

DEMOGRAPHIC STUDY
FOR THE
FLEMINGTON-RARITAN
SCHOOL DISTRICT

March 9, 2020



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.

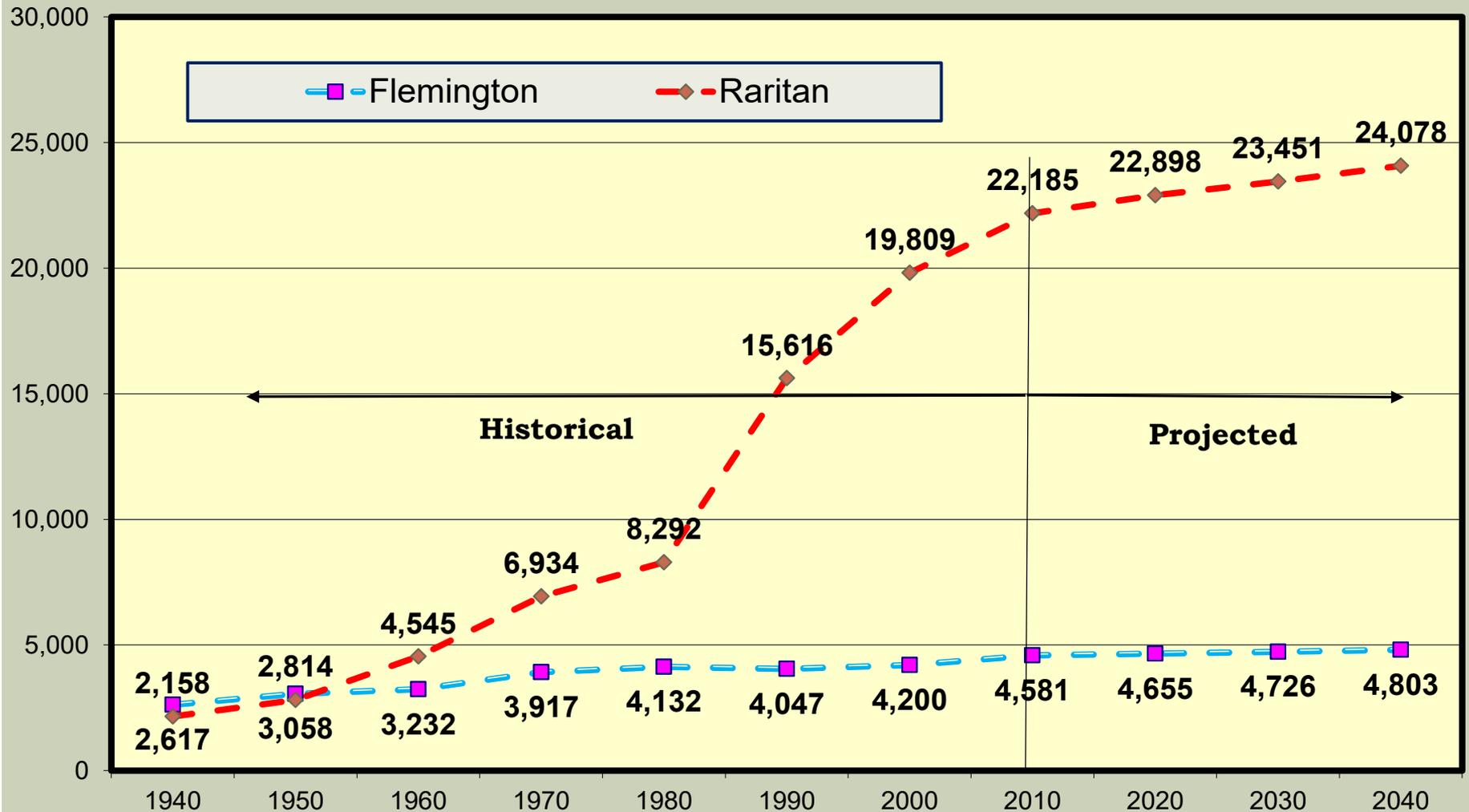
RICHARD S. GRIP ED.D.

- 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 2020-21 through 2024-25, a 5-year period
- ❑ Analyze community population trends and age structure, birth and fertility rates
- ❑ Examine district's historical enrollments, both districtwide and by grade configuration (PK-4, 5-6, 7-8) and by race/poverty status
- ❑ Compute student yields (children per housing unit) by property type (e.g. SF, townhouse/condo, and apartment)
- ❑ Impact of new developments on enrollment
- ❑ Project enrollments based on students yields and housing turnover rates (completely independent analysis)

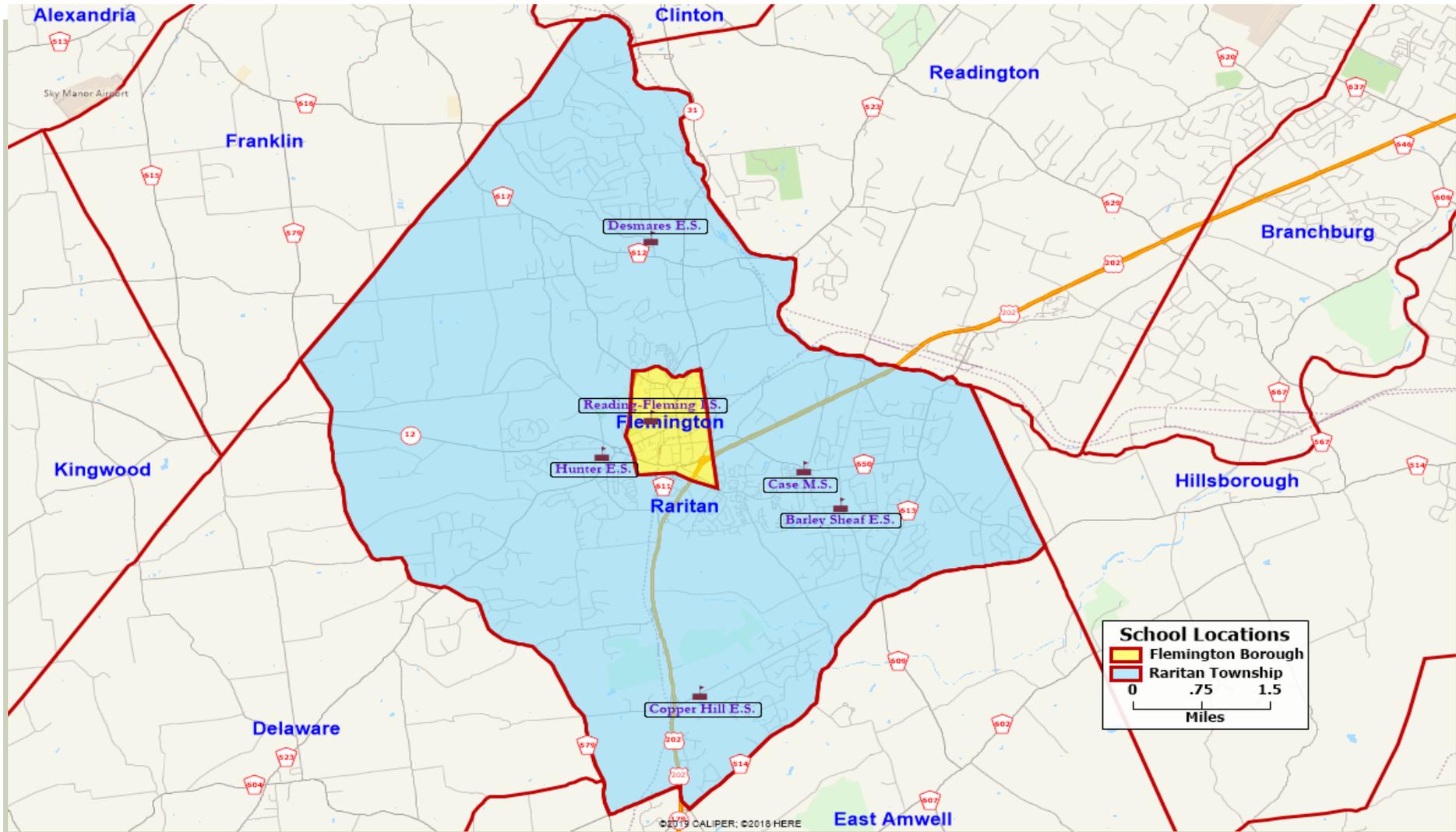
HISTORICAL AND PROJECTED POPULATIONS 1940-2040



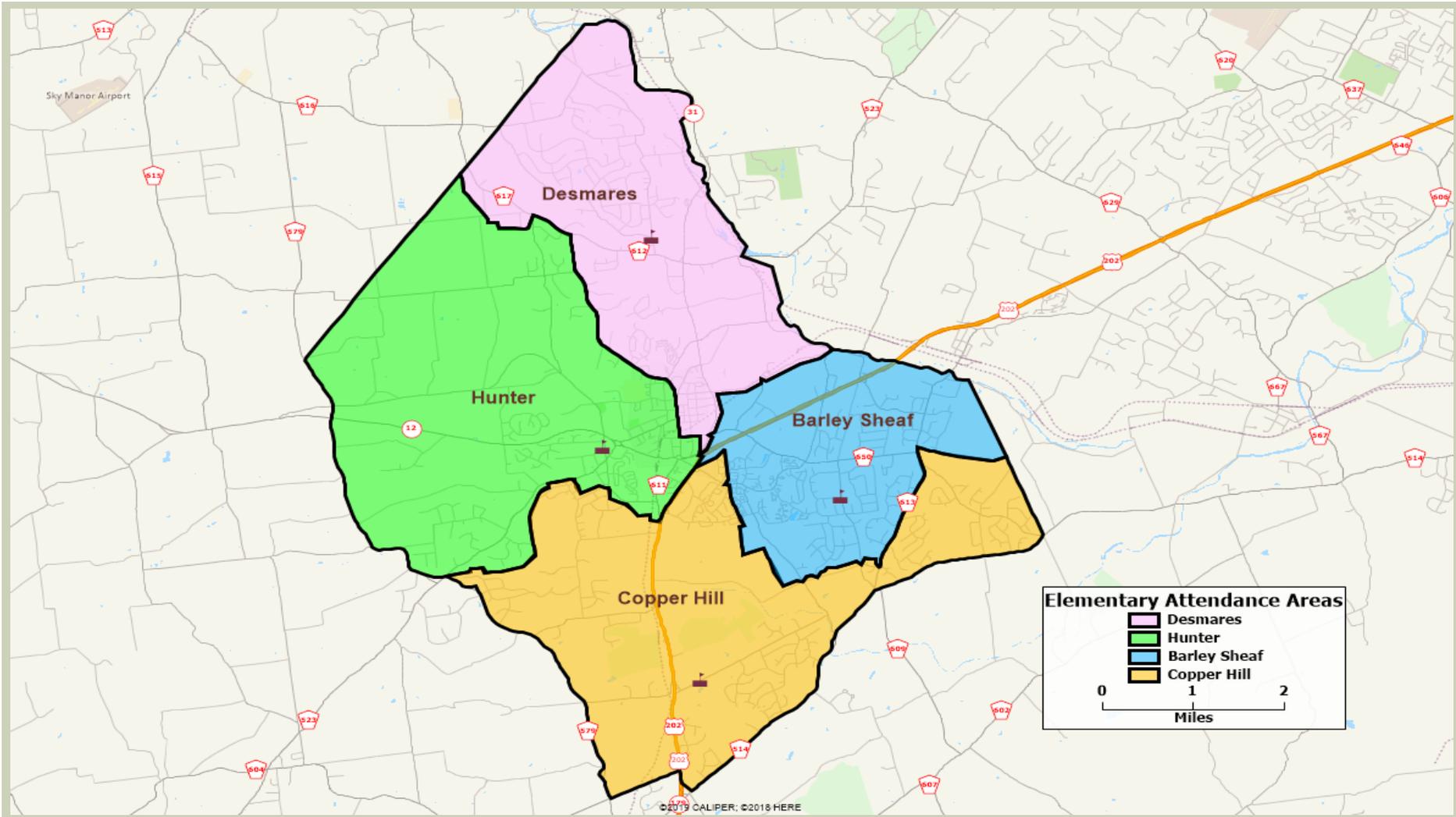
DEMOGRAPHIC PROFILES

- ❑ Flemington – 78.5% White, 26.2% Hispanic
Raritan – 89.6% White, 5.1% Hispanic
- ❑ Median age – Flemington = 35.3 years, Raritan = 42.4 years (NJ = 39.0 years)
- ❑ Foreign-Born – Flemington = 33.5%, Raritan = 11.6% years (NJ = 22.8%). Guatemala is largest source in Flemington, India is largest source in Raritan.
- ❑ Bachelor's Degree or Higher – Flemington = 31.0%, Raritan = 59.4% (NJ = 40.8%)
- ❑ Median family income – Flemington = \$71,544, Raritan = \$152,946 (NJ = \$101,404)
- ❑ School-age Poverty (5-17) – Flemington = 35.0%, Raritan = 7.1%
- ❑ Renter-occupied units – Flemington = 62.3%, Raritan = 11.3%.
- ❑ Median value of owner-occupied unit – Flemington = \$286,700, Raritan = \$430,500

