DEMOGRAPHIC STUDY

FOR THE

WEST ORANGE

PUBLIC SCHOOLS

STATISTICAL FORECASTING LLC

October 16, 2023

STATISTICAL FORECASTING

- Provide demographic services for school districts in the New York-New Jersey metropolitan area since 1998.

- Performed demographic studies for approximately 200 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

- ❑ Presentation is based on November 2022 report.
- ❑ Project grade-by-grade enrollments from 2022-23 through 2026-27, a 5-year period
- ❑ Analyze community population trends, demographic characteristics and age structure, birth counts, and fertility rates
- ❑ Examine historical enrollments districtwide, by grade configuration (PK-5, 6-8, and 9-12), by school, and by race/poverty status
- ❑ Determine historical birth counts for each elementary attendance area
- ❑ Research new housing starts and the impact on the school district
- ❑ Compute student yields (children per housing unit) by housing type (e.g. 1- to 4-family, townhouse/condo, and apartment)
- ❑ Compare building capacities to current and projected enrollments

# WEST ORANGE HISTORICAL AND PROJECTED POPULATIONS 1940-2040
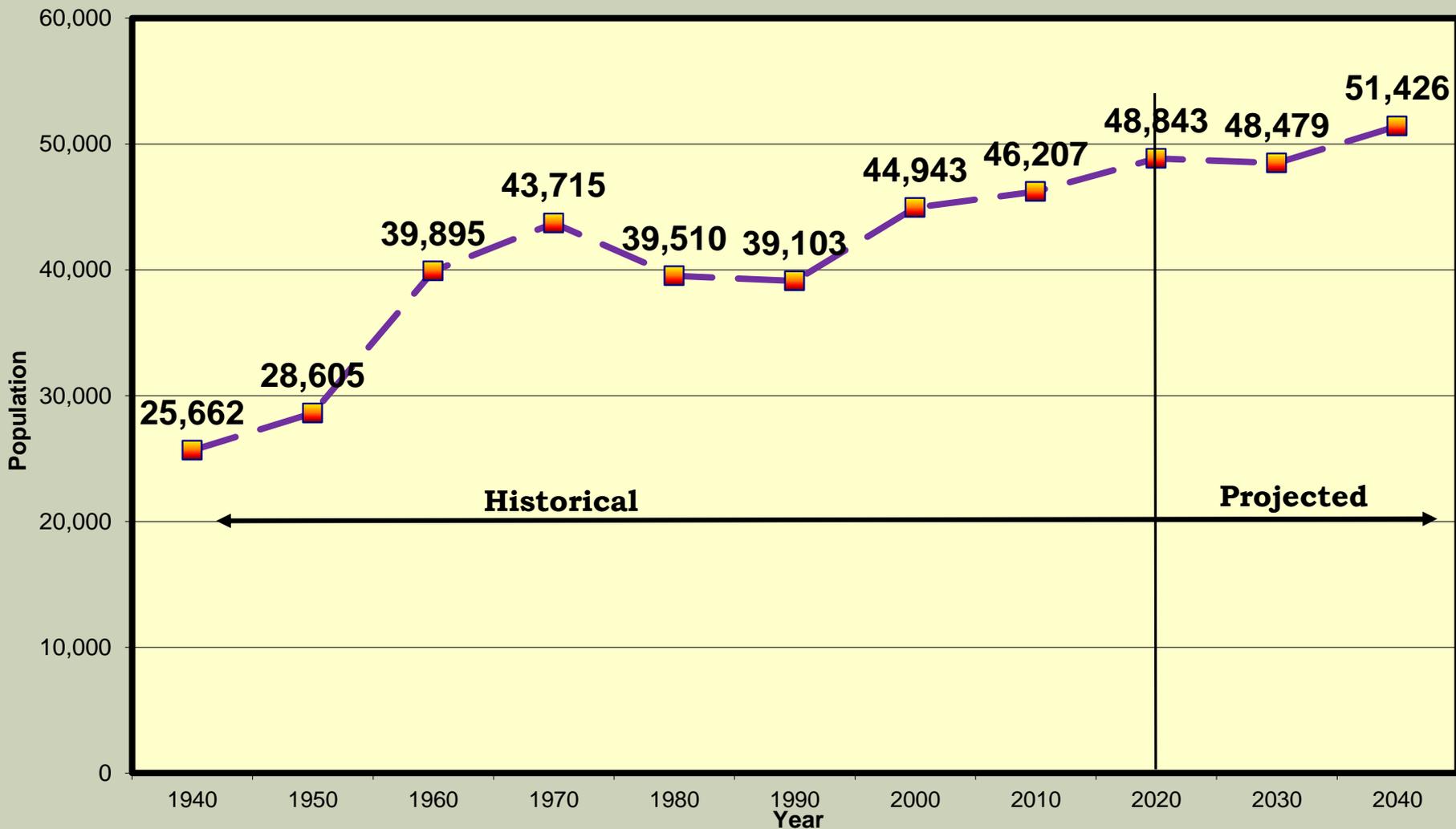
WEST ORANGE DEMOGRAPHIC PROFILE

❑ 39.2% White, 28.5% Black, & 19.8% Hispanic in 2020 (increasing Black and Hispanic populations and decreasing White population from 2010)

❑ Median age = 44.2 years (NJ = 40.0 years)

❑ 30.8% of population is foreign-born (NJ=22.7%). Haiti and Jamaica are largest sources.

❑ Bachelor's Degree or Higher = 50.7% (NJ = 40.7%)

❑ Median household income = $104K (NJ = $85K)

❑ 17,900 housing units, of which 66% are 1-unit homes (attached or detached)

❑ 31.6% of housing units are renter-occupied (NJ = 36.0%).

❑ Median value of owner-occupied unit = $391K (NJ = $390K).

