

**DEMOGRAPHIC STUDY**

**FOR THE**

**CHERRY HILL**

**PUBLIC SCHOOLS**

April 9, 2024



# 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.

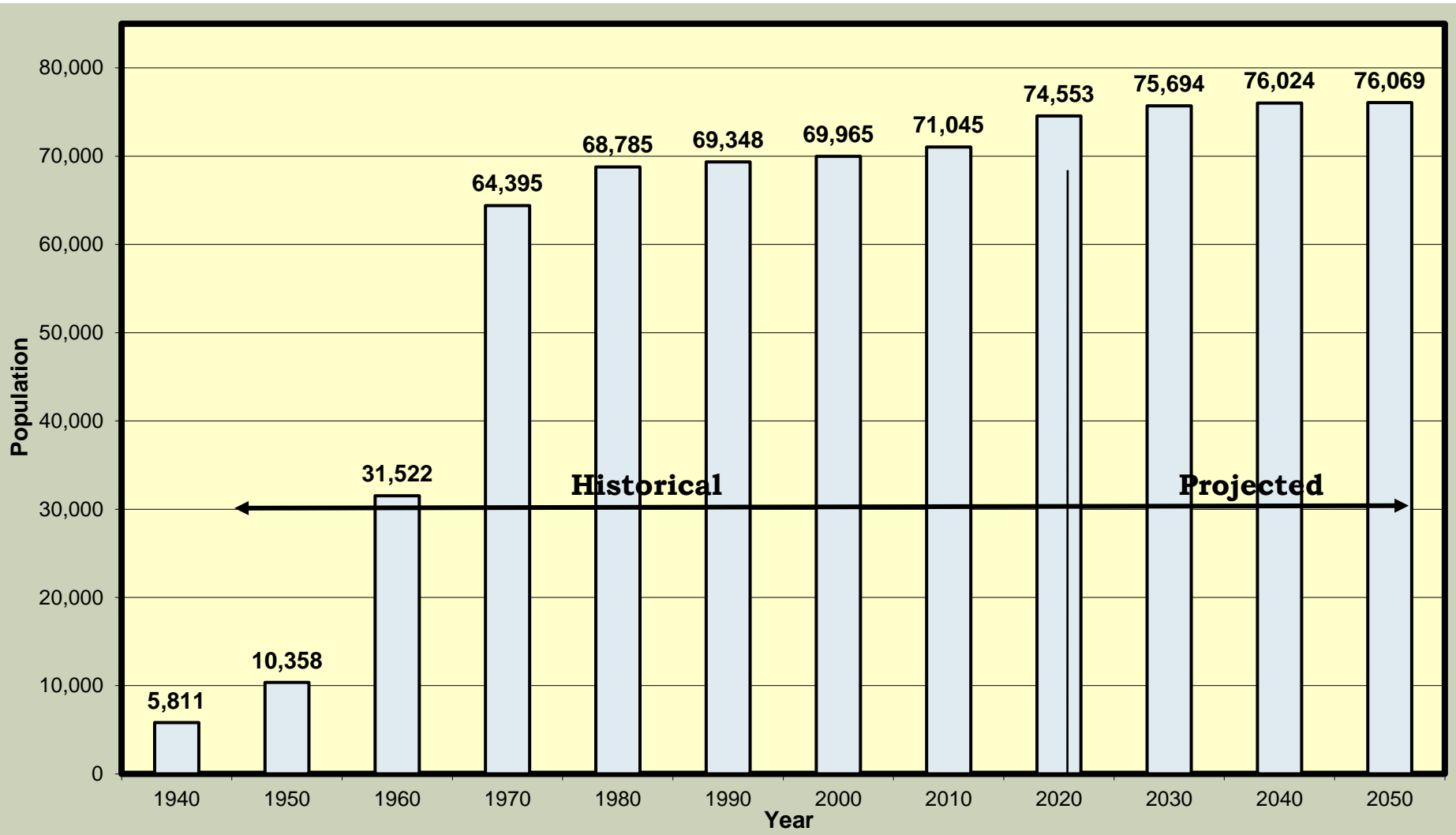
# RICHARD S. GRIP ED.D.

- 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

- ❑ Project grade-by-grade enrollments from 2024-25 through 2028-29, 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), and by school
- ❑ Determine historical birth counts for each elementary attendance area
- ❑ Research new housing starts and the impact on the school district
- ❑ Compare building capacities to current and projected enrollments
- ❑ Electronically “pin-map” student addresses from the 2018-19 and 2023-24 school years to show the relative concentrations of where students live
- ❑ Project enrollments based on students yields and housing turnover rates (completely independent analysis)

