> | <b>PK-8<br/>CSR-3YR</b> | <b>PK-8<br/>CSR-4YR</b> | <b>9-12<br/>CSR-3YR</b> | <b>9-12<br/>CSR-4YR</b> |
| <b>2011-12</b>            | 15,505                  | 15,419                  | 3,572                  | 3,559                  | 19,077                  | 18,978                  | 7,026                   | 6,951                   |
| <b>2012-13</b>            | 15,845                  | 15,686                  | 3,707                  | 3,695                  | 19,552                  | 19,381                  | 6,978                   | 6,817                   |
| <b>2013-14</b>            | 16,083                  | 15,863                  | 3,928                  | 3,901                  | 20,011                  | 19,764                  | 7,084                   | 6,875                   |
| <b>2014-15</b>            | 16,371                  | 16,110                  | 4,035                  | 3,975                  | 20,406                  | 20,085                  | 7,263                   | 7,044                   |
| <b>2015-16</b>            | 16,662                  | 16,374                  | 4,047                  | 3,951                  | 20,709                  | 20,325                  | 7,583                   | 7,335                   |
| <b>5-Year<br/>Change</b>  | <b>+1,598</b>           | <b>+1,310</b>           | <b>+516</b>            | <b>+420</b>            | <b>+2,114</b>           | <b>+1,730</b>           | <b>+547</b>             | <b>+299</b>             |
| <b>2016-17</b>            | 16,860                  | 16,544                  | 4,208                  | 4,101                  | 21,068                  | 20,645                  | 7,832                   | 7,537                   |
| <b>2017-18</b>            | 17,061                  | 16,700                  | 4,367                  | 4,282                  | 21,428                  | 20,982                  | 8,049                   | 7,696                   |
| <b>2018-19</b>            | 17,249                  | 16,891                  | 4,443                  | 4,326                  | 21,692                  | 21,217                  | 8,320                   | 7,913                   |
| <b>2019-20</b>            | 17,391                  | 17,039                  | 4,568                  | 4,394                  | 21,959                  | 21,433                  | 8,520                   | 8,102                   |
| <b>2020-21</b>            | 17,595                  | 17,251                  | 4,608                  | 4,441                  | 22,203                  | 21,692                  | 8,769                   | 8,287                   |
| <b>5-Year<br/>Change</b>  | <b>+933</b>             | <b>+877</b>             | <b>+561</b>            | <b>+490</b>            | <b>+1,494</b>           | <b>+1,367</b>           | <b>+1,186</b>           | <b>+952</b>             |
| <b>10-Year<br/>Change</b> | <b>+2,531</b>           | <b>+2,187</b>           | <b>+1,077</b>          | <b>+910</b>            | <b>+3,608</b>           | <b>+3,097</b>           | <b>+1,733</b>           | <b>+1,251</b>           |