SCHOOL LOCATIONS
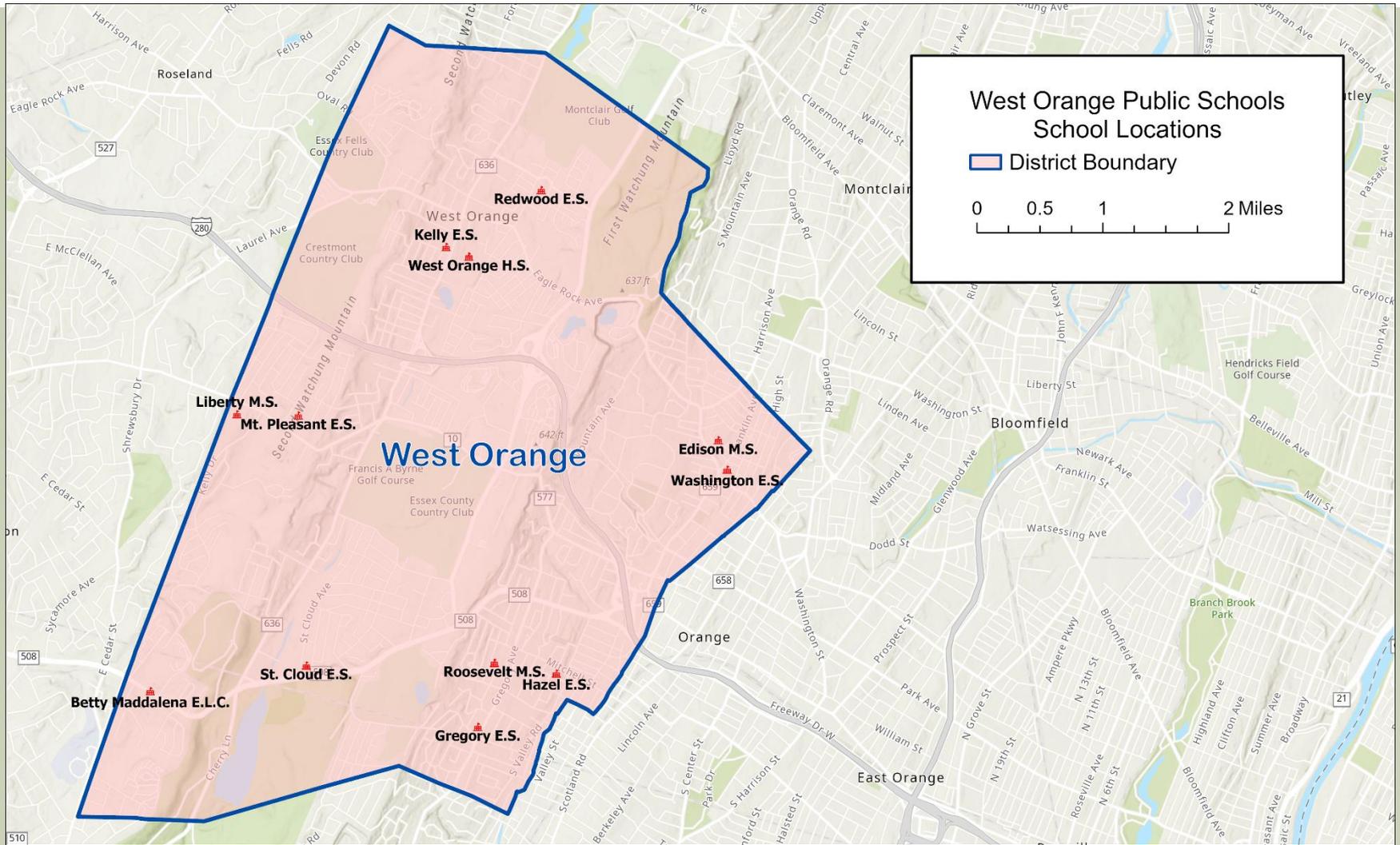
ELEMENTARY ATTENDANCE AREAS
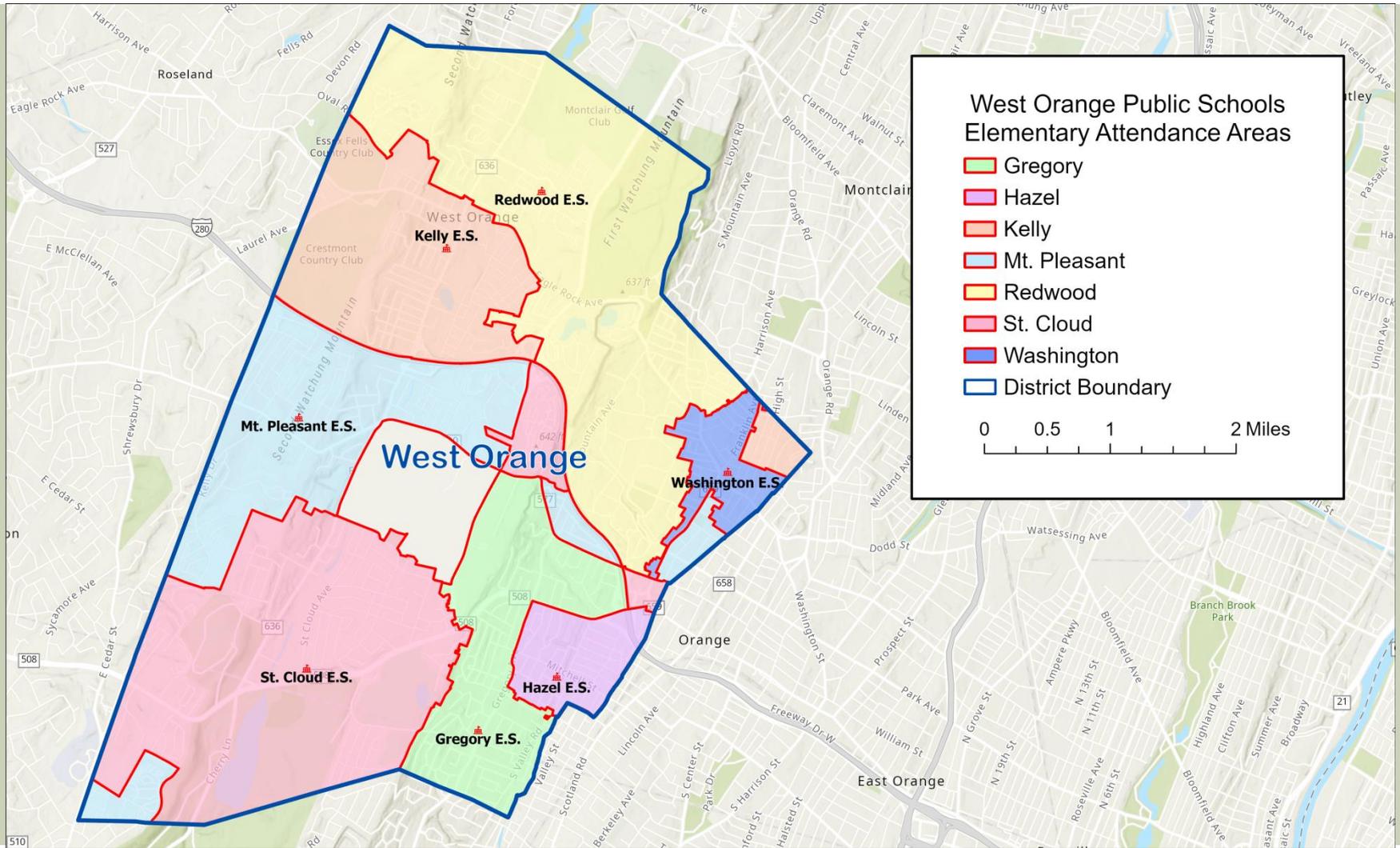
MIDDLE SCHOOL ATTENDANCE AREAS
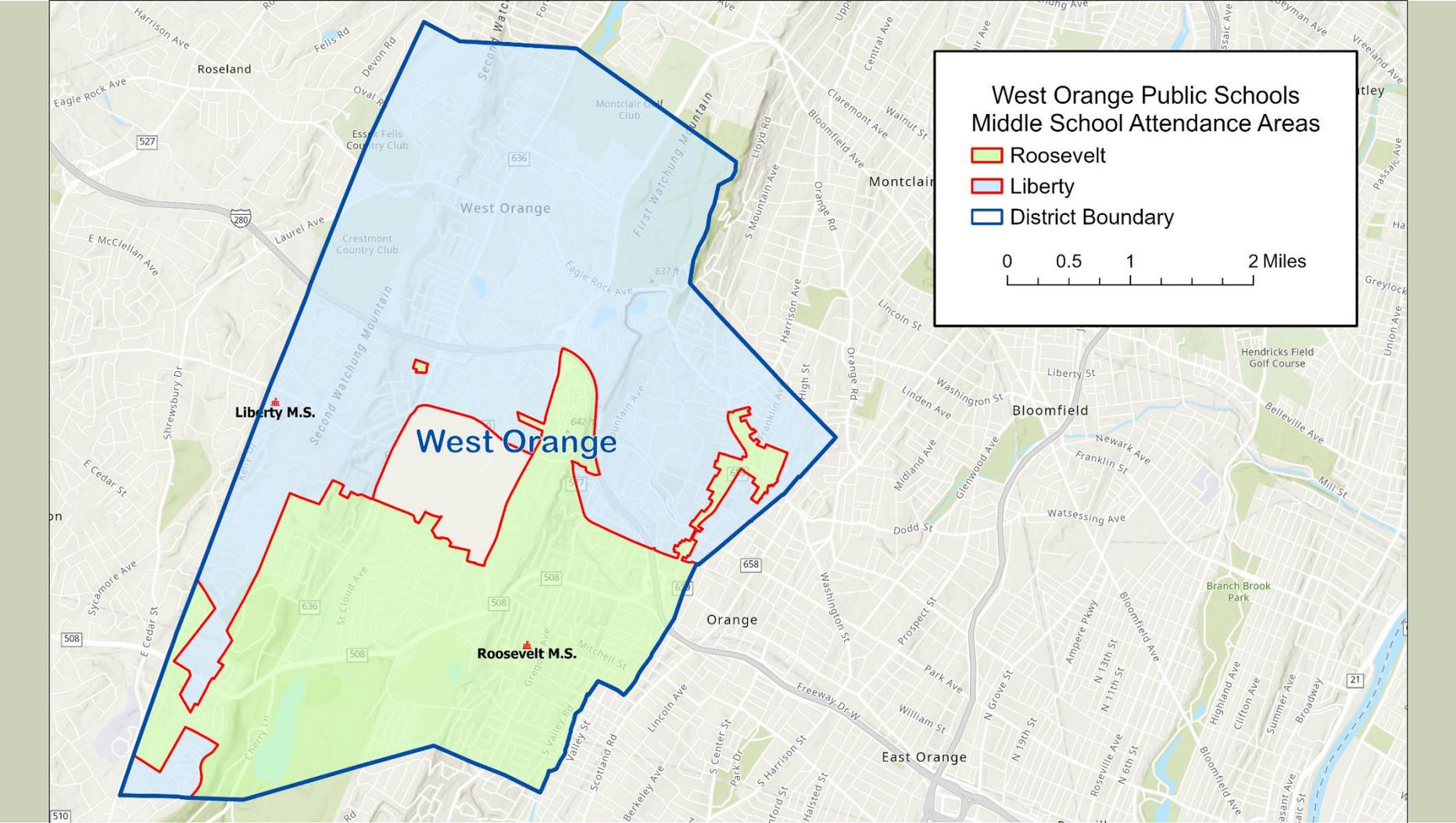
HISTORICAL ENROLLMENT TRENDS