# HISTORICAL AND PROJECTED POPULATIONS 1940-2050

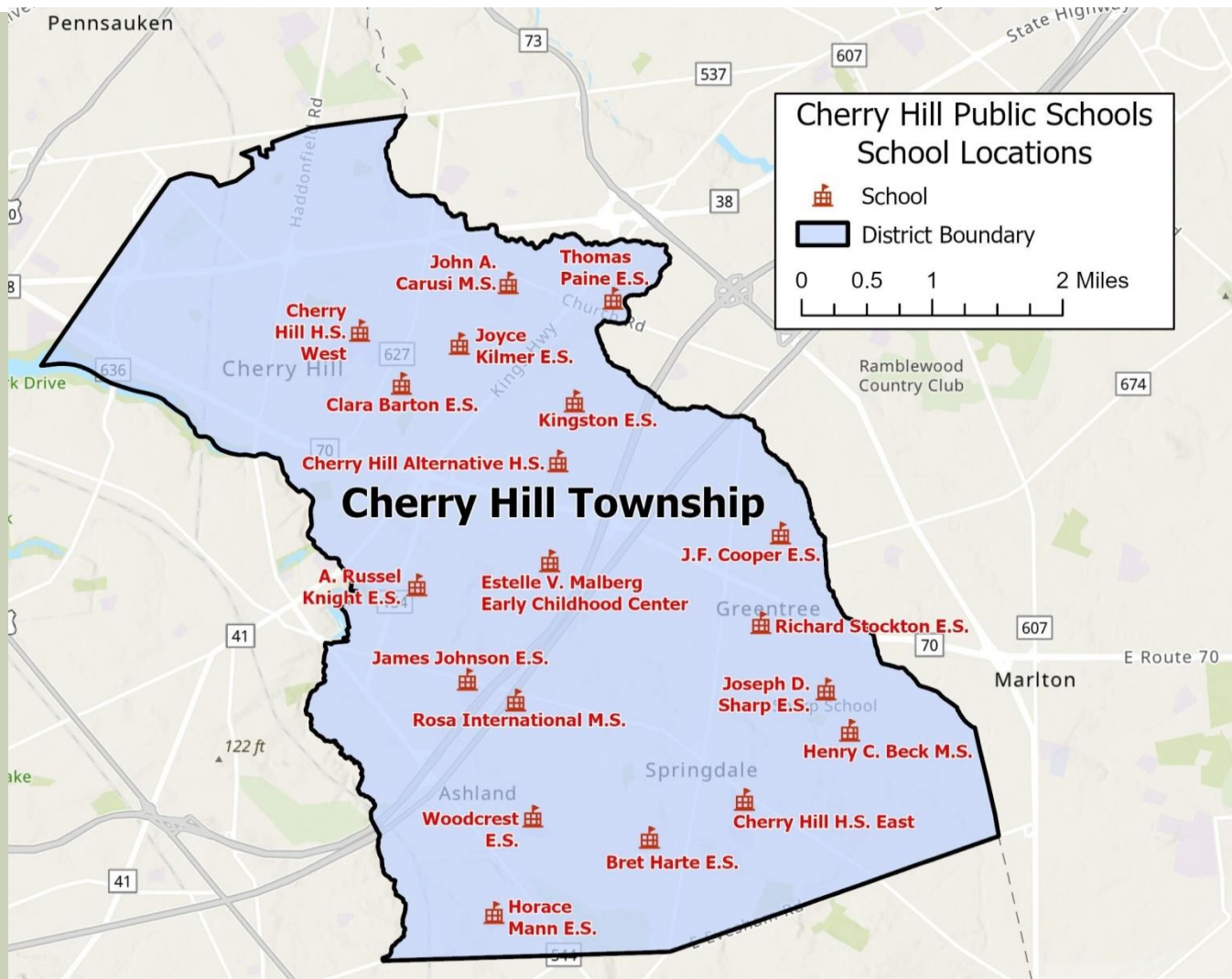


# CHERRY HILL

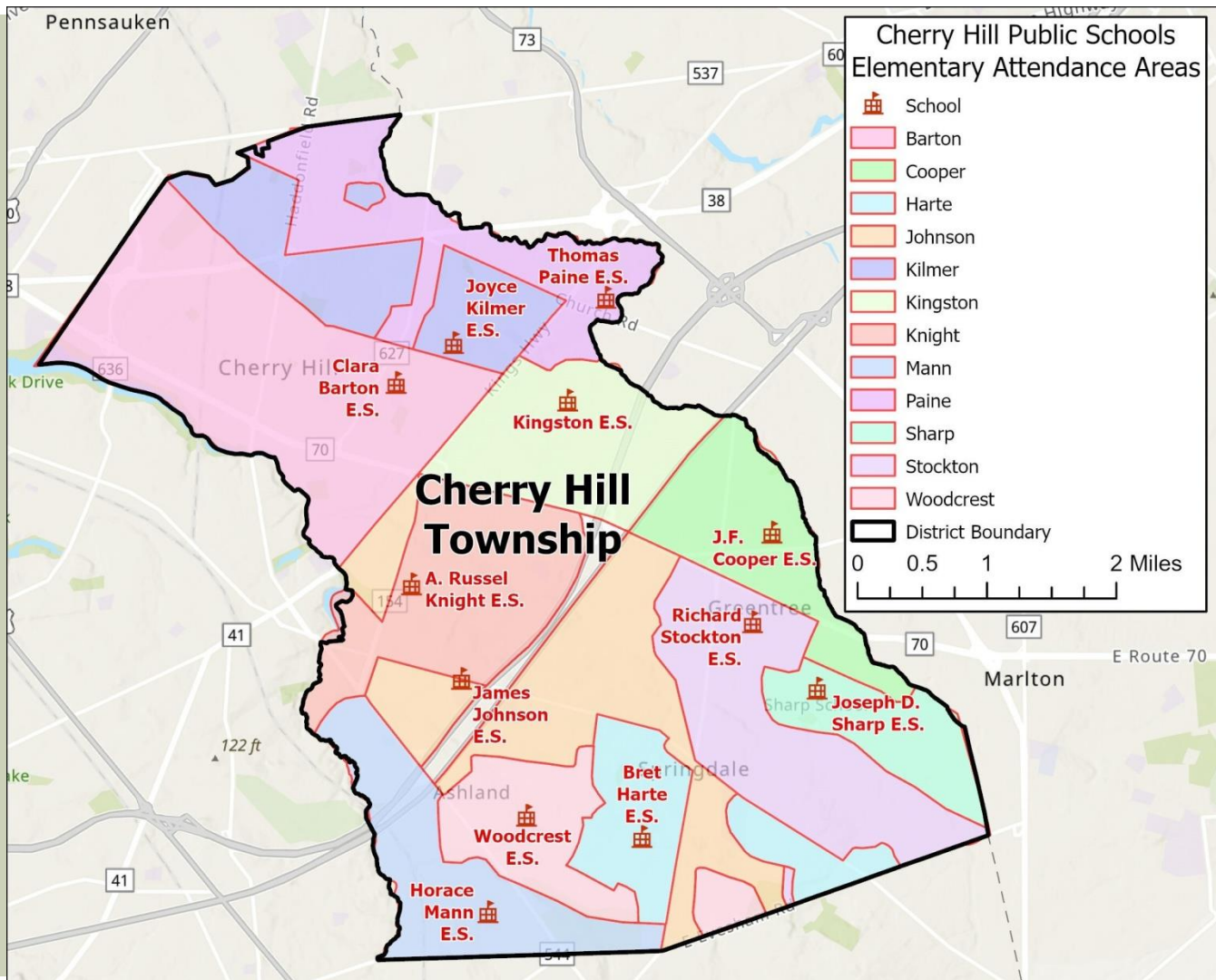
## DEMOGRAPHIC PROFILE

- ❑ 65.9% White, 14.3% Asian, 8.6% Hispanic, and 7.1% Black in 2020 (increasing Asian and Hispanic populations and declining White population from 2010)
- ❑ Median age = 42.5 years (NJ = 39.9 years)
- ❑ 14.9% of population is foreign-born (NJ=23.5%). China and India are the largest sources.
- ❑ Bachelor's Degree or Higher = 59.0% (NJ = 43.5%)
- ❑ Median household income = \$124K (NJ = \$96K)
- ❑ 29,823 housing units, of which 79% are 1-unit homes (attached or detached).
- ❑ 24.4% of housing units are renter-occupied (NJ = 38.7%).
- ❑ Median value of owner-occupied unit = \$363K (NJ = \$429K).

