

DEMOGRAPHIC STUDY FOR THE WEST WINDSOR-PLAINSBORO REGIONAL SCHOOL DISTRICT

March 20, 2018



STATISTICAL FORECASTING

- Provide demographic services for school districts in the New York-New Jersey metropolitan area since 1998. (WW-P study in January 2013)
- Performed demographic studies for approximately 100 school districts in NY & NJ.
- Demographic consultant for the NYC Public Schools since 2006.

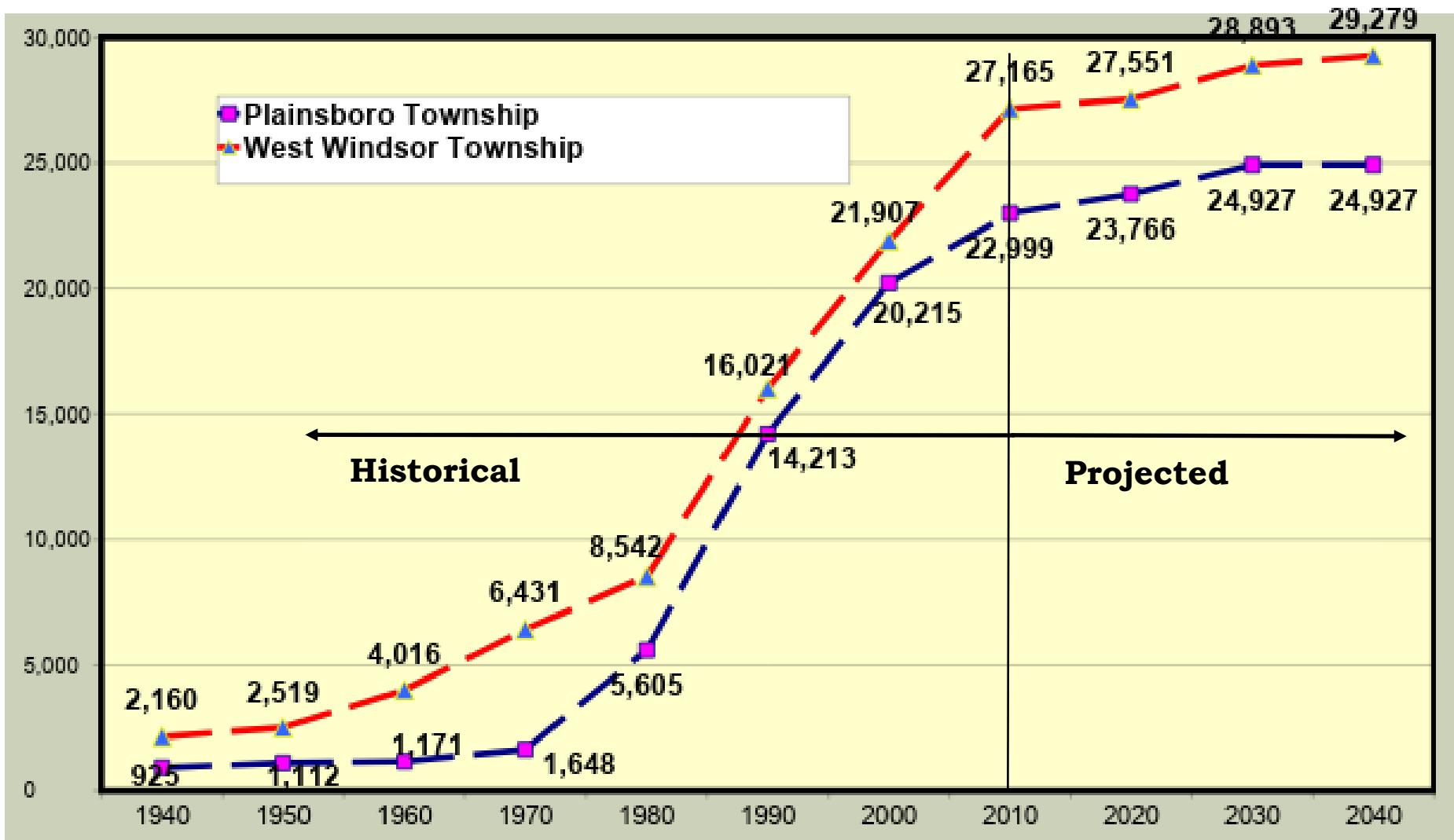
RICHARD S. GRIP ED.D.

- Executive Director
- Doctorate from Rutgers University Graduate School of Education in Educational Statistics and Measurement
- Numerous publications on school demography and presentations nationally
- Testified as an expert witness in school demography in several Administrative Law court hearings.

PURPOSE OF THE STUDY

- ❑ Project grade-by-grade enrollments from 2018-19 through 2022-23, a 5-year period.
- ❑ Analyze district's historical enrollments
- ❑ Analyze birth and fertility rates, population trends, and age structure in each community
- ❑ Impact of new developments on enrollment
- ❑ Compute student yields (children per housing unit) by property type
- ❑ Project enrollments based on students yields and housing turnover rates (completely independent analysis)

HISTORICAL AND PROJECTED POPULATIONS 1940-2040



WEST WINDSOR DEMOGRAPHIC PROFILE

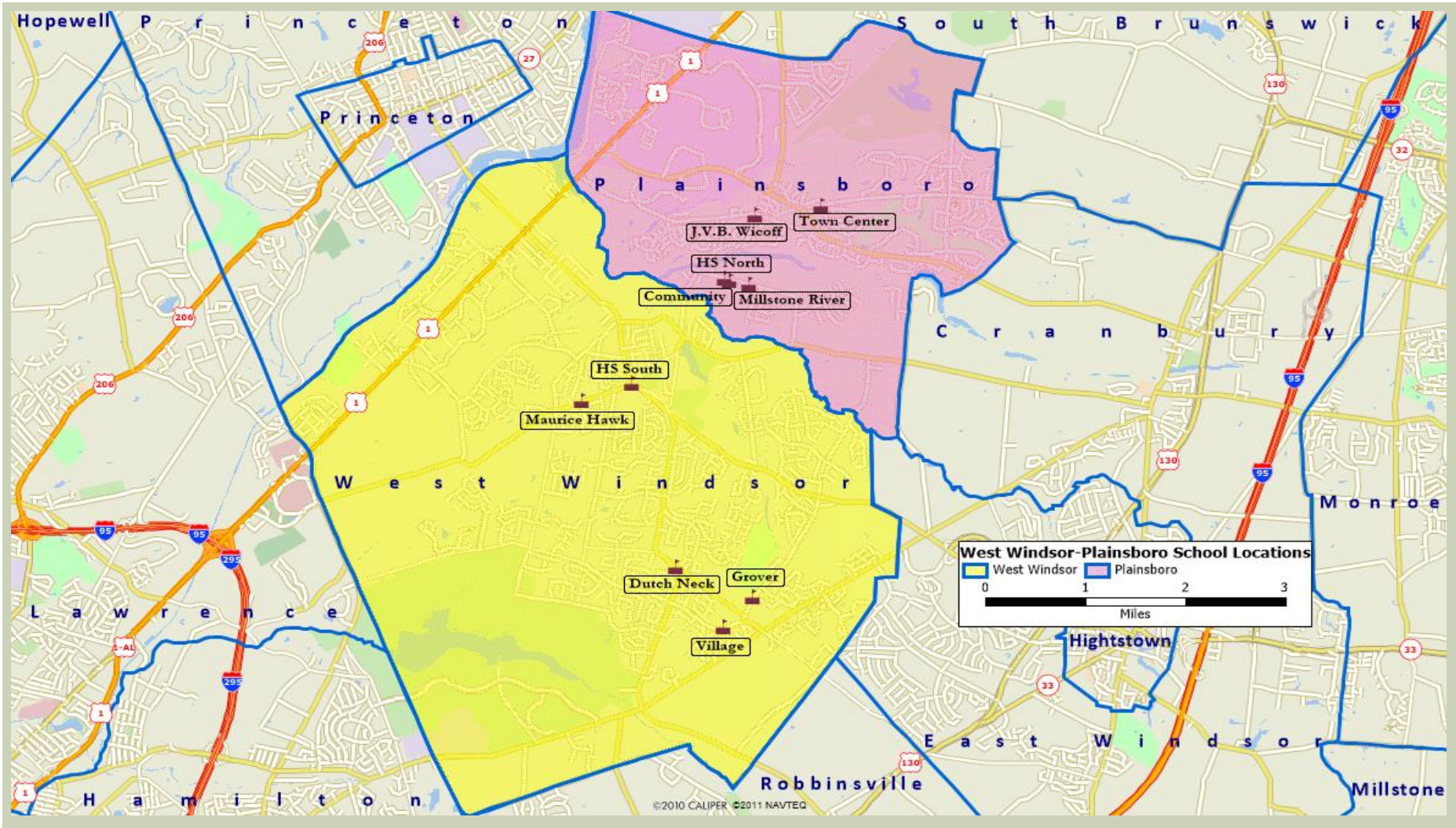
- ❑ 55% White in 2010 (72% in 2000), Asians- 2nd largest (38%)
- ❑ Median age = 39.6 years (NJ=39.4)
- ❑ 40% of population is foreign-born (NJ=22%). India is largest source (43%).
- ❑ Bachelor's Degree or Higher = 82% (NJ = 37%)
- ❑ Median family income = \$189K (NJ =\$91K)
- ❑ Approximately 10,000 housing units, of which 74% are 1-unit homes (attached or detached)
- ❑ 25% of housing units are renter-occupied.
- ❑ Median value of owner-occupied unit = \$589K

PLAINSBORO

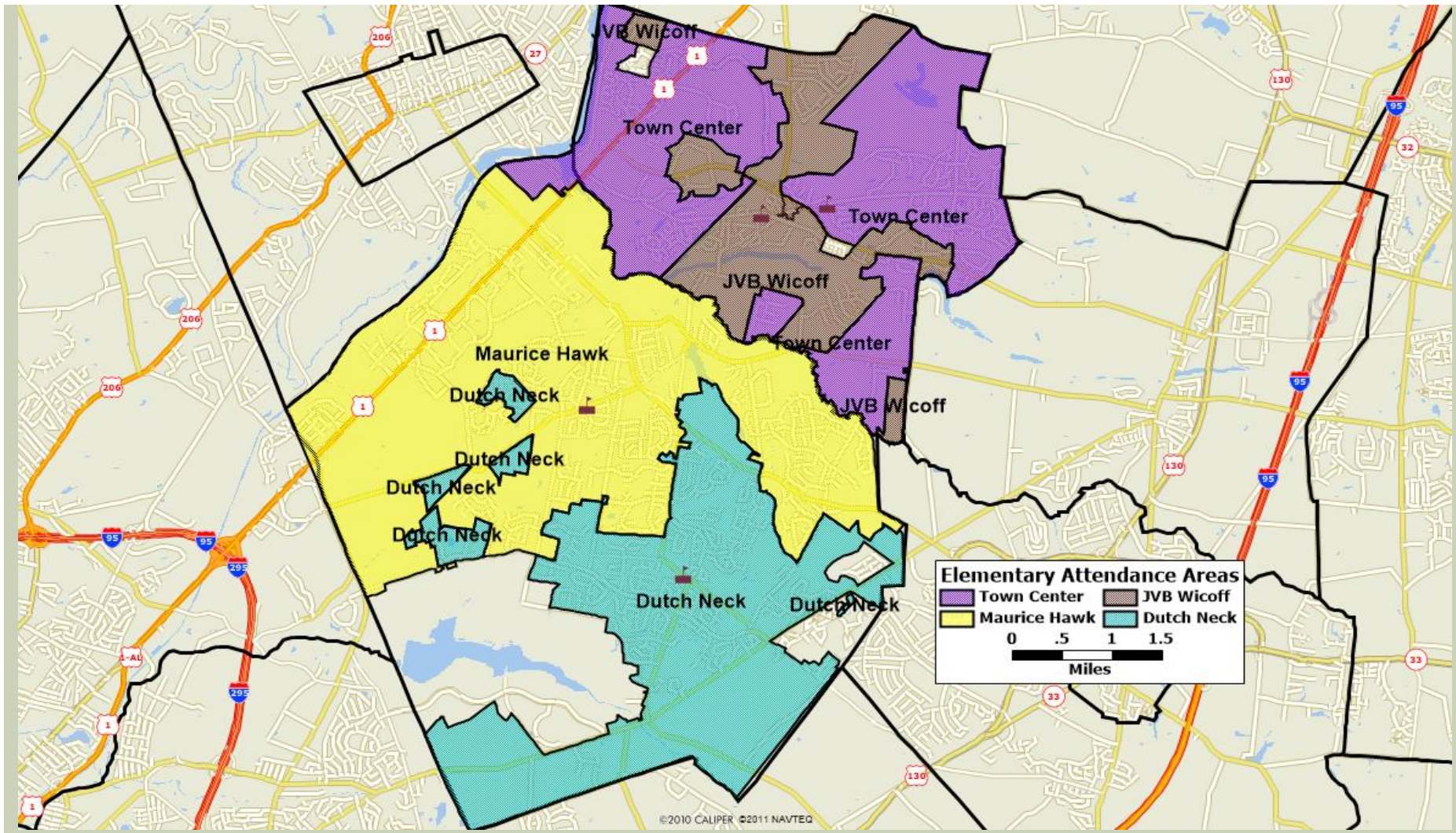
DEMOGRAPHIC PROFILE

- ❑ 46% Asian in 2010 (31% in 2000), Whites- 2nd largest (41%)
- ❑ Median age = 35.5 years (NJ=39.4)
- ❑ 48% of population is foreign-born (NJ=22%). India is largest source (56%).
- ❑ Bachelor's Degree or Higher = 74% (NJ = 37%)
- ❑ Median family income = \$114K (NJ =\$91K)
- ❑ Approximately 10,000 housing units, of which 37% are 1-unit homes (attached or detached)
- ❑ 51% of housing units are renter-occupied.
- ❑ Median value of owner-occupied unit = \$454K