❑ District's 2021-22 enrollment (10/15/21) was 6,556.5.

❑ Enrollments declined through 2016-17 before stabilizing.

❑ 2012-13 enrollment = 6,835 (decline of 278.5 students in 10 years)

❑ Cohort-Survival Ratio Method (CSR) was used to project enrollments five years into the future.

HISTORICAL ENROLLMENTS (PK-12) 2012-13 TO 2021-22
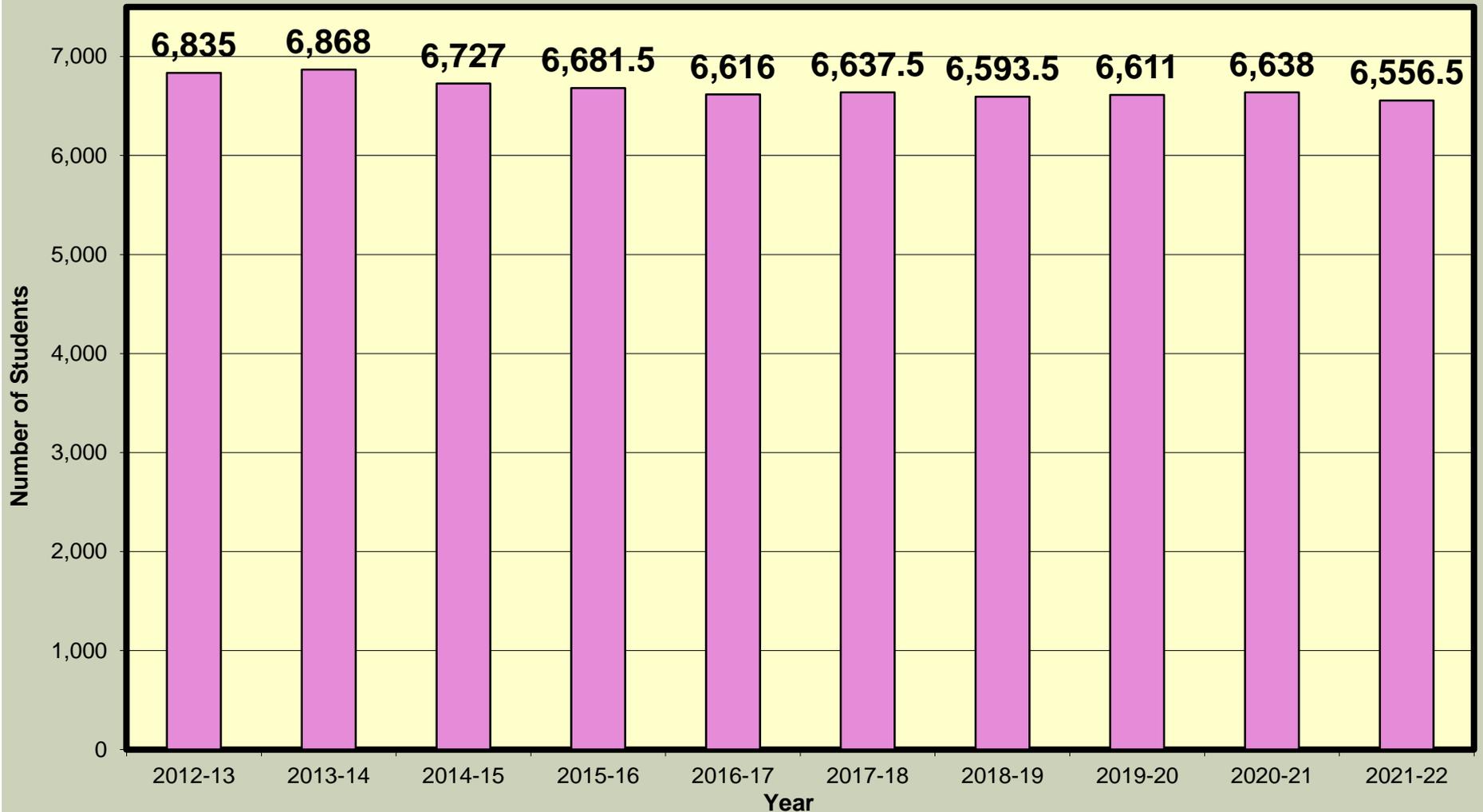
HISTORICAL ENROLLMENTS BY GRADE CONFIGURATION 2012-13 TO 2021-22
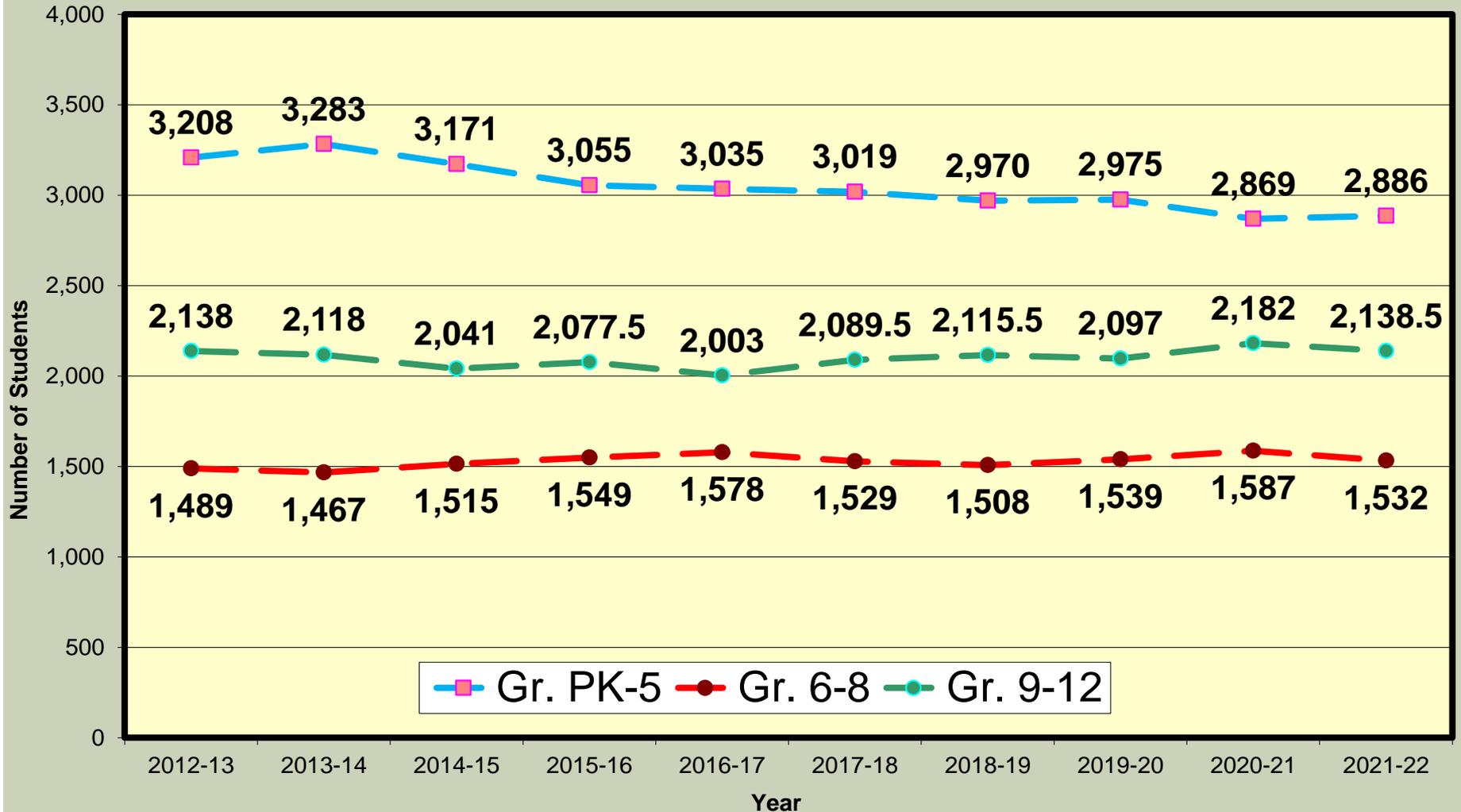
# ENROLLMENT PROJECTION METHOD COHORT SURVIVAL RATIO