# SCHOOL LOCATIONS

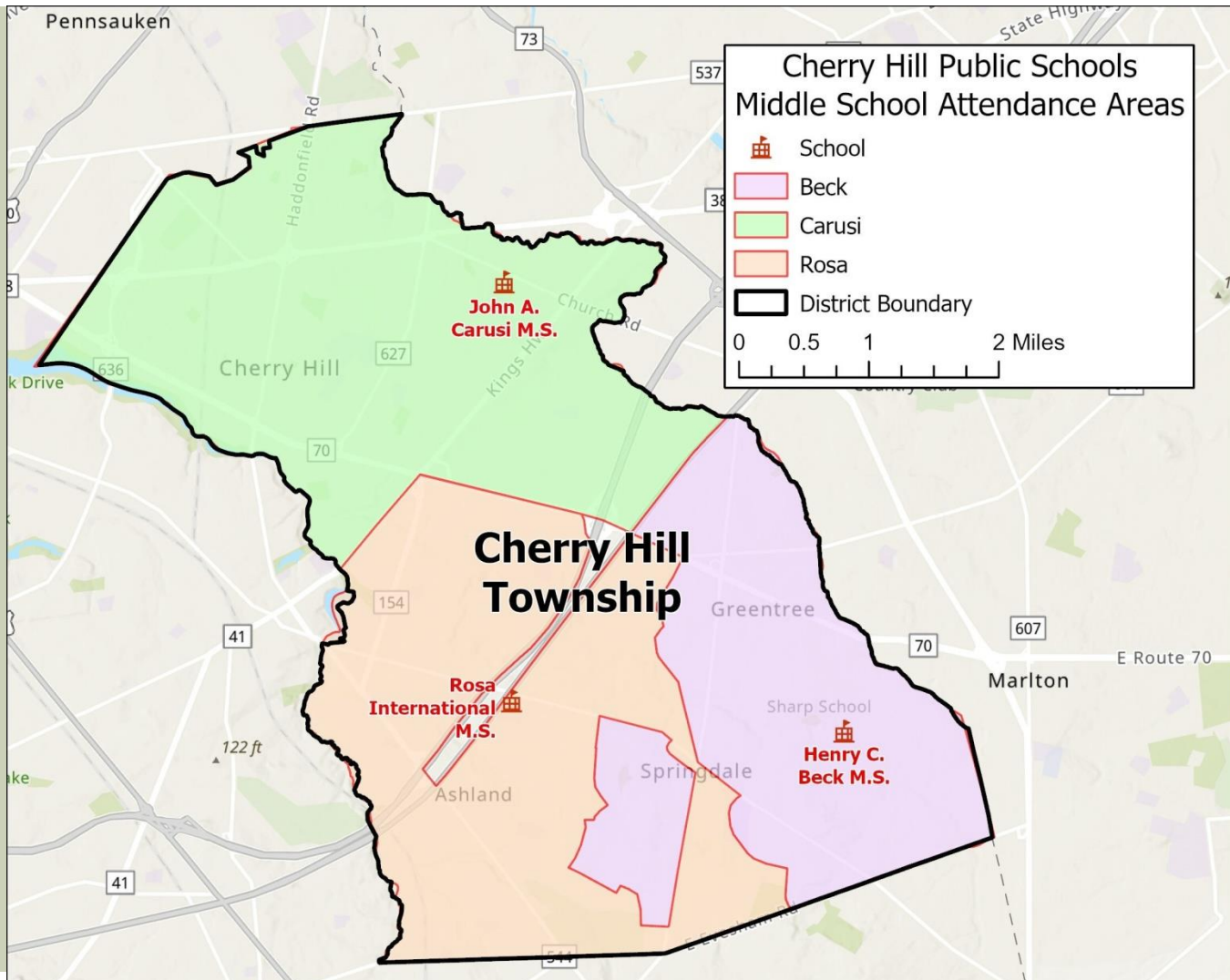


# ELEMENTARY ATTENDANCE AREAS

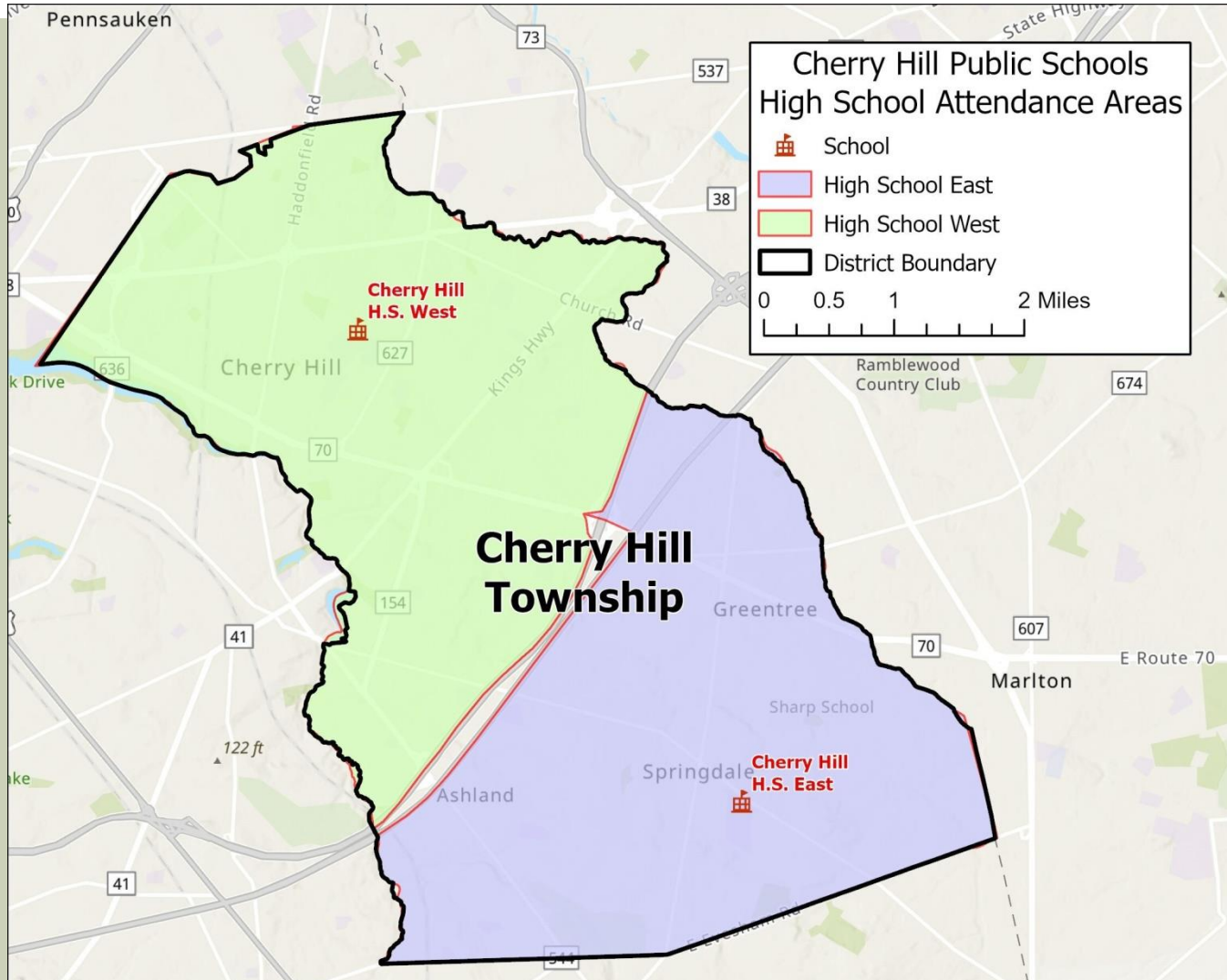




# MS ATTENDANCE AREAS



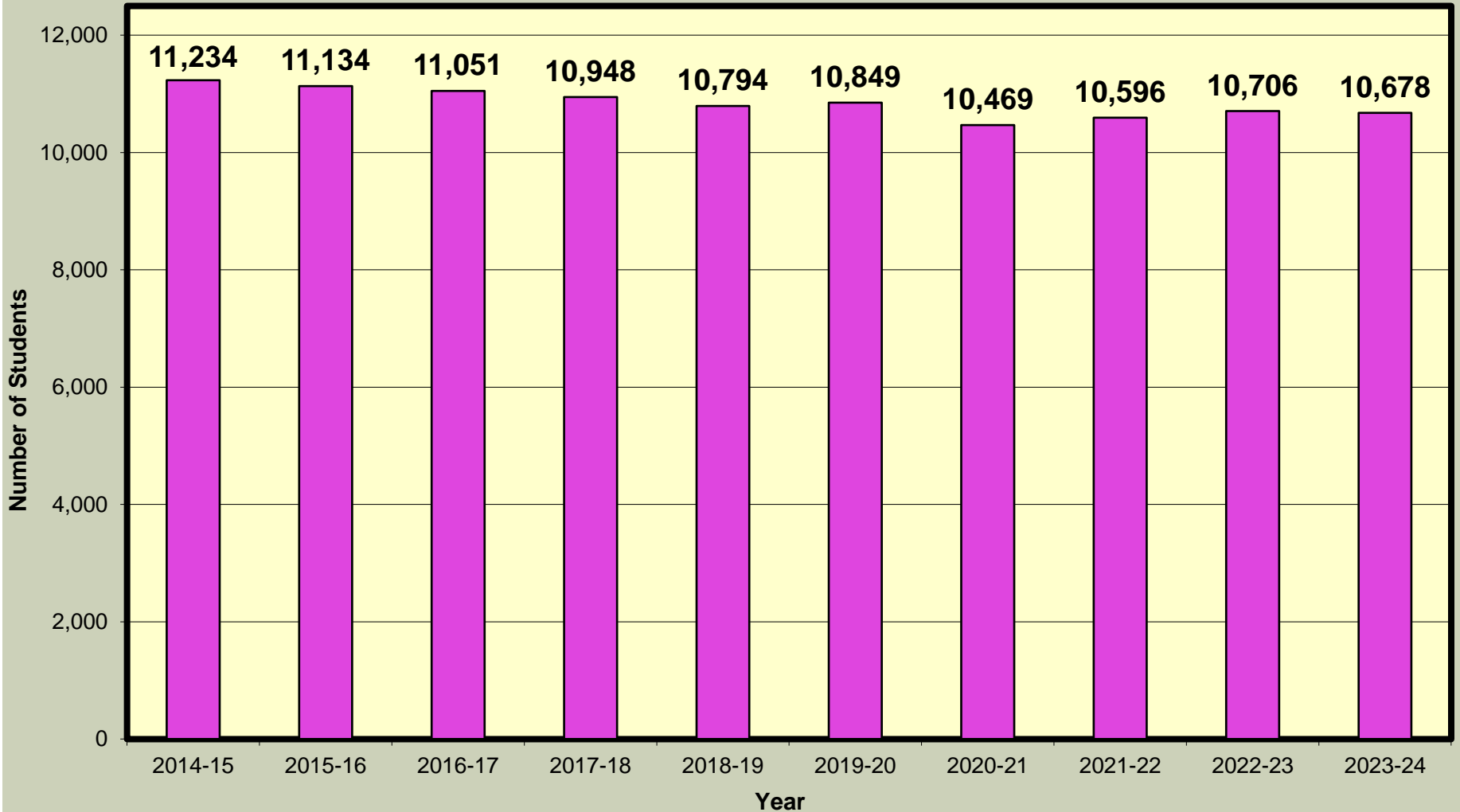
# HS ATTENDANCE AREAS



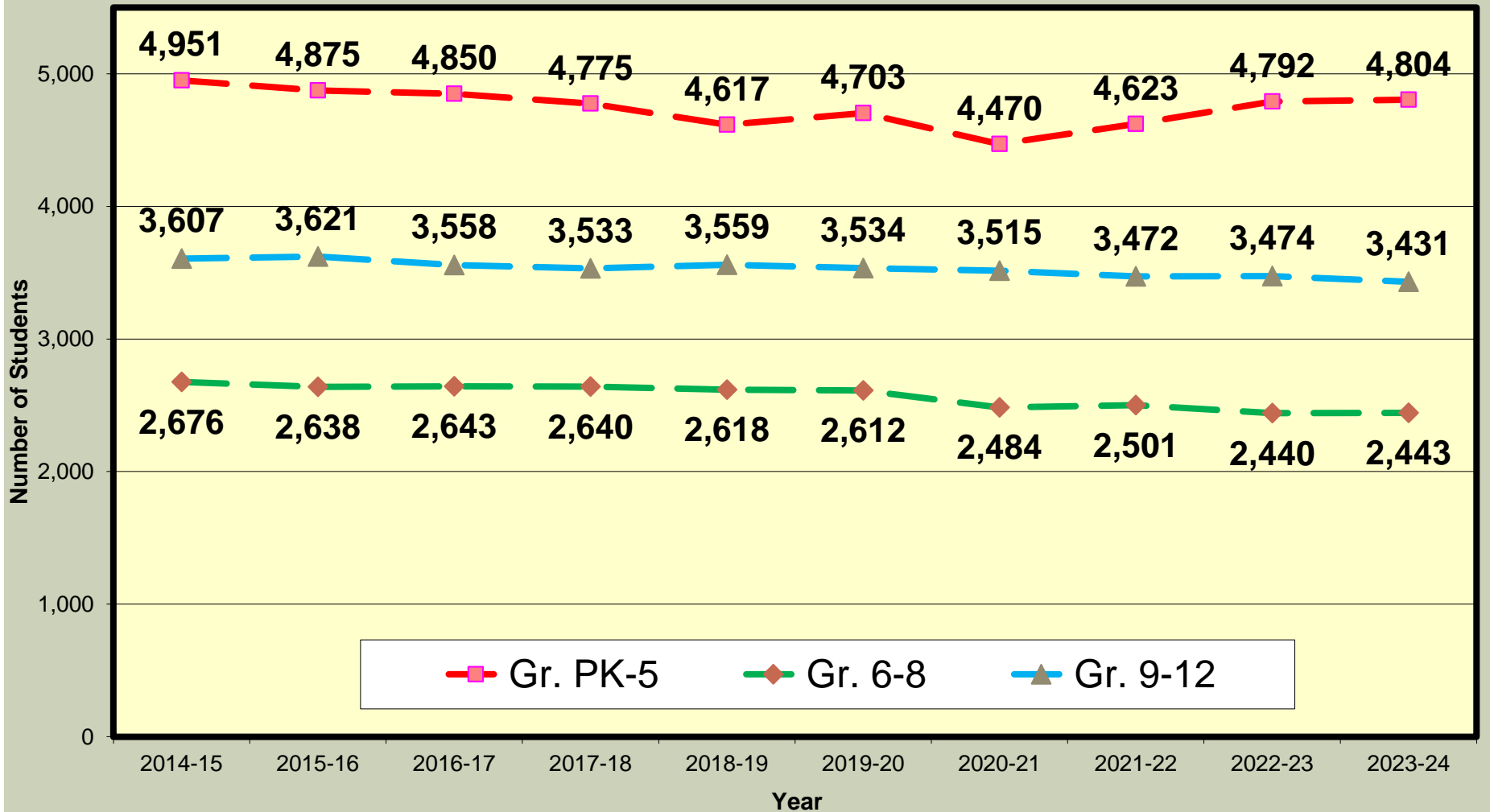
# HISTORICAL ENROLLMENT TRENDS

- ❑ District's 2023-24 enrollment (10/15/23) is 10,678.
- ❑ 2014-15 enrollment = 11,234 (decline of 556 students in 10 years)
- ❑ Enrollments declined through 2020-21 before reversing trend.
- ❑ Large decline in 2020-21 (-380), partially due to coronavirus pandemic.
- ❑ Enrollments rebounded in 2021-22 (+127) and 2022-23 (+110) as students returned to the school district
- ❑ Cohort-Survival Ratio Method (CSR) was used to project enrollments five years into the future.