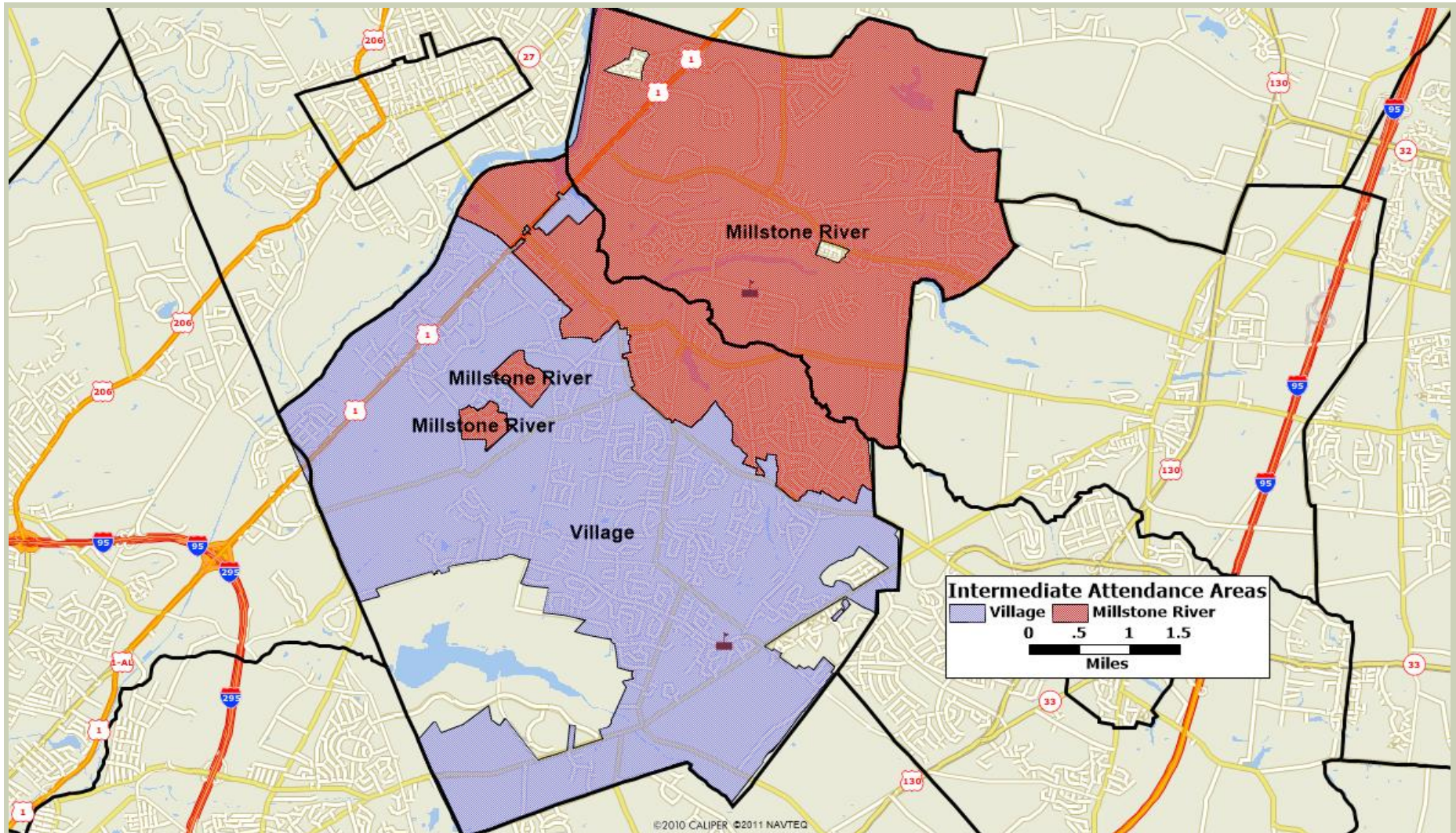
SCHOOL LOCATIONS



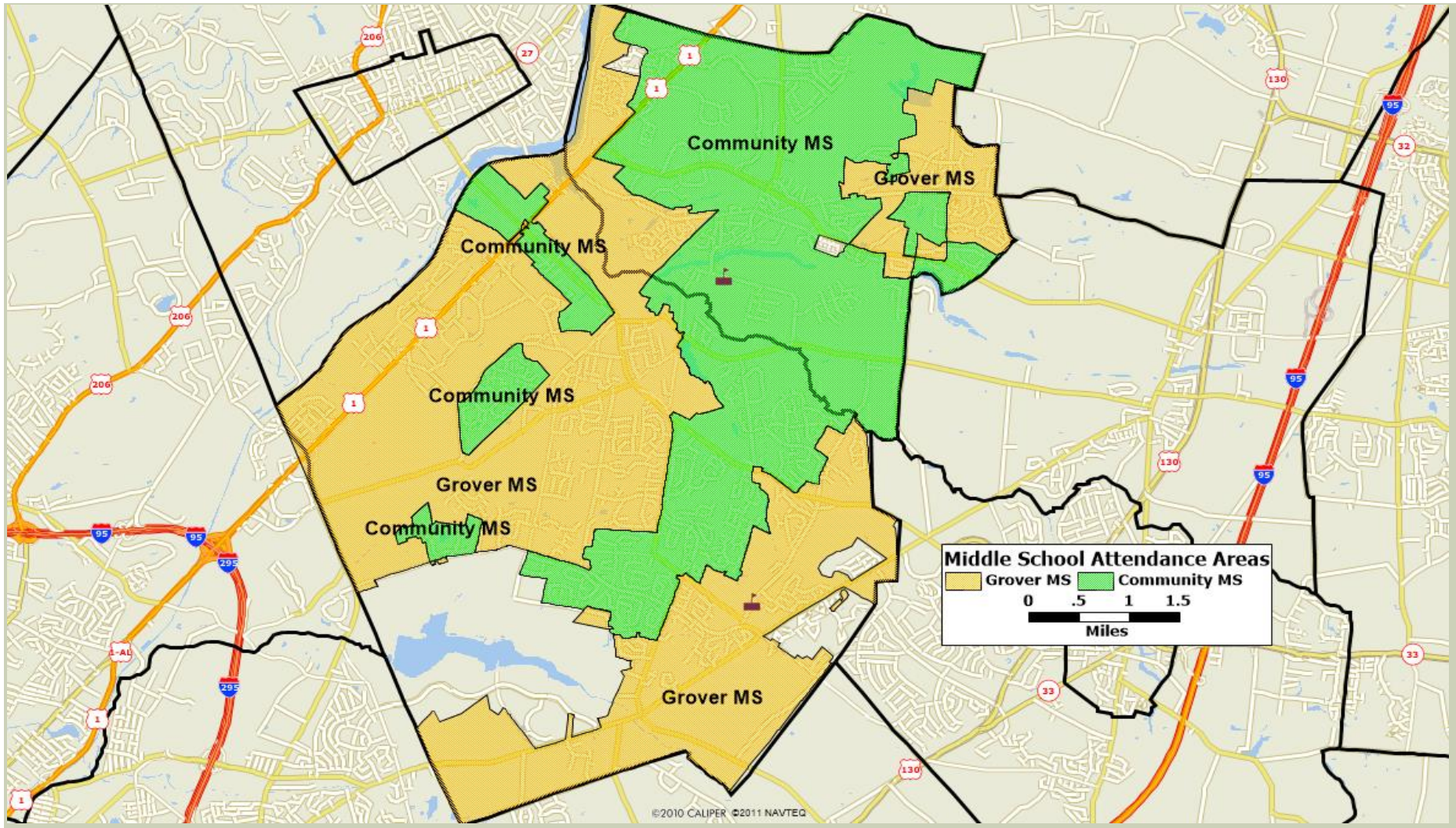
ELEMENTARY ATTENDANCE AREAS



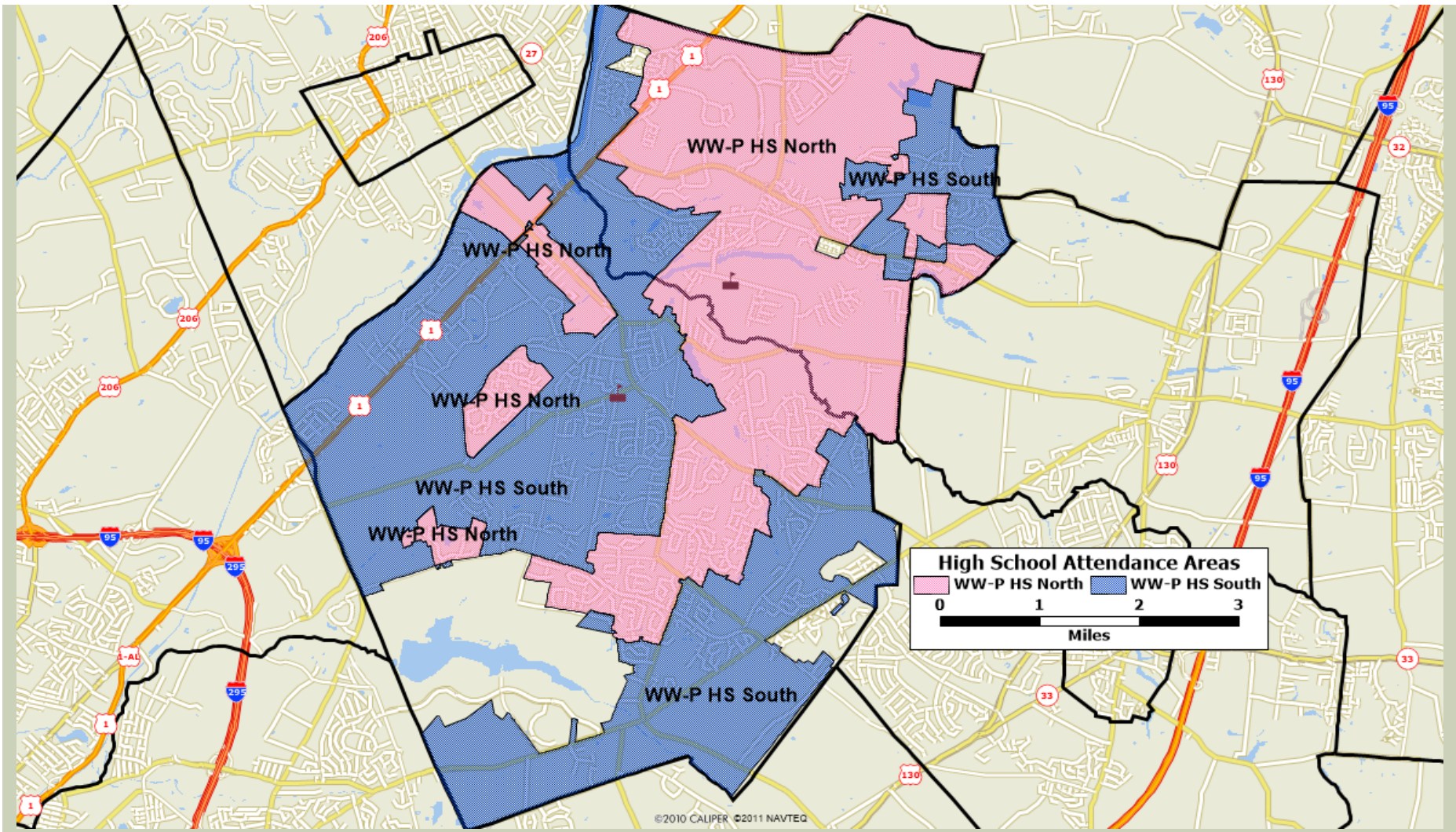
INTERMEDIATE ATTENDANCE AREAS



MIDDLE SCHOOL ATTENDANCE AREAS



HIGH SCHOOL ATTENDANCE AREAS

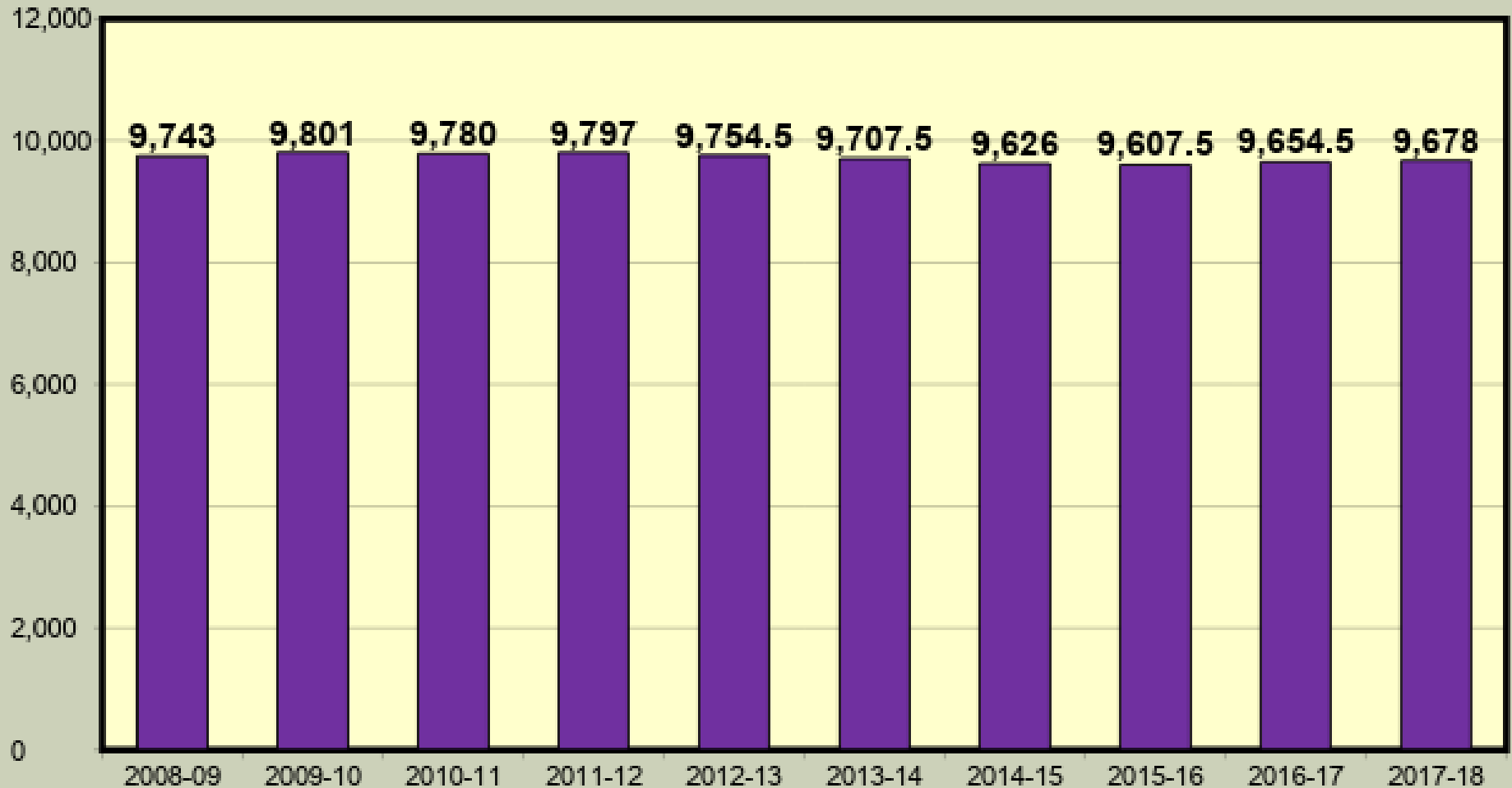


HISTORICAL ENROLLMENT TRENDS

- ❑ District's 2017-18 enrollment is 9,678.
- ❑ Enrollment peaked in 2009-10 (9,801 students) before declining through 2015-16 and reversing trend.
- ❑ Lost 123 students since peak enrollment in 2009-10.
- ❑ Cohort-Survival Ratio Method (CSR) was used to project enrollments five years into the future.

