

DEMOGRAPHIC STUDY FOR THE NEW PROVIDENCE SCHOOL DISTRICT

May 20, 2019



STATISTICAL FORECASTING

- Provide demographic services for school districts in the New York-New Jersey metropolitan area since 1998.
- Performed demographic studies for approximately 150 school districts in NY & NJ.
- Demographic consultant for the NYC Public Schools since 2006.

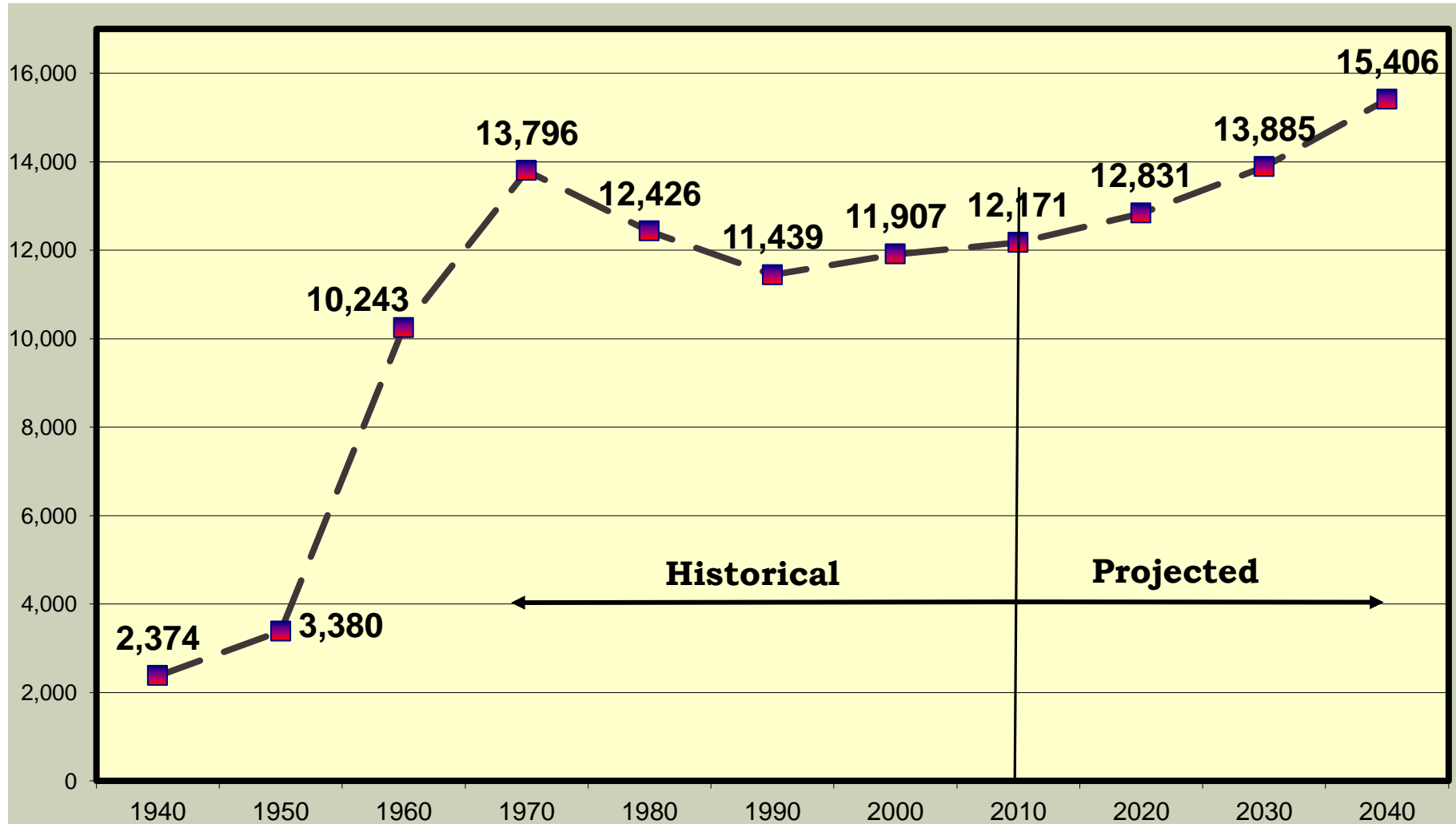
RICHARD S. GRIP ED.D.

- 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 2019-20 through 2023-24, a 5-year period.
- ❑ Analyze district's historical enrollments, birth and fertility rates, community population trends, and age structure
- ❑ Compute student yields by housing type
- ❑ Impact of settlement agreement (new housing) on school district

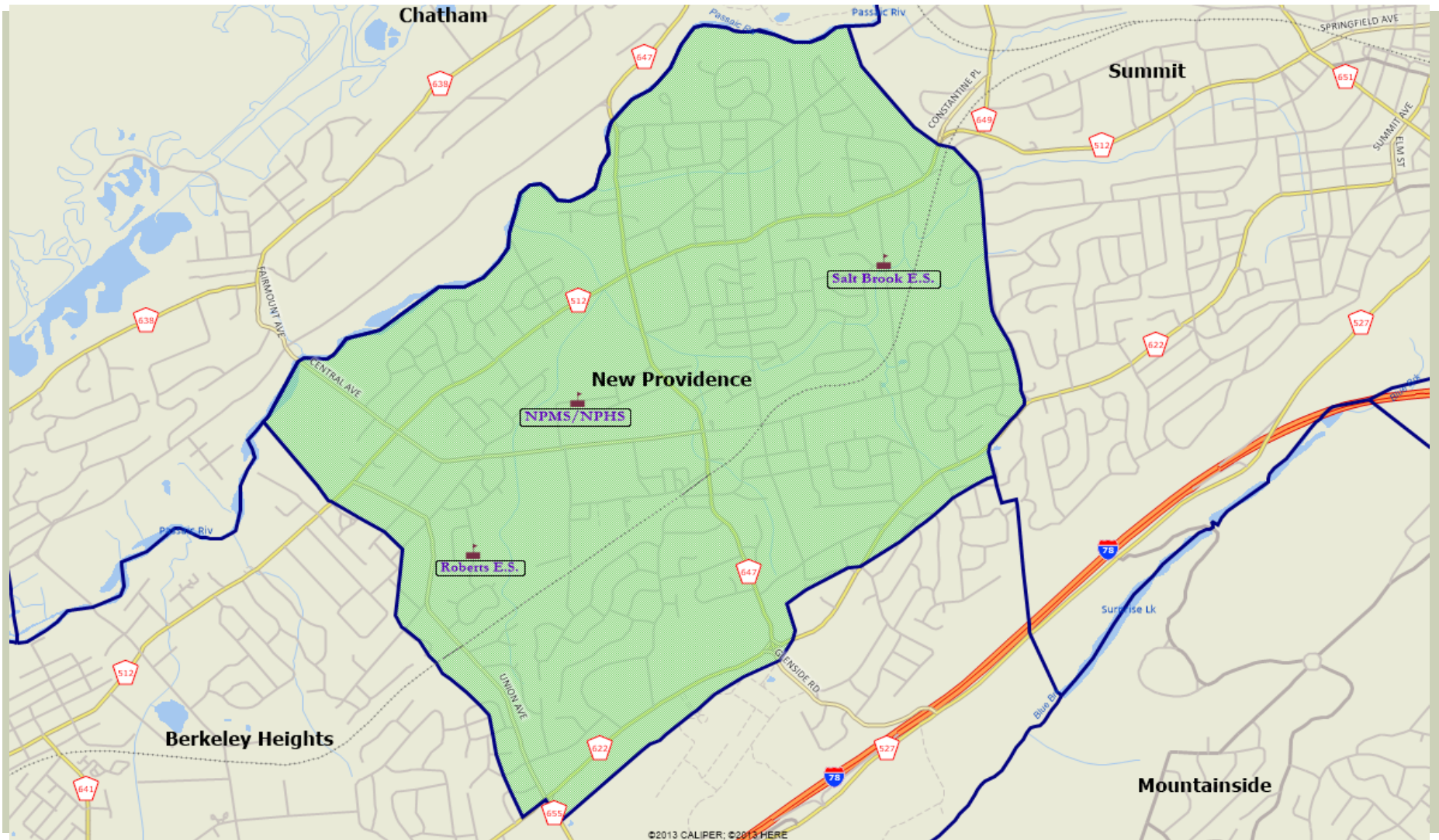
HISTORICAL AND PROJECTED POPULATIONS 1940-2040