❑ Ratios are calculated for each grade progression. (Ex. 100 1st graders in 2020-21 become 95 2nd graders in 2021-22 = 0.95)

❑ Ratios above 1.000 = inward migration, below 1.000 = outward migration

❑ Survival ratios were computed for ten historical years. 9 of 13 average ratios were <u>above</u> 1.000 indicating net inward migration.

❑ 2 of the average ratios that were below 1.000 were in lower ES grades.

❑ 4 survival ratios in 2021-22 were the lowest value in last decade (2nd year of pandemic)

❑ Average ratios were applied to current enrollments to project future enrollments.

BIRTH COUNTS

❑ Births are used to project kindergarten students 5 years later.

❑ Analyzed birth data from 2007-2020. Births have been fairly stable since 2010, ranging from 479-545.

❑ 481 births in 2020, 161 fewer than in 2007 (642).

❑ Births were also aggregated by elementary attendance area.

WEST ORANGE HISTORICAL BIRTH COUNTS 2007-2020
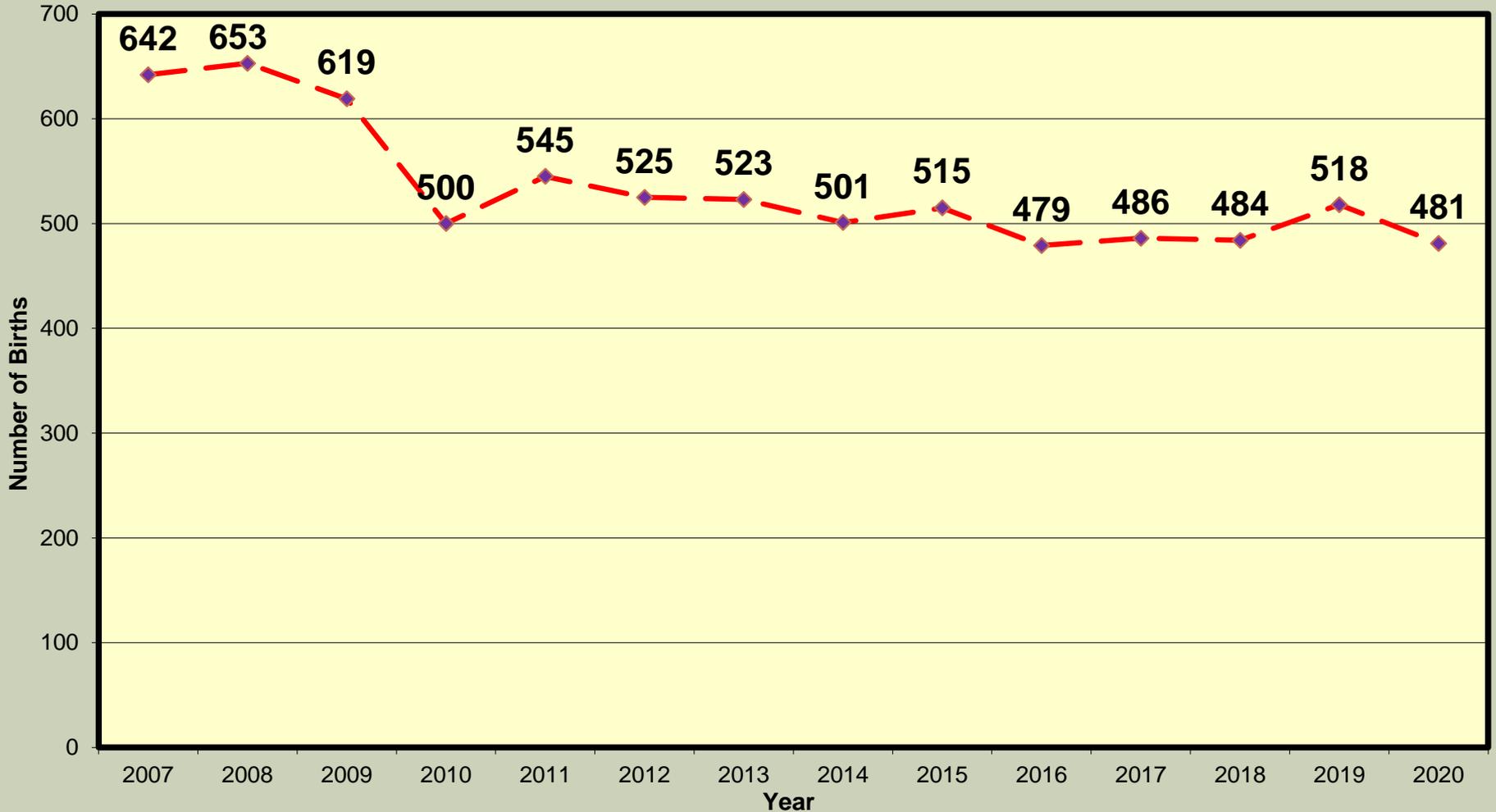
BIRTH COUNTS AND BIRTH-TO-KINDERGARTEN SURVIVAL RATIOS