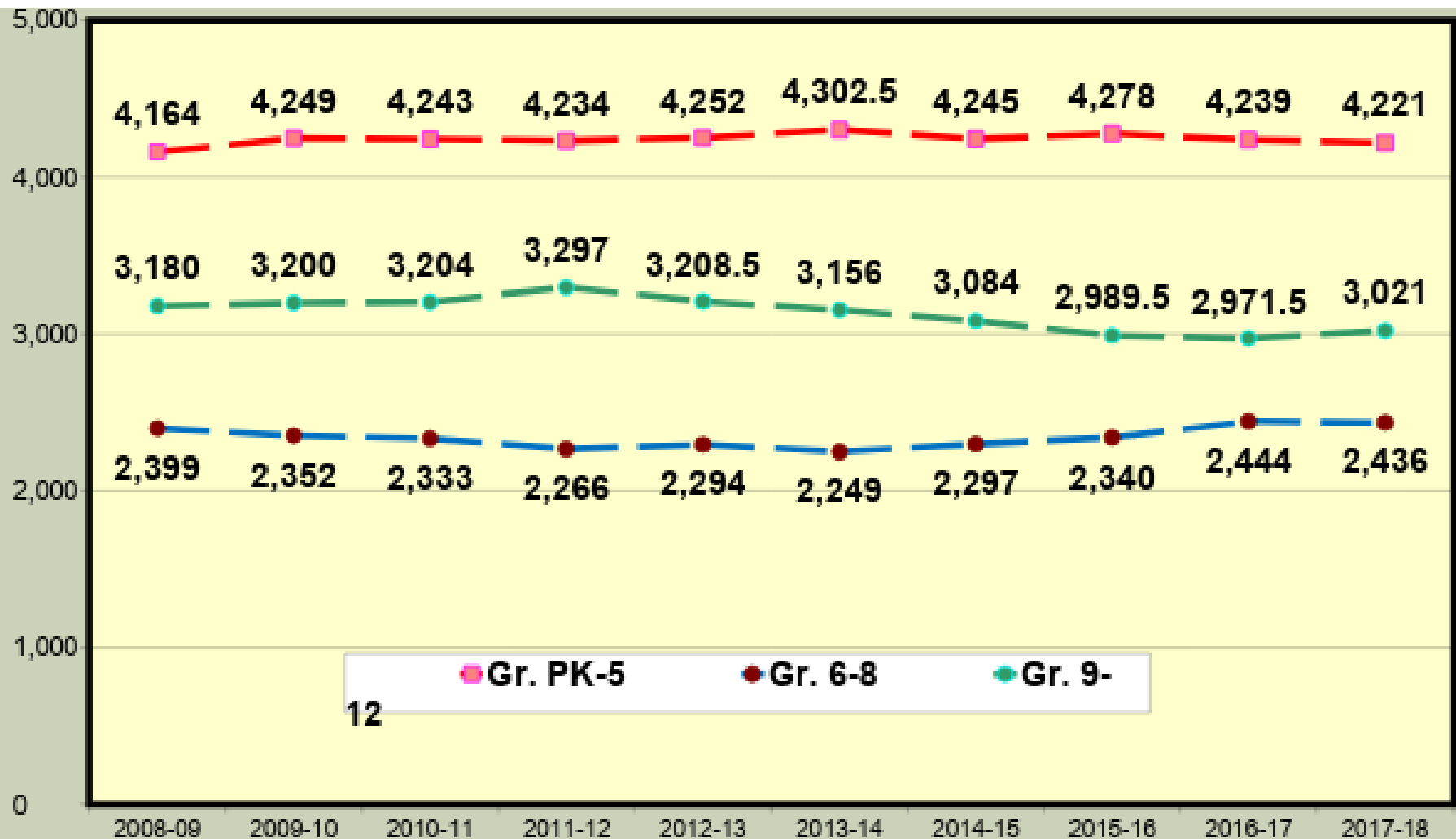
HISTORICAL ENROLLMENTS (PK-12)

2008-09 TO 2017-18



HISTORICAL ENROLLMENTS BY LEVEL

2008-09 TO 2017-18



ENROLLMENT PROJECTION METHOD

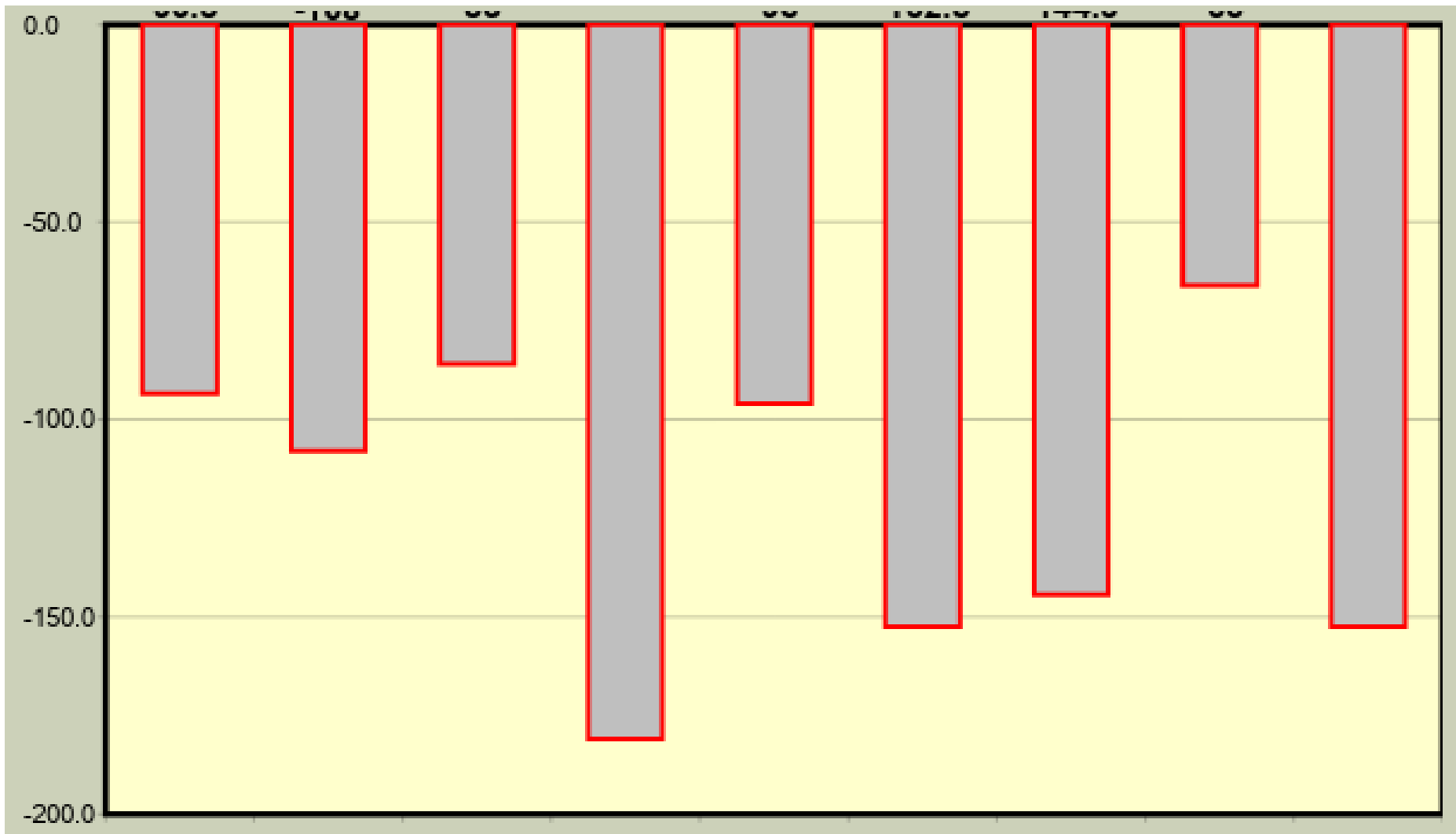
COHORT SURVIVAL RATIO

- ❑ Ratios are calculated for each grade progression. (Ex. 100 1st graders in 2016-17 become 95 2nd graders in 2017-18 = 0.95)
- ❑ Survival ratios were computed for ten historical years.
- ❑ 8 of 13 average ratios were above 1.000 indicating net inward migration.
- ❑ Averages were then computed and used to project future enrollments.