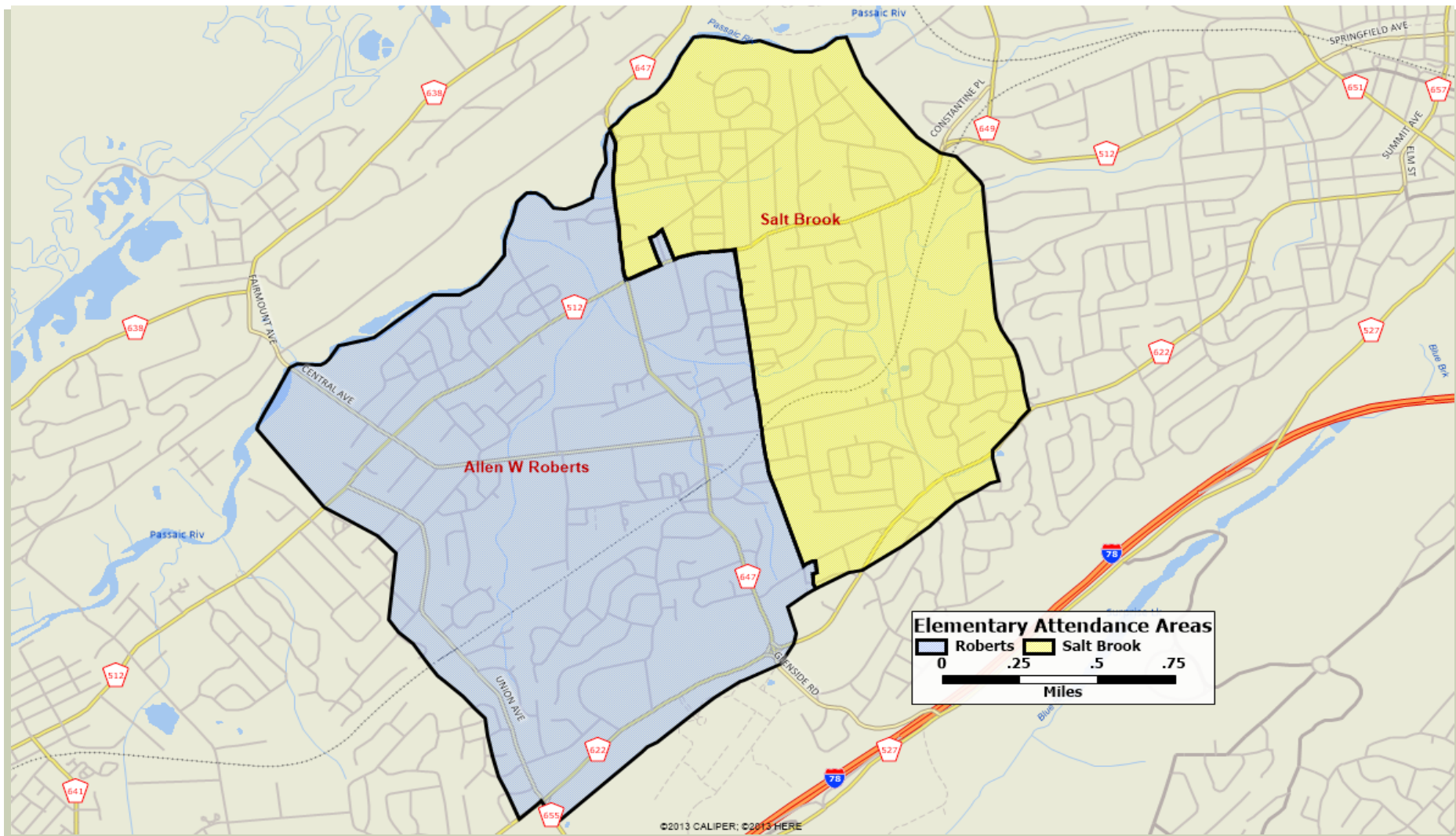
DEMOGRAPHIC PROFILE

- ❑ 86% White and 10% Asian in 2010 (90% White and 8% Asian in 2000)
- ❑ Median age = 41.0 years (NJ = 39.0 years)
- ❑ 16% of population is foreign-born (NJ = 22.1%). India and China are largest sources.
- ❑ Bachelor's Degree or Higher = 68% (NJ = 38.1%)
- ❑ Median family income = \$166K (NJ = \$94K)
- ❑ Approximately 4,600 housing units, of which 76% are SF detached or attached (townhouses)
- ❑ 23% of housing units are renter-occupied.
- ❑ Median value of owner-occupied unit = \$583K