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

BIRTHS BY ATTENDANCE AREA 2007-2020

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

BIRTHS BY CENSUS BLOCK 2007-2020
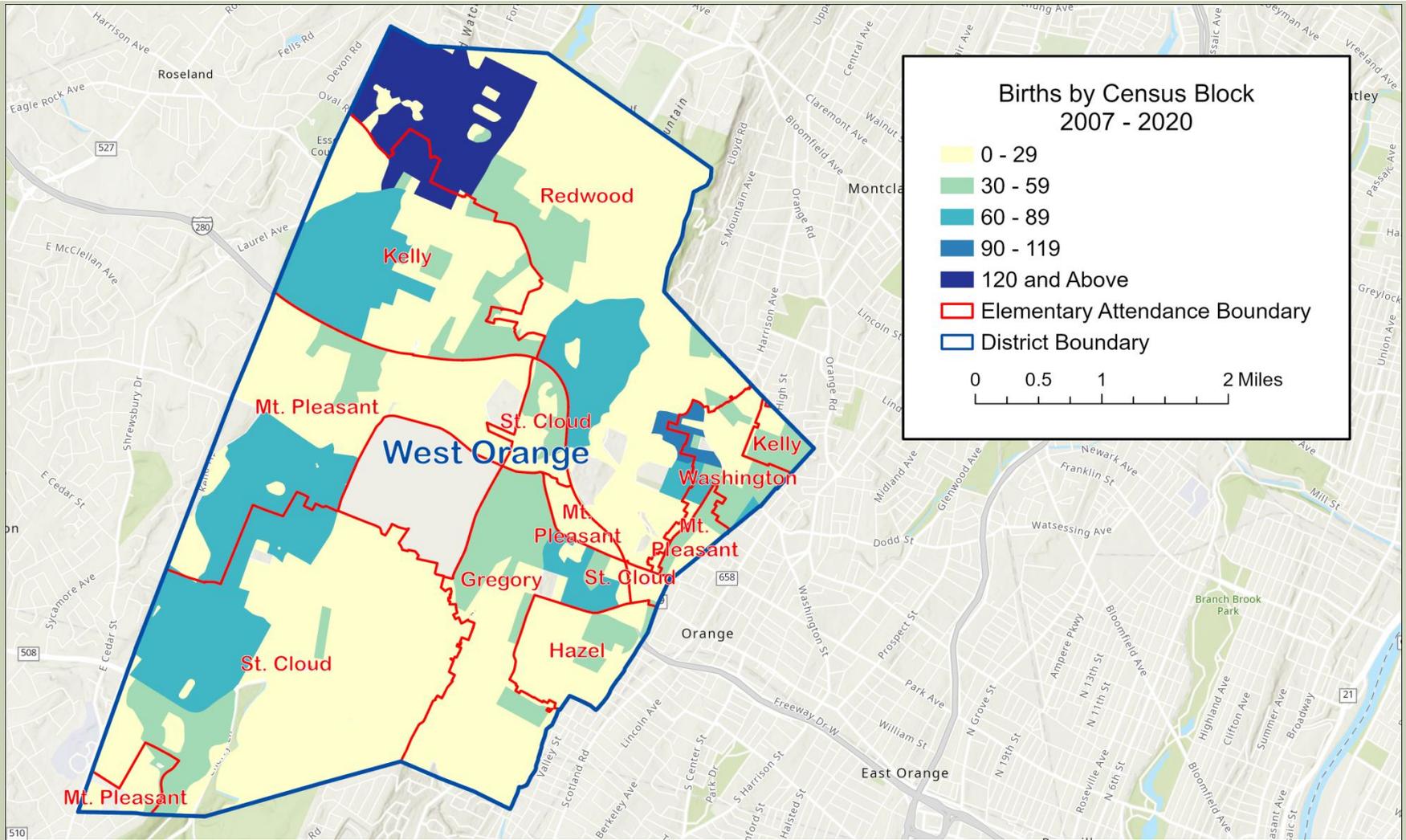
AGE PYRAMID
WEST ORANGE
2010 CENSUS
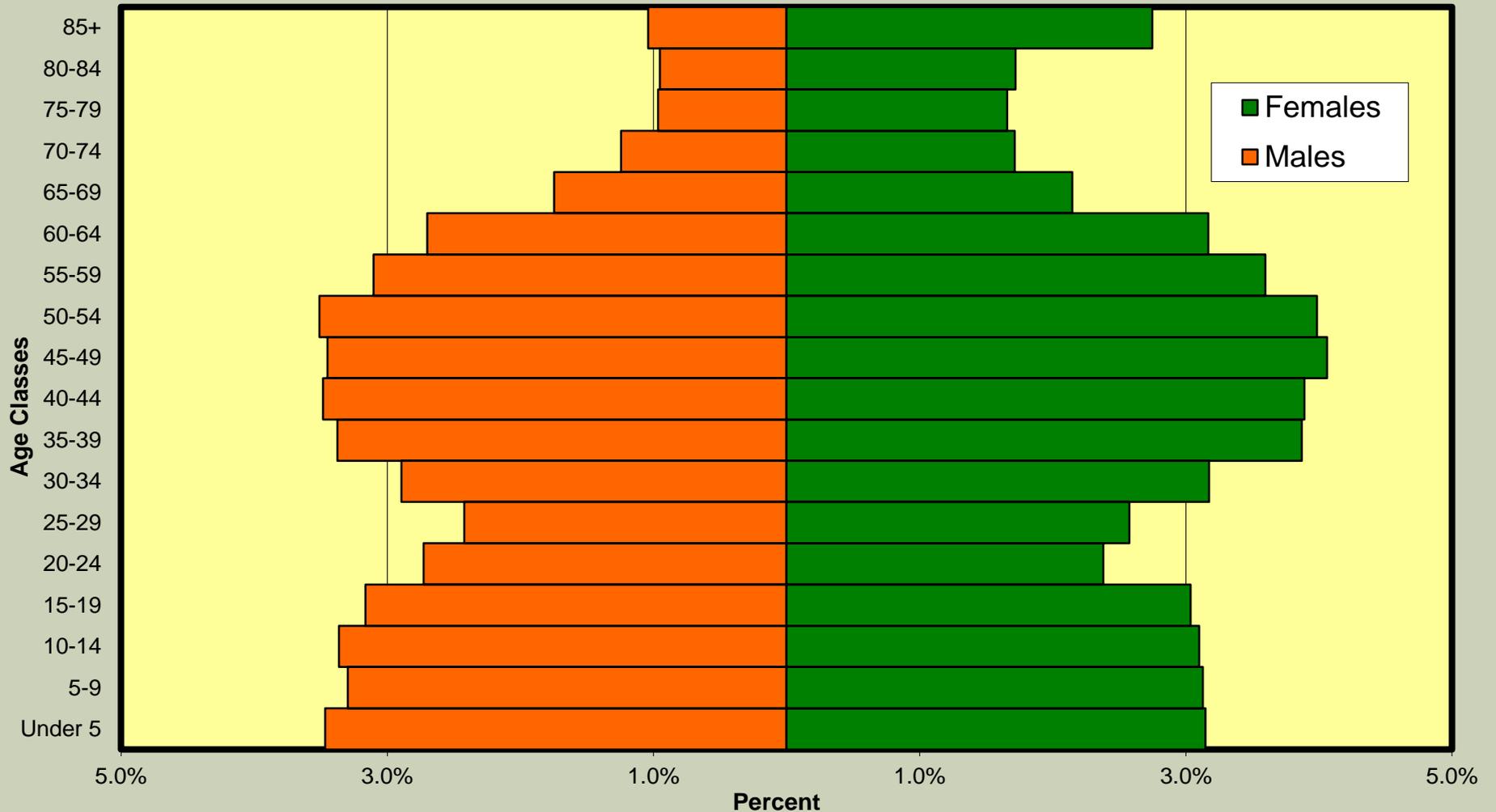
AGE PYRAMID
WEST ORANGE
2016-2020 ACS
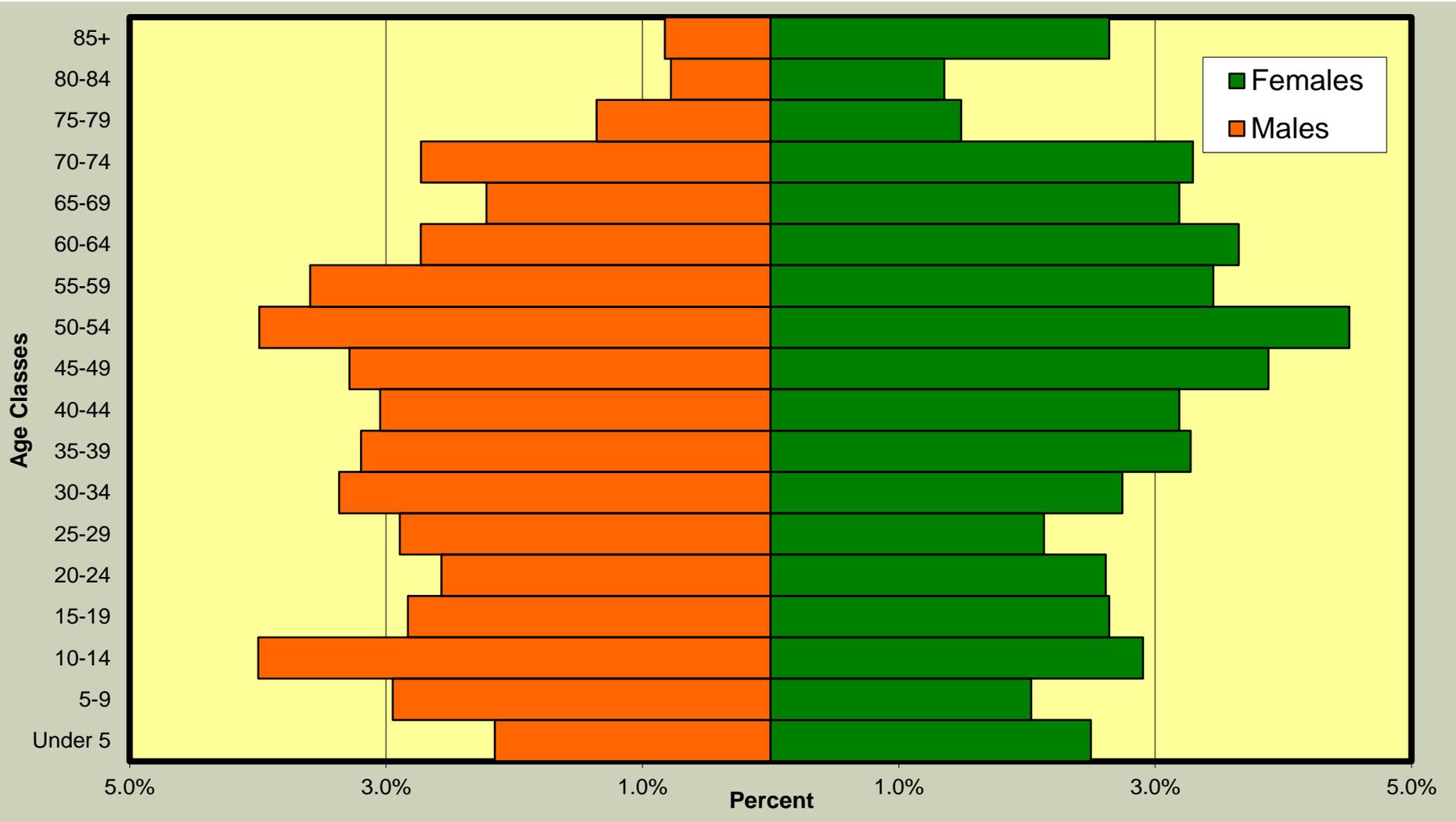
CHANGE IN MALES AND FEMALES 2010 TO 2016-2020 WEST ORANGE