**Figure 18**  
**Projected Enrollment by Level for CSR 3-Yr**  
**2011-12 to 2020-21**



**Figure 19**  
**Projected Enrollment by Level for CSR 4-Yr**  
**2011-12 to 2020-21**



## **APPENDIX**

**PROJECTED PK-12 ENROLLMENTS  
FOR 2011-12 TO 2020-21**

**Table A1**  
**District Total Enrollments**  
**Based on CSR 3 YR**

| Year           | PK RE | K    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | PK-6 SE | 7-8 SE | 9-12 SE | Multi-Racial | Nat. Amer. | PK-12 Total   |
|----------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------|--------|---------|--------------|------------|---------------|
| <b>2011-12</b> | 1656  | 1981 | 1943 | 1888 | 1772 | 1751 | 1799 | 1727 | 1652 | 1616 | 1829 | 1744 | 1451 | 1410 | 823     | 271    | 556     | 182          | 52         | <b>26,103</b> |
| <b>2012-13</b> | 1635  | 2023 | 1988 | 1915 | 1882 | 1773 | 1784 | 1836 | 1741 | 1652 | 1846 | 1748 | 1488 | 1313 | 844     | 281    | 547     | 182          | 52         | <b>26,530</b> |
| <b>2013-14</b> | 1653  | 1998 | 2034 | 1958 | 1908 | 1884 | 1808 | 1820 | 1853 | 1743 | 1886 | 1773 | 1488 | 1348 | 855     | 299    | 553     | 182          | 52         | <b>27,095</b> |
| <b>2014-15</b> | 1669  | 2021 | 2007 | 2009 | 1951 | 1911 | 1922 | 1846 | 1836 | 1858 | 1990 | 1811 | 1515 | 1347 | 870     | 308    | 564     | 182          | 52         | <b>27,669</b> |
| <b>2015-16</b> | 1688  | 2045 | 2029 | 1981 | 2004 | 1953 | 1949 | 1963 | 1864 | 1840 | 2122 | 1915 | 1548 | 1372 | 885     | 310    | 590     | 182          | 52         | <b>28,292</b> |
| <b>2016-17</b> | 1706  | 2069 | 2054 | 2004 | 1974 | 2010 | 1991 | 1991 | 1983 | 1869 | 2102 | 2043 | 1640 | 1403 | 896     | 323    | 608     | 182          | 52         | <b>28,900</b> |
| <b>2017-18</b> | 1724  | 2093 | 2079 | 2028 | 1997 | 1980 | 2054 | 2033 | 2010 | 1992 | 2134 | 2023 | 1745 | 1486 | 908     | 332    | 625     | 182          | 52         | <b>29,477</b> |
| <b>2018-19</b> | 1742  | 2117 | 2103 | 2055 | 2022 | 2002 | 2022 | 2100 | 2054 | 2020 | 2275 | 2056 | 1730 | 1576 | 921     | 336    | 647     | 182          | 52         | <b>30,012</b> |
| <b>2019-20</b> | 1760  | 2142 | 2127 | 2079 | 2049 | 2028 | 2045 | 2066 | 2123 | 2065 | 2306 | 2197 | 1757 | 1564 | 930     | 347    | 660     | 182          | 52         | <b>30,479</b> |
| <b>2020-21</b> | 1780  | 2166 | 2152 | 2102 | 2073 | 2055 | 2071 | 2090 | 2088 | 2136 | 2359 | 2233 | 1880 | 1585 | 941     | 351    | 676     | 182          | 52         | <b>30,972</b> |

**Table A2**  
**District Total Enrollments**  
**Based on CSR 4 YR**

| Year           | PK RE | K    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | PK-6 SE | 7-8 SE | 9-12 SE | Multi-Racial | Nat. Amer. | PK-12 Total   |
|----------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------|--------|---------|--------------|------------|---------------|
| <b>2011-12</b> | 1642  | 1924 | 1963 | 1893 | 1761 | 1732 | 1790 | 1723 | 1660 | 1601 | 1839 | 1694 | 1418 | 1414 | 826     | 265    | 550     | 182          | 52         | <b>25,929</b> |
| <b>2012-13</b> | 1621  | 1968 | 1954 | 1941 | 1874 | 1742 | 1756 | 1822 | 1744 | 1645 | 1836 | 1708 | 1414 | 1288 | 843     | 273    | 535     | 182          | 52         | <b>26,198</b> |
| <b>2013-14</b> | 1638  | 1944 | 2003 | 1932 | 1922 | 1856 | 1767 | 1785 | 1848 | 1731 | 1886 | 1711 | 1420 | 1286 | 851     | 289    | 536     | 182          | 52         | <b>26,639</b> |
| <b>2014-15</b> | 1655  | 1969 | 1977 | 1984 | 1912 | 1901 | 1884 | 1799 | 1809 | 1836 | 1984 | 1758 | 1429 | 1290 | 864     | 297    | 547     | 182          | 52         | <b>27,129</b> |
| <b>2015-16</b> | 1673  | 1992 | 2002 | 1957 | 1966 | 1893 | 1929 | 1919 | 1826 | 1797 | 2107 | 1855 | 1468 | 1299 | 878     | 295    | 570     | 182          | 52         | <b>27,660</b> |
| <b>2016-17</b> | 1691  | 2017 | 2026 | 1983 | 1939 | 1949 | 1922 | 1965 | 1947 | 1815 | 2061 | 1967 | 1554 | 1334 | 887     | 306    | 585     | 182          | 52         | <b>28,182</b> |
| <b>2017-18</b> | 1708  | 2041 | 2052 | 2007 | 1965 | 1923 | 1983 | 1958 | 1994 | 1938 | 2082 | 1925 | 1642 | 1414 | 898     | 317    | 597     | 182          | 52         | <b>28,678</b> |
| <b>2018-19</b> | 1727  | 2065 | 2077 | 2033 | 1988 | 1948 | 1956 | 2023 | 1987 | 1986 | 2222 | 1946 | 1608 | 1487 | 909     | 320    | 614     | 182          | 52         | <b>29,130</b> |
| <b>2019-20</b> | 1745  | 2089 | 2101 | 2058 | 2014 | 1971 | 1982 | 1996 | 2056 | 1978 | 2275 | 2081 | 1625 | 1458 | 918     | 327    | 627     | 182          | 52         | <b>29,535</b> |
| <b>2020-21</b> | 1764  | 2114 | 2127 | 2084 | 2040 | 1998 | 2006 | 2022 | 2028 | 2049 | 2267 | 2135 | 1741 | 1470 | 931     | 331    | 638     | 182          | 52         | <b>29,979</b> |