SCHOOL LOCATIONS



ELEMENTARY ATTENDANCE AREAS

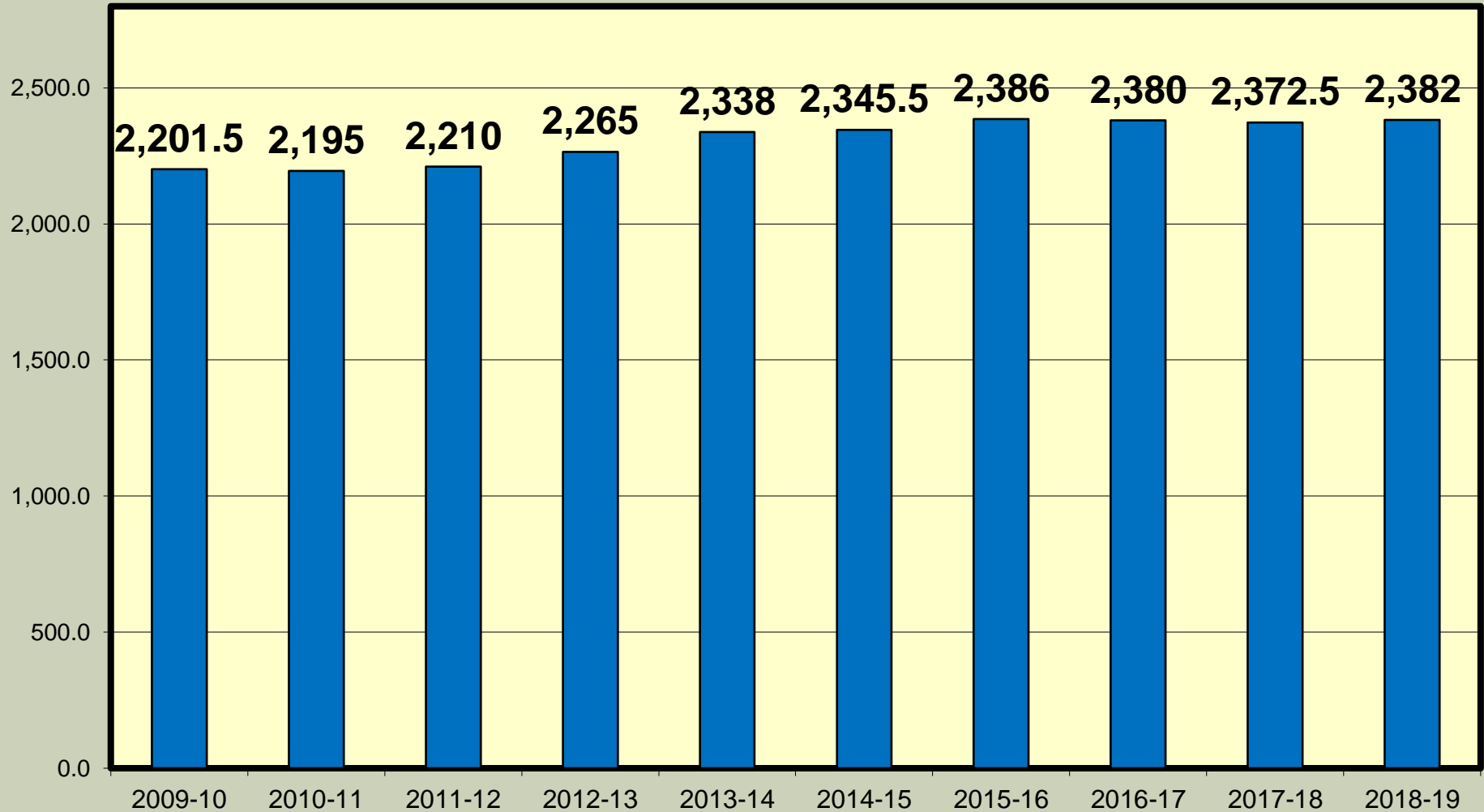


HISTORICAL ENROLLMENT TRENDS

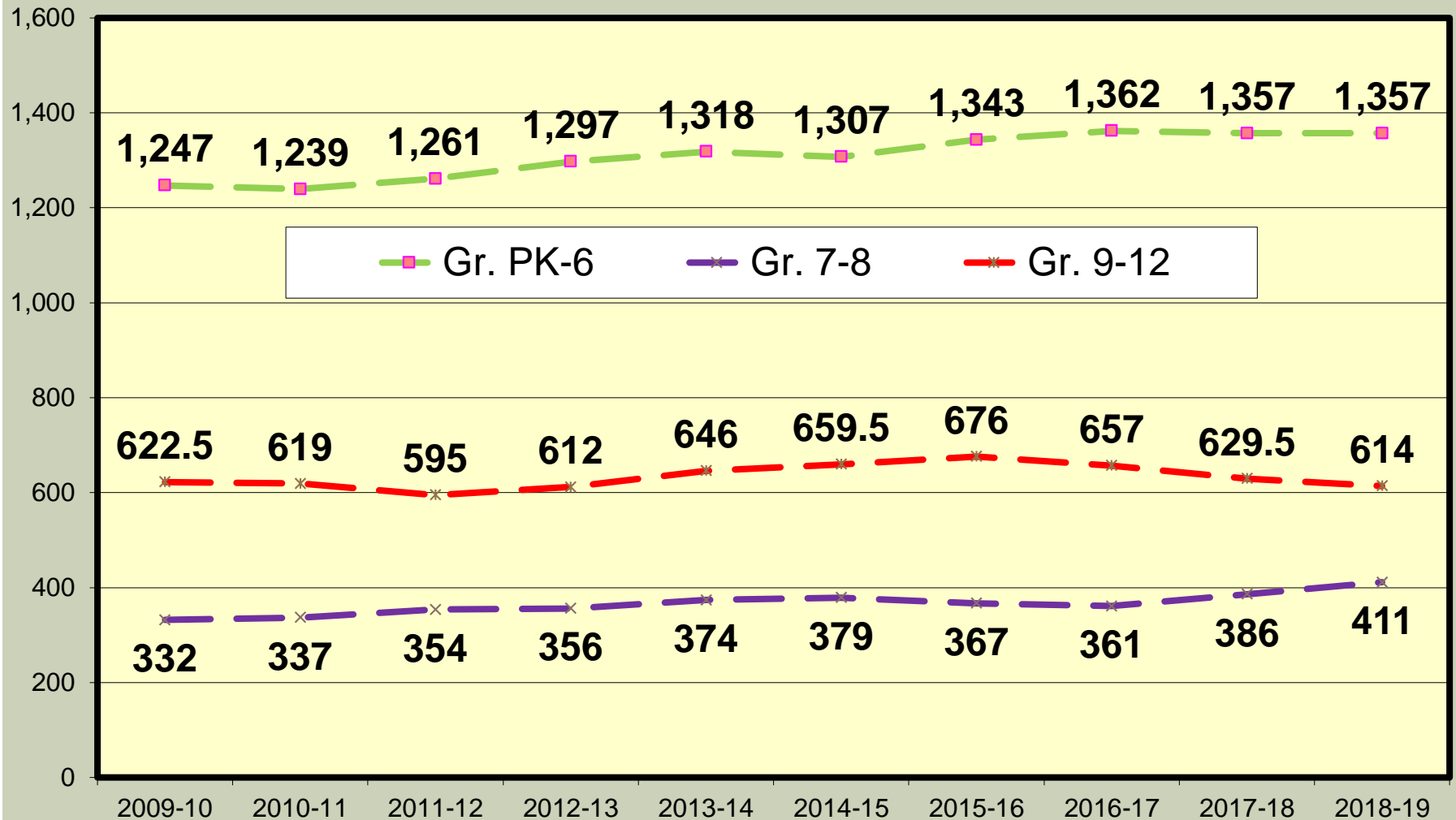
- ❑ District's 2018-19 enrollment (10/15/18) is 2,382.
- ❑ 2009-10 enrollment = 2,201.5 (+180.5)
- ❑ Enrollment increased through 2015-16 before stabilizing.
- ❑ Cohort-Survival Ratio Method (CSR) was used to project enrollments five years into the future.

HISTORICAL ENROLLMENTS (PK-12)

2009-10 TO 2018-19



HISTORICAL ENROLLMENTS BY LEVEL 2009-10 TO 2018-19



ENROLLMENT PROJECTION METHOD

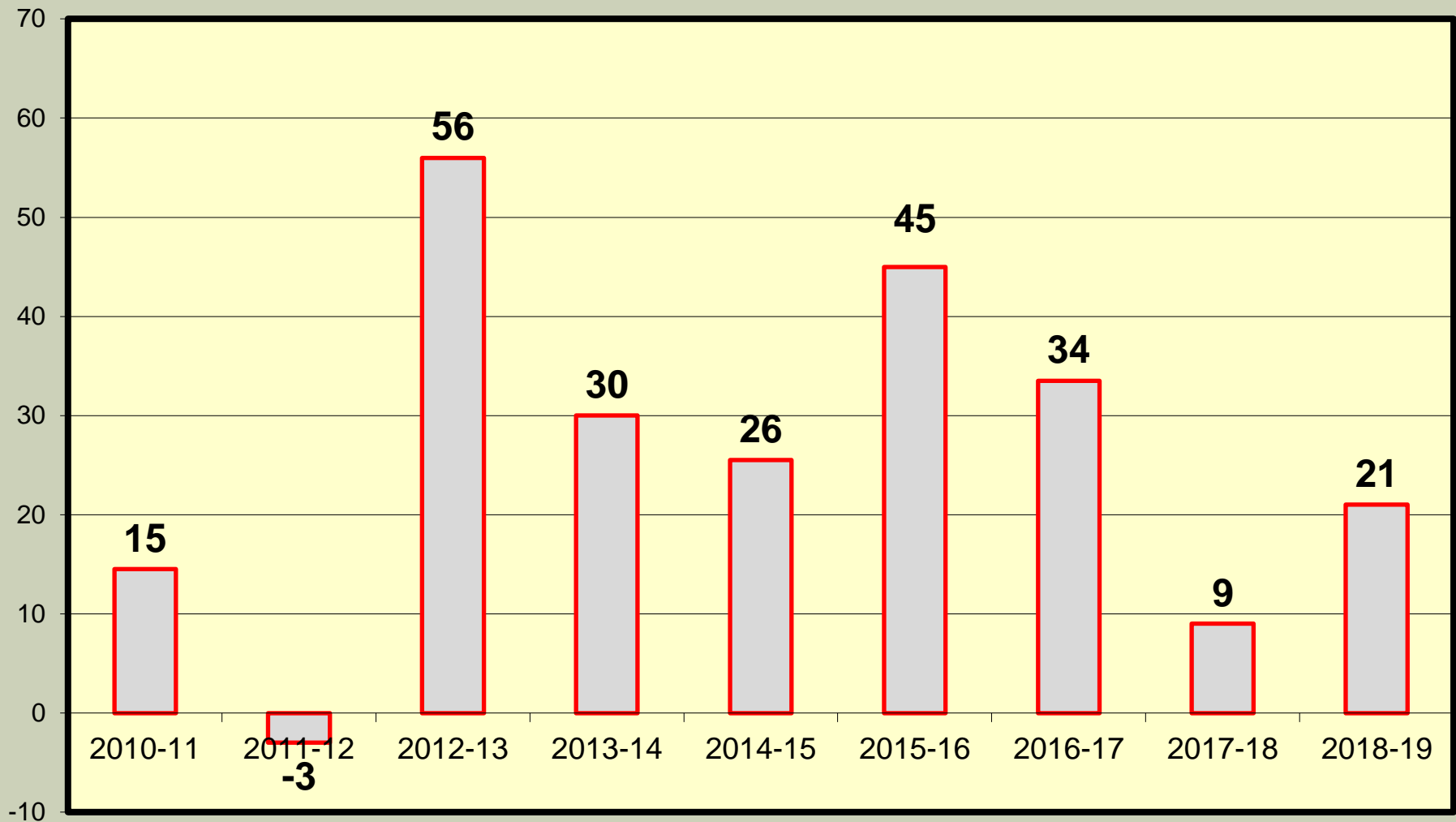
COHORT SURVIVAL RATIO

- ❑ Ratios are calculated for each grade progression. (Ex. 100 1st graders in 2017-18 become 95 2nd graders in 2018-19 = 0.95)
- ❑ Survival ratios were computed for ten historical years.
- ❑ 8 of 13 average ratios were above 1.000 indicating net inward migration, particularly in elementary and middle school levels.
- ❑ Averages were then computed and used to project future enrollments.