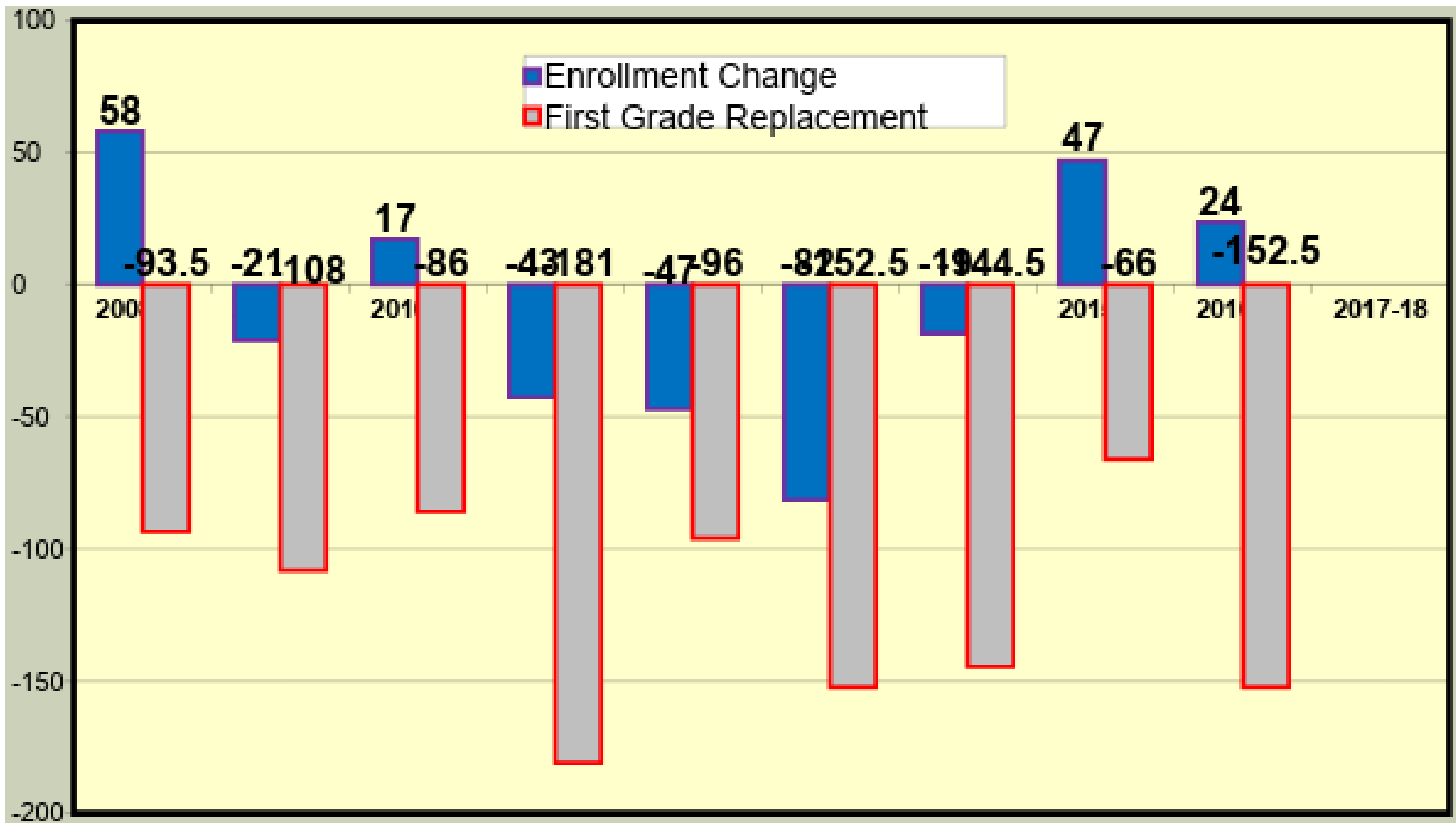
FIRST GRADE REPLACEMENT

- ❑ Negative first grade replacement (FGR) has occurred in each of last 9 years.
- ❑ Negative FGR- Number of graduating 12th grade students is more than the number of first grade students replacing them in the next year.
- ❑ Normally compare to kindergarten but district has a half-day program.
- ❑ In last five years, district lost an average of 122 students/year to negative FGR

HISTORICAL FIRST GRADE REPLACEMENT



TOTAL ENROLLMENT CHANGE VS. FIRST GRADE REPLACEMENT



BIRTH COUNTS

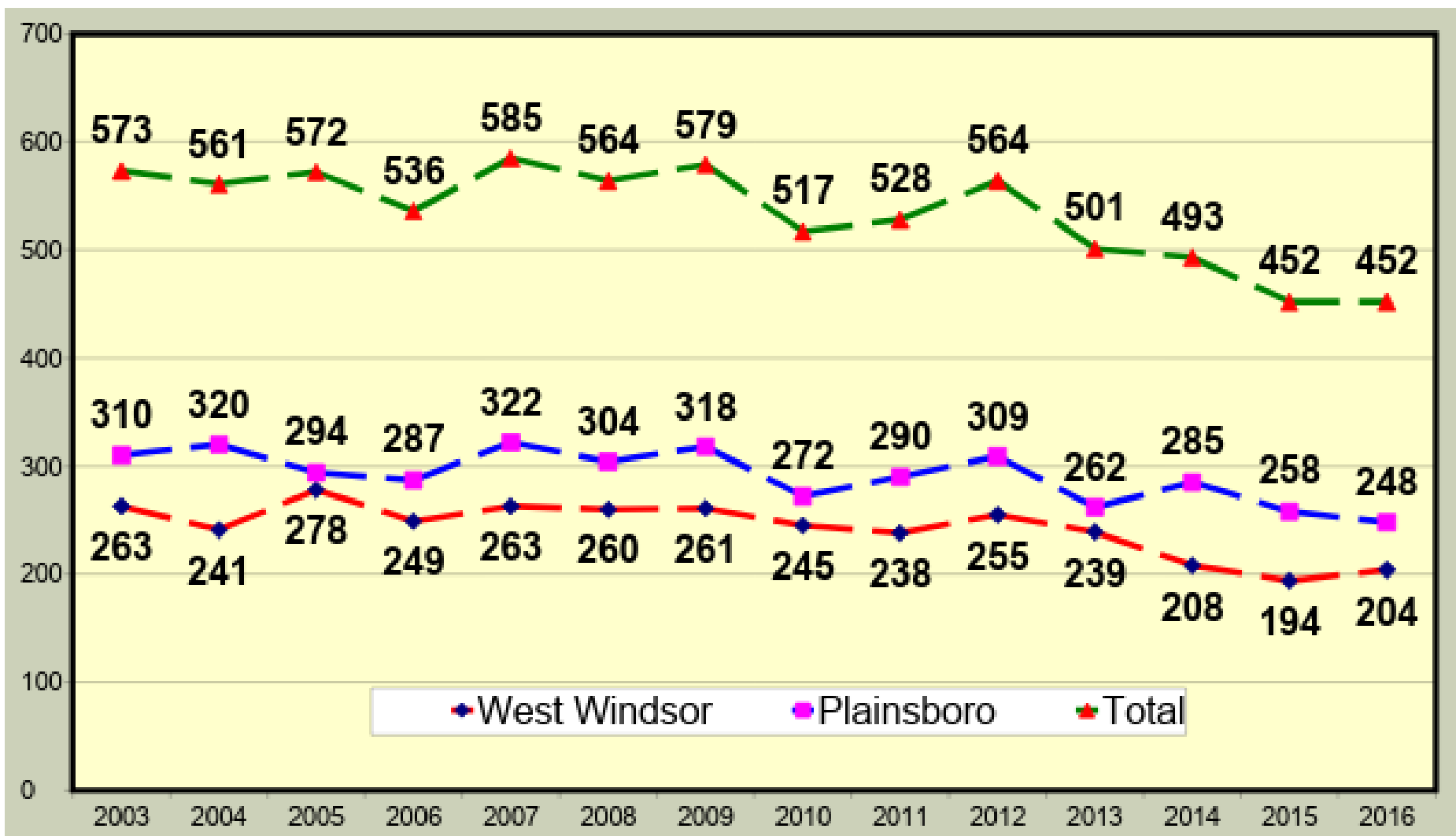
- ❑ Births are used to project kindergarten students 5 years later.
- ❑ Births have been declining– WW had 241-278 from 2003-2009, 204 births in 2016.
- ❑ Plainsboro – 322 births in 2007, 248 in 2016.
- ❑ Kindergarten declined from 608 in 2008-09 to 509 in 2016-17.

BIRTH COUNTS AND BIRTH-TO-KINDERGARTEN SURVIVAL RATIOS

| Birth Year | Births West Windsor Township | Births Plainsboro Township | Total Number of Births | Kindergarten Students Five Years Later | Birth-to- Kindergarten Survival Ratio |
|------------|------------------------------------|----------------------------------|---------------------------|--|---|
| 2003 | 263 | 310 | 573 | 608 | 1.061 |
| 2004 | 241 | 320 | 561 | 597 | 1.064 |
| 2005 | 278 | 294 | 572 | 588 | 1.028 |
| 2006 | 249 | 287 | 536 | 530 | 0.989 |
| 2007 | 263 | 322 | 585 | 595 | 1.017 |
| 2008 | 260 | 304 | 564 | 548 | 0.972 |
| 2009 | 261 | 318 | 579 | 538 | 0.929 |
| 2010 | 245 | 272 | 517 | 588 | 1.137 |
| 2011 | 238 | 290 | 528 | 509 | 0.964 |
| 2012 | 255 | 309 | 564 | 524 | 0.929 |
| 2013 | 239 | 262 | 501 | N/A | N/A |
| 2014 | 208 | 285 | 493 | N/A | N/A |
| 2015 | 194 | 258 | 452 | N/A | N/A |
| 2016 | 204 | 248 | 452 | N/A | N/A |