**Table A3**  
**Asian Enrollments**  
**Based on CSR 3 YR**

| Year           | PK RE | K   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | PK-6 SE | 7-8 SE | 9-12 SE | PK-12 Total  |
|----------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|--------|---------|--------------|
| <b>2011-12</b> | 108   | 108 | 103 | 97  | 81  | 95  | 85  | 113 | 96  | 94  | 116 | 110 | 111 | 104 | 16      | 3      | 10      | <b>1,450</b> |
| <b>2012-13</b> | 116   | 121 | 97  | 99  | 91  | 80  | 93  | 87  | 111 | 95  | 106 | 115 | 102 | 110 | 16      | 4      | 10      | <b>1,453</b> |
| <b>2013-14</b> | 119   | 130 | 109 | 93  | 92  | 89  | 78  | 95  | 85  | 109 | 107 | 105 | 107 | 101 | 16      | 4      | 10      | <b>1,449</b> |
| <b>2014-15</b> | 121   | 133 | 117 | 105 | 87  | 90  | 87  | 80  | 93  | 84  | 123 | 106 | 98  | 106 | 16      | 3      | 10      | <b>1,459</b> |
| <b>2015-16</b> | 124   | 136 | 120 | 113 | 98  | 86  | 88  | 89  | 79  | 92  | 95  | 121 | 99  | 97  | 17      | 3      | 10      | <b>1,467</b> |
| <b>2016-17</b> | 127   | 139 | 123 | 116 | 105 | 96  | 84  | 90  | 87  | 78  | 104 | 94  | 112 | 98  | 18      | 3      | 10      | <b>1,484</b> |
| <b>2017-18</b> | 130   | 142 | 125 | 118 | 108 | 103 | 94  | 86  | 88  | 86  | 88  | 103 | 87  | 111 | 18      | 3      | 9       | <b>1,499</b> |
| <b>2018-19</b> | 132   | 145 | 128 | 120 | 110 | 106 | 101 | 96  | 85  | 87  | 97  | 87  | 96  | 86  | 19      | 3      | 9       | <b>1,507</b> |
| <b>2019-20</b> | 135   | 148 | 131 | 123 | 112 | 108 | 104 | 103 | 94  | 84  | 98  | 96  | 81  | 95  | 20      | 3      | 9       | <b>1,544</b> |
| <b>2020-21</b> | 138   | 151 | 134 | 126 | 115 | 110 | 105 | 106 | 101 | 93  | 95  | 97  | 89  | 80  | 20      | 4      | 8       | <b>1,572</b> |