SCHOOL LOCATIONS



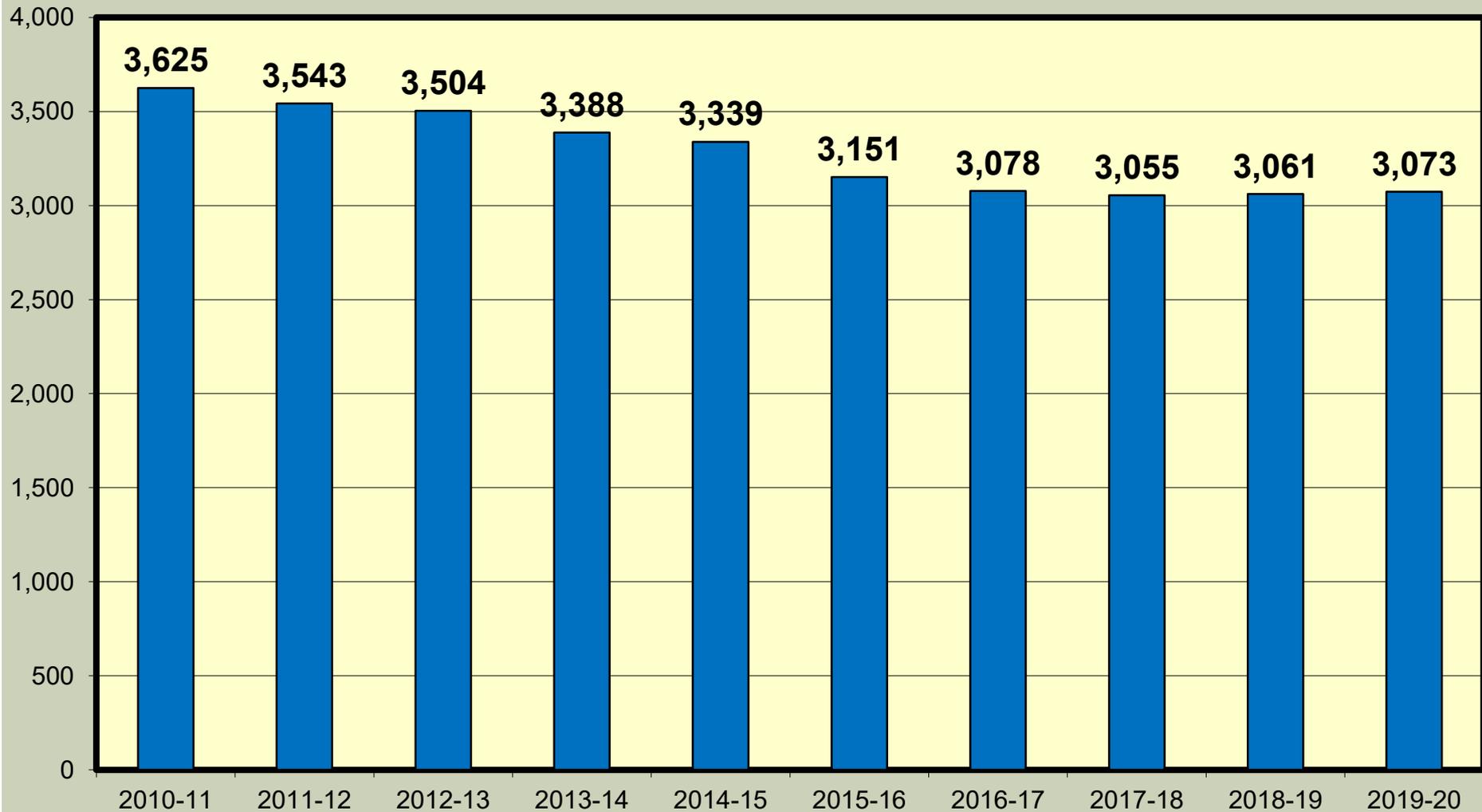
ELEMENTARY ATTENDANCE AREAS



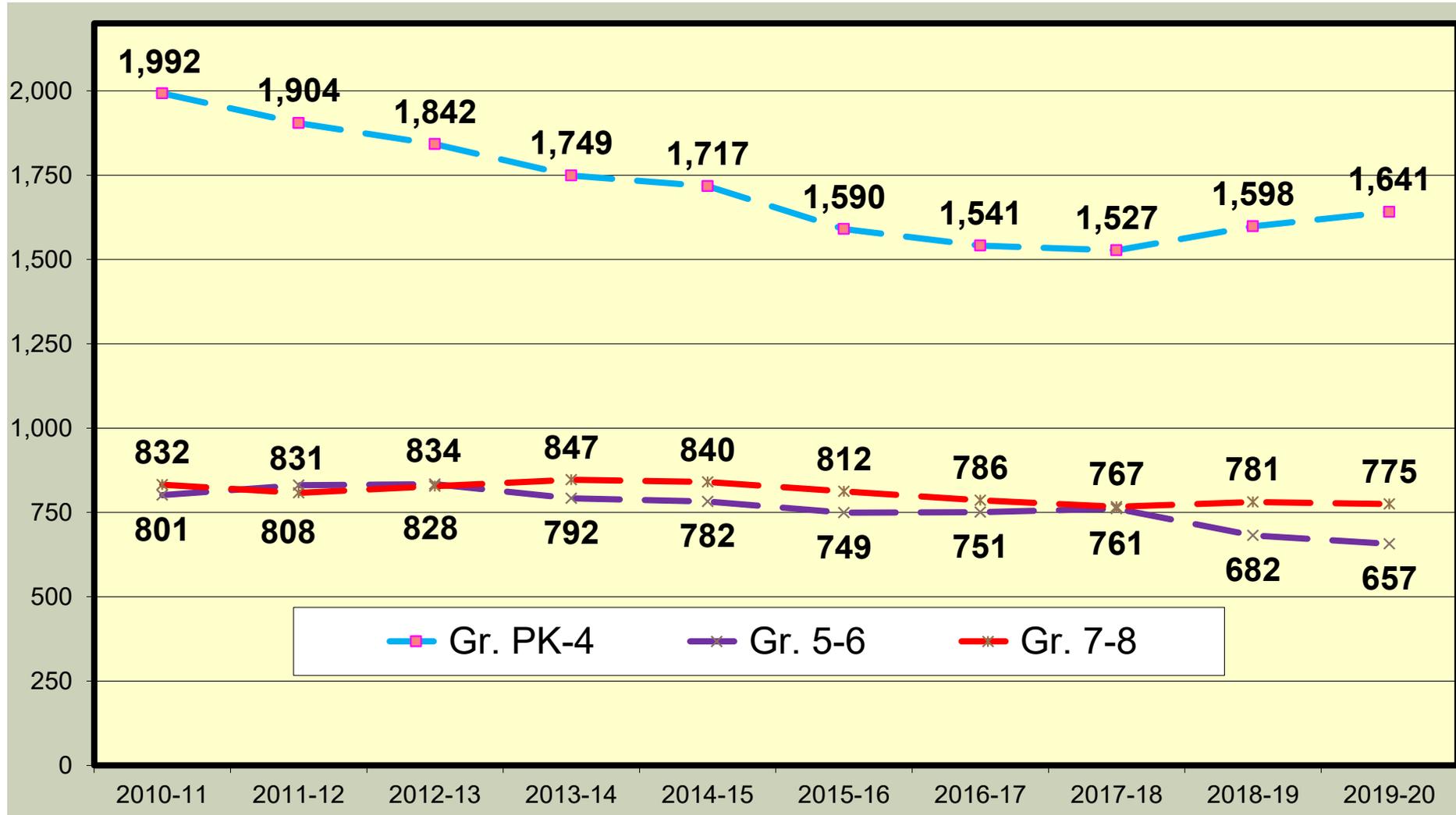
HISTORICAL ENROLLMENT TRENDS

- ❑ District's 2019-20 enrollment (10/15/19) is 3,073.
- ❑ Enrollment declined through 2017-18 before reversing trend.
- ❑ Loss of 552 students since 2010-11 (3,625).
- ❑ Cohort-Survival Ratio Method (CSR) was used to project enrollments five years into the future.

HISTORICAL ENROLLMENTS (PK-8) 2010-11 TO 2019-20



HISTORICAL ENROLLMENTS BY LEVEL 2010-11 TO 2019-20



ENROLLMENT PROJECTION METHOD

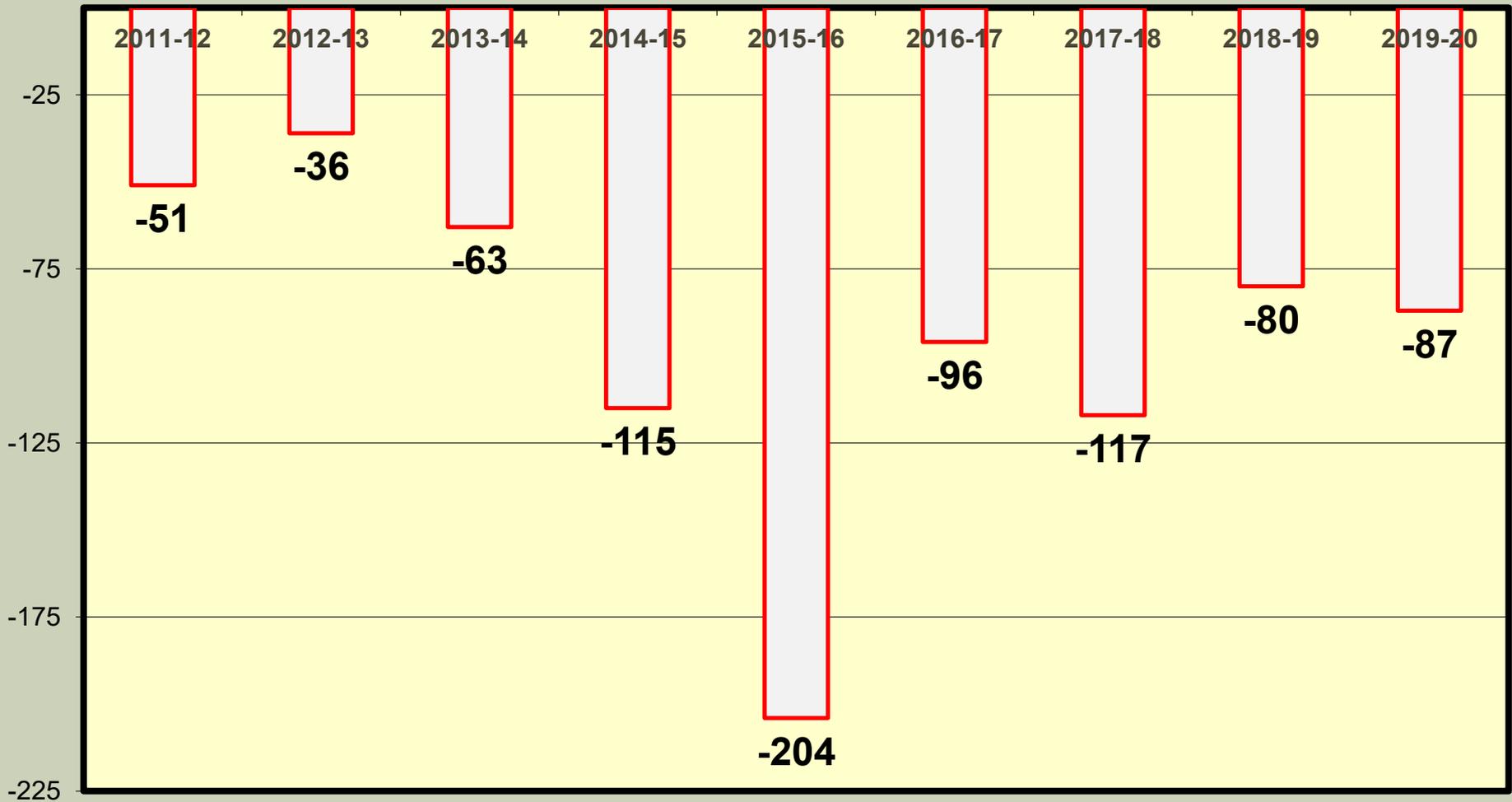
COHORT SURVIVAL RATIO

- ❑ Ratios are calculated for each grade progression. (Ex. 100 1st graders in 2018-19 become 95 2nd graders in 2019-20 = 0.95)
- ❑ Survival ratios were computed for ten historical years.
- ❑ All nine average ratios were above 1.000 indicating net inward migration.
- ❑ Averages were then computed and used to project future enrollments.

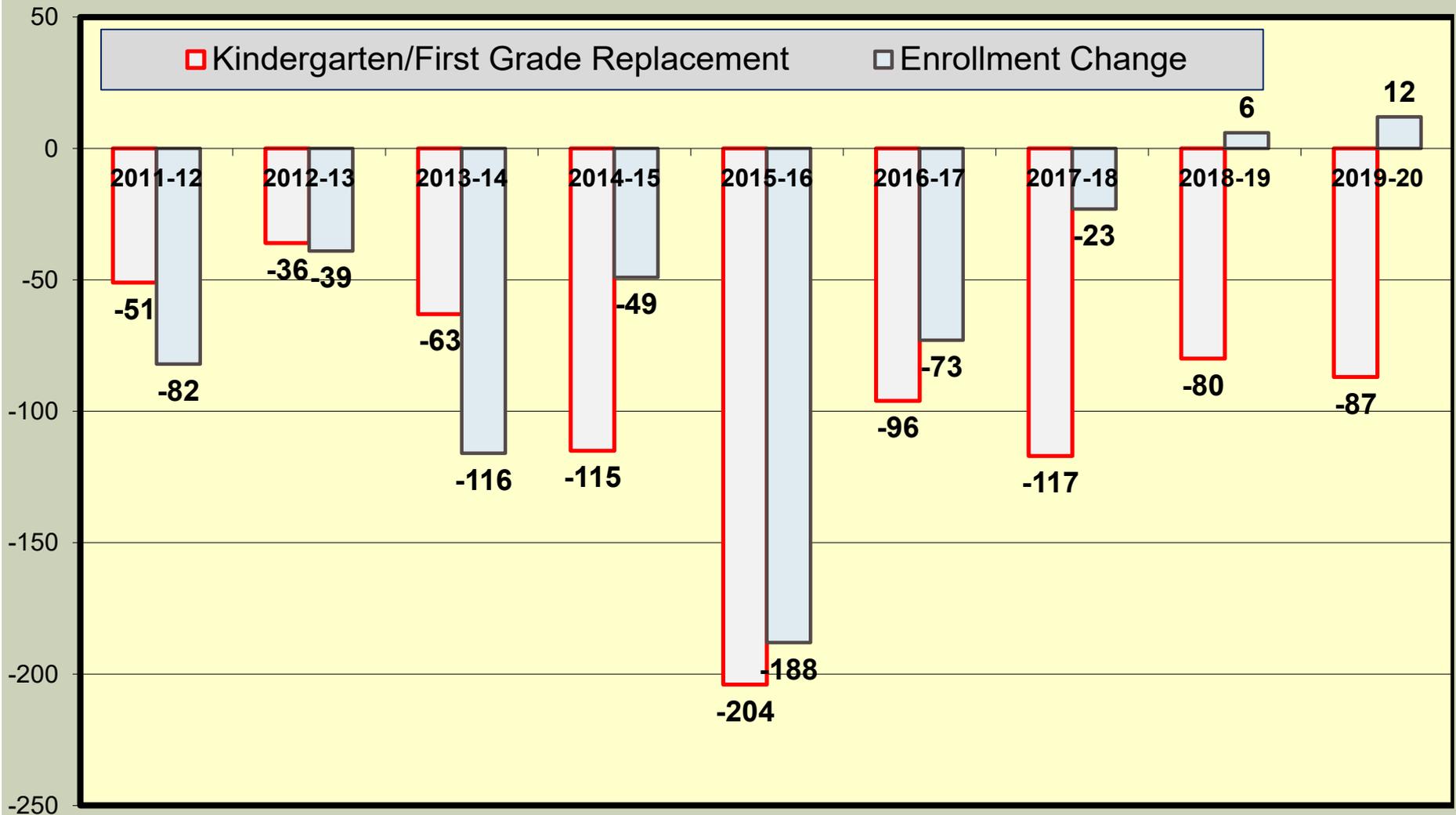
KINDERGARTEN/ FIRST GRADE REPLACEMENT

- ❑ Negative kindergarten/first grade replacement (KR) has occurred for past 9 years. Usually compared to kindergarten classes but district had half-day program prior to 2014-15.
- ❑ Negative KR- Number of graduating 8th grade students is greater than the number of kindergarten/first grade students replacing them in the next year.
- ❑ District has lost an average of 95 students due to KR in last 4 years.