HISTORICAL BIRTH COUNTS

2003-2016

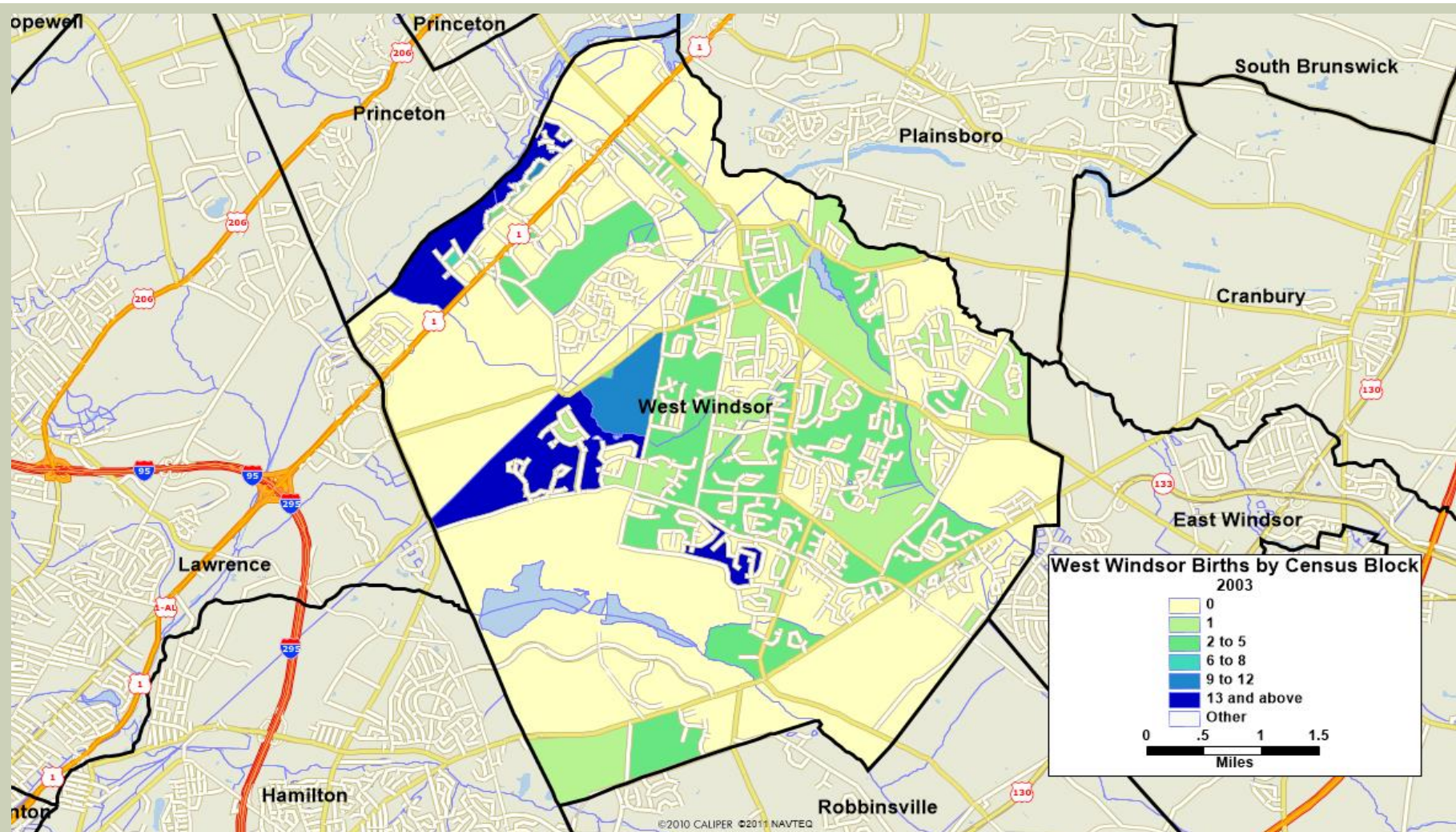


BIRTHS BY ATTENDANCE AREA

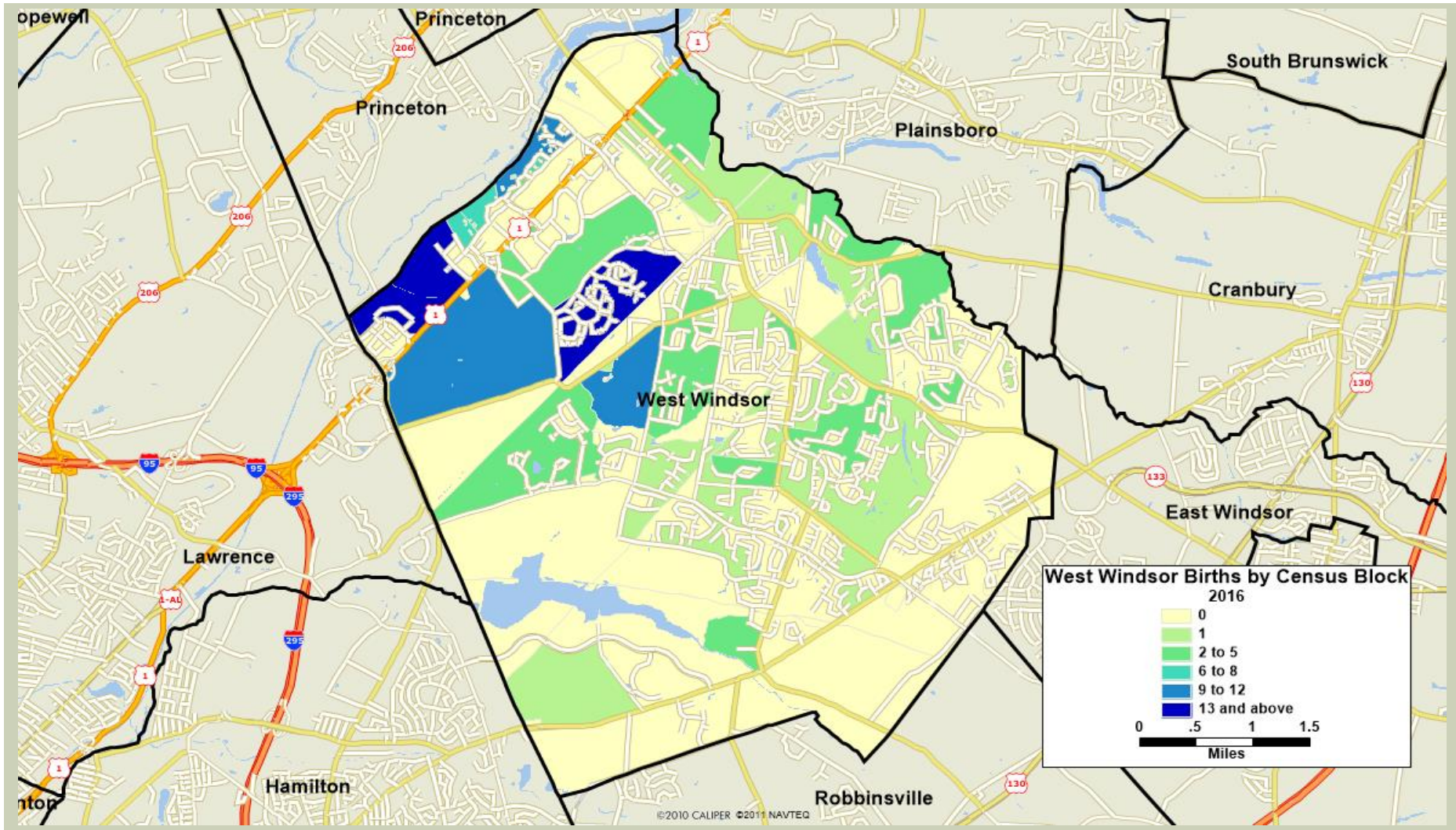
2003-2016

| | West Windsor Township | | | Plainsboro Township | | |
|----------------------|-----------------------|--------------|---------|---------------------|---------------|---------|
| Birth Year | Dutch Neck | Maurice Hawk | Unknown | Town Center | J.V.B. Wicoff | Unknown |
| 2003 | 97 | 171 | 0 | 177 | 120 | 13 |
| 2004 | 78 | 162 | 1 | 197 | 114 | 9 |
| 2005 | 94 | 189 | 0 | 186 | 101 | 7 |
| 2006 | 70 | 164 | 15 | 169 | 105 | 13 |
| 2007 | 61 | 181 | 21 | 187 | 112 | 23 |
| 2008 | 70 | 172 | 18 | 178 | 110 | 16 |
| 2009 | 64 | 169 | 28 | 178 | 121 | 19 |
| 2010 | 42 | 139 | 64 | 129 | 113 | 30 |
| 2011 | 55 | 147 | 36 | 176 | 95 | 19 |
| 2012 | 59 | 158 | 38 | 196 | 89 | 24 |
| 2013 | 53 | 169 | 17 | 148 | 109 | 5 |
| 2014 | 39 | 137 | 32 | 166 | 101 | 18 |
| 2015 | 50 | 123 | 21 | 150 | 104 | 4 |
| 2016 | 40 | 138 | 23 | 142 | 105 | 1 |
| Total 2003-2016 | 872 | 2,219 | | 2,379 | 1,499 | |
| Difference 2003-2016 | -57 | -33 | | -35 | -15 | |

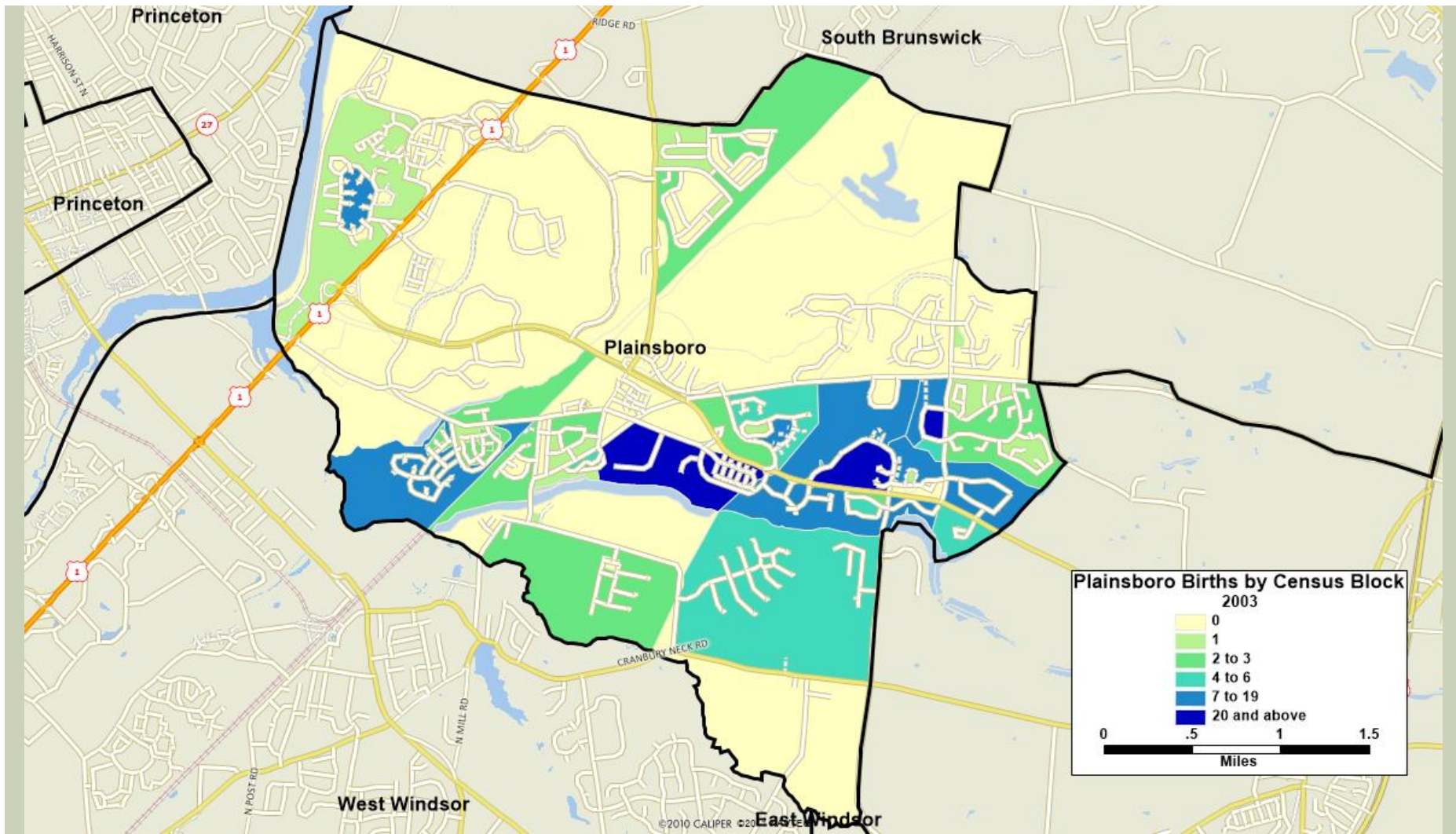
WEST WINDSOR BIRTHS BY CENSUS BLOCK 2003



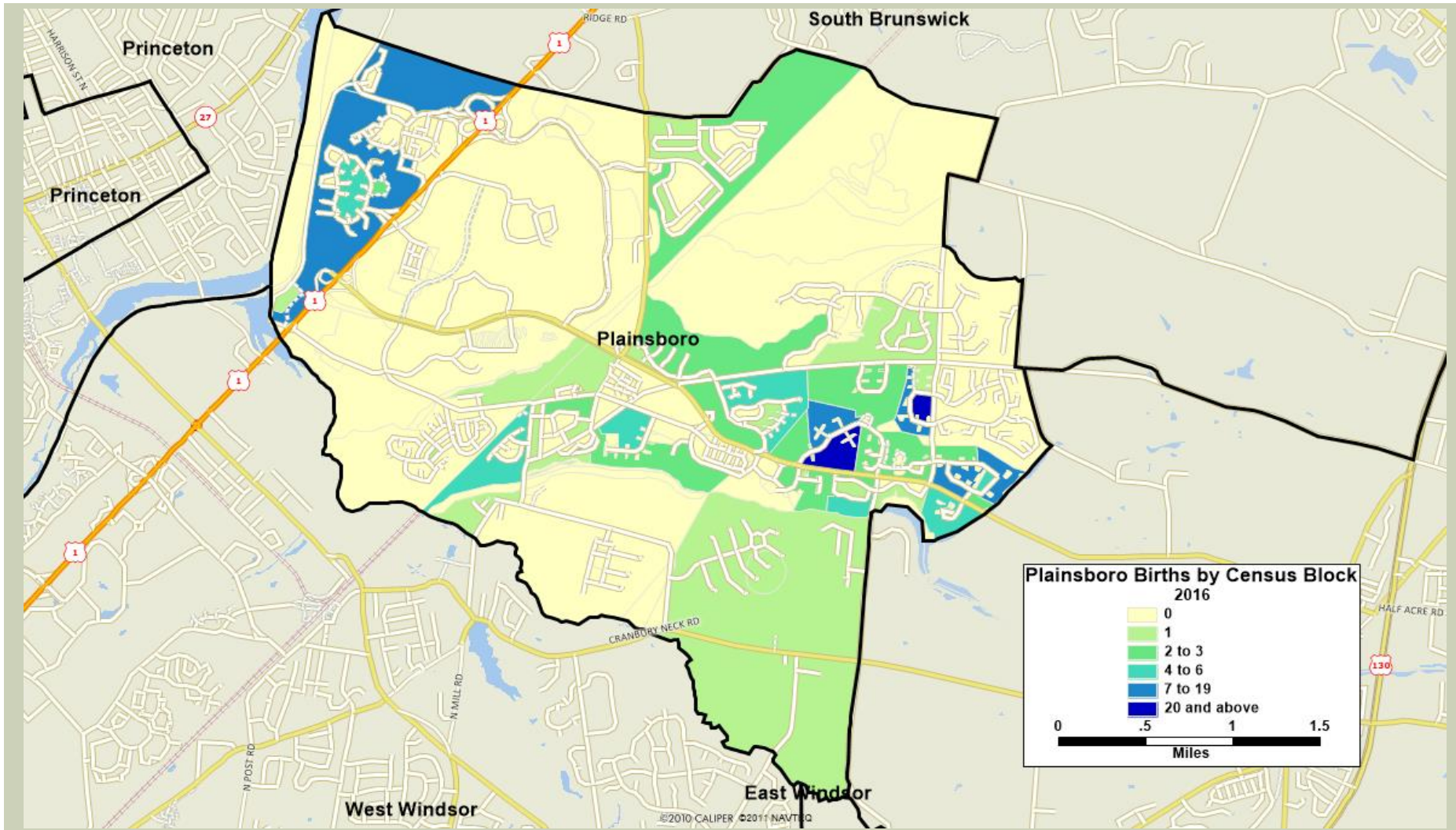
WEST WINDSOR BIRTHS BY CENSUS BLOCK 2016