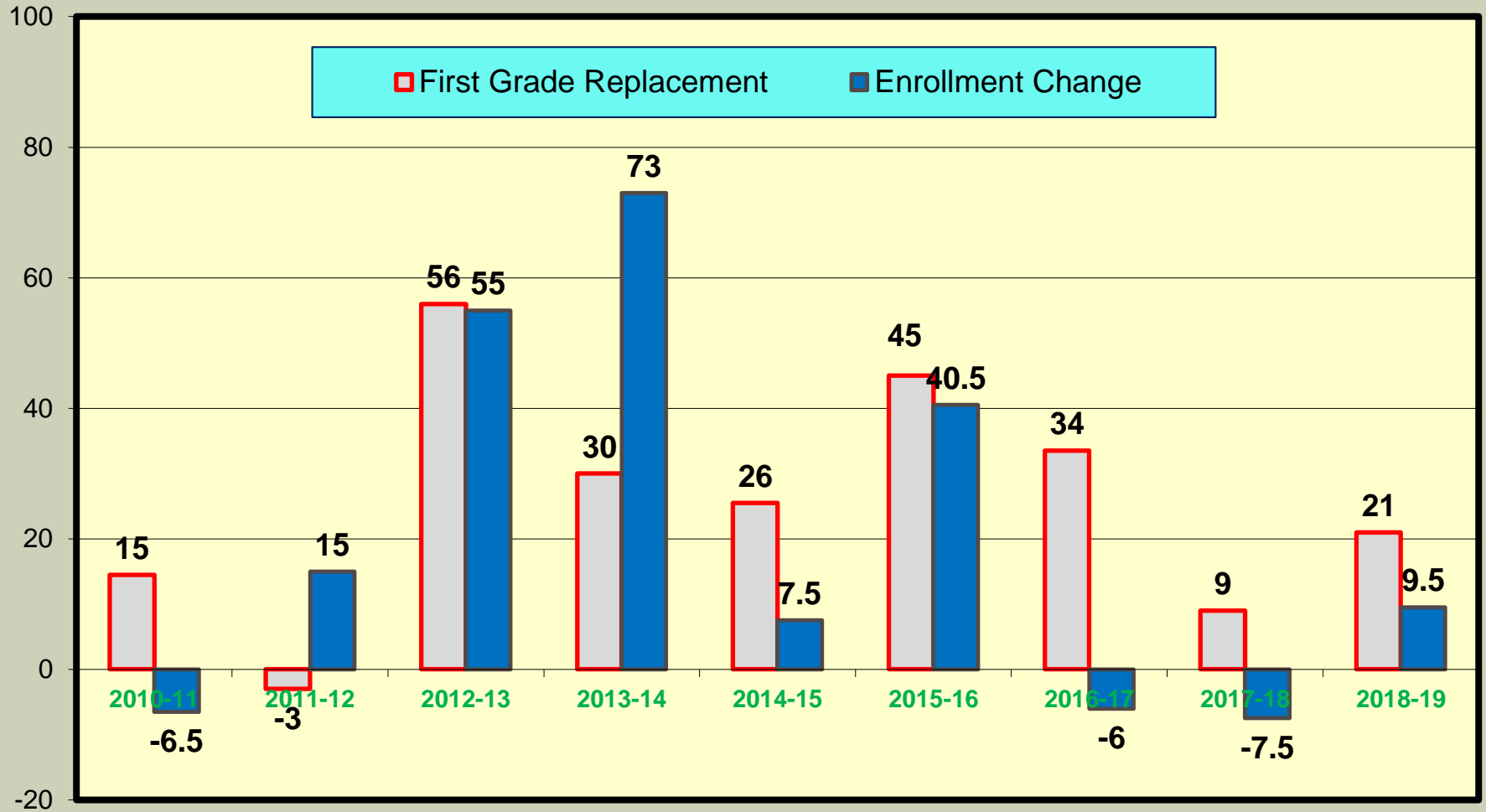
FIRST GRADE REPLACEMENT

- ❑ Positive first grade replacement (FGR) has occurred in 8 of last 9 years. Usually compared to kindergarten classes but district has half-day program.
- ❑ Positive FGR- Number of graduating 12th grade students is less than the number of first grade students replacing them in the next year.
- ❑ District has gained an average of 27 students due to first grade replacement in last 5 years.

HISTORICAL FIRST GRADE REPLACEMENT



TOTAL ENROLLMENT CHANGE VS. FIRST GRADE REPLACEMENT

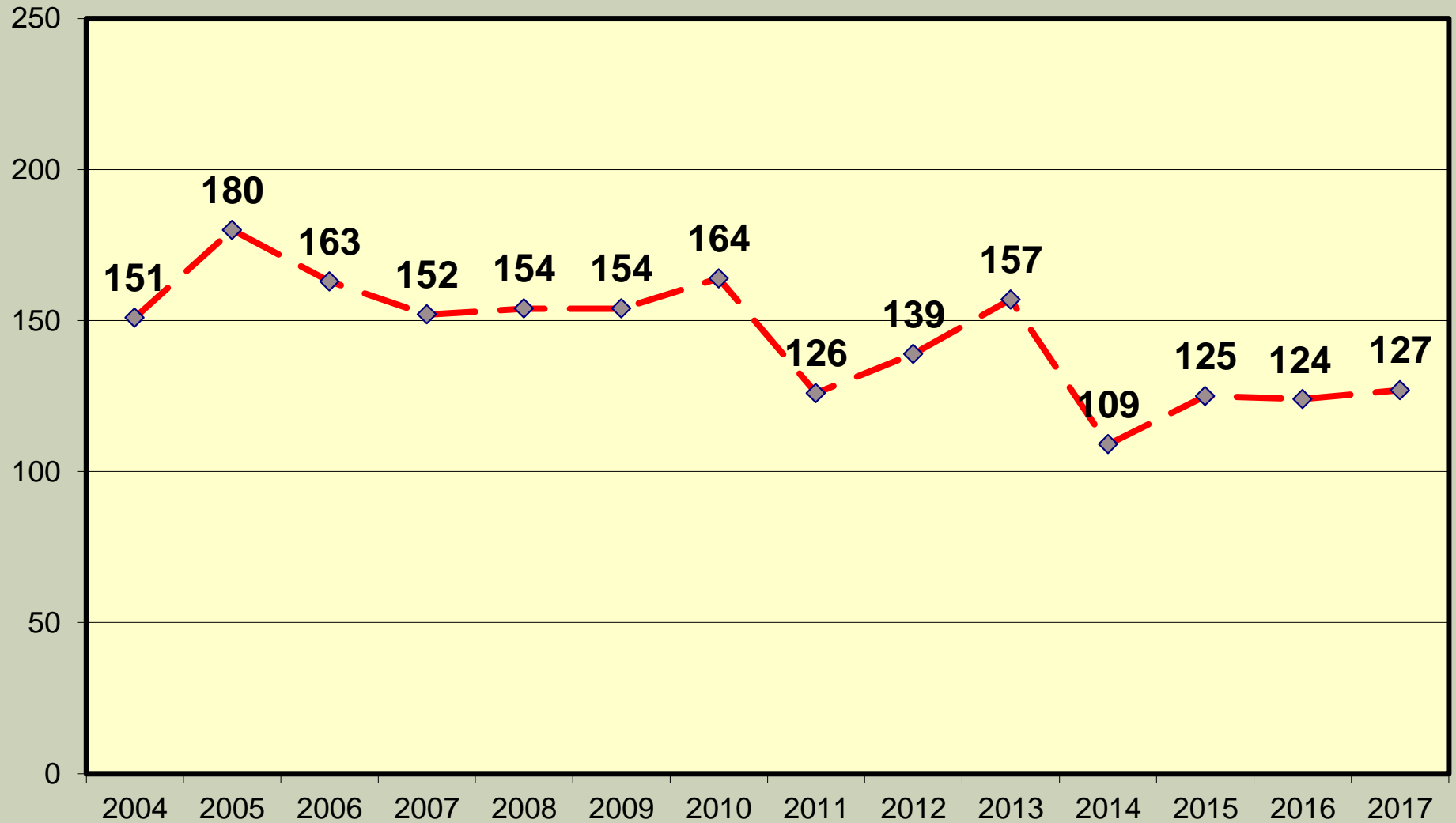


BIRTH COUNTS

- ❑ Births are used to project kindergarten students 5 years later.
- ❑ Birth counts have been trending lower but have appeared to stabilize.
- ❑ 180 births in 2005, 109 in 2014.
Last 3 years, birth count is 124-127.
- ❑ Fertility rate in New Providence is higher than those of Union County & NJ.