HISTORICAL KINDERGARTEN/ FIRST GRADE REPLACEMENT



TOTAL ENROLLMENT CHANGE VS. KINDERGARTEN/FIRST GRADE REPLACEMENT



BIRTH COUNTS

- ❑ Births are used to project kindergarten students 5 years later.
- ❑ Analyzed birth data from 2005-2018.
- ❑ Flemington – fairly stable, ranging from 55-95.
- ❑ Raritan – stable in last 7 years, ranging from 155-175.

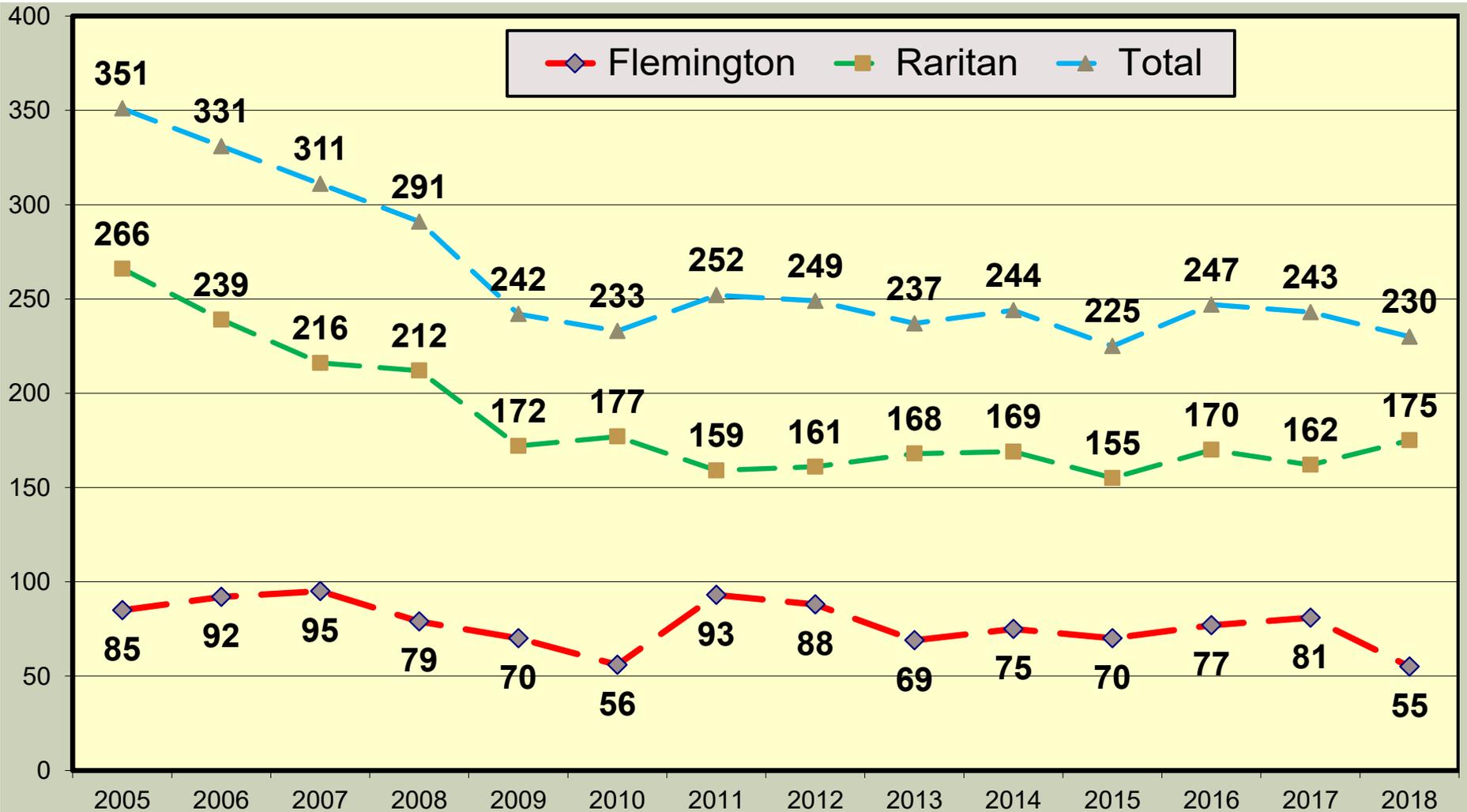
BIRTH COUNTS AND BIRTH-TO-KINDERGARTEN SURVIVAL RATIOS

Birth Year	Flemington Births	Raritan Births	Total Number of Births	Kindergarten Students Five Years Later	Birth-to-Kindergarten Survival Ratio
2005	85	266	351	323	0.920
2006	92	239	331	326	0.985
2007	95	216	311	299	0.961
2008	79	212	291	245	0.842
2009	70	172	242	295	1.219
2010	56	177	233	240	1.030
2011	93	159	252	293	1.163
2012	88	161	249	288	1.157
2013	69	168	237	294	1.241
2014	75	169	244	298	1.221
2015	70	155	225	N/A	N/A
2016	77	170	247	N/A	N/A
2017	81	162	243	N/A	N/A
2018	55	175	230	N/A	N/A

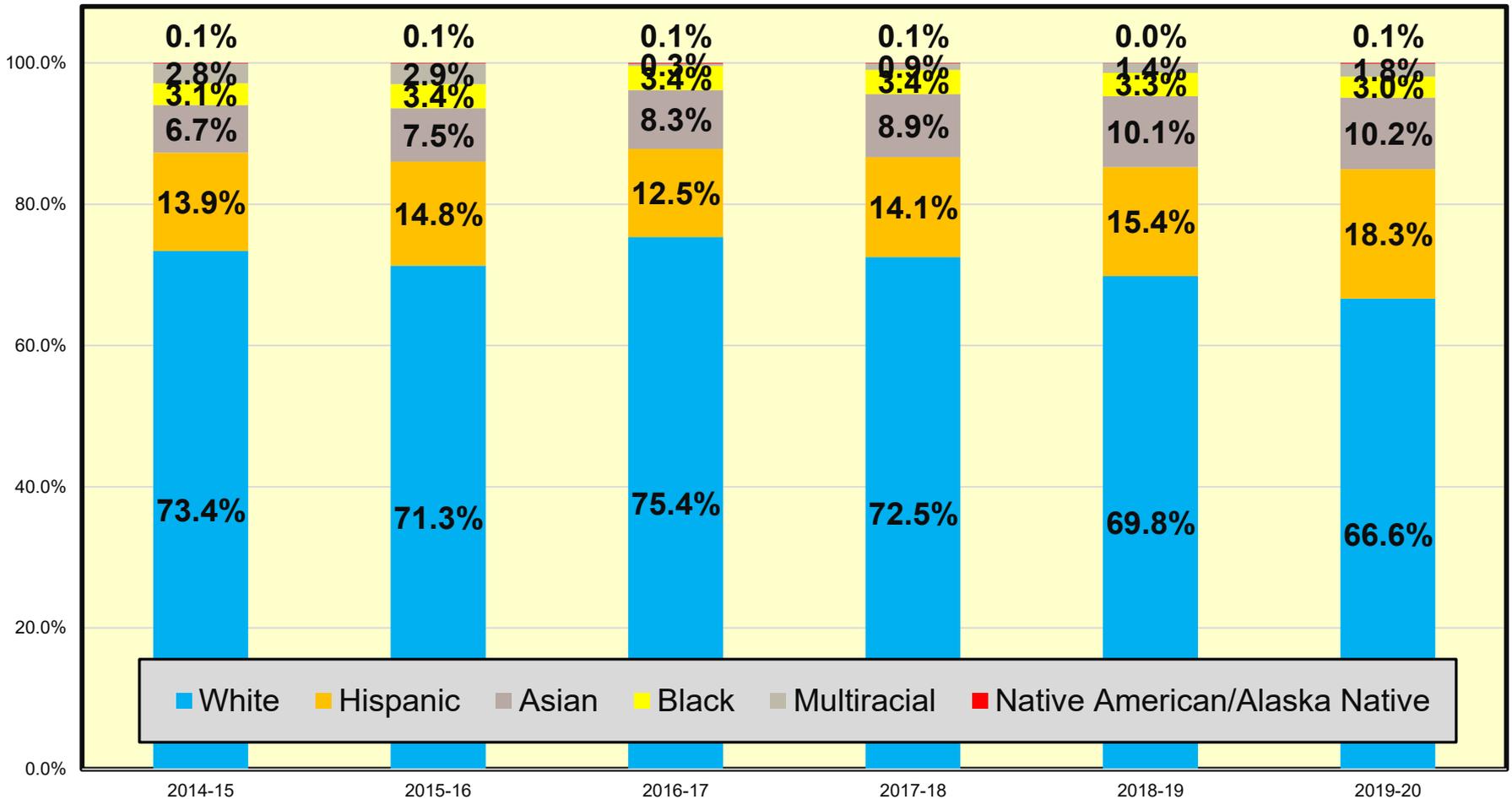
BIRTHS BY ATTENDANCE AREA

Birth Year	Barley Sheaf	Copper Hill	Desmares	Hunter	Unknown
2005	92	85	82	86	6
2006	77	69	100	67	18
2007	65	60	84	67	35
2008	73	49	77	65	27
2009	50	35	75	50	32
2010	58	34	51	39	51
2011	58	33	68	62	31
2012	67	40	67	59	16
2013	62	40	68	62	5
2014	72	34	79	55	4
2015	57	39	62	57	10
2016	50	46	70	74	7
2017	60	34	75	60	14
2018	52	37	75	57	9
Total 2005-2018	893	635	1,033	860	
Difference 2005-2018	-40	-48	-7	-29	

HISTORICAL BIRTH COUNTS 2005-2018



ENROLLMENTS BY RACE



ENROLLMENTS BY RACE

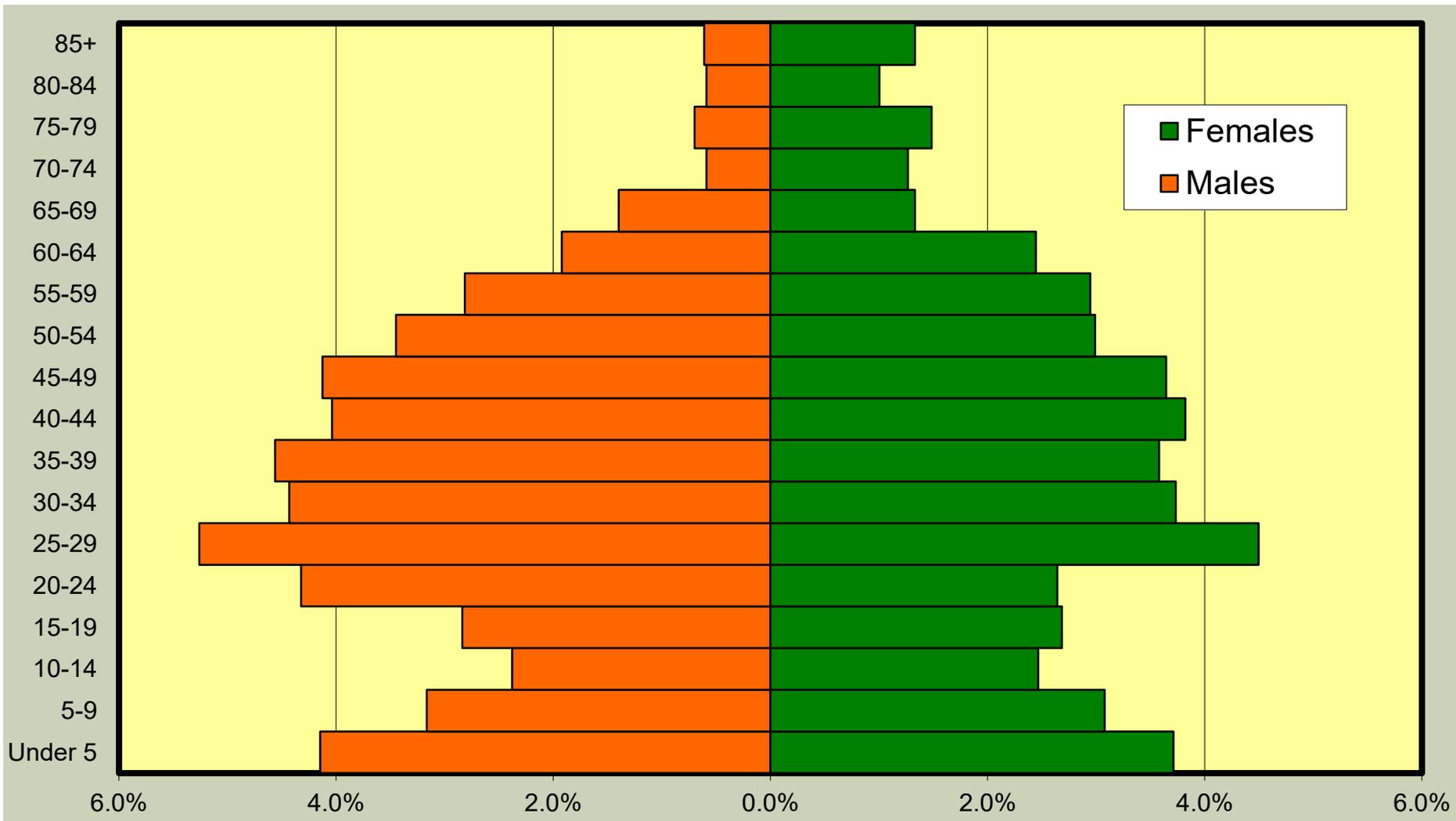
2019-20

School	White	Black	Hispanic	Asian	Alaska Native/ Native American	Multiracial	Total
Barley Sheaf E.S.	284	4	26	24	0	7	345
	82.3%	1.2%	7.5%	7.0%	0.0%	2.0%	100.0%
Copper Hill E.S.	298	15	57	61	0	5	436
	68.3%	3.4%	13.1%	14.0%	0.0%	1.1%	100.0%
Desmares E.S.	242	15	171	19	0	15	462
	52.4%	3.2%	37.0%	4.1%	0.0%	3.2%	100.0%
Hunter E.S.	229	13	93	55	0	8	398
	57.5%	3.3%	23.4%	13.8%	0.0%	2.0%	100.0%
Reading-Fleming I.S.	458	19	101	65	3	11	657
	69.7%	2.9%	15.4%	9.9%	0.5%	1.7%	100.0%
Case M.S.	537	25	115	88	0	10	775
	69.3%	3.2%	14.8%	11.4%	0.0%	1.3%	100.0%
Total	2,048	91	563	312	3	56	3,073
	66.6%	3.0%	18.3%	10.2%	0.1%	1.8%	100.0%