PLAINSBORO BIRTHS BY CENSUS BLOCK 2003



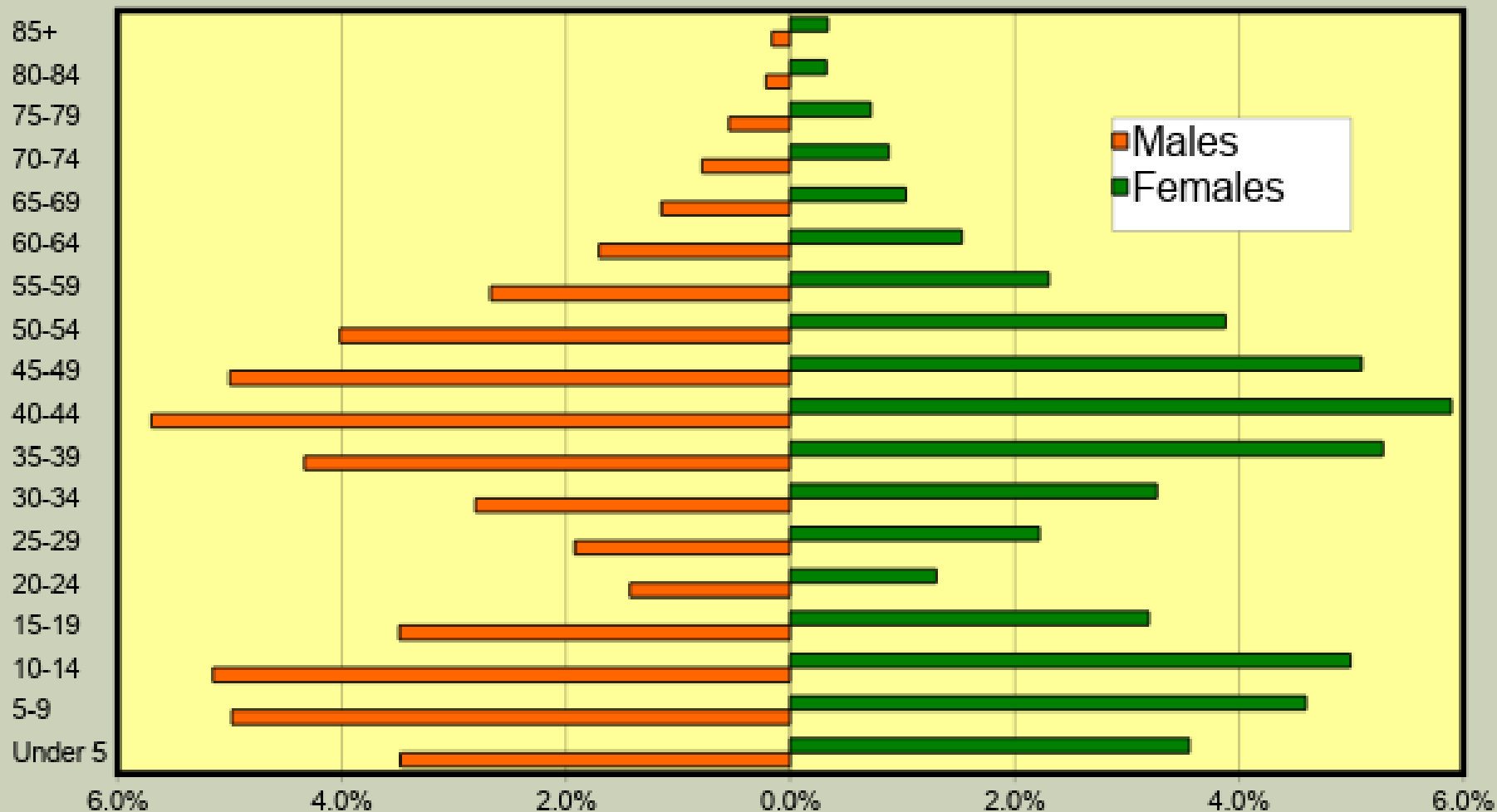
PLAINSBORO BIRTHS BY CENSUS BLOCK 2016



AGE PYRAMID

WEST WINDSOR TOWNSHIP

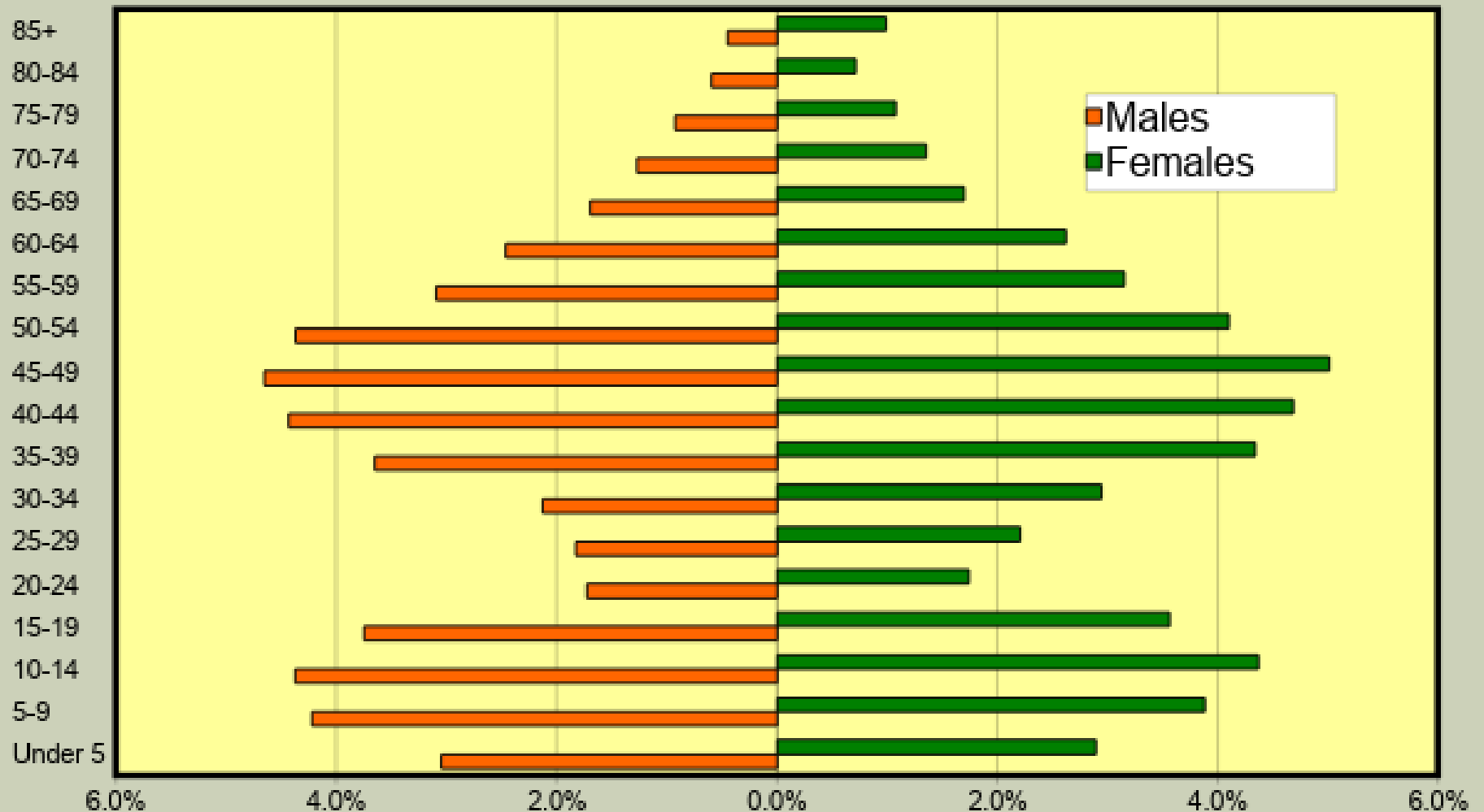
2000



AGE PYRAMID

WEST WINDSOR TOWNSHIP

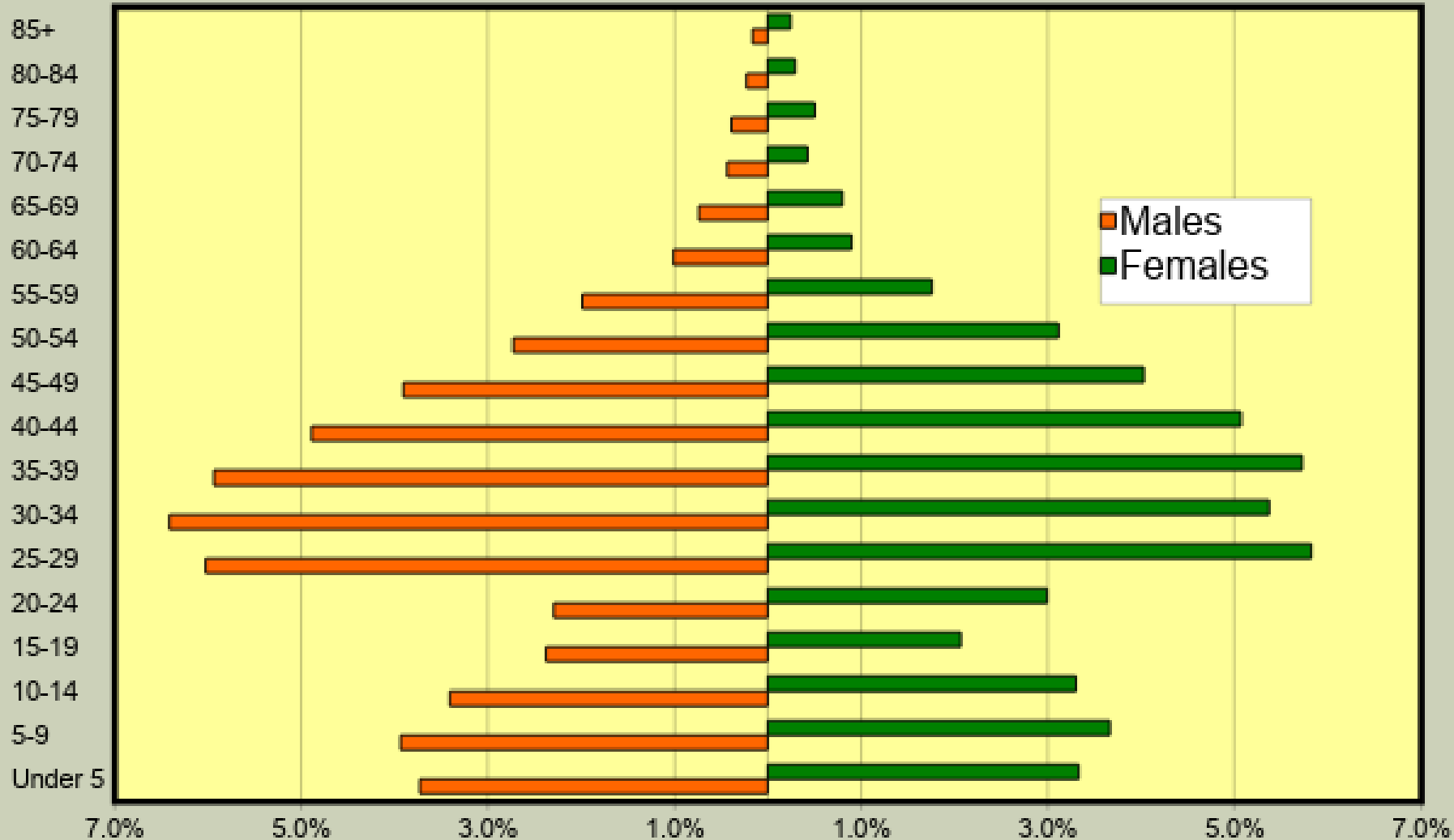
2010



AGE PYRAMID

PLAINSBORO TOWNSHIP

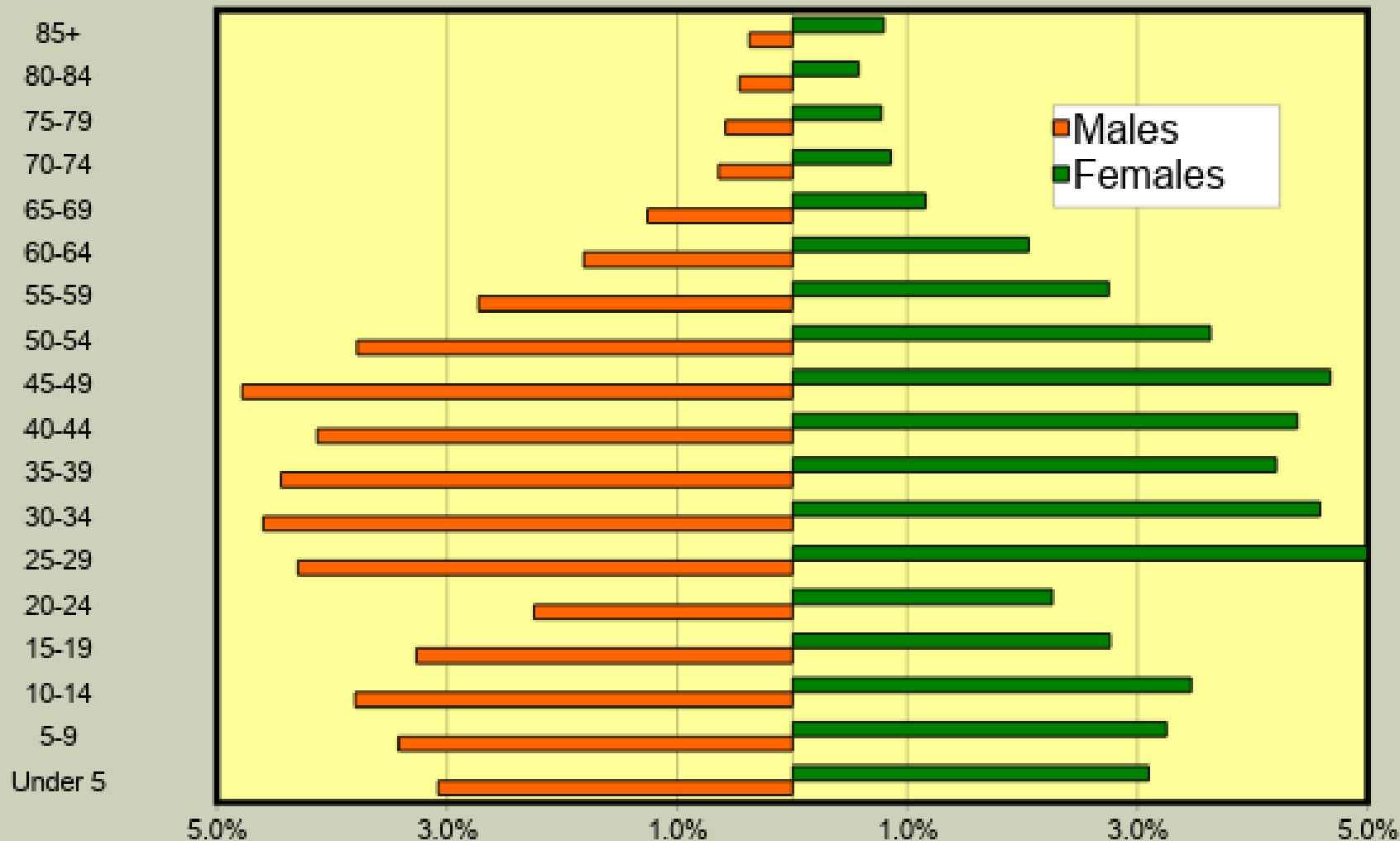
2000



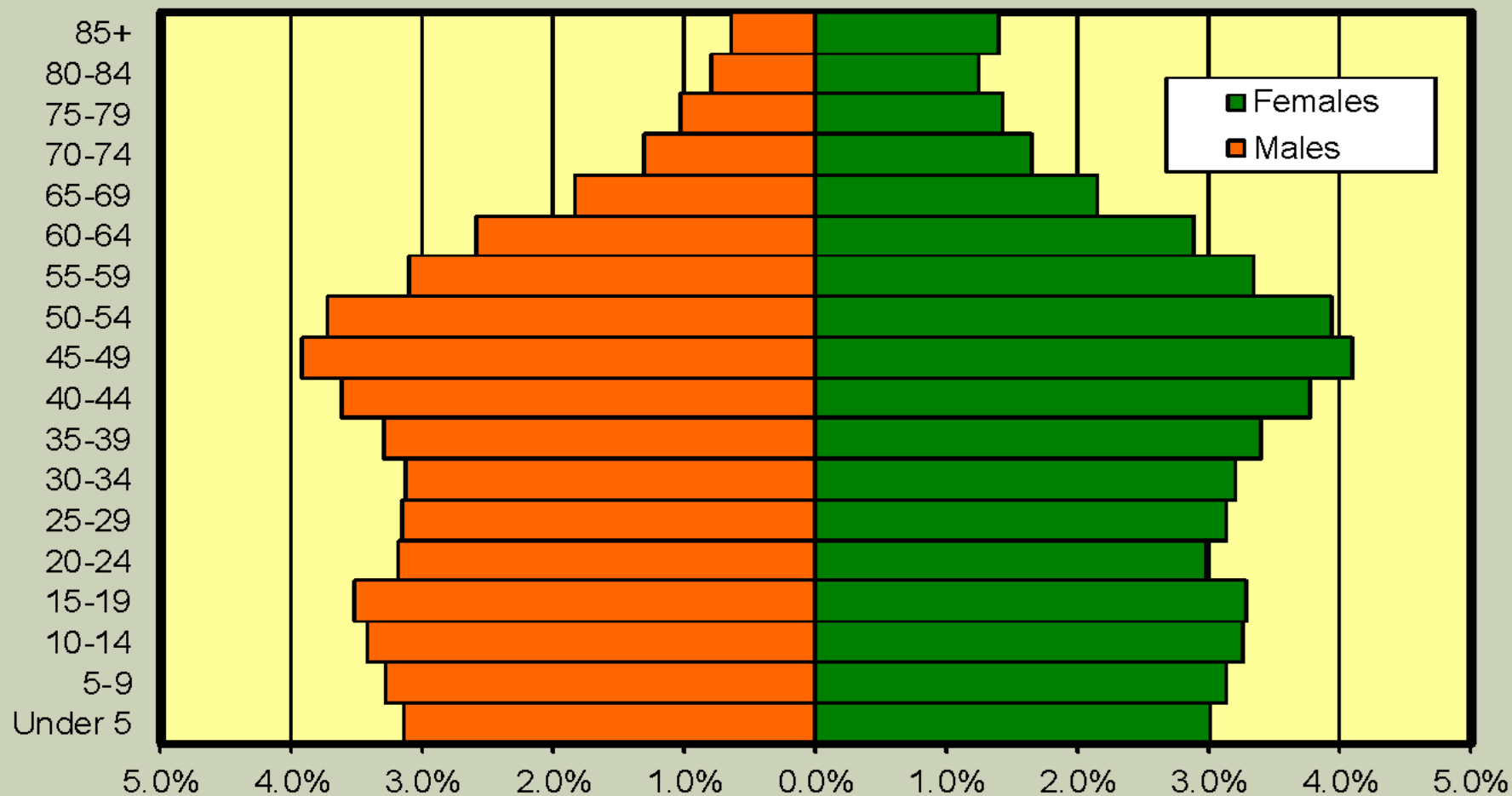
AGE PYRAMID

PLAINSBORO TOWNSHIP

2010



AGE PYRAMID NEW JERSEY 2010



WEST WINDSOR

CHANGE IN MALES AND FEMALES

2000 TO 2010

| | Males | | Females | |
|-----------|------------------|-------------------------|------------------|-------------------------|
| Age Group | Numerical Change | Percentage Point Change | Numerical Change | Percentage Point Change |
| Under 5 | +65 | -0.4 | +7 | -0.7 |
| 5-9 | +54 | -0.8 | +46 | -0.7 |
| 10-14 | +60 | -0.8 | +93 | -0.6 |
| 15-19 | +254 | +0.3 | +268 | +0.4 |
| 20-24 | +155 | +0.3 | +188 | +0.4 |
| 25-29 | +74 | -0.1 | +112 | 0.0 |
| 30-34 | -37 | -0.7 | +84 | -0.3 |
| 35-39 | +42 | -0.7 | +22 | -0.9 |
| 40-44 | -45 | -1.3 | -18 | -1.2 |
| 45-49 | +167 | -0.4 | +245 | -0.1 |
| 50-54 | +307 | +0.4 | +263 | +0.2 |
| 55-59 | +254 | +0.4 | +351 | +0.8 |
| 60-64 | +294 | +0.8 | +377 | +1.1 |
| 65-69 | +209 | +0.5 | +235 | +0.7 |
| 70-74 | +172 | +0.5 | +176 | +0.5 |
| 75-79 | +131 | +0.4 | +134 | +0.4 |
| 80-84 | +114 | +0.4 | +123 | +0.4 |
| 85+ | +86 | +0.3 | +196 | +0.7 |

PLAINSBORO

CHANGE IN MALES AND FEMALES

2000 TO 2010

| | Males | | Females | |
|-----------|------------------|-------------------------|------------------|-------------------------|
| Age Group | Numerical Change | Percentage Point Change | Numerical Change | Percentage Point Change |
| Under 5 | -46 | -0.7 | +39 | -0.2 |
| 5-9 | -9 | -0.5 | +7 | -0.4 |
| 10-14 | +185 | +0.4 | +129 | +0.2 |
| 15-19 | +271 | +0.9 | +218 | +0.7 |
| 20-24 | +52 | -0.1 | -85 | -0.7 |
| 25-29 | -229 | -1.7 | -25 | -0.8 |
| 30-34 | -238 | -1.8 | -31 | -0.8 |
| 35-39 | -177 | -1.5 | -190 | -1.5 |
| 40-44 | -39 | -0.8 | -15 | -0.7 |
| 45-49 | +309 | +0.9 | +261 | +0.6 |
| 50-54 | +318 | +1.1 | +206 | +0.5 |
| 55-59 | +226 | +0.7 | +276 | +1.0 |
| 60-64 | +212 | +0.8 | +291 | +1.2 |
| 65-69 | +140 | +0.5 | +106 | +0.4 |
| 70-74 | +60 | +0.2 | +112 | +0.4 |
| 75-79 | +55 | +0.2 | +77 | +0.3 |
| 80-84 | +60 | +0.2 | +72 | +0.3 |
| 85+ | +53 | +0.2 | +133 | +0.5 |

PLANNED NEW HOUSING WEST WINDSOR TOWNSHIP

| Subdivision/ Developer | Attendance Areas | Location | Number of Units | Bedroom Distribution | Housing Type | Notes |
|--|--|---|--|---|--|--|
| Woodstone at Princeton | MH-VIL- GMS-HSS | Canal Pointe Boulevard | 443 | 1-3 BR (mix unknown) | Apartments, Market-rate and affordable | To be located on land owned by Princeton Theological Seminary. Rental apartments will have 354 market-rate units and 89 affordable units. Anticipated approval in Spring 2018. 3-4 year expected buildout. Students expected in 2020. |
| Toll Brothers (Maneely Property) | MH-VIL- GMS-HSS | Bear Brook Road/Old Bear Brook Road | 163 (51 TH, 40 APTS above retail, 72 affordable APTS) | 3-BR (TH) N/A (APT over Retail) 14 1-BR, 42 2-BR, 16 3-BR (affordable APT) | Townhouse Apartments, Market-rate and affordable | Has received final approval. Students expected in 2018. Project includes 40 apartments above retail, six that will be affordable. Project also includes 192 short-term stay corporate suites (not included in overall unit count). Affordable rental units are for disabled residents (Project Freedom). |