# HISTORICAL ENROLLMENTS (PK-12) 2014-15 TO 2023-24



# HISTORICAL ENROLLMENTS BY GRADE CONFIGURATION 2014-15 TO 2023-24



# ENROLLMENT PROJECTION METHOD

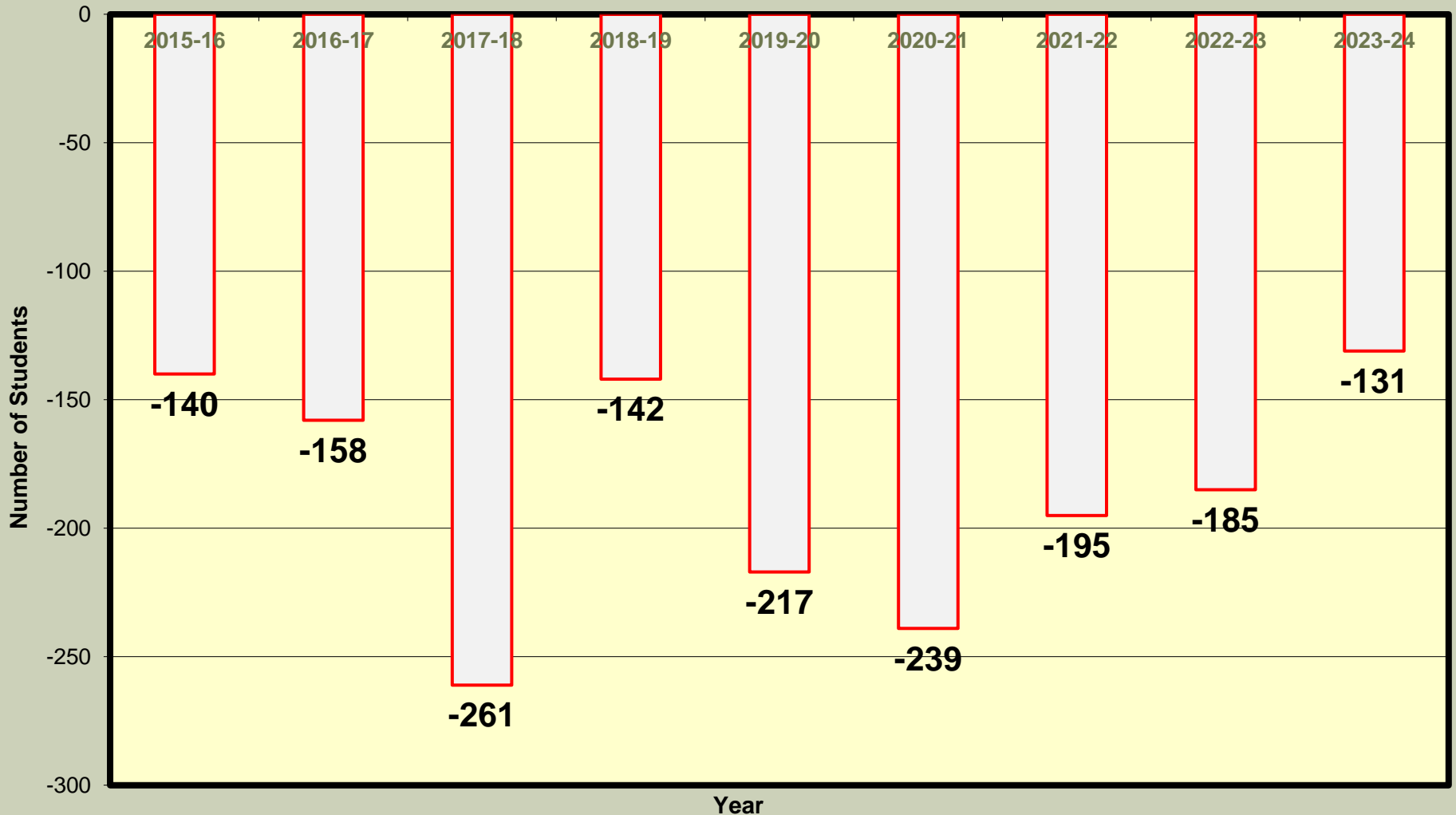
## COHORT SURVIVAL RATIO

- ❑ Ratios are calculated for each grade progression. Ex. 100 1<sup>st</sup> graders in 2022-23 become 95 2<sup>nd</sup> graders in 2023-24 = 0.95)
- ❑ Ratios above 1.000 = inward migration, below 1.000 = outward migration
- ❑ Survival ratios were computed for ten historical years. 10 of 13 average ratios were above 1.000, indicating net inward migration.
- ❑ 2 of 3 average ratios that were below 1.000 were in the HS grades.
- ❑ 5 survival ratios in 2020-21 (1<sup>st</sup> year of pandemic) were the lowest value in the last decade, 4 of which were in elementary grades.
- ❑ Average ratios were applied to current enrollments to project future enrollments.

# KINDERGARTEN/FIRST GRADE REPLACEMENT

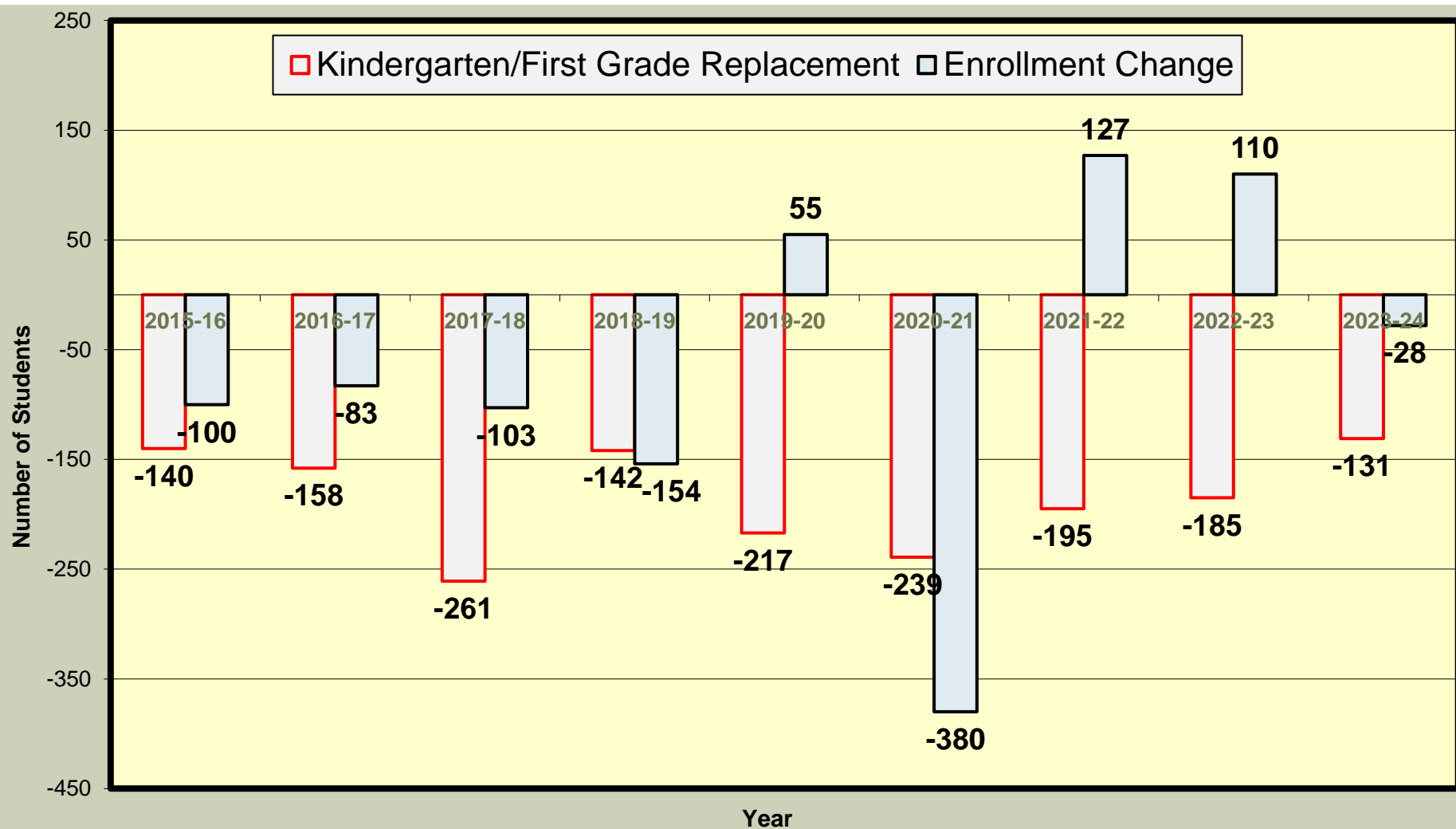
- ❑ Negative kindergarten replacement (KR) has occurred for past 4 years and negative first grade replacement five years prior, ranging from 131-261 students per year.
- ❑ Negative KR- Number of graduating 12<sup>th</sup> grade students is greater than the number of kindergarten students replacing them in the next year.
- ❑ Compare 12<sup>th</sup> grade counts to first grade when district had a half-day kindergarten program prior to 2020-21.