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

ENROLLMENTS BY RACE
2016-17 TO 2021-22
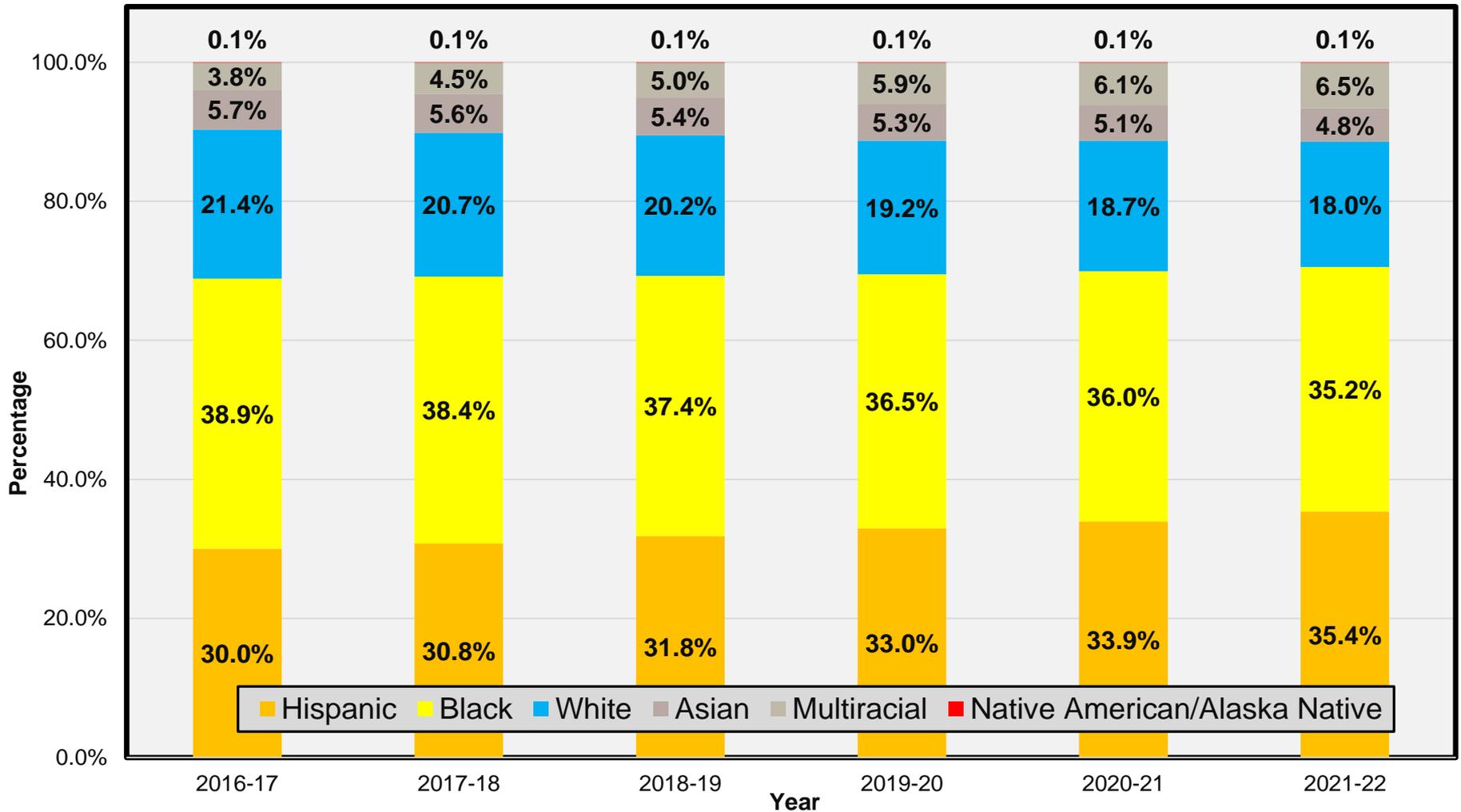
ENROLLMENTS BY RACE
2021-22

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

ECONOMICALLY DISADVANTAGED STUDENTS

- 2,859 students (43.2%) were economically disadvantaged in the school district in 2016-17.

- 3,053 students (46.6%) in 2021-22, which is an increase of 194 students and a 3.4 percentage-point increase.

ECONOMICALLY DISADVANTAGED STUDENTS 2021-22
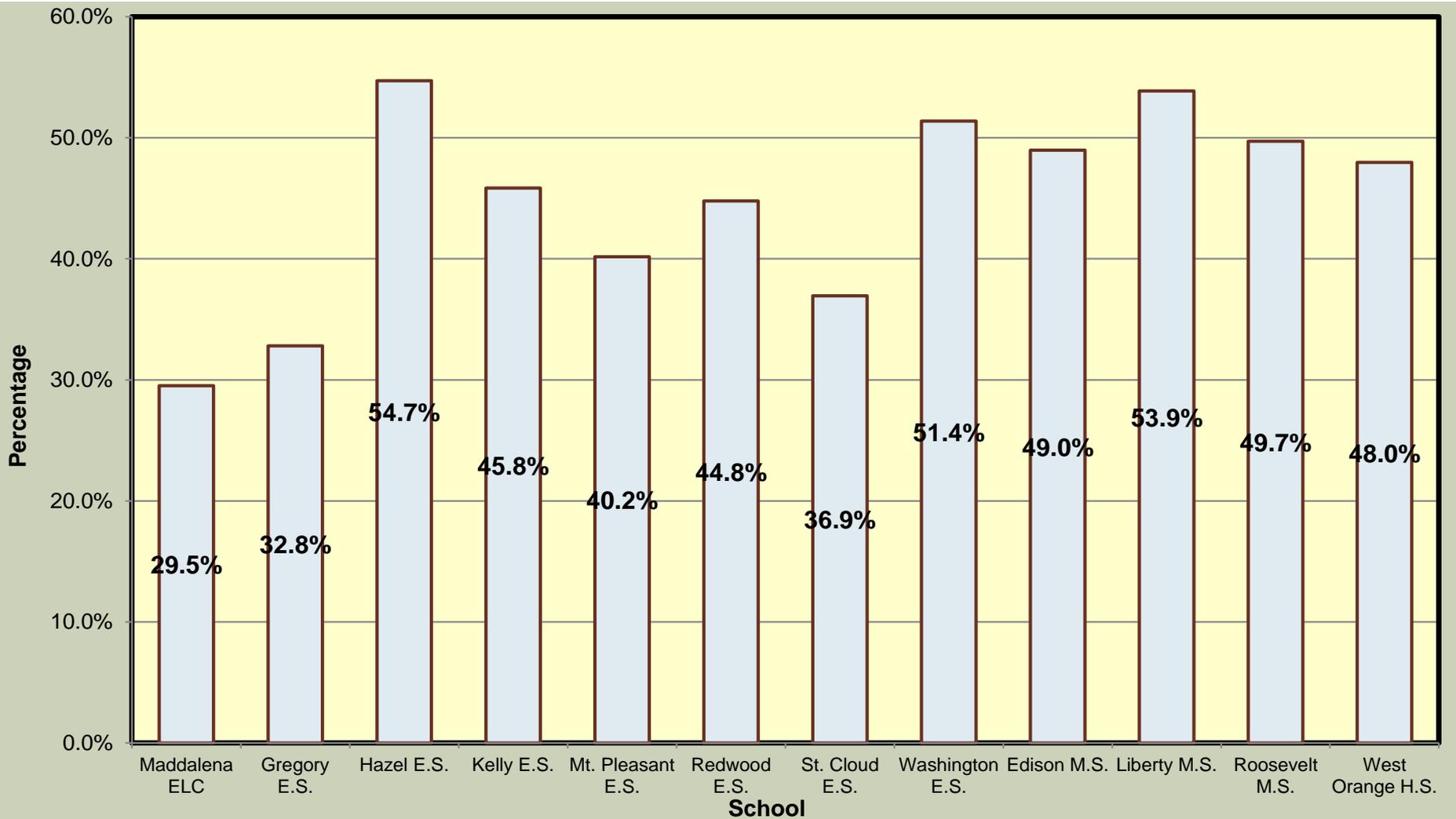
WEST ORANGE APPROVED AND PROPOSED NEW HOUSING