| Ellsworth Center | MH-VIL- GMS-HSS or MH-VIL- CMS-HSN | Cranbury Road/Princeton -Hightstown Road | 20 | 1-BR (MR APTS) Affordable mix unknown | Apartments, Market-rate and affordable | Has received final approval. Students expected in 2019. Rental apartments will have 16 market-rate units and 4 affordable units |
| Cherry Grove | MH-VIL- GMS-HSS | Ward Road | 6 | N/A | Single-Family | Preliminary/final major subdivision pending |
| Bear Brook Homes LLC | MH-VIL- GMS-HSS | Bear Brook Road | 8 | N/A | Single-Family | Preliminary major subdivision pending |
| Princeton Ascend | MH-MR- GMS-HSS | 43 Princeton- Hightstown Road | 24 | N/A | Apartments, Townhouse | Rental apartments (17) will have 12 market-rate units and 5 affordable units. Seven townhouse units to be located above office space. |
| Total | | 664 Housing Units | | | | |

POTENTIAL NEW HOUSING WEST WINDSOR TOWNSHIP

| Subdivision/ Developer | Attendance Areas | Location | Number of Units | Bedroom Distribution | Housing Type | Notes |
|--|---------------------|---|--|-------------------------|---|--|
| Four Hundred Steps | TBD | Cranbury Road | 100 | TBD | Apartment | Currently discussing options with township officials. Might be dorm space for Princeton University students |
| Transit Village (District 1) | MH-VIL- GMS-HSS | Washington Road | 800 | TBD | Townhouse/ Apartment Market-rate and affordable | Project is a mixed-use Transit-Oriented Development (TOD). 100 units (12.5%) to be set aside as affordable units. A new developer is in negotiations with township. Students expected in 2020. |
| Lowes Center- Garden Homes | MH-VIL- GMS-HSS | Old Meadow Road | 650 | TBD | Apartments, Market-rate and affordable | Has not received approval. Approximately 162 units (25%) to be set aside as affordable units. Students expected in 2021. |
| American Properties (Thompson Property) | DN-VIL- GMS-HSS | Old Trenton Road | 179 | TBD | Townhouse, Market-rate and affordable | Has not received approval. |
| Howard Hughes Property | TBD | Quakerbridge Road/Clarksv ille Road, Route 1 | 1,976 (927 APT, 353 TH, 460 SF, 236 Age- Restricted) | TBD | Apartment, Townhouse, Single- Family | Former American Cyanamid site currently zoned for research and office manufacturing. Construction might take place in three phases over a 15-year period. |

PLANNED NEW HOUSING PLAINSBORO TOWNSHIP

| Subdivision/ Developer | Attendance Areas | Location | Number of Units | Housing Type | Bedroom Distribution | Notes |
|--|---------------------------|---|--------------------|--|--|--|
| Princeton Forrestal Village | WC-MR- CMS-HSN | College Road West | 394 | Apartments, Market-rate and affordable | Market-Rate 20 Studios 219 1-BR 105 2-BR Affordable 10 1-BR 30 2-BR 10 3-BR | Rental apartments will have 344 market-rate units and 50 affordable units. Received final subdivision and site plan approval in 2014. |
| Princeton Glen Homes | WC-MR- CMS-HSN | Schalks Crossing Road and Perrine Road (Mimosa Court) | 4 | Single-Family | N/A | Two homes are currently under construction. |
| Place at Plainsboro | WC-MR- CMS-HSN | Dey Road | 100 | Affordable Apartments | Phase I 14 1-BR 34 2-BR 22 3-BR Phase II 6 1-BR 14 2-BR 10 3-BR | Received preliminary/ final subdivision and site plan approval in March 2017. Construction to begin March 2018. To be constructed in two phases with 70 units in Phase I and 30 units in Phase II. Will consist of 13 buildings containing 6-8 units each in a two-story townhouse design. |
| Total | 498 Housing Units | | | | | |