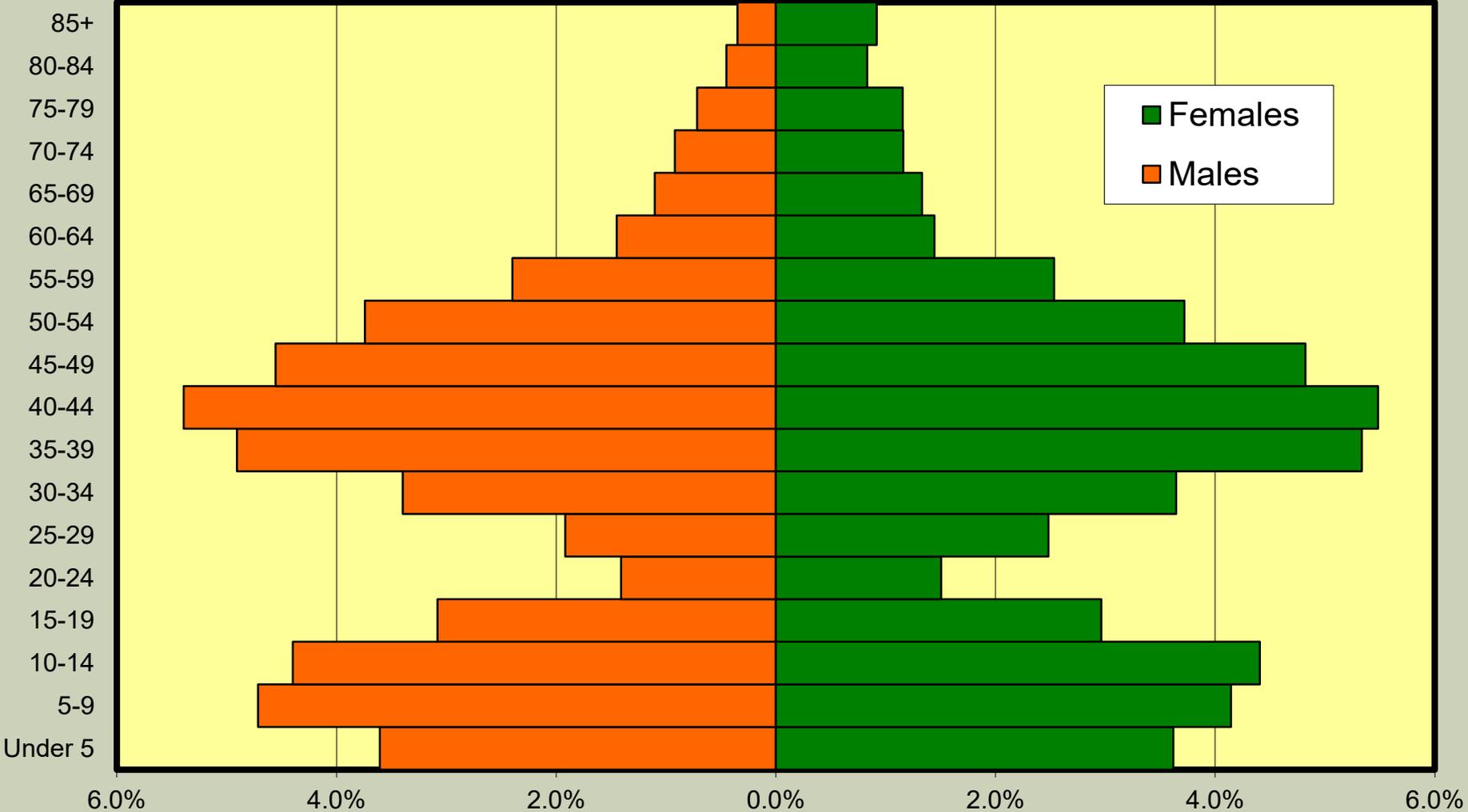
ECONOMICALLY DISADVANTAGED

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Change
Barley Sheaf E.S.	2.3%	3.9%	4.5%	7.1%	6.9%	8.7%	+6.4
Copper Hill E.S.	12.6%	11.4%	11.4%	12.8%	12.6%	15.4%	+2.8
Desmares E.S.	33.1%	32.8%	31.1%	34.0%	34.9%	39.0%	+5.9
Hunter E.S.	25.1%	24.2%	25.6%	23.5%	19.3%	21.1%	-4.0
Reading-Fleming I.S.	14.7%	15.4%	14.6%	17.1%	18.2%	19.5%	+4.8
Case M.S.	11.7%	11.2%	13.4%	14.7%	14.3%	16.3%	+4.6

AGE PYRAMID FLEMINGTON 2010



AGE PYRAMID RARITAN 2010



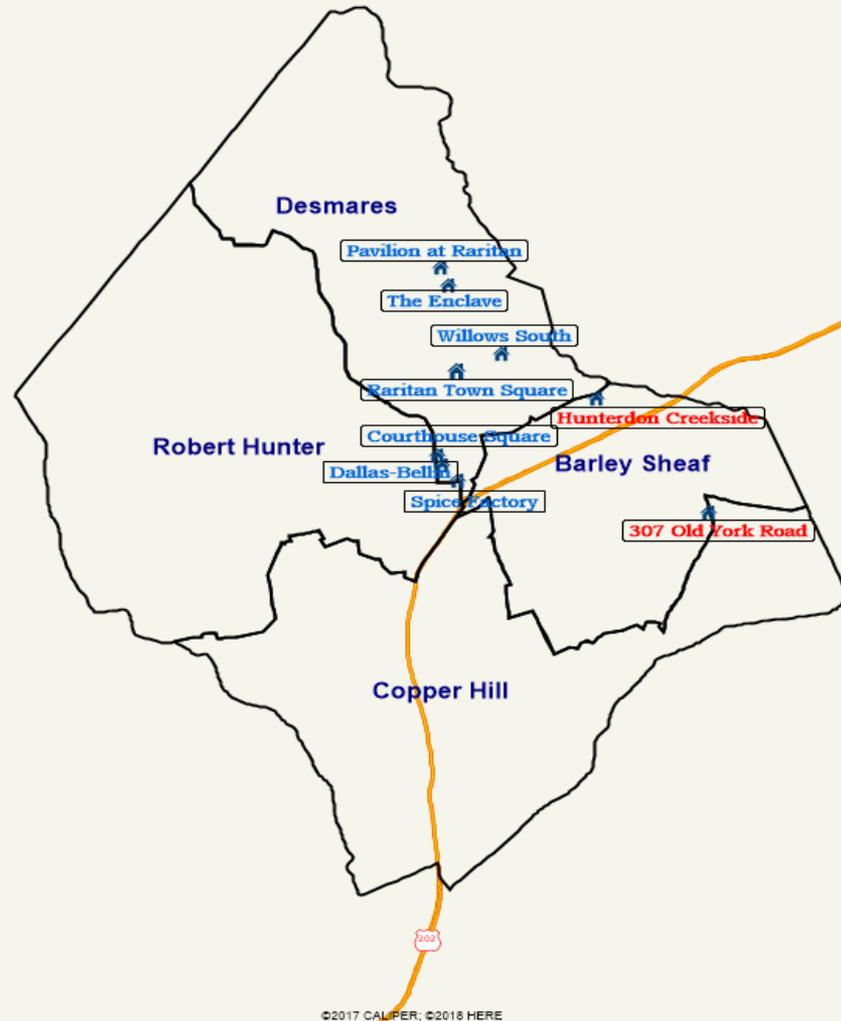
NEW HOUSING IN FLEMINGTON

Subdivision/ Developer	Location	Attendance Area	Number of Units	Bedroom Distribution	Housing Type	Notes/Status
Spice Factory	70 Church Street	Desmares	100	32 Studios 54 1-BR 10 2-BR 4 3-BR	Apartments (market- rate and affordable)	To be constructed in two phases. First phase would modify existing building as upper floors would contain apartments. Second phase would consist of a new residential apartment building. Application approved December 2019. 15 units (3 1-BR, 9 2-BR, and 3 3-BR) will be set aside for Low-Moderate Income households..
Dallas-Bellin Flemington, LLC	Main & Broad Streets	Desmares	59	N/A	Apartments (market- rate and affordable) / Duplexes	Received Preliminary site plan approval in January 2012. Mixed-use commercial and residential project consisting of 59 units. 6 units will be set aside for Low-Moderate Income households.
Courthouse Square Redevelopme nt	Main Street, Spring Street, Bloomfield Avenue, and Chorister Place	Desmares	222	N/A	Apartments (market- rate and affordable)	Mixed-use commercial and residential project consisting of 222 apartment units. 14 units will be set aside for Low-Moderate Income households. Received Preliminary and Final site plan approval in November 2018.
Total			381			

NEW HOUSING IN RARITAN

Subdivision/ Developer	Location	Attendance Area	Number of Units	Bedroom Distribution	Housing Type	Notes/Status
The Enclave	5 Bartles Corner Road	Desmares	200	55 1-BR 137 2-BR 8 3-BR	Apartments (market-rate and affordable)	Approved in 2017. Has not begun construction. 20% of units will be set aside for Low-Moderate Income households.
The Pavilion at Raritan	2 Healthquest Boulevard	Desmares	139	47 1-BR 86 2-BR 6 3-BR	Apartments (market-rate and affordable)	Completed. 20% of units will be set aside for Low- Moderate Income households.
Hunterdon Creekside	Altra and Cain Road	Barley Sheaf	50	10 1-BR 30 2-BR 10 3-BR	Affordable for sale apartments	Approved. Nearing completion.
Raritan Town Square	NJ Route 31 and Route 523	Desmares	140	62 1-BR 72 2-BR 6 3-BR	Apartments (market-rate and affordable)	Approved in 2018. 20% of units will be set aside for Low-Moderate Income households.
Willows South	66 Junction Road	Desmares	100	18 1-BR 57 2-BR 25 3-BR	Affordable apartments	Recently approved
307 Old York Road	307 Old York Road	Barley Sheaf	11	N/A	Detached Single- Family	Has not started construction
Total			640			

NEW HOUSING BY ATTENDANCE AREA



STUDENT YIELDS

- Student yields (K-8) were computed by housing type to determine impact of new developments.
- Student addresses were joined to the Flemington and Raritan property databases.
- Detached Single-Family homes: 0.56
- Townhouse/Condo: 0.18
- Apartments: 0.49
- 325 public school children (K-8) projected from new housing, mostly in Desmares attendance area.

STUDENT YIELDS

TOWNHOUSES/CONDOS

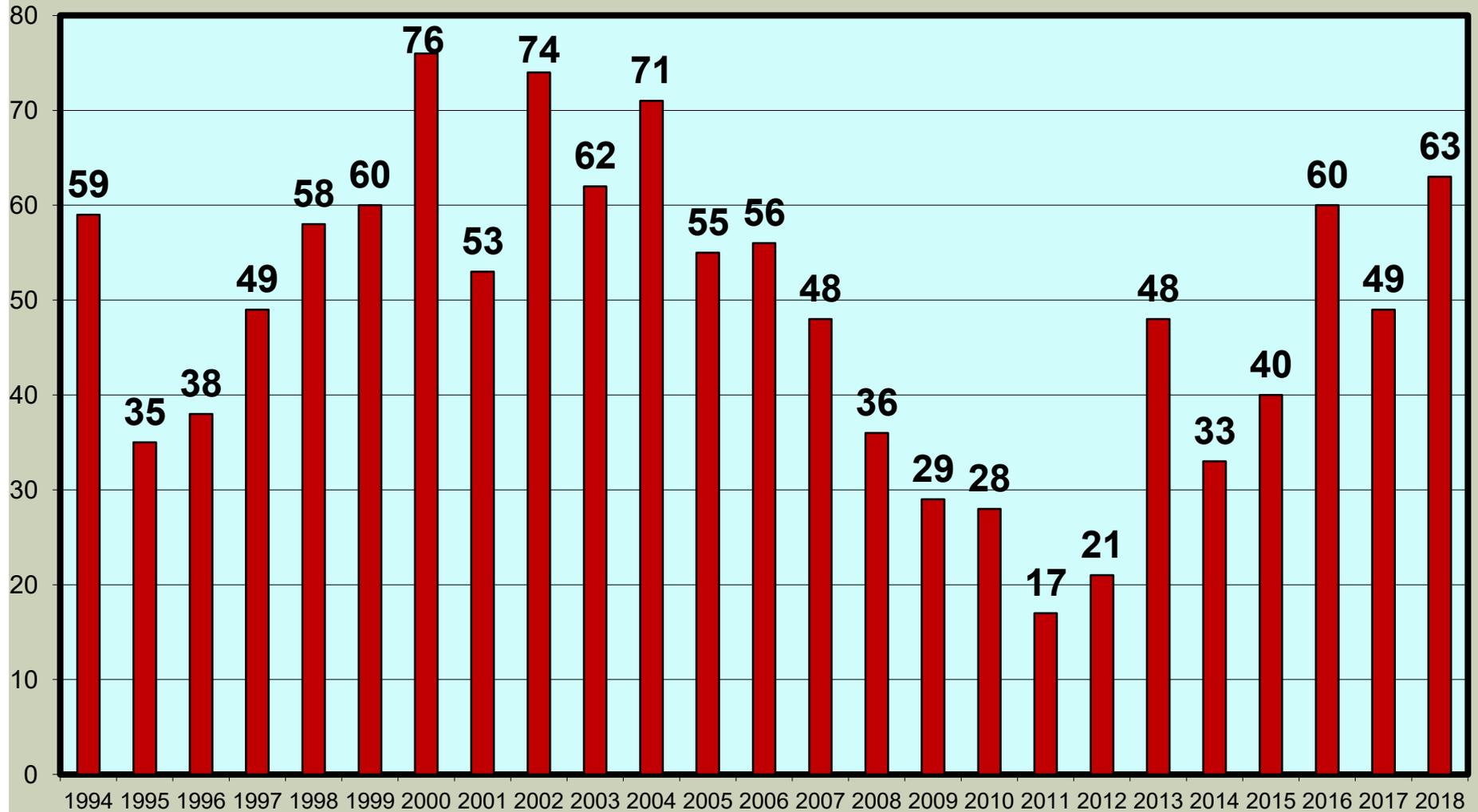
Development	Town	Attendance Area	Year Built	Bedrooms	Units	K-4 Students	5-6 Students	7-8 Students	K-8 Students	2019-20 Student Yield
Carriage Gate	Raritan	Hunter	2000-2001	3-4 BR	58	3	3	3	9	0.16
Concord Ridge	Raritan	Barley Sheaf	1982-1988	2-BR	342	32	12	15	59	0.17
Oak Ridge at Flemington	Raritan	Cooper Hill	1981-1985	1-BR	190	6	6	8	20	0.11
Stone Gate Condos	Raritan	Barley Sheaf	1989	1-2 BR	225	15	5	5	25	0.11
Sun Ridge	Raritan	Barley Sheaf	1985-1988	2-3 BR	622	62	32	15	109	0.18
Townsende	Raritan	Desmares	1996-1999	2-3 BR	243	32	14	17	63	0.26
Flemington South Estates	Raritan	Cooper Hill	1981-1987	2-3 BR	261	38	9	21	68	0.26
Coppermine Village	Flemington	Hunter	1985	2-BR	54	4	3	3	10	0.19
Grant Avenue	Flemington	Hunter	1880	3-BR	4	1	0	0	1	0.25
South Main Village	Flemington	Hunter	1988-1990	2-3 BR	60	4	3	5	12	0.20
Village Commons	Flemington	Hunter	1986	1-2 BR	94	7	6	3	16	0.17
Victorian Square	Flemington	Desmares	1998	2-BR	30	3	1	0	4	0.13
Total					2,183	207	94	95	396	0.18