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

STUDENT YIELDS

- Student yields (K-12) were computed by housing type to determine impact of new developments.
- Student addresses were joined to the West Orange property database.
- 1-4 Family homes (mostly detached SF or duplex): 0.687
- Townhouse/Condo: 0.119
- Apartments: 0.161
- 119 public school children (K-5 = 54, 6-8 = 27, and 9-12 = 38) are projected from new housing.

STUDENT YIELDS TOWNHOUSES/CONDOMINIUMS

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

HISTORICAL CONSTRUCTION 2017-2021

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

HOME SALES
WEST ORANGE
2001-2019
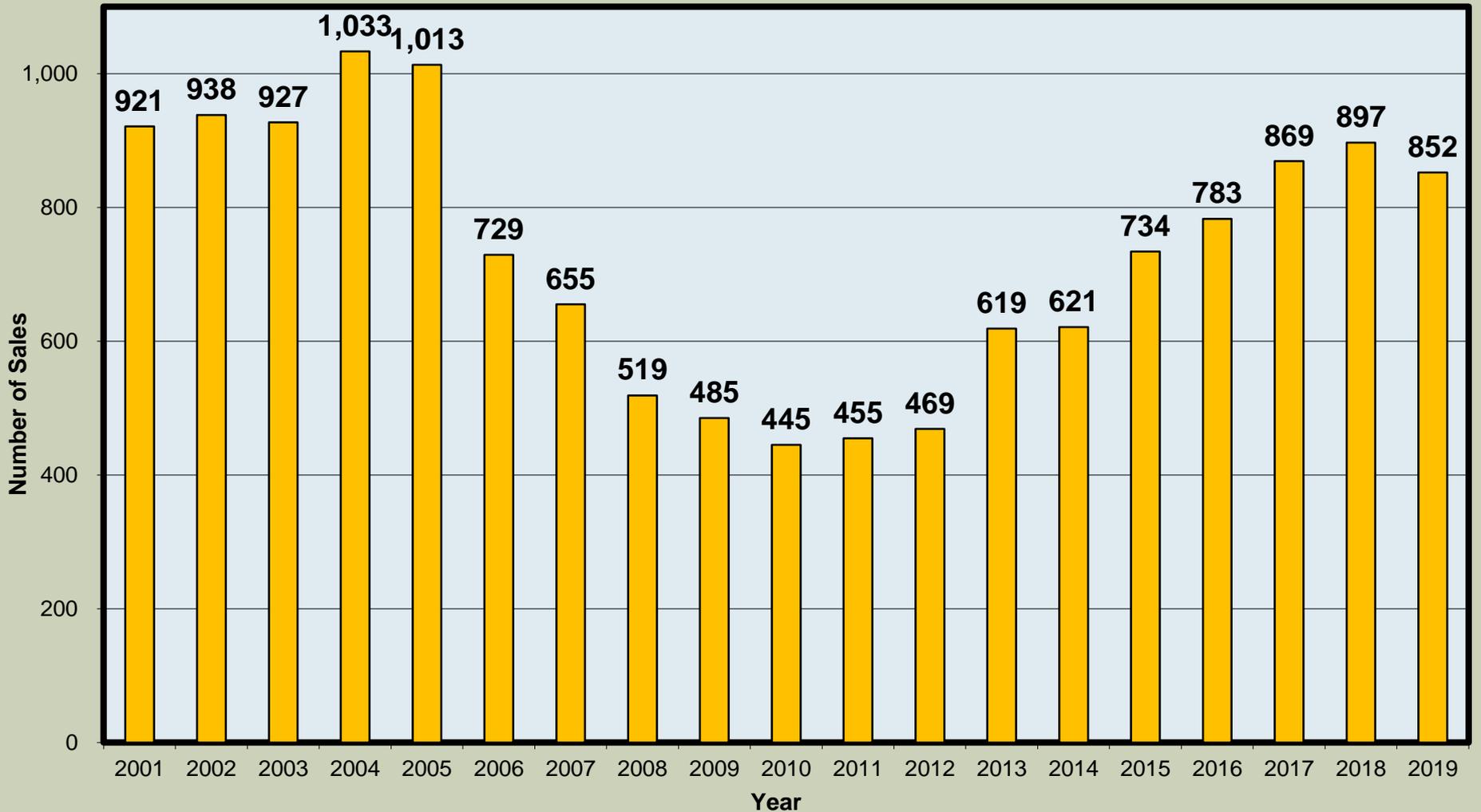
ENROLLMENT PROJECTIONS

- Enrollments were projected from 2022-23 through 2026-27, a 5-year period.
- Two sets of projections- baseline and adjusted for housing growth (assuming all approved and proposed housing gets constructed).
- Baseline – 6,319 in 2026-27 (-237.5)
- Adjusted for Housing Growth – 6,381 in 2026-27 (-175.5)

ENROLLMENT PROJECTIONS BY GRADE CONFIGURATION

Historical	PK-5		6-8		9-12	
2021-22	2,886		1,532		2,138.5	
Projected	PK-5 Baseline	PK-5 Adjusted	6-8 Baseline	6-8 Adjusted	9-12 Baseline	9-12 Adjusted
2022-23	2,859	2,859	1,465	1,465	2,148	2,148
2023-24	2,827	2,827	1,394	1,395	2,208	2,211
2024-25	2,818	2,833	1,440	1,447	2,132	2,150
2025-26	2,820	2,845	1,421	1,432	2,080	2,110
2026-27	2,867	2,890	1,415	1,427	2,037	2,064
5-year Change	-19	+4	-117	-105	-101.5	-74.5

CAPACITY ANALYSIS

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

COVID-19

- Effects of COVID-19 on enrollment are varied across the country.

- Big declines in large school districts: Los Angeles (-11,000), Broward County (-8,500), Orange County (-8,000), Charlotte-Mecklenburg (-5,000).

- People are leaving large metro areas to live in rural areas, either in 2nd homes or a purchased home. Will they return?