STUDENT YIELDS

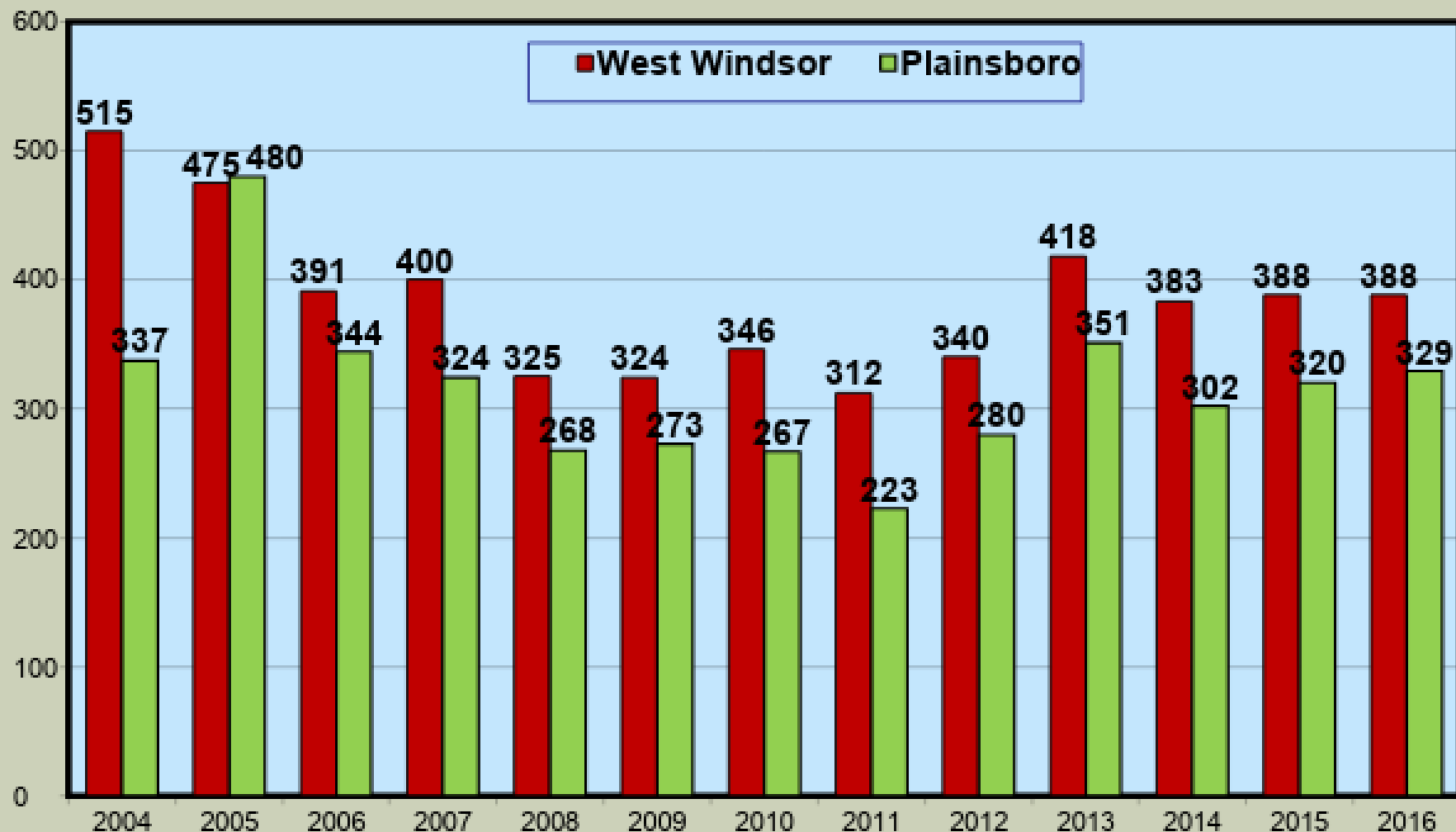
- Student yields were computed by housing type to determine impact of new developments.
- Student addresses were joined to West Windsor and Plainsboro property databases.
- WW Detached Single-Family homes: 1.13
- PT Detached Single-Family homes: 1.23
- WW Townhouse/Condo: 0.51
- PT Townhouse/Condo: 0.56
- WW Apartments: 0.53
- PT Apartments: 0.25

STUDENT YIELDS

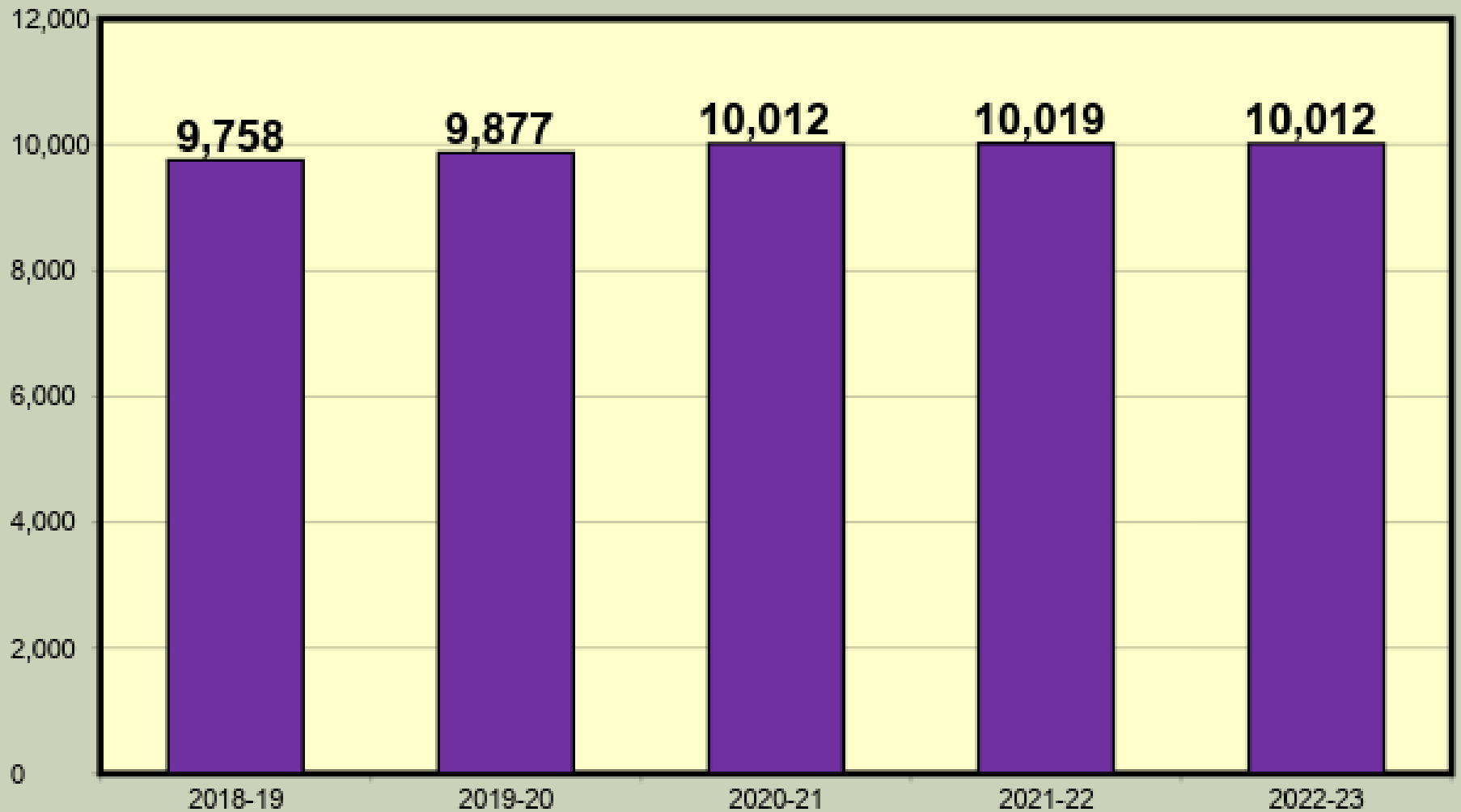
- ❑ 566 public school children (K-12) from new developments are projected. Does not include 1,500 affordable housing units or WW potential developments.
- ❑ If all potential units are constructed (not including 1,500 affordable units), additional 1,650-2,100 students are projected.
- ❑ Additional children were added into baseline projections according to existing attendance zones.

HOME SALES

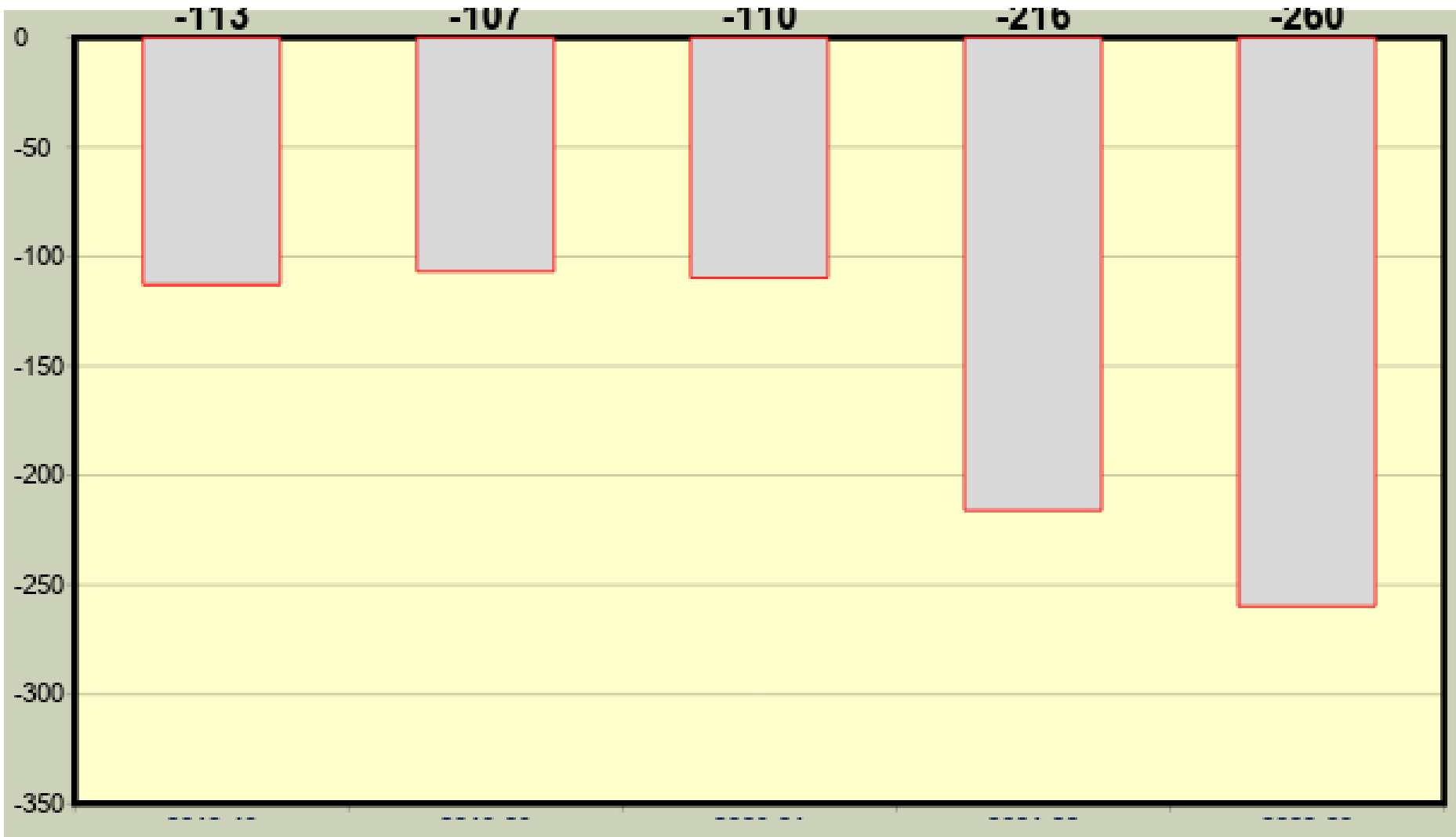
2004-2016



ENROLLMENT PROJECTIONS



PROJECTED FIRST GRADE REPLACEMENT



ENROLLMENT PROJECTIONS BY GRADE CONFIGURATION

| Historical | PK-5 | 6-8 | 9-12 |
|---------------|-------|-------|-------|
| 2017-18 | 4,221 | 2,436 | 3,021 |
| Projected | PK-5 | 6-8 | 9-12 |
| 2018-19 | 4,190 | 2,464 | 3,104 |
| 2019-20 | 4,212 | 2,479 | 3,186 |
| 2020-21 | 4,158 | 2,579 | 3,275 |
| 2021-22 | 4,078 | 2,604 | 3,337 |
| 2022-23 | 4,080 | 2,591 | 3,341 |
| 5-year Change | -141 | +155 | +320 |

SUMMARY

- Enrollments (PK-12) are projected to increase over next four years before stabilizing.
- Declining birth rate has led to fewer children entering kindergarten and lower projected elementary enrollments.
- If pending developments in WW are constructed, along with 1,500 affordable housing units, district enrollment is likely to increase at all grade configuration levels.
- Besides direct impact on K-12 population, new housing likely to result in increase in births and children under the age of five, which could have a significant impact on the elementary schools.