**Table A4**  
**Asian Enrollments**  
**Based on CSR 4 YR**

| Year           | PK RE | K   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | PK-6 SE | 7-8 SE | 9-12 SE | PK-12 Total  |
|----------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|--------|---------|--------------|
| <b>2011-12</b> | 107   | 108 | 109 | 96  | 82  | 94  | 85  | 114 | 96  | 94  | 116 | 109 | 112 | 107 | 16      | 4      | 11      | <b>1,460</b> |
| <b>2012-13</b> | 115   | 120 | 104 | 104 | 90  | 80  | 92  | 88  | 112 | 95  | 106 | 114 | 103 | 114 | 16      | 4      | 11      | <b>1,468</b> |
| <b>2013-14</b> | 117   | 129 | 115 | 99  | 98  | 88  | 78  | 95  | 86  | 111 | 107 | 104 | 107 | 105 | 16      | 4      | 11      | <b>1,470</b> |
| <b>2014-15</b> | 120   | 133 | 124 | 110 | 93  | 95  | 86  | 81  | 93  | 85  | 125 | 105 | 98  | 109 | 17      | 3      | 11      | <b>1,488</b> |
| <b>2015-16</b> | 123   | 136 | 127 | 118 | 103 | 91  | 93  | 89  | 80  | 92  | 96  | 123 | 99  | 100 | 18      | 3      | 11      | <b>1,502</b> |
| <b>2016-17</b> | 125   | 139 | 130 | 121 | 111 | 100 | 89  | 96  | 87  | 79  | 104 | 94  | 116 | 101 | 18      | 3      | 10      | <b>1,523</b> |
| <b>2017-18</b> | 128   | 142 | 133 | 124 | 114 | 108 | 98  | 92  | 94  | 86  | 89  | 102 | 88  | 118 | 19      | 3      | 10      | <b>1,548</b> |
| <b>2018-19</b> | 131   | 145 | 136 | 127 | 117 | 111 | 106 | 101 | 90  | 93  | 97  | 87  | 96  | 89  | 20      | 3      | 9       | <b>1,558</b> |
| <b>2019-20</b> | 133   | 148 | 139 | 130 | 119 | 114 | 109 | 110 | 99  | 89  | 105 | 95  | 82  | 98  | 20      | 3      | 10      | <b>1,603</b> |
| <b>2020-21</b> | 136   | 151 | 142 | 133 | 122 | 116 | 112 | 113 | 108 | 98  | 100 | 103 | 89  | 83  | 21      | 4      | 9       | <b>1,640</b> |

**Table A5**  
**Black Enrollments**  
**Based on CSR 3 YR**

| Year           | PK RE | K   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | PK-6 SE | 7-8 SE | 9-12 SE | PK-12 Total  |
|----------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|--------|---------|--------------|
| <b>2011-12</b> | 264   | 357 | 326 | 356 | 371 | 369 | 380 | 362 | 386 | 354 | 476 | 377 | 348 | 376 | 227     | 84     | 190     | <b>5,603</b> |
| <b>2012-13</b> | 277   | 357 | 342 | 319 | 349 | 360 | 376 | 380 | 361 | 372 | 405 | 414 | 294 | 309 | 224     | 84     | 172     | <b>5,395</b> |
| <b>2013-14</b> | 284   | 374 | 342 | 335 | 313 | 338 | 367 | 376 | 379 | 348 | 425 | 352 | 323 | 261 | 220     | 83     | 164     | <b>5,284</b> |
| <b>2014-15</b> | 290   | 383 | 359 | 335 | 329 | 304 | 344 | 367 | 375 | 365 | 398 | 370 | 275 | 287 | 218     | 84     | 161     | <b>5,244</b> |
| <b>2015-16</b> | 298   | 392 | 367 | 351 | 329 | 319 | 310 | 344 | 366 | 361 | 417 | 346 | 289 | 245 | 217     | 83     | 157     | <b>5,191</b> |
| <b>2016-17</b> | 305   | 402 | 376 | 359 | 344 | 319 | 325 | 310 | 343 | 352 | 413 | 363 | 270 | 257 | 219     | 79     | 157     | <b>5,193</b> |
| <b>2017-18</b> | 312   | 411 | 386 | 368 | 352 | 334 | 325 | 325 | 309 | 330 | 402 | 359 | 283 | 240 | 225     | 73     | 155     | <b>5,189</b> |
| <b>2018-19</b> | 319   | 421 | 394 | 378 | 361 | 341 | 340 | 325 | 324 | 297 | 377 | 350 | 280 | 252 | 231     | 71     | 152     | <b>5,213</b> |
| <b>2019-20</b> | 327   | 431 | 404 | 386 | 371 | 350 | 347 | 340 | 324 | 312 | 339 | 328 | 273 | 249 | 237     | 73     | 144     | <b>5,235</b> |
| <b>2020-21</b> | 335   | 441 | 413 | 395 | 379 | 360 | 356 | 347 | 339 | 312 | 357 | 295 | 256 | 243 | 242     | 74     | 139     | <b>5,283</b> |