STUDENT YIELDS

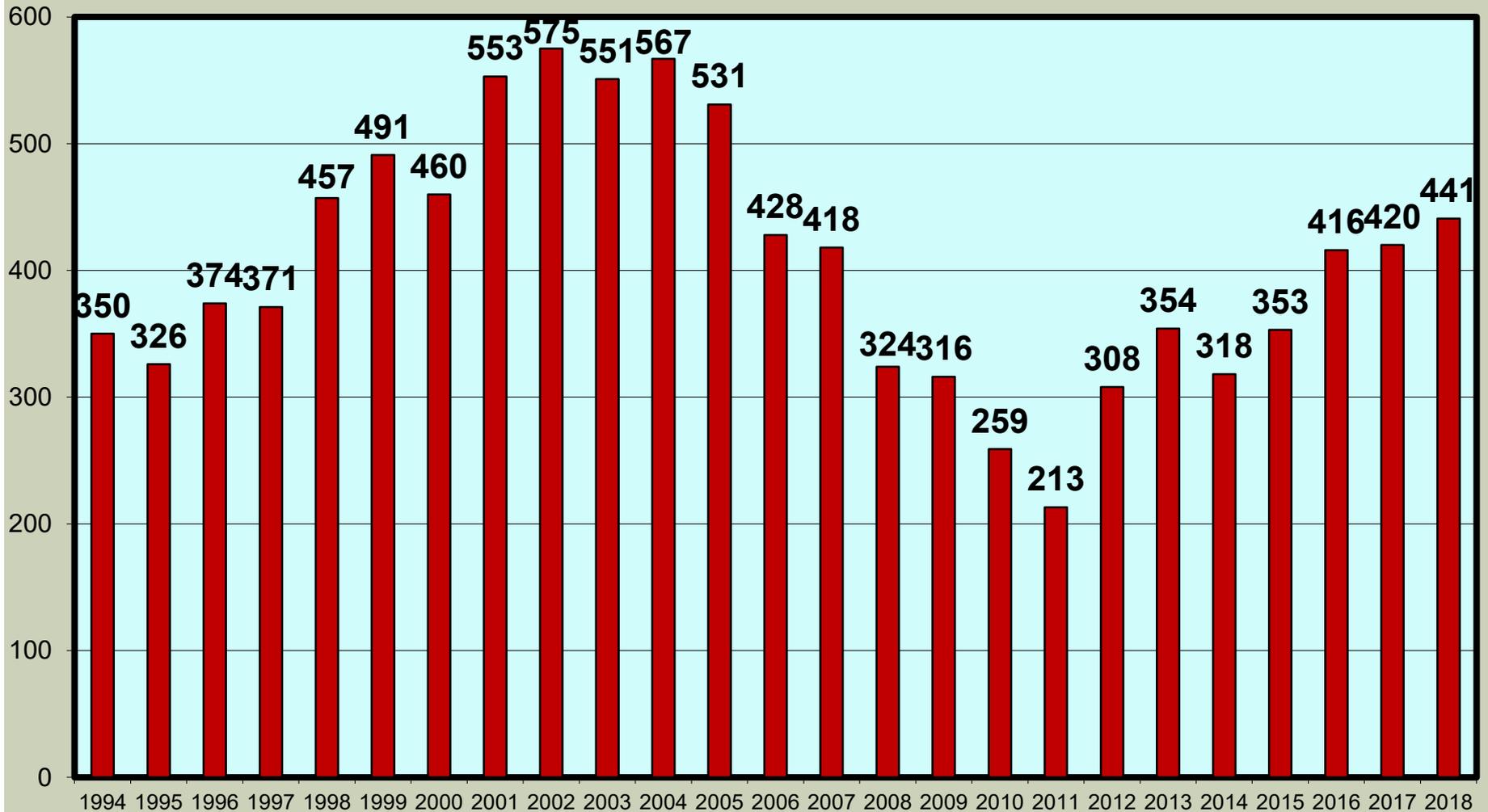
APARTMENTS

Development (Property Address)	Town	Attendance Area	Rent (\$)	Year Built	Bedrooms	Units	K-4 Students	5-6 Students	7-8 Students	K-8 Students	2019-20 Student Yield
Flemington Arms (81 N. Main Street)	Flemington	Several	N/A	1964	1-2 BR	112	66	23	8	97	0.87
Hunter Hills (1 Garden Lane)	Flemington	Desmares	1,450-1,750	1974	1-2 BR	180	68	27	23	118	0.66
Hunterdon Mews (65 N. Main Street)	Flemington	Desmares	1,170-1,470	1965	1-2 BR	60	4	2	3	9	0.15
Prospect Hills & Madison Arms (2 Prospect Hill)	Flemington	Hunter	1,175-1,530	1962	1-2 BR	164	18	6	7	31	0.19
Regional Court (100 Regional Court)	Flemington	Desmares	N/A	N/A	N/A	64 ³	17	5	3	25	0.39
The Willows at Flemington Junction (200 Justin Court)	Raritan	Desmares	1,267-1,533	2017	2-BR	84	26	6	10	42	0.50
Total						664	199	69	54	322	0.49

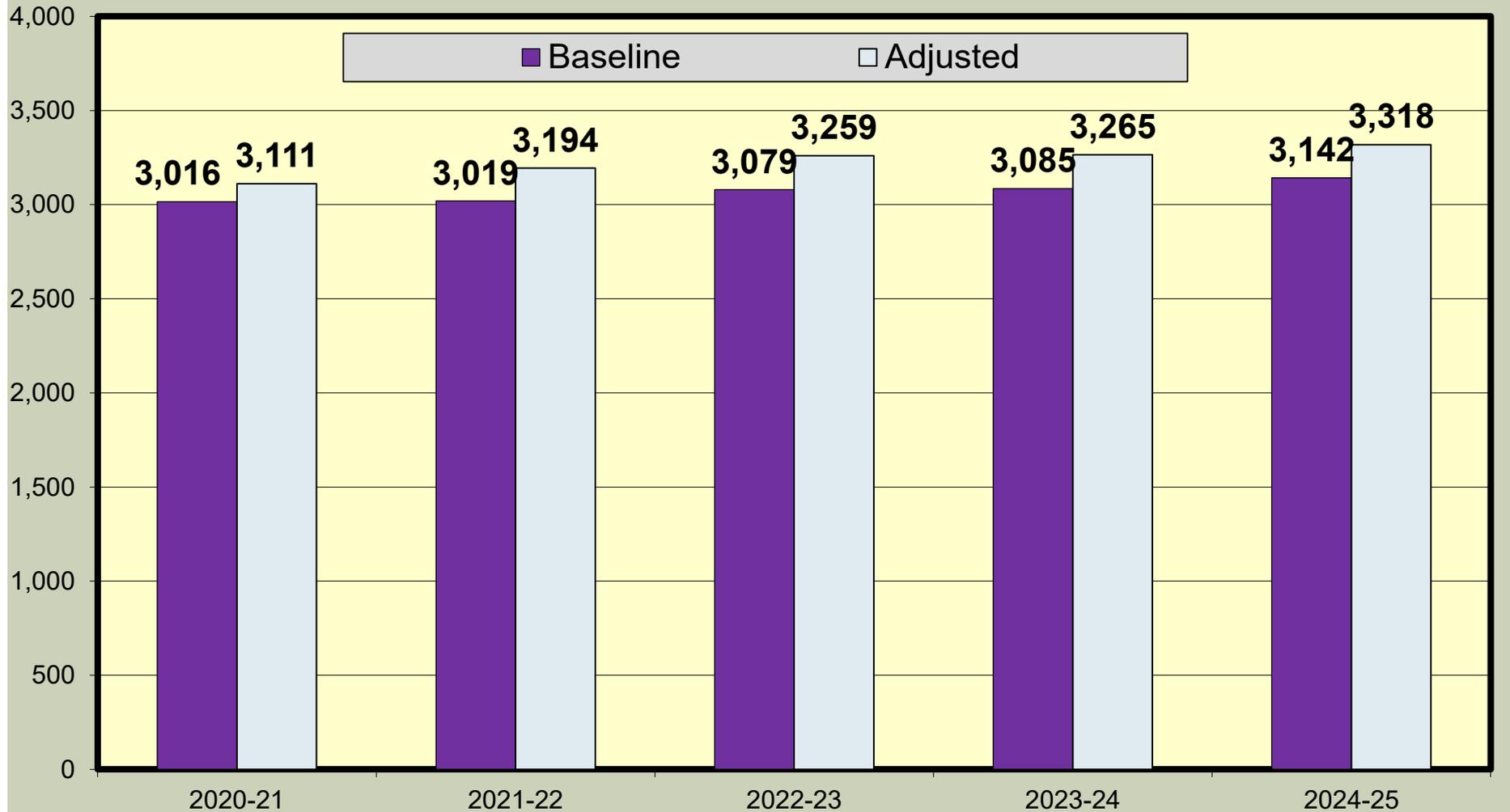
HOME SALES FLEMINGTON 1994-2018



HOME SALES RARITAN 1994-2018



ENROLLMENT PROJECTIONS



ENROLLMENT PROJECTIONS BY GRADE CONFIGURATION

Historical	PK-4	5-6	7-8
2019-20	1,641	657	775
Baseline			
Projected	PK-4	5-6	7-8
2020-21	1,658	653	705
2021-22	1,689	654	676
2022-23	1,693	713	673
2023-24	1,675	735	675
2024-25	1,669	737	736
5-year Change	+28	+80	-39
Adjusted for Housing Growth			
2020-21	1,723	672	716
2021-22	1,797	695	702
2022-23	1,791	760	708
2023-24	1,763	784	718
2024-25	1,746	787	785
5-year Change	+105	+130	+10