# HISTORICAL KINDERGARTEN/ FIRST GRADE REPLACEMENT





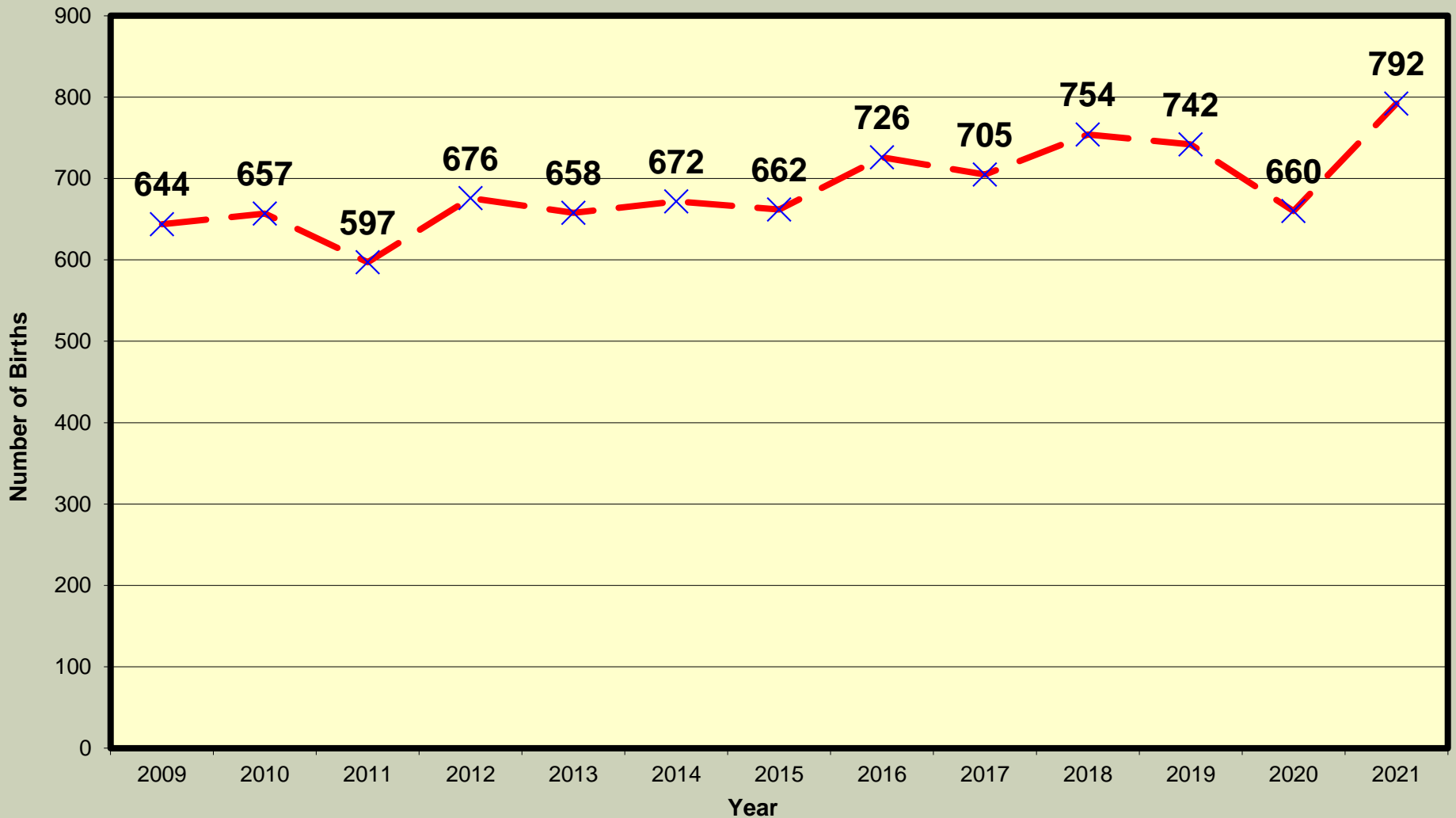
# TOTAL ENROLLMENT CHANGE VS. KINDERGARTEN/FIRST GRADE REPLACEMENT



# BIRTH COUNTS

- ❑ Births are used to project kindergarten students 5 years later.
- ❑ Analyzed birth data from 2009-2021. Births have been generally increasing since 2012.
- ❑ 792 births in 2021, which is 148 more than in 2009 (644) and greatest number in historical period.