USA POPULATION CHANGE APRIL 2020 TO JULY 2021

Percent of Population Change
- -10.9% - -0.8%
- -0.7% - -0.2%
- -0.1% - 0.4%
- 0.5% - 1.3%
- 1.4% - 8.6%
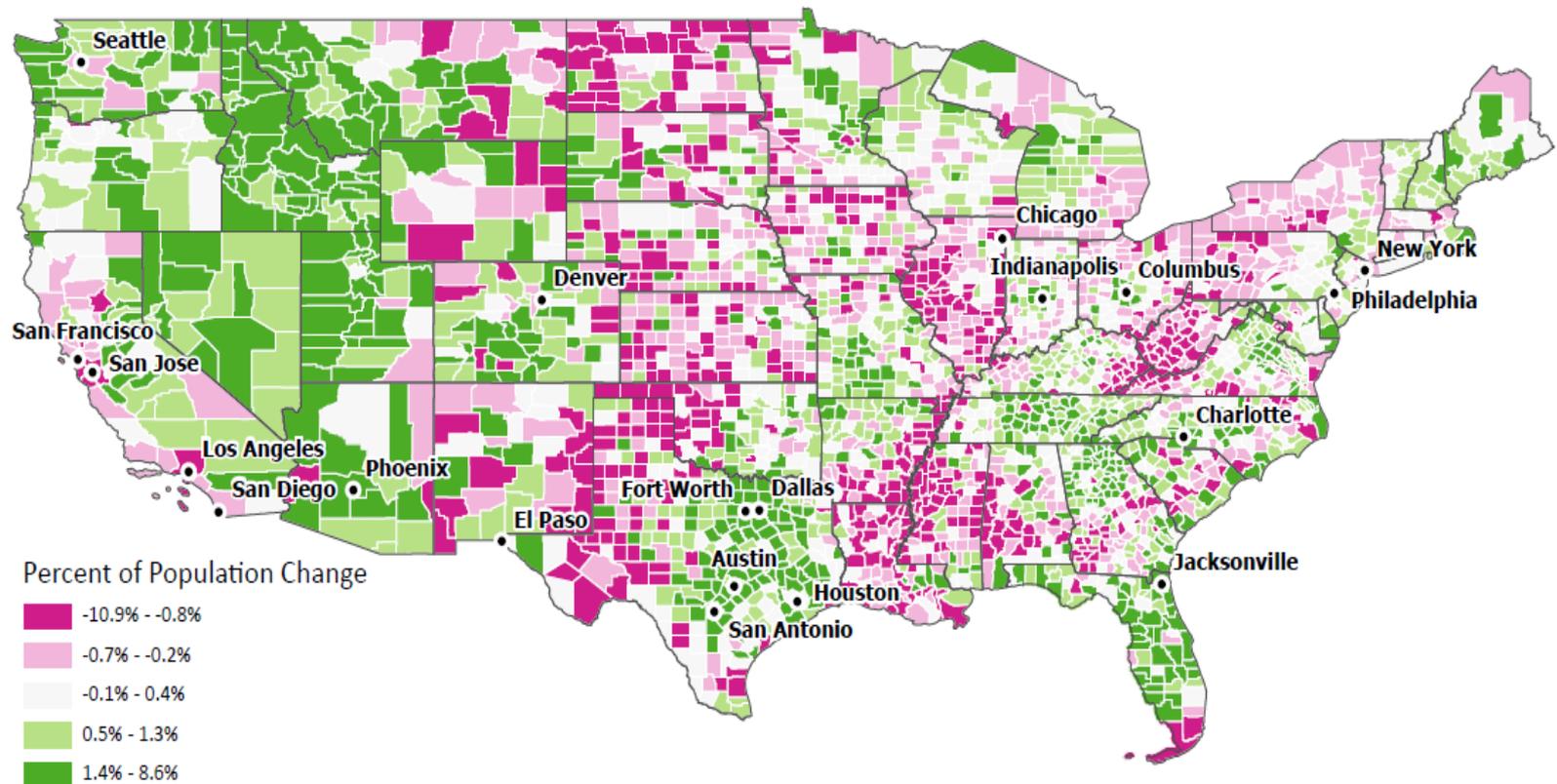
Source: US Census Bureau, Population Estimates Program 2021

NJ POPULATION CHANGE
APRIL 2020 TO JULY 2021
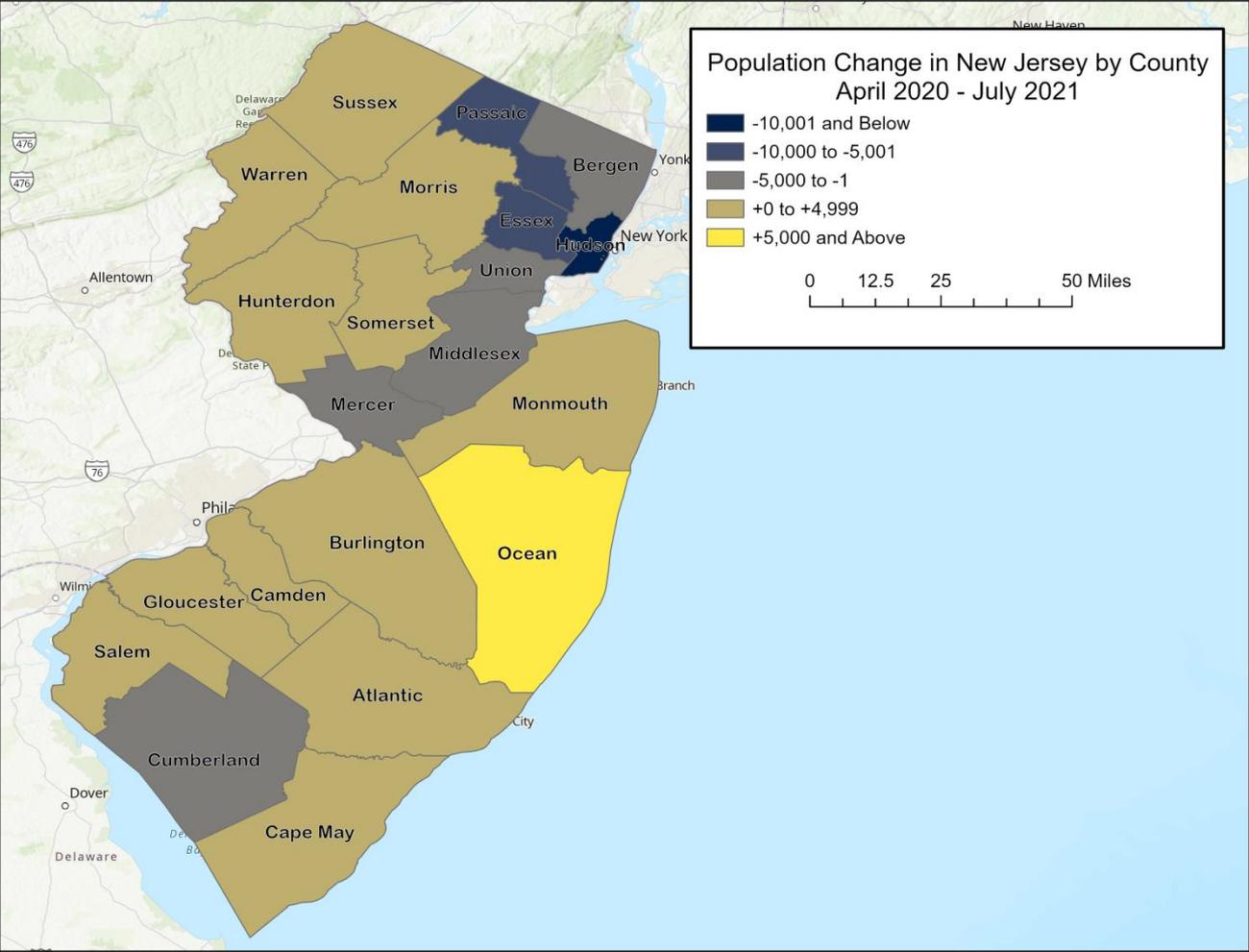
Source: US Census Bureau, Population Estimates Program 2021

SUMMARY

- Enrollments (PK-12) are projected to decline throughout the projection period.
- Enrollment decline is not projected to be uniform across the grade configurations as the elementary counts are projected to be fairly stable, while declines are projected in the middle and high school grades as the district's existing smaller elementary grades move through the system.

QUESTIONS