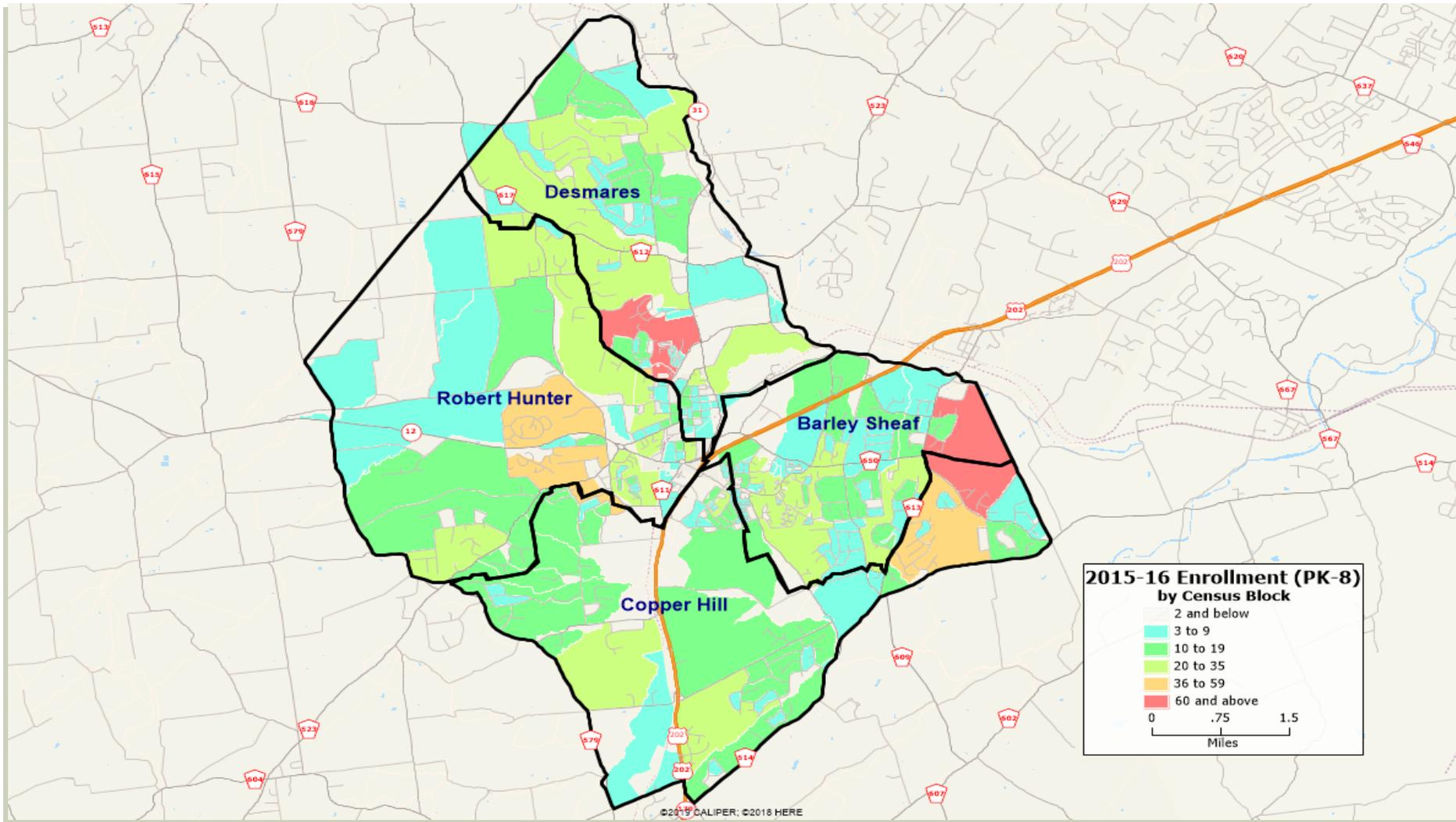
CAPACITY ANALYSIS

School	Capacity	Current Enrollment 2019-20	Difference	Projected Enrollment 2024-25	Difference
Barley Sheaf E.S. (K-4)	487	345	+142	321	+166
Copper Hill E.S. (PK-4)	741	436	+305	441	+300
Desmares E.S. (K-4)	590	462	+128	536	+54
Hunter E.S. (K-4)	508	398	+110	448	+60
Reading-Fleming I.S. (5-6)	1,135	657	+478	787	+348
Case M.S. (7-8)	1,259	775	+484	785	+474

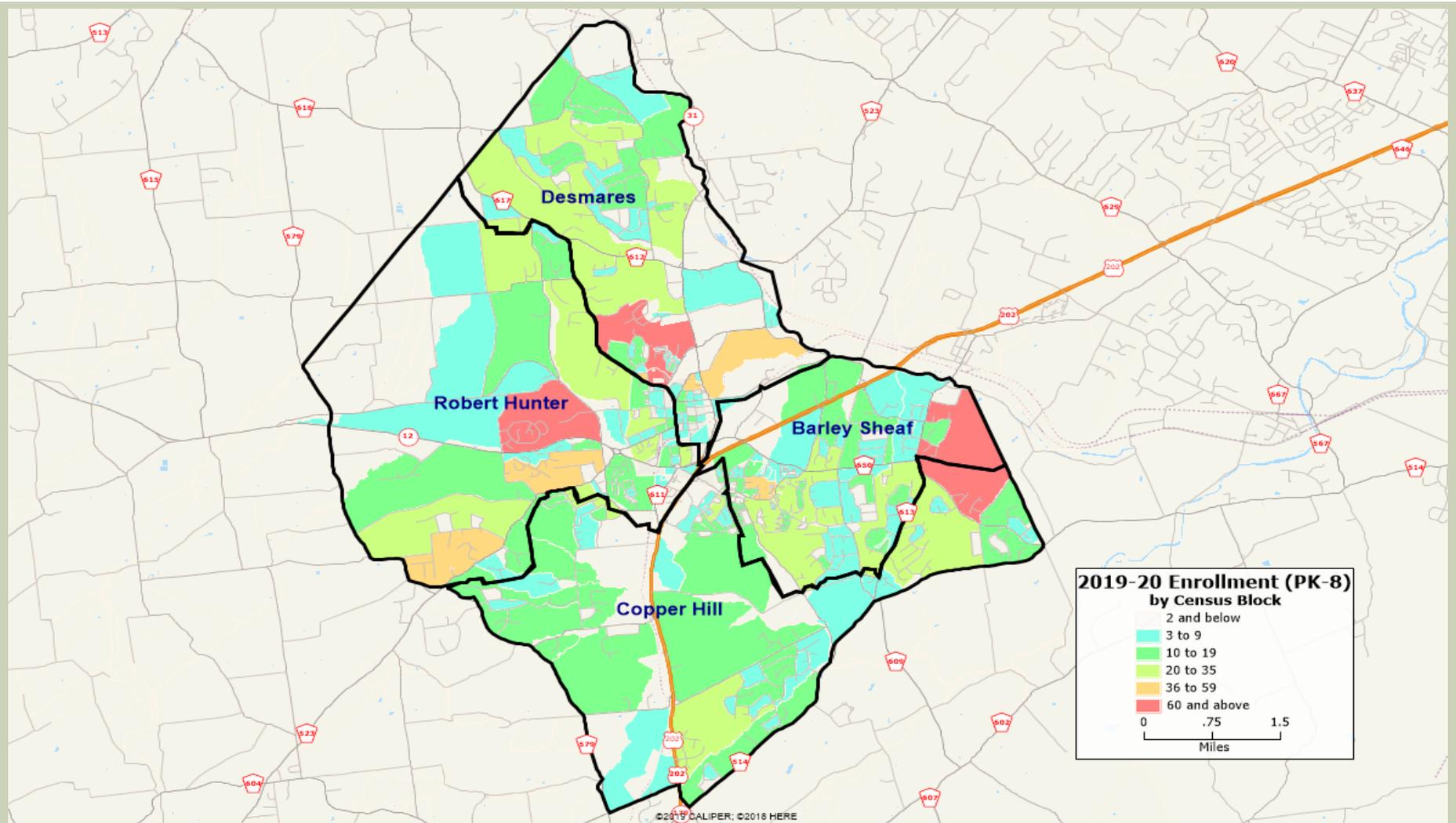
MAPPING

- Maps were created to compare different variables from 2015-16 to 2019-20.
- Student counts by census block
- Student density by census block
- Student yield by census block