HISTORICAL BIRTH COUNTS

2004-2017

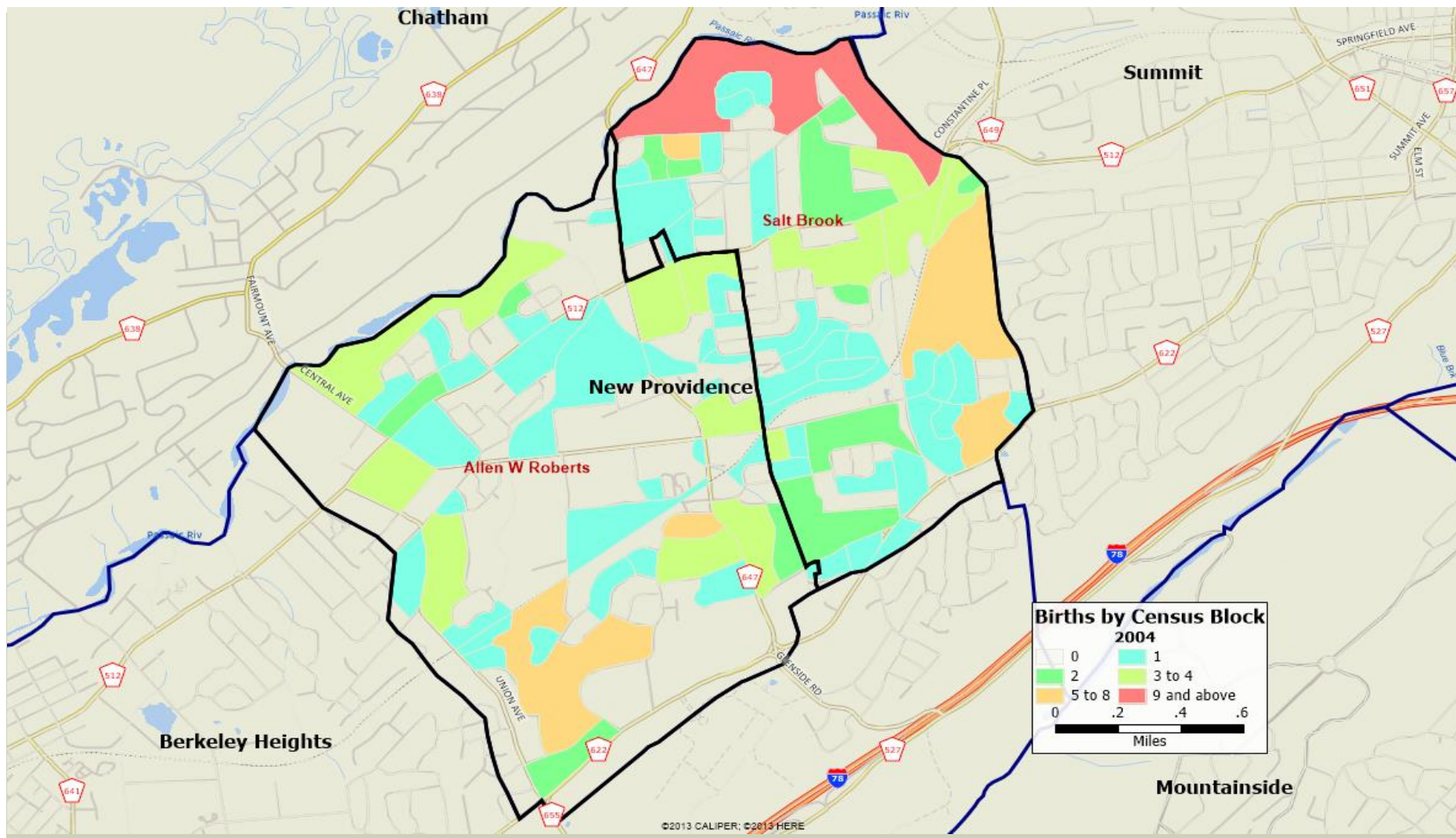


BIRTHS BY ATTENDANCE AREA

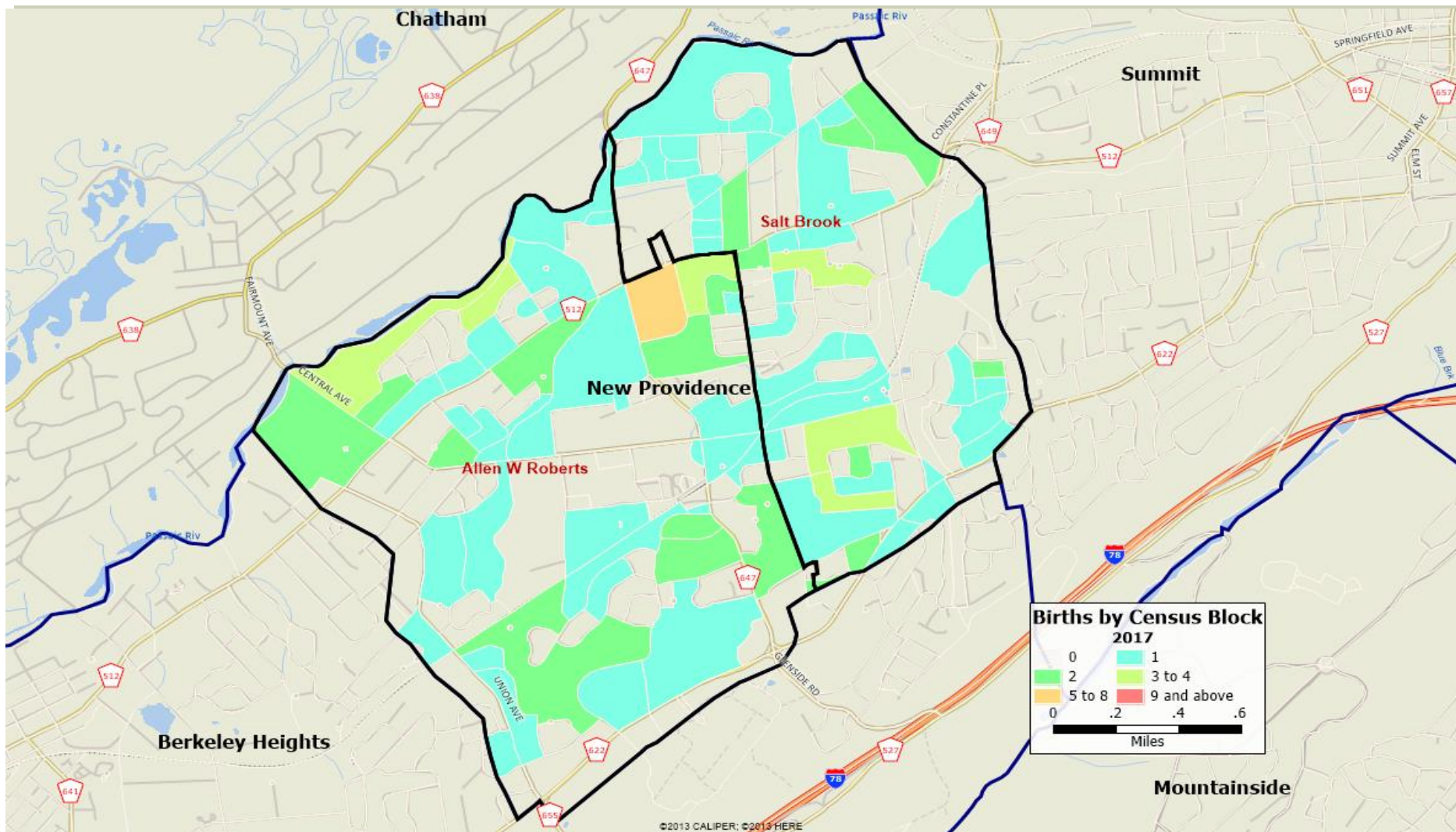
2004-2017

Birth Year	Roberts	Salt Brook	Unknown
2004	70	81	0
2005	83	94	3
2006	86	74	3
2007	83	66	3
2008	72	79	3
2009	68	80	6
2010	78	78	8
2011	71	52	3
2012	69	63	7
2013	91	62	4
2014	61	43	5
2015	64	53	8
2016	73	45	6
2017	65	55	7
Total 2004-2017	1,034	925	
Difference 2004-2017	-5	-26	