**Table A6**  
**Black Enrollments**  
**Based on CSR 4 YR**

| Year           | PK RE | K   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | PK-6 SE | 7-8 SE | 9-12 SE | PK-12 Total  |
|----------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|--------|---------|--------------|
| <b>2011-12</b> | 259   | 348 | 340 | 353 | 365 | 370 | 376 | 363 | 387 | 351 | 487 | 369 | 332 | 375 | 225     | 81     | 189     | <b>5,570</b> |
| <b>2012-13</b> | 271   | 347 | 348 | 330 | 341 | 355 | 373 | 377 | 363 | 369 | 411 | 415 | 275 | 295 | 221     | 80     | 169     | <b>5,340</b> |
| <b>2013-14</b> | 278   | 364 | 347 | 337 | 319 | 332 | 357 | 374 | 377 | 346 | 432 | 350 | 309 | 244 | 218     | 79     | 161     | <b>5,224</b> |
| <b>2014-15</b> | 284   | 373 | 364 | 336 | 325 | 310 | 334 | 358 | 374 | 360 | 405 | 368 | 261 | 274 | 215     | 80     | 158     | <b>5,179</b> |
| <b>2015-16</b> | 291   | 381 | 372 | 353 | 324 | 316 | 312 | 335 | 358 | 357 | 422 | 345 | 274 | 232 | 214     | 78     | 154     | <b>5,118</b> |
| <b>2016-17</b> | 298   | 391 | 380 | 361 | 341 | 315 | 318 | 313 | 335 | 342 | 418 | 359 | 257 | 243 | 217     | 74     | 154     | <b>5,116</b> |
| <b>2017-18</b> | 305   | 400 | 390 | 368 | 349 | 332 | 317 | 319 | 313 | 320 | 401 | 356 | 268 | 228 | 222     | 69     | 151     | <b>5,108</b> |
| <b>2018-19</b> | 312   | 409 | 399 | 378 | 355 | 339 | 334 | 318 | 319 | 299 | 375 | 342 | 265 | 238 | 227     | 68     | 147     | <b>5,124</b> |
| <b>2019-20</b> | 320   | 419 | 408 | 387 | 365 | 345 | 341 | 335 | 318 | 304 | 350 | 319 | 255 | 235 | 233     | 68     | 140     | <b>5,142</b> |
| <b>2020-21</b> | 327   | 429 | 418 | 396 | 374 | 355 | 347 | 342 | 335 | 303 | 356 | 298 | 238 | 226 | 238     | 70     | 135     | <b>5,187</b> |

**Table A7**  
**Hispanic Enrollments**  
**Based on CSR 3 YR**

| Year           | PK RE | K    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12  | PK-6 SE | 7-8 SE | 9-12 SE | PK-12 Total |
|----------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|-----|---------|--------|---------|-------------|
| <b>2011-12</b> | 894   | 1052 | 1089 | 1075 | 987  | 962  | 1030 | 936  | 871  | 896  | 943  | 952  | 764  | 724 | 456     | 155    | 284     | 14,070      |
| <b>2012-13</b> | 864   | 1131 | 1100 | 1102 | 1091 | 1016 | 1004 | 1070 | 957  | 888  | 1023 | 924  | 815  | 677 | 480     | 162    | 288     | 14,592      |
| <b>2013-14</b> | 877   | 1092 | 1182 | 1113 | 1118 | 1123 | 1060 | 1043 | 1094 | 976  | 1014 | 1003 | 791  | 722 | 494     | 181    | 296     | 15,179      |
| <b>2014-15</b> | 891   | 1109 | 1142 | 1196 | 1129 | 1151 | 1172 | 1101 | 1066 | 1116 | 1114 | 994  | 858  | 700 | 511     | 191    | 307     | 15,748      |
| <b>2015-16</b> | 904   | 1126 | 1159 | 1156 | 1214 | 1162 | 1201 | 1217 | 1125 | 1087 | 1274 | 1092 | 851  | 760 | 526     | 194    | 334     | 16,382      |
| <b>2016-17</b> | 918   | 1143 | 1177 | 1173 | 1173 | 1250 | 1213 | 1247 | 1244 | 1147 | 1241 | 1249 | 935  | 754 | 535     | 210    | 351     | 16,960      |
| <b>2017-18</b> | 931   | 1161 | 1195 | 1191 | 1190 | 1208 | 1305 | 1260 | 1274 | 1269 | 1309 | 1216 | 1069 | 828 | 544     | 223    | 371     | 17,544      |
| <b>2018-19</b> | 945   | 1178 | 1214 | 1210 | 1209 | 1225 | 1261 | 1355 | 1288 | 1299 | 1449 | 1283 | 1041 | 947 | 553     | 227    | 396     | 18,080      |
| <b>2019-20</b> | 958   | 1195 | 1231 | 1229 | 1228 | 1245 | 1279 | 1309 | 1385 | 1314 | 1483 | 1420 | 1098 | 922 | 557     | 237    | 413     | 18,503      |
| <b>2020-21</b> | 972   | 1212 | 1249 | 1246 | 1247 | 1264 | 1299 | 1328 | 1338 | 1413 | 1500 | 1454 | 1215 | 972 | 565     | 241    | 431     | 18,946      |