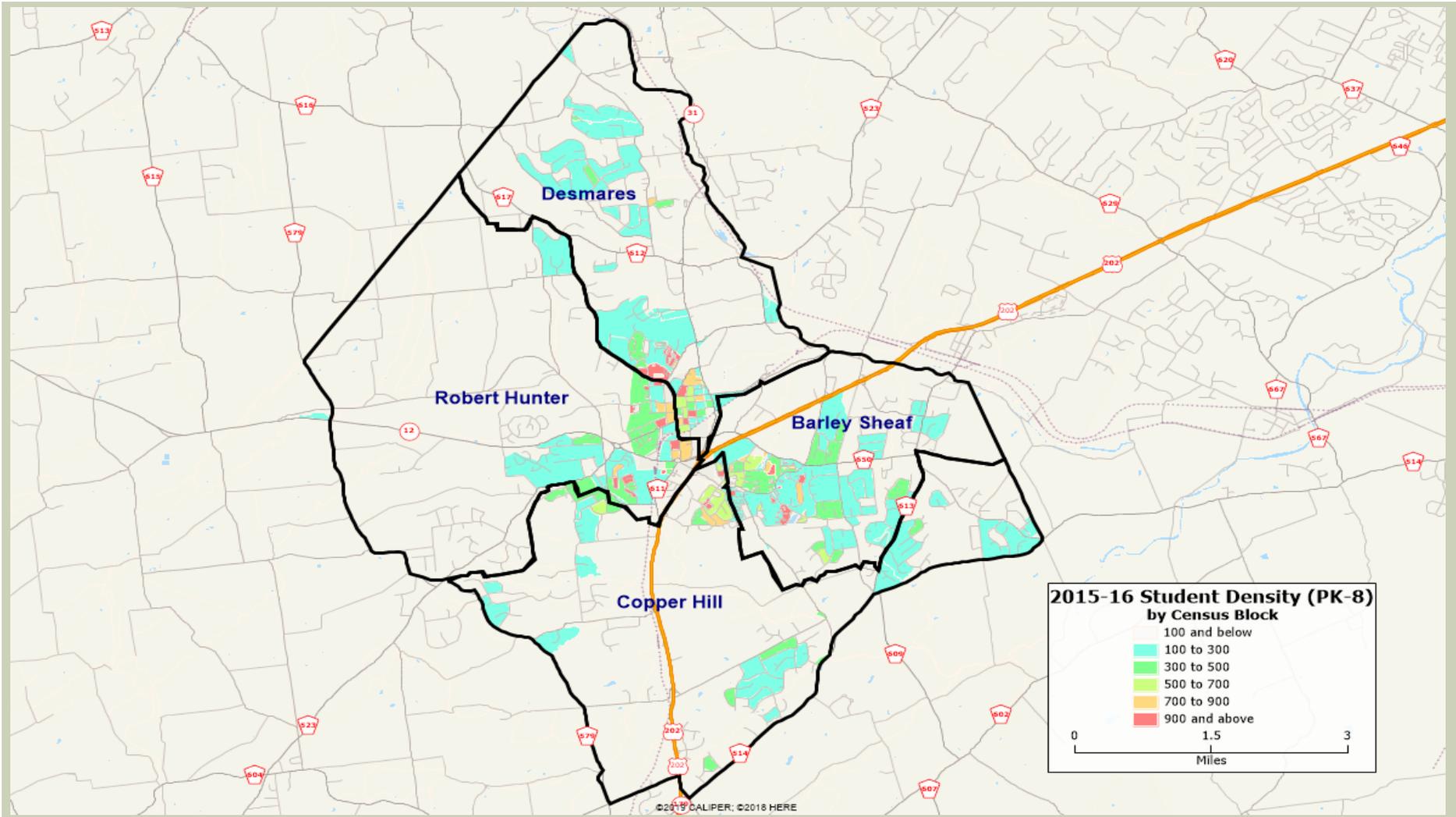
ENROLLMENT BY CENSUS BLOCK 2015-16



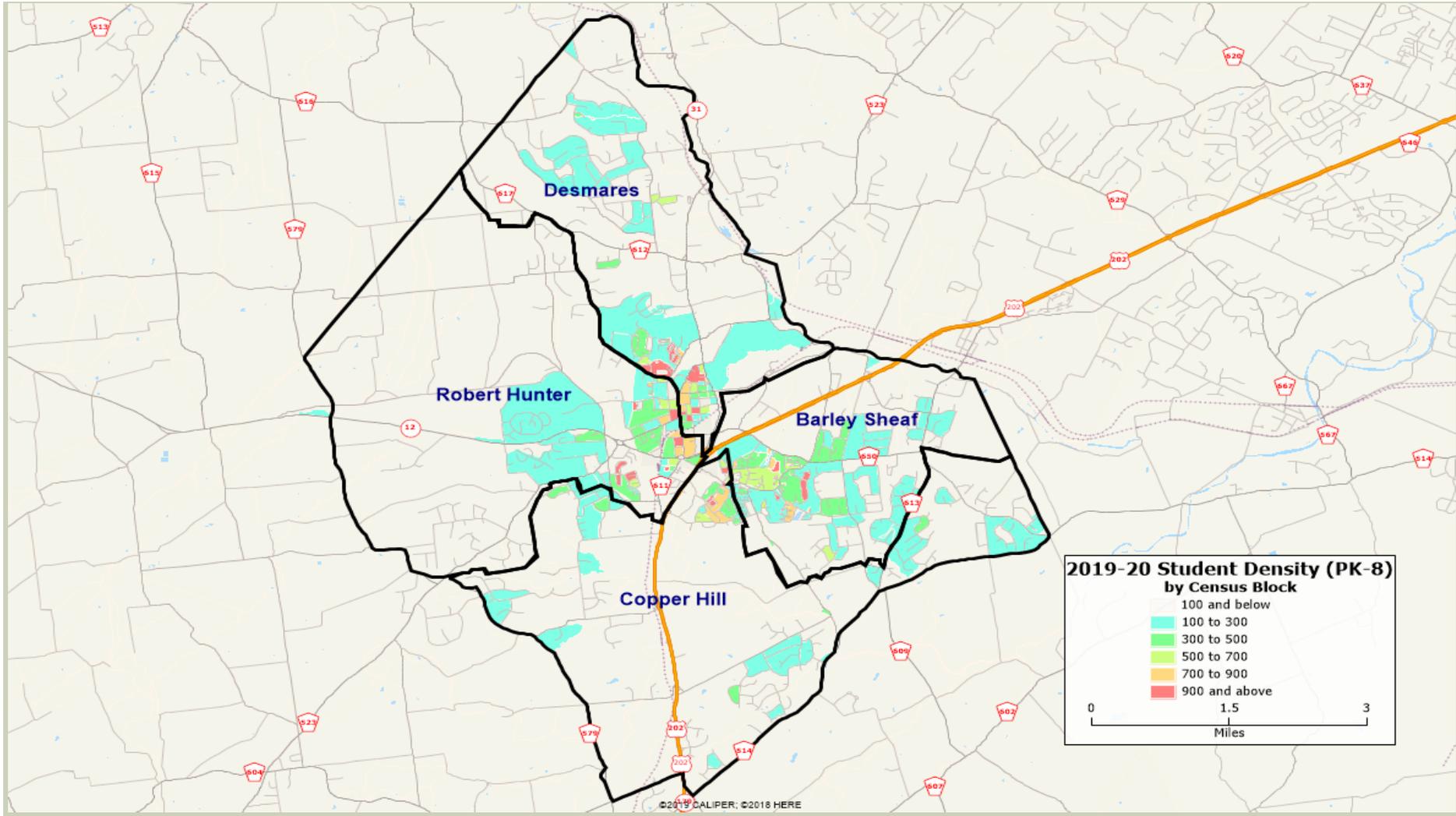
ENROLLMENT BY CENSUS BLOCK 2019-20



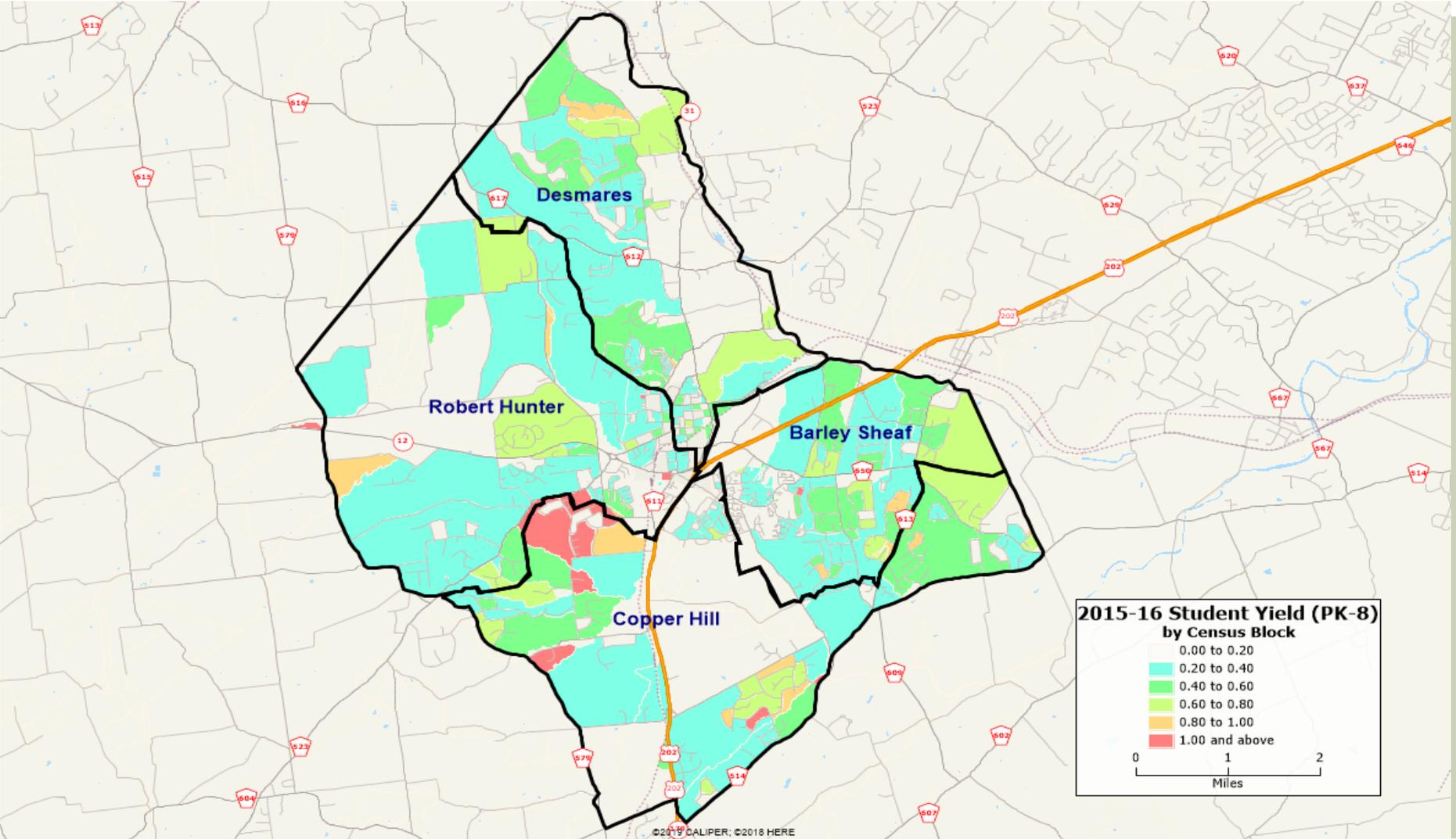
STUDENT DENSITY BY CENSUS BLOCK 2015-16



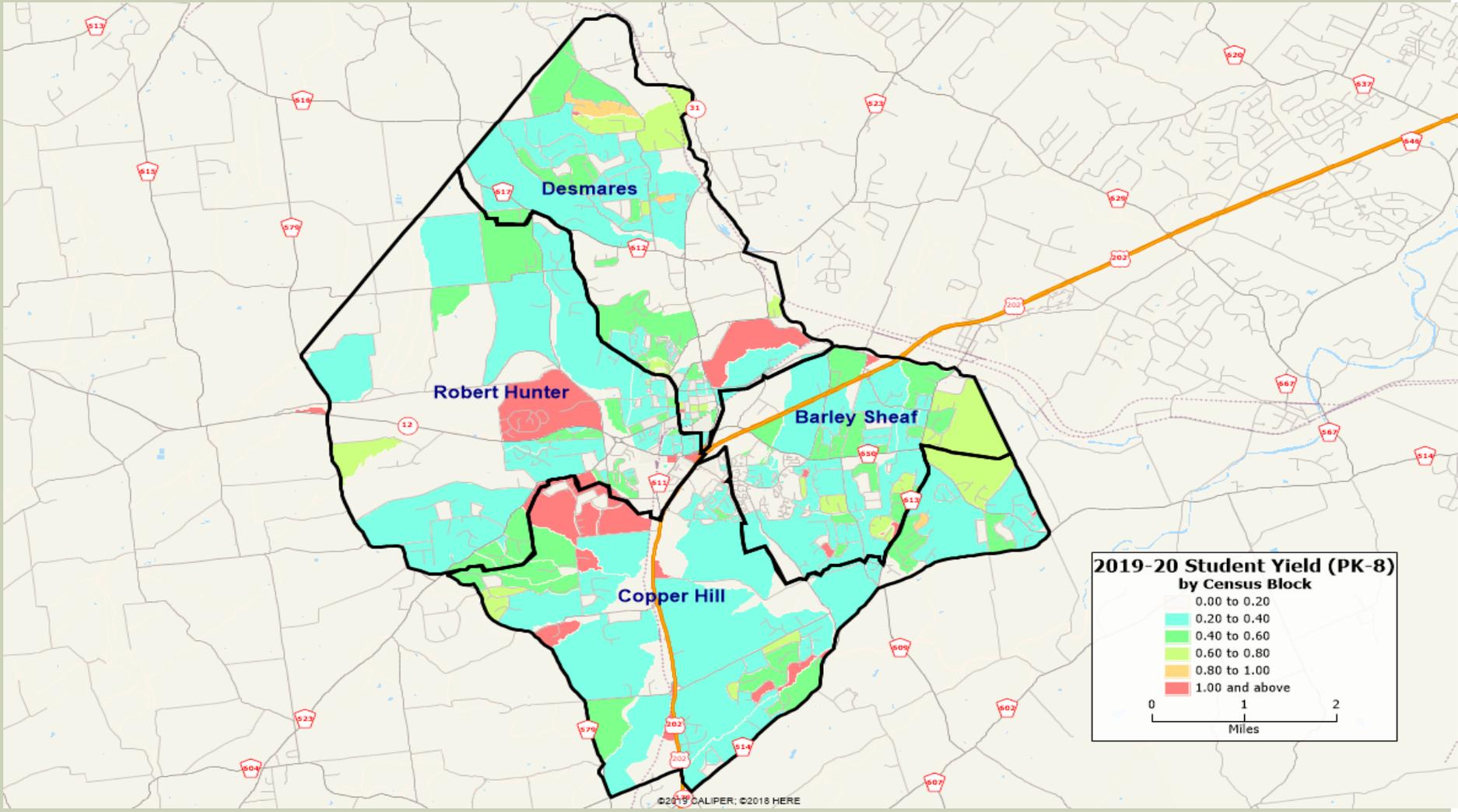
STUDENT DENSITY BY CENSUS BLOCK 2019-20



STUDENT YIELD BY CENSUS BLOCK 2015-16



STUDENT YIELD BY CENSUS BLOCK 2019-20



HOUSING TURNOVER ANALYSIS

Completely independent analysis using houses, not students, to project enrollment.

Should not be used for yearly enrollment projections. Use those from CSR.

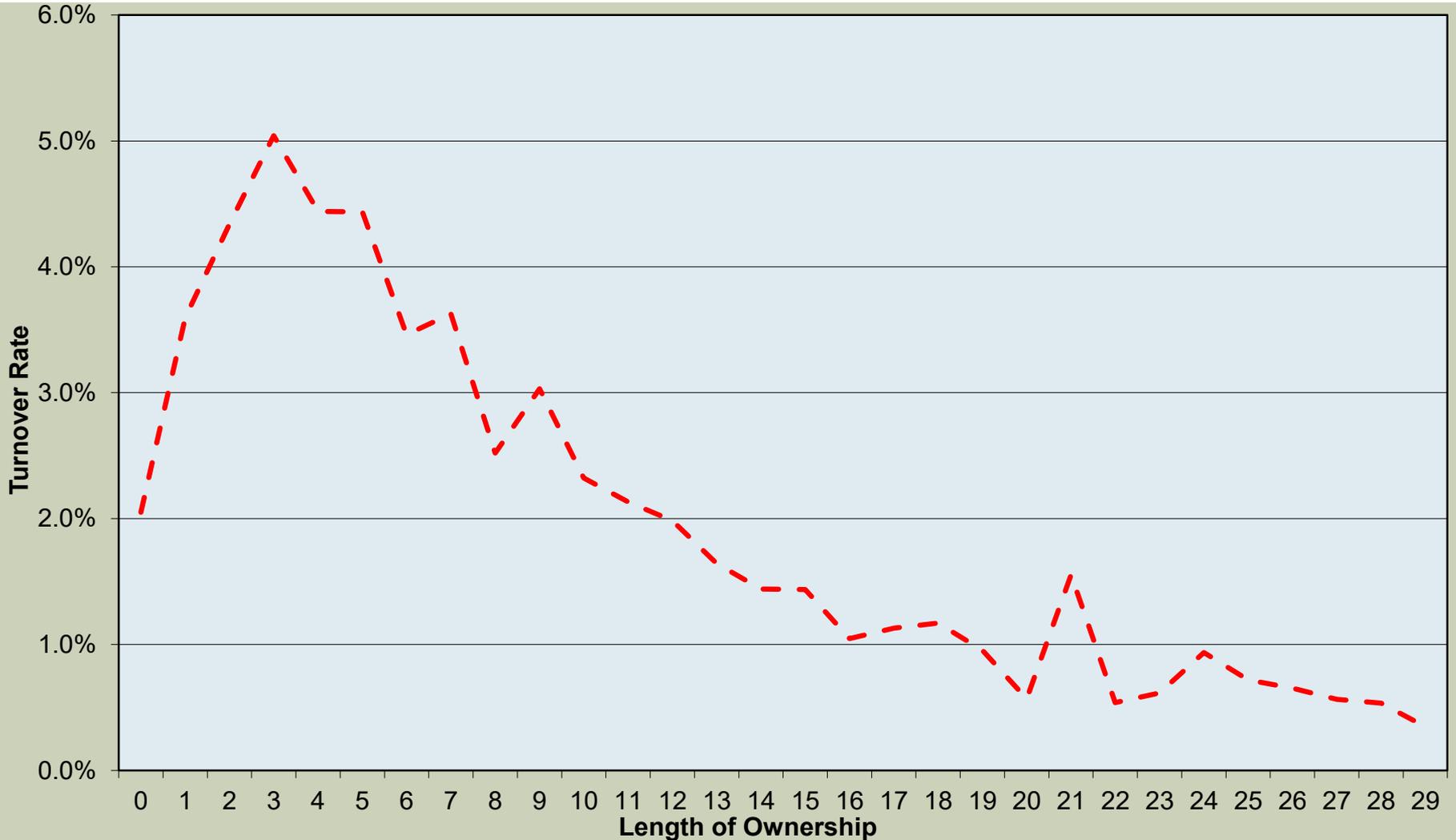
Three inputs:

- 1.** Housing turnover rates by length of ownership
- 2.** Current distribution of homes by length of ownership
- 3.** Student yields by length of ownership

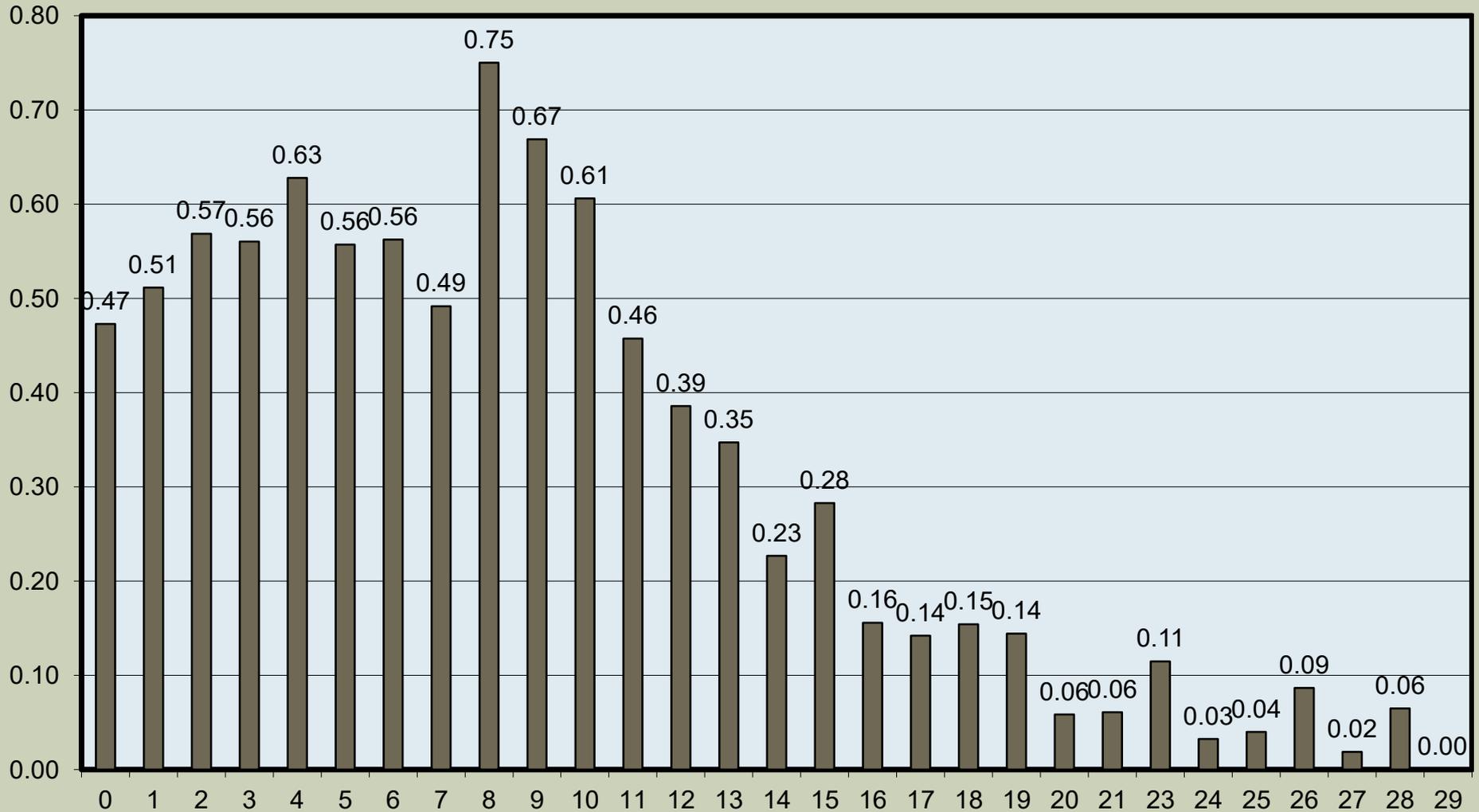
TURNOVER RATES

- Used parcel-level data to track each home through its “lifecycle”. Data contained sale dates, sale prices, and year home was built.
- Sales data were collected from 1989-2018 for detached SF homes and townhouses/condos.
- Follow each year’s cohort of homes beginning in 1989 to see when they sell.
- Ex. Home built in 1969 sold in 1999, 2005, and 2009 (part of three cohorts). Length of ownership is 6 years after 1st sale, 4 years after 2nd sale. Current length of ownership is 9 years.