BIRTHS BY CENSUS BLOCK 2004



BIRTHS BY CENSUS BLOCK 2017



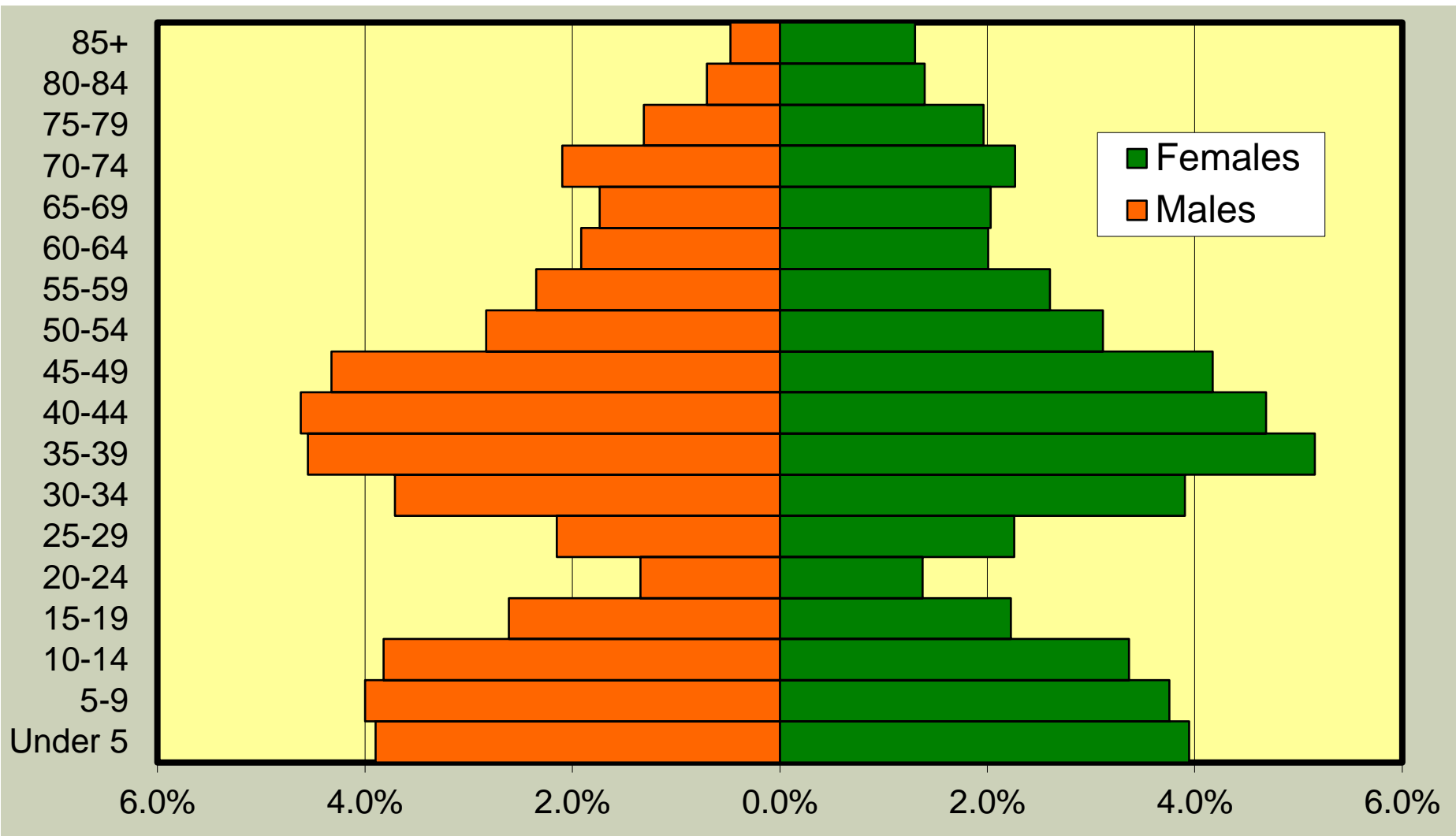
BIRTH COUNTS AND BIRTH-TO-KINDERGARTEN SURVIVAL RATIOS

Birth Year ¹	Number of Births New Providence	Kindergarten Students 5 Years Later	Birth-to-Kindergarten Survival Ratio
2004	151	130	0.861
2005	180	136	0.756
2006	163	162	0.994
2007	152	126	0.829
2008	154	151	0.981
2009	154	131	0.851
2010	164	143	0.872
2011	126	116	0.921
2012	139	120	0.863
2013	157	151	0.962
2014	109	N/A	N/A
2015	125	N/A	N/A
2016	124	N/A	N/A
2017	127	N/A	N/A