**Table A8**  
**Hispanic Enrollments**  
**Based on CSR 4 YR**

| Year           | PK RE | K    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12  | PK-6 SE | 7-8 SE | 9-12 SE | PK-12 Total   |
|----------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|-----|---------|--------|---------|---------------|
| <b>2011-12</b> | 892   | 1047 | 1093 | 1079 | 983  | 944  | 1025 | 932  | 877  | 887  | 949  | 919  | 746  | 728 | 461     | 151    | 280     | <b>13,993</b> |
| <b>2012-13</b> | 862   | 1125 | 1098 | 1111 | 1090 | 994  | 981  | 1060 | 959  | 886  | 1019 | 898  | 767  | 664 | 484     | 158    | 281     | <b>14,437</b> |
| <b>2013-14</b> | 875   | 1087 | 1180 | 1116 | 1122 | 1102 | 1033 | 1014 | 1091 | 969  | 1018 | 964  | 750  | 683 | 496     | 176    | 286     | <b>14,962</b> |
| <b>2014-15</b> | 889   | 1104 | 1140 | 1199 | 1127 | 1134 | 1145 | 1068 | 1043 | 1102 | 1113 | 963  | 805  | 668 | 513     | 184    | 297     | <b>15,494</b> |
| <b>2015-16</b> | 902   | 1121 | 1158 | 1158 | 1211 | 1139 | 1178 | 1184 | 1099 | 1054 | 1266 | 1053 | 804  | 717 | 528     | 184    | 322     | <b>16,078</b> |
| <b>2016-17</b> | 916   | 1138 | 1176 | 1177 | 1170 | 1224 | 1183 | 1218 | 1218 | 1110 | 1211 | 1198 | 879  | 716 | 537     | 199    | 336     | <b>16,606</b> |
| <b>2017-18</b> | 929   | 1155 | 1194 | 1195 | 1189 | 1183 | 1272 | 1223 | 1253 | 1230 | 1275 | 1146 | 1000 | 783 | 545     | 213    | 352     | <b>17,137</b> |
| <b>2018-19</b> | 943   | 1172 | 1212 | 1213 | 1207 | 1202 | 1229 | 1315 | 1258 | 1266 | 1413 | 1207 | 957  | 890 | 554     | 216    | 374     | <b>17,628</b> |
| <b>2019-20</b> | 956   | 1189 | 1229 | 1231 | 1225 | 1220 | 1249 | 1271 | 1353 | 1271 | 1454 | 1337 | 1008 | 852 | 559     | 225    | 390     | <b>18,019</b> |
| <b>2020-21</b> | 970   | 1206 | 1247 | 1249 | 1244 | 1238 | 1268 | 1291 | 1308 | 1367 | 1460 | 1376 | 1116 | 897 | 567     | 229    | 406     | <b>18,439</b> |