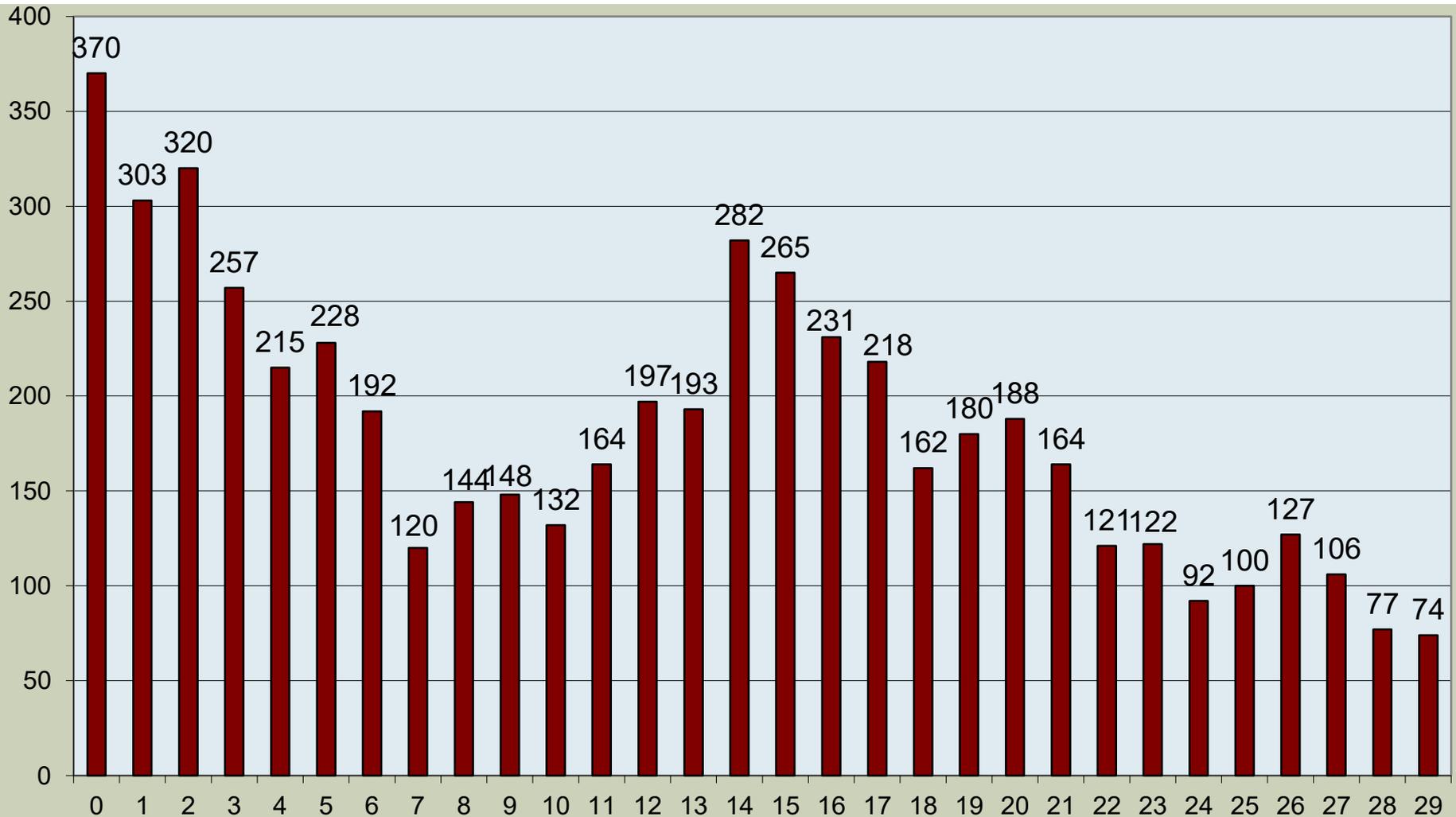
WEIGHTED-AVERAGE TURNOVER RATES BY LENGTH OF OWNERSHIP DETACHED SF HOMES



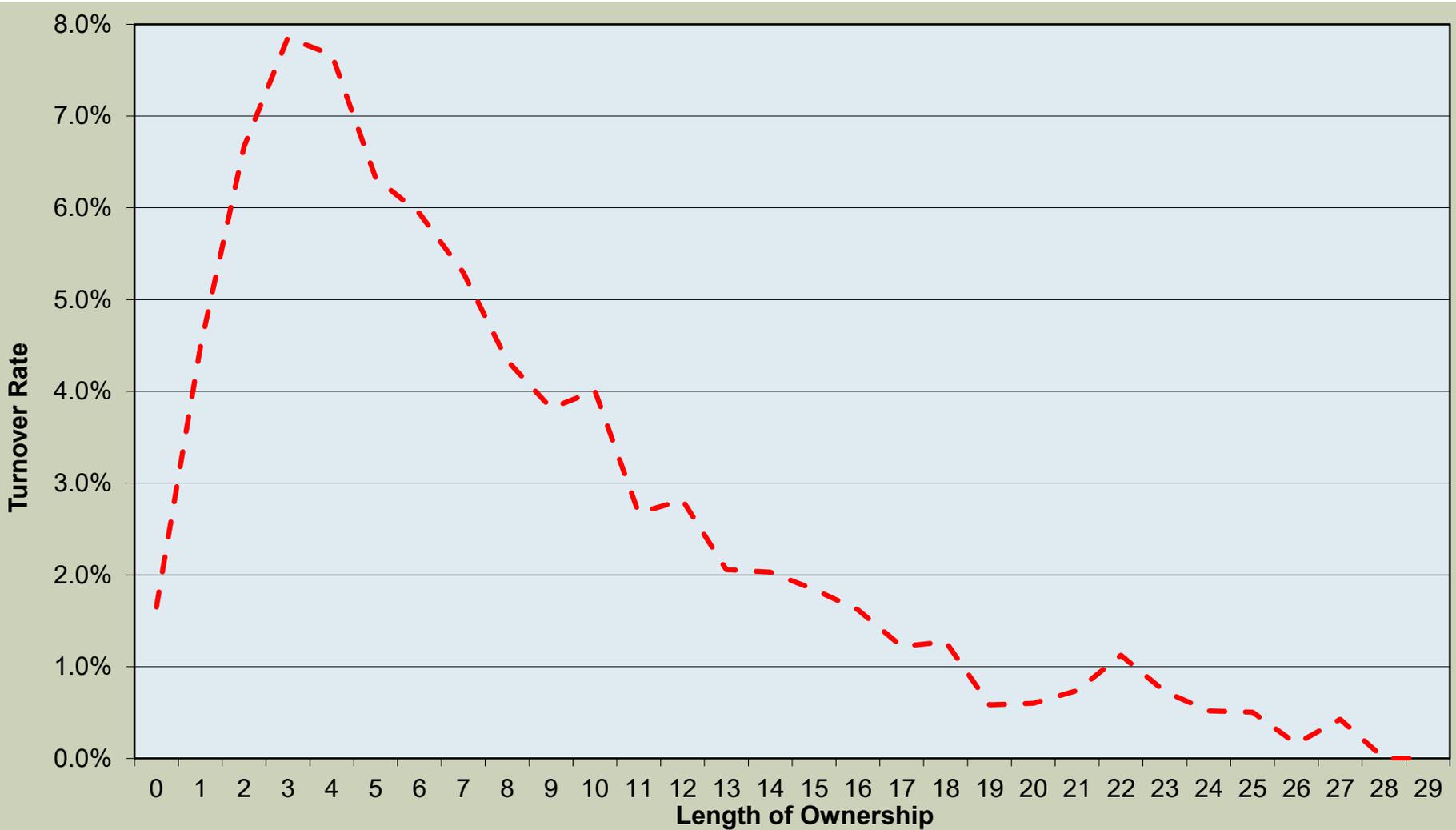
YIELDS BY LENGTH OF OWNERSHIP DETACHED SF HOMES



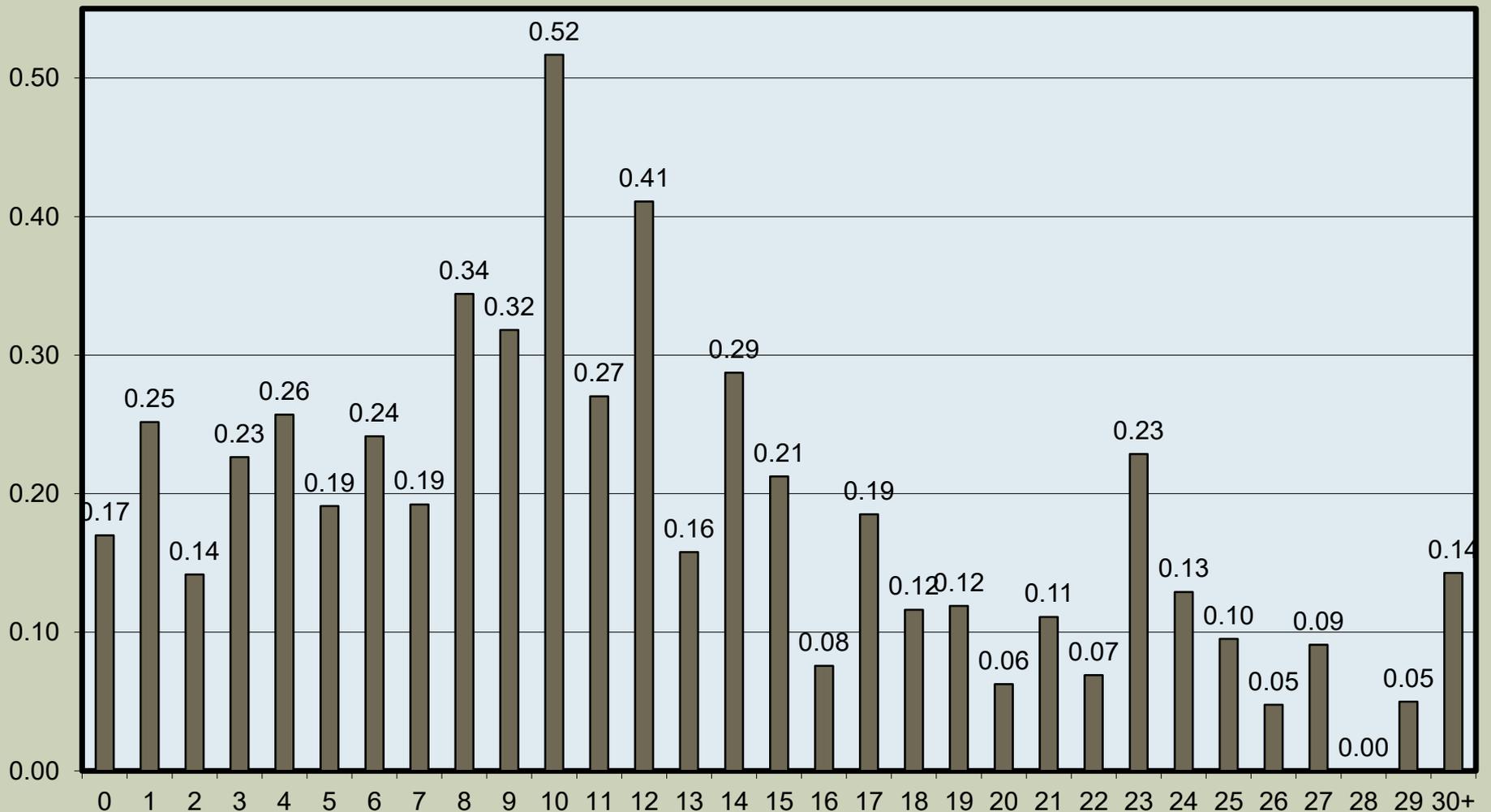
CURRENT LENGTH OF OWNERSHIP DETACHED SF HOMES



WEIGHTED-AVERAGE TURNOVER RATES BY LENGTH OF OWNERSHIP TOWNHOUSES/CONDOS



YIELDS BY LENGTH OF OWNERSHIP TOWNHOUSES/CONDOS



HOUSING TURNOVER PROJECTION METHODOLOGY

- Use current length of home ownership distribution and historical turnover rates to either a) advance homes to next year of ownership or b) sell home and have it return to zero years of ownership.
- Number of homes at each length of ownership is multiplied by student yield at each length of ownership.
- Completed separately for detached SF homes and townhouses/condos

ENROLLMENT PROJECTIONS FROM HOUSING TURNOVER ANALYSIS

	2019	2020	2021	2022	2023
Detached Single-Family Homes	1,966	1,979	2,004	2,032	2,049
Townhouses/Condominiums	395	377	377	372	371
Apartments (constant)	415	415	415	415	415
Mixed-Use, Non-Residents, Unmatched (constant)	286	286	286	286	286
Total	3,062	3,057	3,082	3,105	3,121

SUMMARY

- Enrollments are projected to increase in the next five years.
- Stabilization of Raritan birth rate, inward migration of students, and more than 1,000 new housing units are contributing to the projected enrollment gain.
- Greatest impact from proposed new housing is at Desmares.