# CHERRY HILL HISTORICAL BIRTH COUNTS 2009-2021

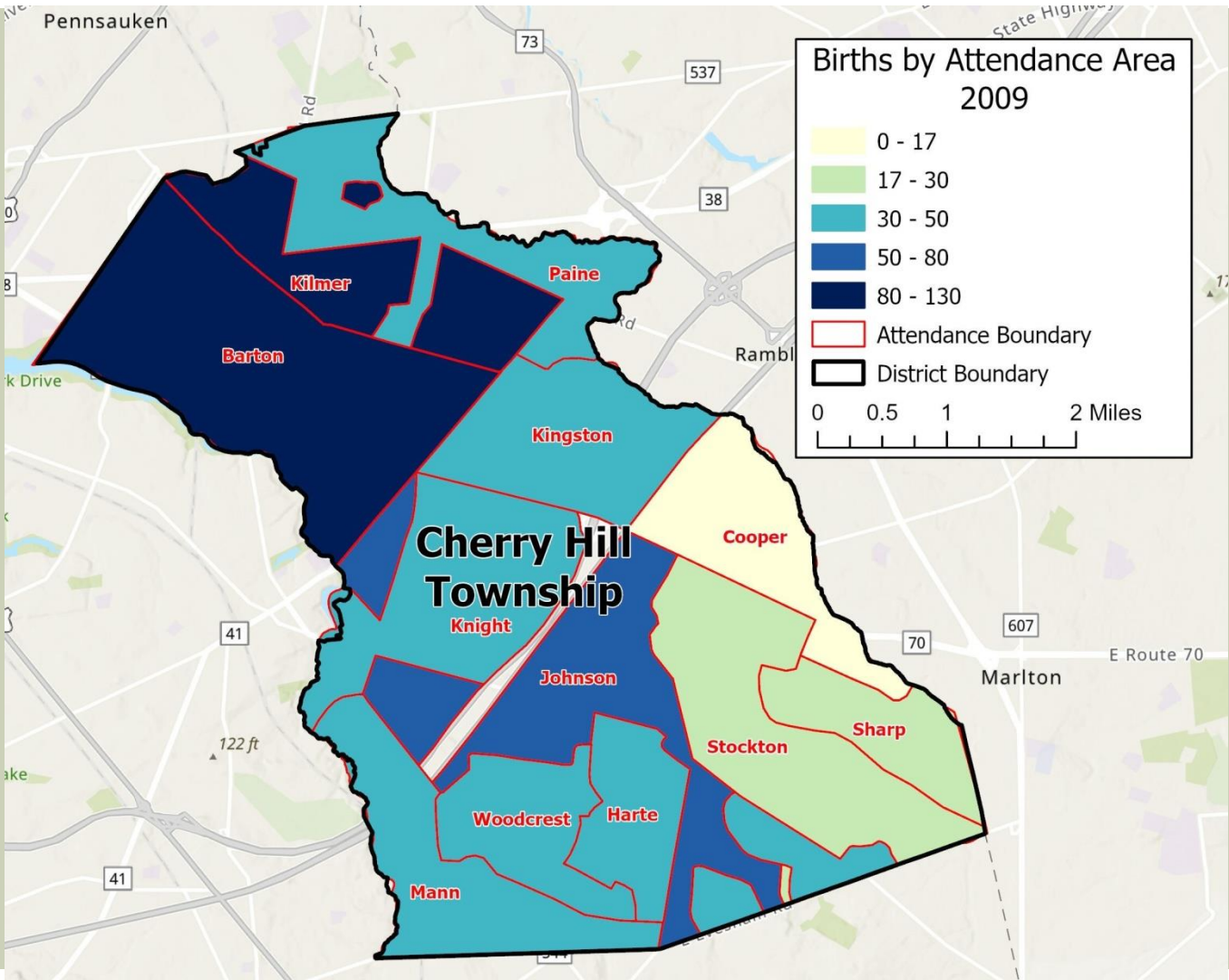


# BIRTH COUNTS AND BIRTH-TO-KINDERGARTEN SURVIVAL RATIOS

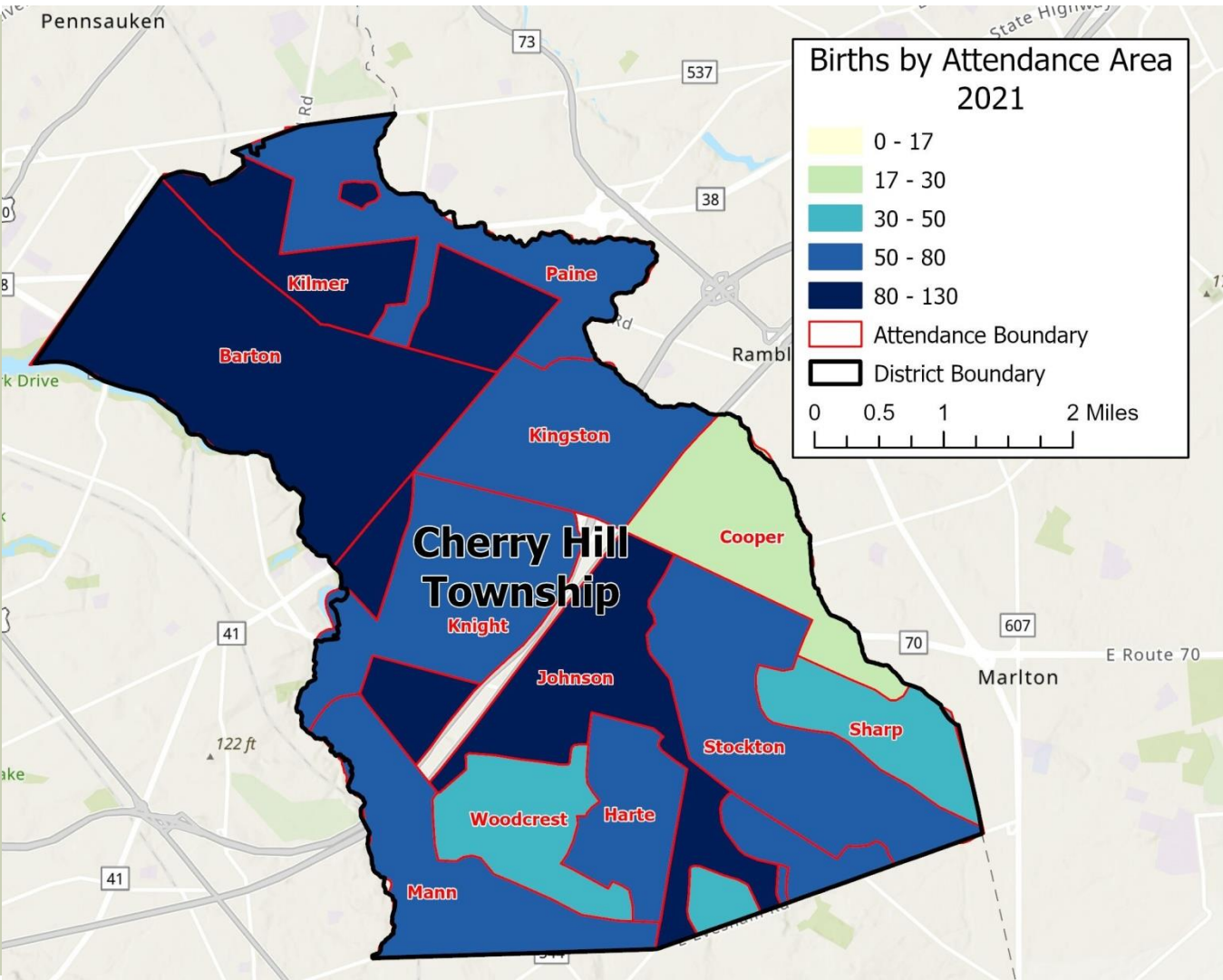
Birth Year	Number of Births Cherry Hill	Kindergarten Students Five Years Later	Birth-to-Kindergarten Survival Ratio
2009	644	572	0.888
2010	657	568	0.865
2011	597	605	1.013
2012	676	594	0.879
2013	658	568	0.863
2014	672	727	1.082
2015	662	608	0.918
2016	726	679	0.935
2017	705	682	0.967
2018	754	707	0.938
2019	742	N/A	N/A
2020	660	N/A	N/A
2021	792	N/A	N/A