**Table A9**  
**White Enrollments**  
**Based on CSR 3 YR**

| Year           | PK RE | K   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | PK-6 SE | 7-8 SE | 9-12 SE | PK-12 Total  |
|----------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|--------|---------|--------------|
| <b>2011-12</b> | 390   | 464 | 425 | 360 | 333 | 325 | 304 | 316 | 299 | 272 | 294 | 305 | 228 | 206 | 124     | 29     | 72      | <b>4,746</b> |
| <b>2012-13</b> | 378   | 414 | 449 | 395 | 351 | 317 | 311 | 299 | 312 | 297 | 312 | 295 | 277 | 217 | 124     | 31     | 77      | <b>4,856</b> |
| <b>2013-14</b> | 373   | 402 | 401 | 417 | 385 | 334 | 303 | 306 | 295 | 310 | 340 | 313 | 267 | 264 | 125     | 31     | 83      | <b>4,949</b> |
| <b>2014-15</b> | 367   | 396 | 389 | 373 | 406 | 366 | 319 | 298 | 302 | 293 | 355 | 341 | 284 | 254 | 125     | 30     | 86      | <b>4,984</b> |
| <b>2015-16</b> | 362   | 391 | 383 | 361 | 363 | 386 | 350 | 313 | 294 | 300 | 336 | 356 | 309 | 270 | 125     | 30     | 89      | <b>5,018</b> |
| <b>2016-17</b> | 356   | 385 | 378 | 356 | 352 | 345 | 369 | 344 | 309 | 292 | 344 | 337 | 323 | 294 | 124     | 31     | 90      | <b>5,029</b> |
| <b>2017-18</b> | 351   | 379 | 373 | 351 | 347 | 335 | 330 | 362 | 339 | 307 | 335 | 345 | 306 | 307 | 121     | 33     | 90      | <b>5,011</b> |
| <b>2018-19</b> | 346   | 373 | 367 | 347 | 342 | 330 | 320 | 324 | 357 | 337 | 352 | 336 | 313 | 291 | 118     | 35     | 90      | <b>4,978</b> |
| <b>2019-20</b> | 340   | 368 | 361 | 341 | 338 | 325 | 315 | 314 | 320 | 355 | 386 | 353 | 305 | 298 | 116     | 34     | 94      | <b>4,963</b> |
| <b>2020-21</b> | 335   | 362 | 356 | 335 | 332 | 321 | 311 | 309 | 310 | 318 | 407 | 387 | 320 | 290 | 114     | 32     | 98      | <b>4,937</b> |

**Table A10**  
**White Enrollments**  
**Based on CSR 4 YR**

| Year           | PK RE | K   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | PK-6 SE | 7-8 SE | 9-12 SE | PK-12 Total  |
|----------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|--------|---------|--------------|
| <b>2011-12</b> | 384   | 421 | 421 | 365 | 331 | 324 | 304 | 314 | 300 | 269 | 287 | 297 | 228 | 204 | 124     | 29     | 70      | <b>4,672</b> |
| <b>2012-13</b> | 373   | 376 | 404 | 396 | 353 | 313 | 310 | 297 | 310 | 295 | 300 | 281 | 269 | 215 | 122     | 31     | 74      | <b>4,719</b> |
| <b>2013-14</b> | 368   | 364 | 361 | 380 | 383 | 334 | 299 | 302 | 294 | 305 | 329 | 293 | 254 | 254 | 121     | 30     | 78      | <b>4,749</b> |
| <b>2014-15</b> | 362   | 359 | 349 | 339 | 367 | 362 | 319 | 292 | 299 | 289 | 341 | 322 | 265 | 239 | 119     | 30     | 81      | <b>4,734</b> |
| <b>2015-16</b> | 357   | 354 | 345 | 328 | 328 | 347 | 346 | 311 | 289 | 294 | 323 | 334 | 291 | 250 | 118     | 30     | 83      | <b>4,728</b> |
| <b>2016-17</b> | 352   | 349 | 340 | 324 | 317 | 310 | 332 | 338 | 307 | 284 | 328 | 316 | 302 | 274 | 115     | 30     | 85      | <b>4,703</b> |
| <b>2017-18</b> | 346   | 344 | 335 | 320 | 313 | 300 | 296 | 324 | 334 | 302 | 317 | 321 | 286 | 285 | 112     | 32     | 84      | <b>4,651</b> |
| <b>2018-19</b> | 341   | 339 | 330 | 315 | 309 | 296 | 287 | 289 | 320 | 328 | 337 | 310 | 290 | 270 | 108     | 33     | 84      | <b>4,586</b> |
| <b>2019-20</b> | 336   | 333 | 325 | 310 | 305 | 292 | 283 | 280 | 286 | 314 | 366 | 330 | 280 | 273 | 106     | 31     | 87      | <b>4,537</b> |
| <b>2020-21</b> | 331   | 328 | 320 | 306 | 300 | 289 | 279 | 276 | 277 | 281 | 351 | 358 | 298 | 264 | 105     | 28     | 88      | <b>4,479</b> |

## Methodology

### *Introduction*

Statistical Forecasting LLC was retained by the Yonkers Public Schools to perform enrollment projections for the ten-year period beginning with the 2011-12 school year and ending in 2020-21. Enrollment projections were performed using grade-by-grade total enrollments for the four major ethnicities in the Yonkers Public Schools: Non-Hispanic Asian (subsequently referred to as Asian), Non-Hispanic Black (subsequently referred to as Black), Hispanic, and Non-Hispanic White (subsequently referred to as White). Although there were additional racial classifications such as Native Americans and Multi-Racial, they were not considered as they are a very small segment of the student population. Native Americans have typically ranged between 40-50 students per year. As 2010-11 was the first year in classifying students as Multi-Racial, there were no historical counts to use in analyzing past trends. A total of 182 students were identified as Multi-Racial in 2010-11.