AGE PYRAMID

NEW PROVIDENCE

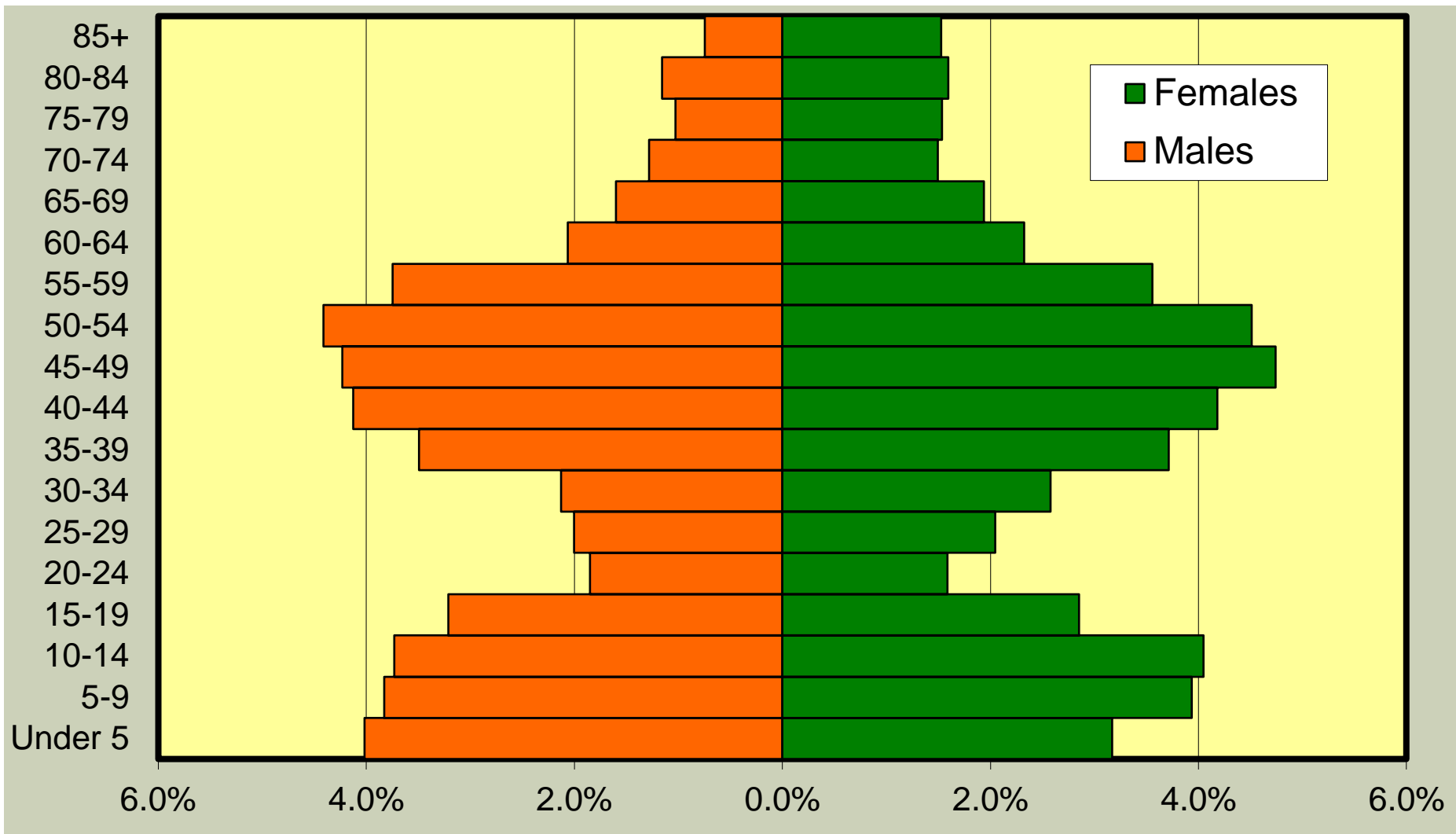
2000



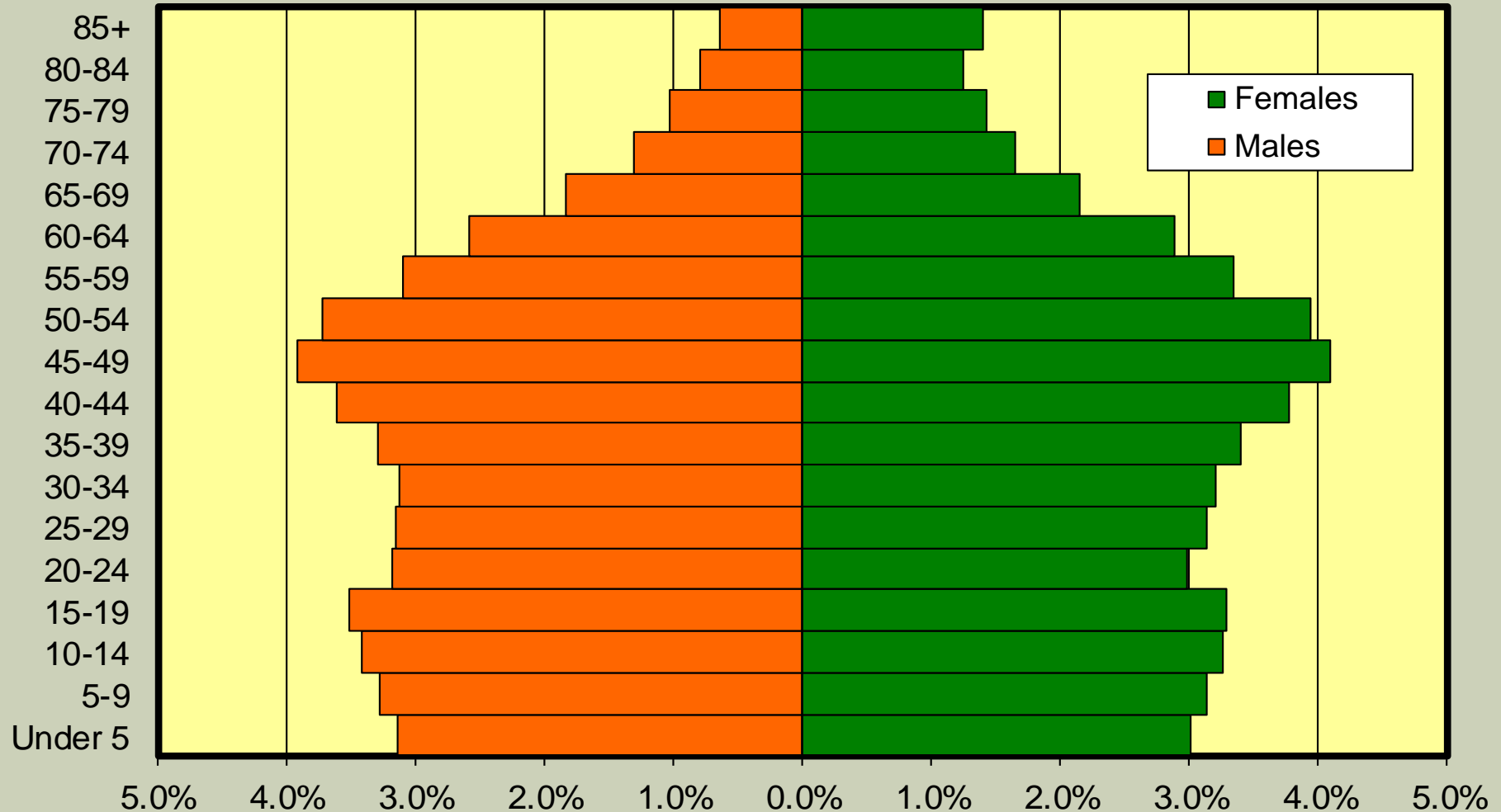
AGE PYRAMID

NEW PROVIDENCE

2010



AGE PYRAMID NEW JERSEY 2010



CHANGE IN MALES AND FEMALES

2000 TO 2010

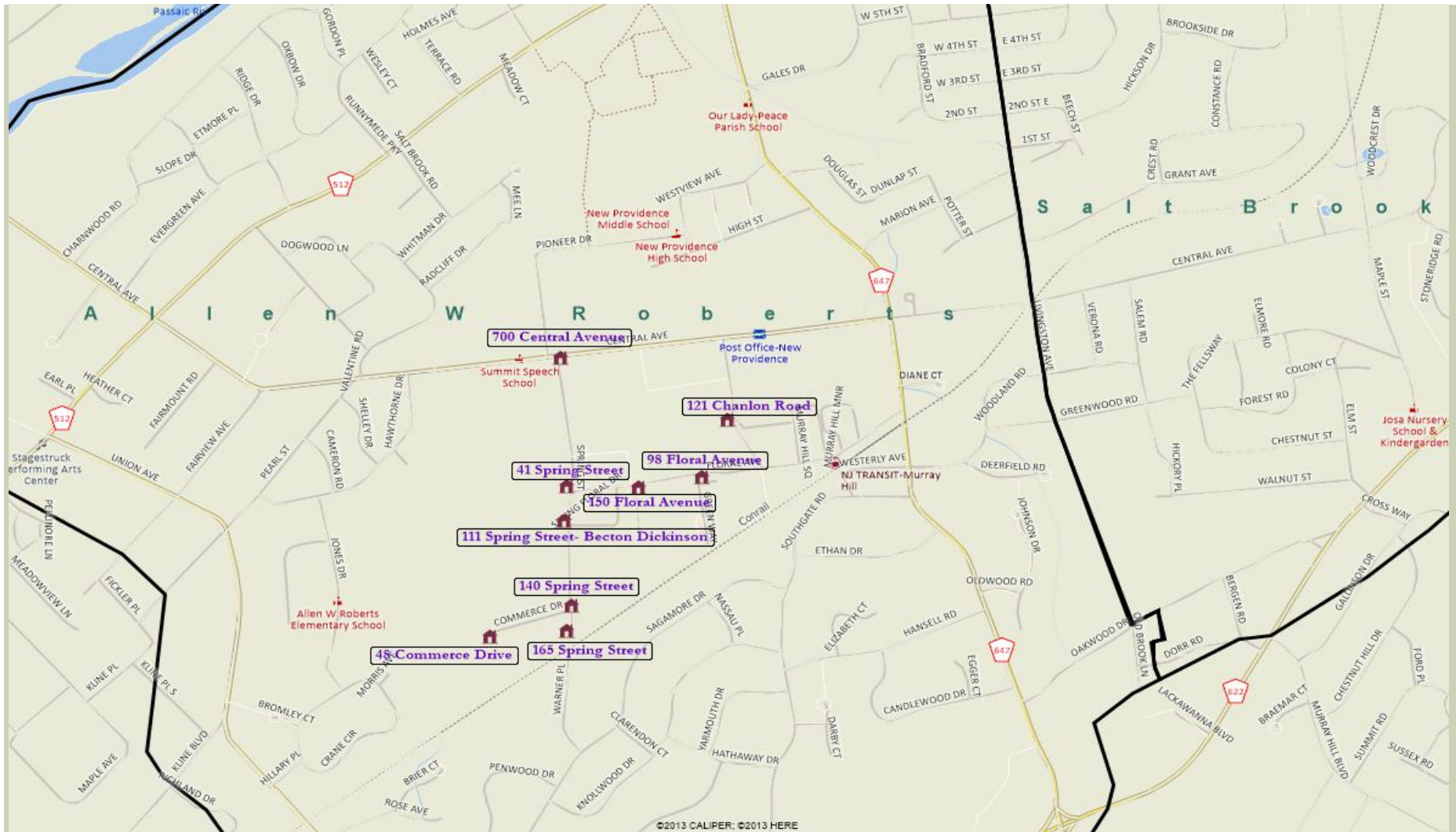
NEW PROVIDENCE

	Males		Females	
Age Group	Numerical Change	Percentage Point Change	Numerical Change	Percentage Point Change
Under 5	+25	+0.1	-84	-0.8
5-9	-10	-0.2	+32	+0.2
10-14	-1	-0.1	+92	+0.7
15-19	+80	+0.6	+82	+0.6
20-24	+65	+0.5	+29	+0.2
25-29	-12	-0.1	-20	-0.2
30-34	-183	-1.6	-151	-1.3
35-39	-117	-1.1	-162	-1.4
40-44	-48	-0.5	-49	-0.5
45-49	0	-0.1	+80	+0.6
50-54	+200	+1.6	+178	+1.4
55-59	+176	+1.4	+123	+1.0
60-64	+23	+0.1	+44	+0.3
65-69	-12	-0.1	-6	-0.1
70-74	-94	-0.8	-88	-0.8
75-79	-31	-0.3	-47	-0.4
80-84	+57	+0.5	+28	+0.2
85+	+34	+0.3	+31	+0.2

POTENTIAL NON AGE-RESTRICTED NEW HOUSING NEW PROVIDENCE

Property Location	Attendance Area	Number of Units	Housing Type	Notes
111 Spring Street (Becton Dickinson)	Roberts	192	Multi-Family Market-Rate and Affordable	Development will have 154 market-rate units and 38 affordable units (20% of units).
41 Spring Street	Roberts	143	Multi-Family Market-Rate and Affordable	Development will have 114 market-rate units and 29 affordable units (20% of units).
165 Spring Street	Roberts	22	Multi-Family Market-Rate and Affordable	Development will have 17 market-rate units and 5 affordable units (20% of units).
48 Commerce Drive	Roberts	38	Multi-Family Market-Rate and Affordable	Development will have 30 market-rate units and 8 affordable units (20% of units).
98 Floral Avenue	Roberts	32	Multi-Family Market-Rate and Affordable	Development will have 25 market-rate units and 7 affordable units (20% of units).
150 Floral Avenue	Roberts	85	Multi-Family Market-Rate and Affordable	Development will have 68 market-rate units and 17 affordable units (20% of units).
140 Spring Street	Roberts	48	Multi-Family Market-Rate and Affordable	Development will have 38 market-rate units and 10 affordable units (20% of units).
700 Central Avenue	Roberts	150	Multi-Family Market-Rate and Affordable	Development will have 120 market-rate units and 30 affordable units (20% of units).
121 Chanlon Road	Roberts	104	Multi-Family Market-Rate and Affordable	Development will have 83 market-rate units and 21 affordable units (20% of units).
Total		814	649 Market-rate Units 165 Affordable Units	