### *Historical Enrollment*

To perform the projections, historical enrollment data by race (Asian, Black, Hispanic, and White) were provided by the Yonkers Public Schools from 2005-06 through 2010-11 using the New York State BEDS reports. Self-contained special education enrollment by ethnicity was also provided by the Yonkers Public School from 2005-06 through 2010-11. In 2007, New York State changed the definition of ungraded special education students to alternate assessment students, which had an effect of significantly lowering the number of self-contained special education students in the BEDS counts. For the purpose of this study, the historical self-contained special education students were classified according to the old New York State metric in 2006. Self-contained special education counts were collected by ethnicity and were grouped by elementary school (PK-6), middle school (7-8), and high school (9-12).

### *Birth Data*

Birth data were needed to calculate survival ratios for each birth-to-pre-kindergarten or birth-to-kindergarten cohort. The New York State Department of Health, Bureau of Biometrics and Health Statistics (NYSDH) provided historical birth data from 2000 through 2008. Birth data for 2009 were not yet available. Race was determined by the mother's ethnicity and was categorized as Hispanic, Non-Hispanic Asian, Non-Hispanic White, Non-Hispanic Black, and Other Non-Hispanic/Unknown.

Future birth rates for the years 2009-2016 were needed to project pre-kindergarten and kindergarten cohorts through the 2020-21 school year. To accomplish this task, the numerical and percentage changes in birth rates for each ethnic group were computed for the last six years. Average numerical and percentage changes were then computed and, depending upon the magnitude of historical growth/loss and consistency of historical trends, the average numerical or percentage change was used to compute future birth rates for each ethnic group. Since the Other Non-Hispanic/Unknown group was so small, ranging from 41-54 births per year, the future

number of births in this category was computed by averaging the number of births from 2004 to 2008.

### *Enrollment Projection Method*

The Cohort-Survival Ratio method (CSR) was used to project enrollments for grades PK-12. The CSR method is one of the most commonly employed techniques to project school enrollments. In this method, a survival ratio is computed for each grade progression, which essentially compares the number of students in a particular grade to the number of students in the previous grade during the previous year. The survival ratio indicates whether the enrollment is stable, increasing, or decreasing. A survival ratio of 1.00 indicates stable enrollment, less than 1.00 indicates declining enrollment, while greater than 1.00 indicates increasing enrollment. If, for example, a school district had 100 6<sup>th</sup> graders and the next year had 93 7<sup>th</sup> graders, the survival ratio would be 0.93.

Survival ratios were calculated using historical data from the past six years for birth to pre-kindergarten, 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 enrollments ten years into the future. In this study, survival ratios from the last three and four historical years were used.

Although the CSR method is fairly simple to use, this technique assumes that what happened in the past will also happen in the future. In essence, this method provides a linear projection of the population. The CSR method is most applicable for districts that have relatively stable increasing or decreasing trends without any major unpredictable fluctuations from year to year. In school districts encountering rapid growth not experienced historically (a change in the historical trend), the CSR method must be modified and supplemented with additional information. If future trends in Yonkers are different than that which occurred historically, the accuracy of the enrollment projection methods will be limited.

### *Enrollment Projections*

PK-12 projections were performed for each of the four major races and aggregated with the constant counts for the Multi-Racial and Native American subgroups to derive an enrollment total (Tables A1 and A2 in the Appendix) for the district.

Since there are no survival rates for self-contained special education students as compared to regular education students, a different methodology is employed. Special education enrollments at each level (K-6, 7-8, and 9-12) were projected by calculating the average proportion (based on a certain number of years of historical data) of self-contained special education students with respect to the historical general education subtotals and multiplying these proportions by the future regular education counts in each of these subgroups. This method has been found to be highly accurate, provided that a district does not change its policy on educating special education students. This technique also works well in districts where self-

contained special enrollment is fairly stable, or whose trend is similar to the overall student population.