NEW HOUSING



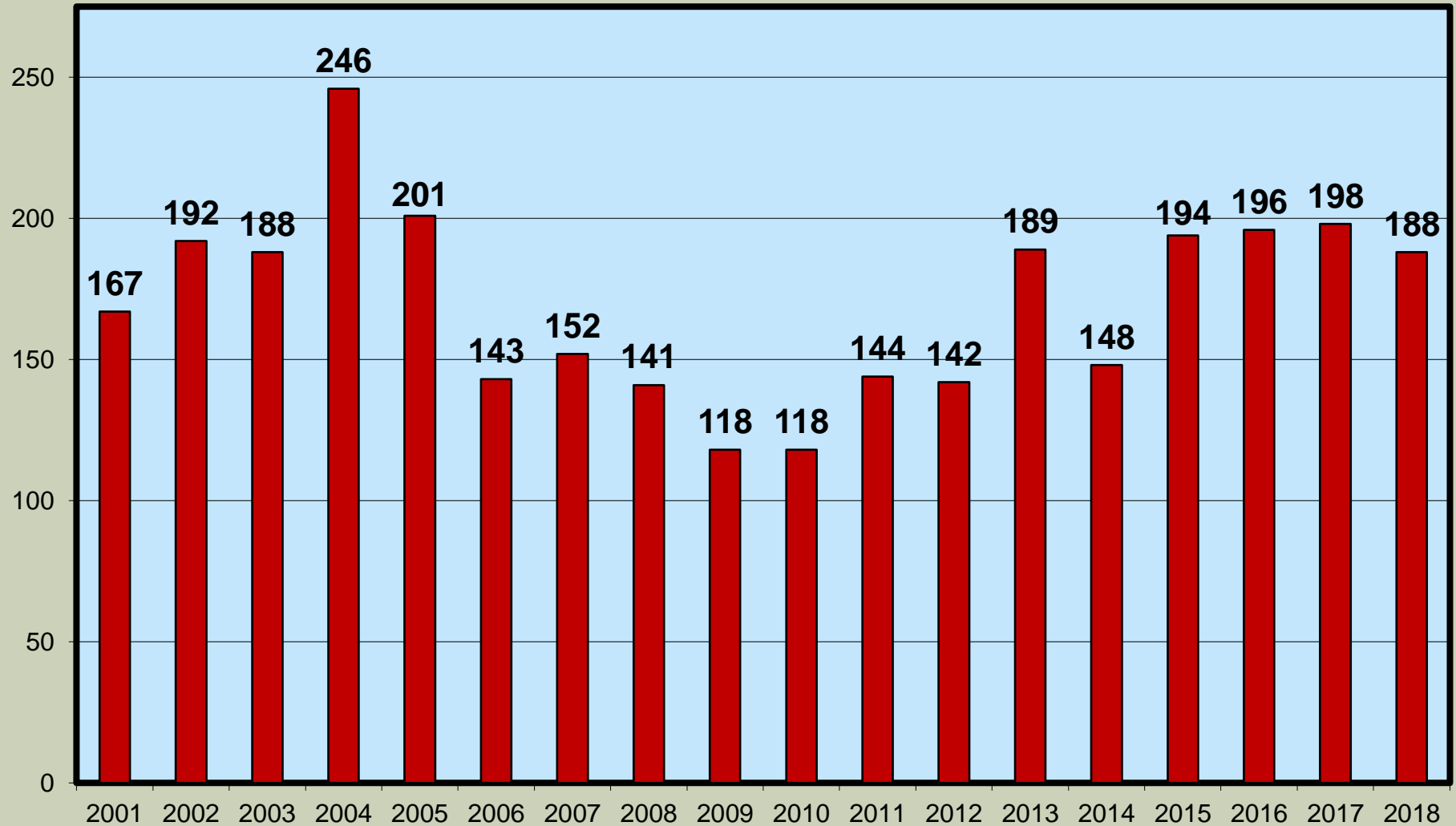
STUDENT YIELDS

- Student yields were computed by housing type to determine impact of new developments.
- Student addresses were joined to the New Providence property database.
- Detached Single-Family homes: 0.97
- Townhouse/Condo: 0.21
- Apartments: 0.22

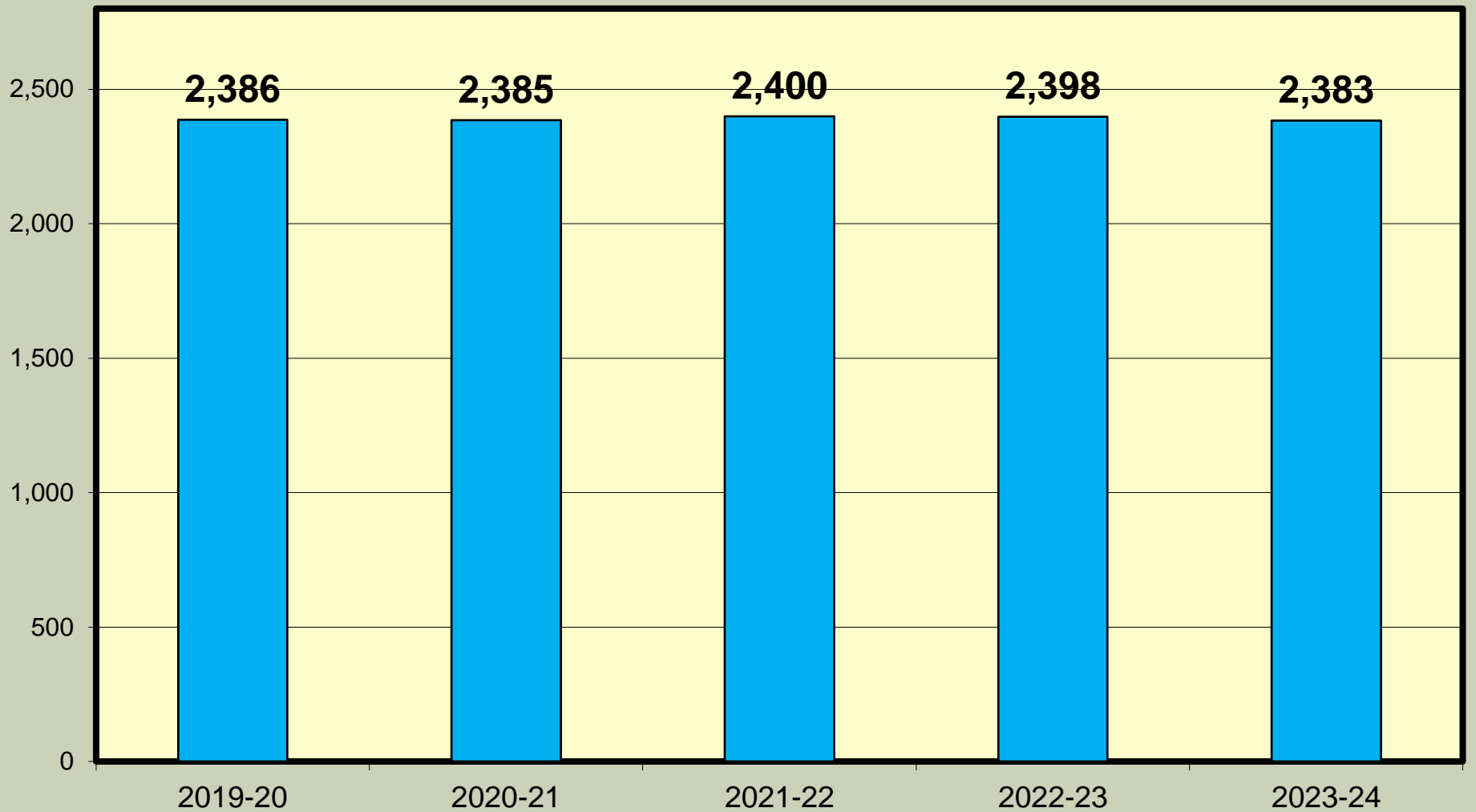
ESTIMATED NUMBER OF STUDENTS

- Rough estimate of new children as bedroom distributions and multi-family housing types were unknown.
- 222 children are projected from new developments.
- Could be lower (144) as developments could be considered TODs due to proximity to Murray Hill train station.
- Additional children were not added into baseline projections. Timeline is also unknown.
- Board should continue to monitor all developments.

HOME SALES NEW PROVIDENCE 2001-2018



ENROLLMENT PROJECTIONS



ENROLLMENT PROJECTIONS BY GRADE CONFIGURATION

Historical	PK-6	7-8	9-12
2018-19	1,357	411	614
Projected	PK-6	7-8	9-12
2019-20	1,358	409	619
2020-21	1,330	413	642
2021-22	1,322	409	669
2022-23	1,292	418	688
2023-24	1,284	416	683
5-year Change	-73	+5	+69

CAPACITY ANALYSIS

School	Capacity	Actual Enrollment 2018-19	Difference	Projected Enrollment 2023-24	Difference
Allen W. Roberts E.S. (PK-6)	689	707	-18	688	+1
Salt Brook E.S. (PK-6)	689	650	+39	596	+93
New Providence M.S. (7-8)	1,214	411	+189	416	+115
New Providence H.S. (9-12)		614		683	

SUMMARY

- PK-12 enrollments are projected to be fairly stable throughout the 5-year projection period.
- Declining birth rate likely to lead to less children entering kindergarten, resulting in enrollment decline at elementary level.
- Some of proposed new housing is likely to start near the end of projection period. Impact may occur in 5+ years.