Full Day  
Kindergarten →

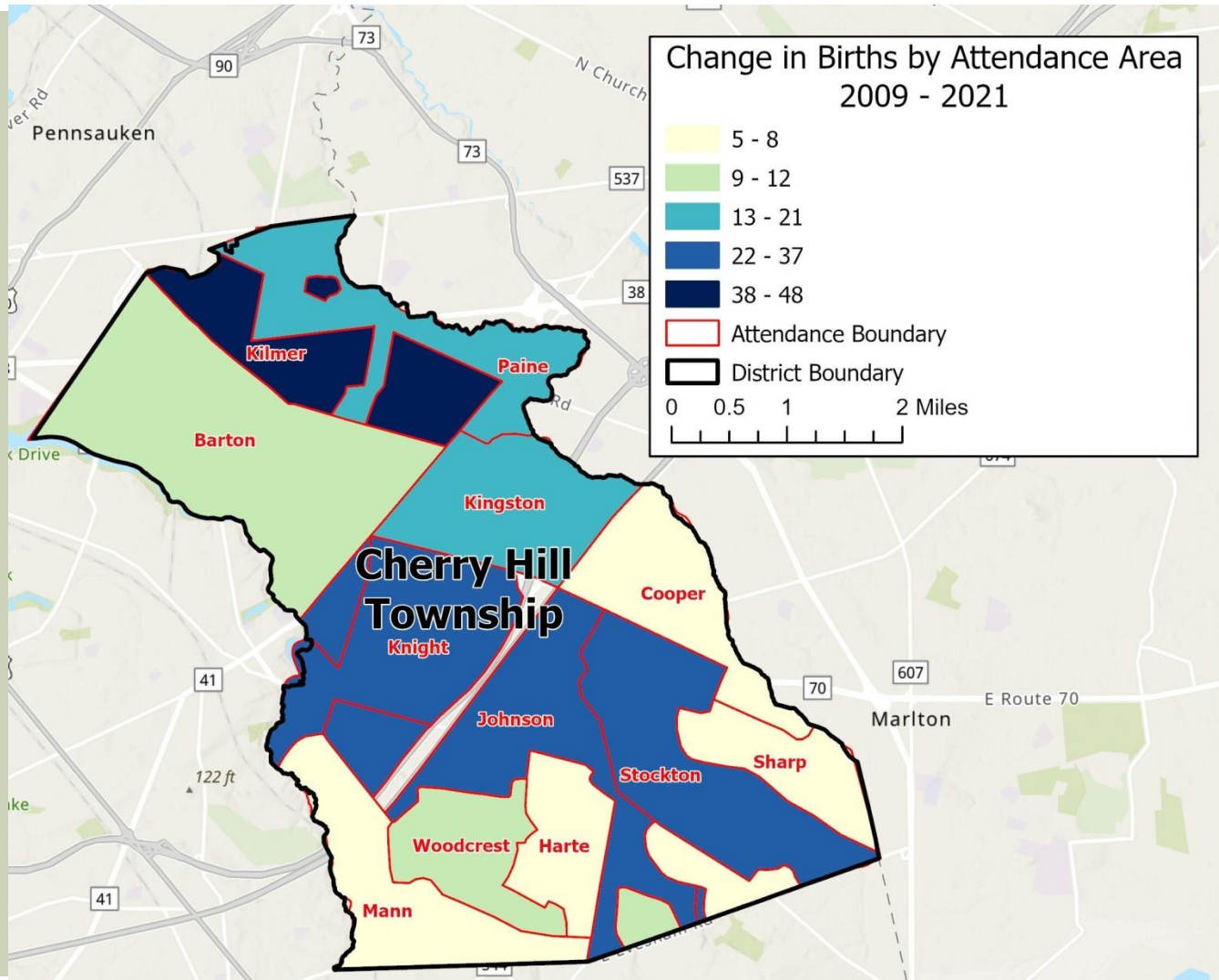
# BIRTHS BY ATTENDANCE AREA 2009



# BIRTHS BY ATTENDANCE AREA 2021

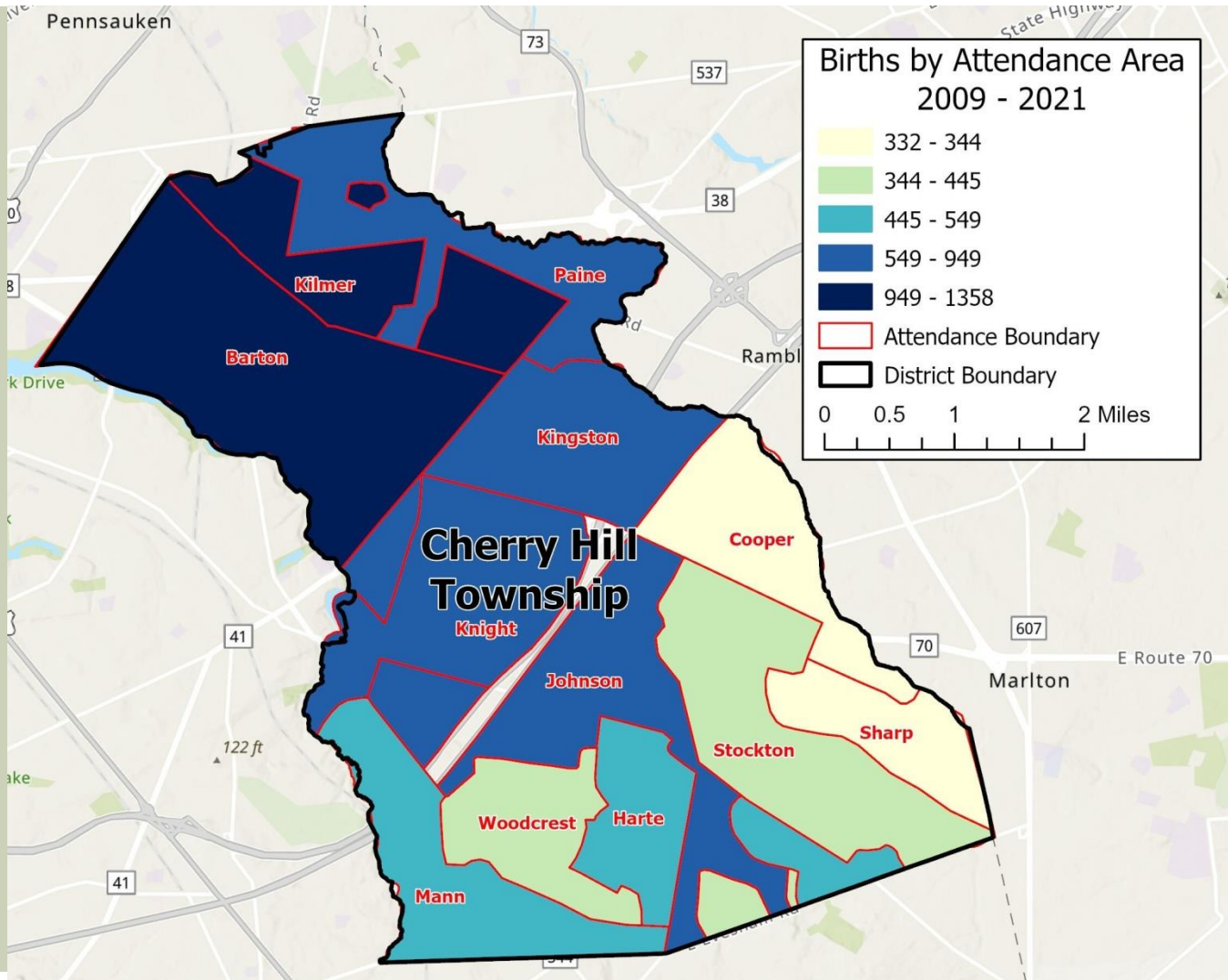


# CHANGE IN BIRTHS BY ATTENDANCE AREA 2009-2021





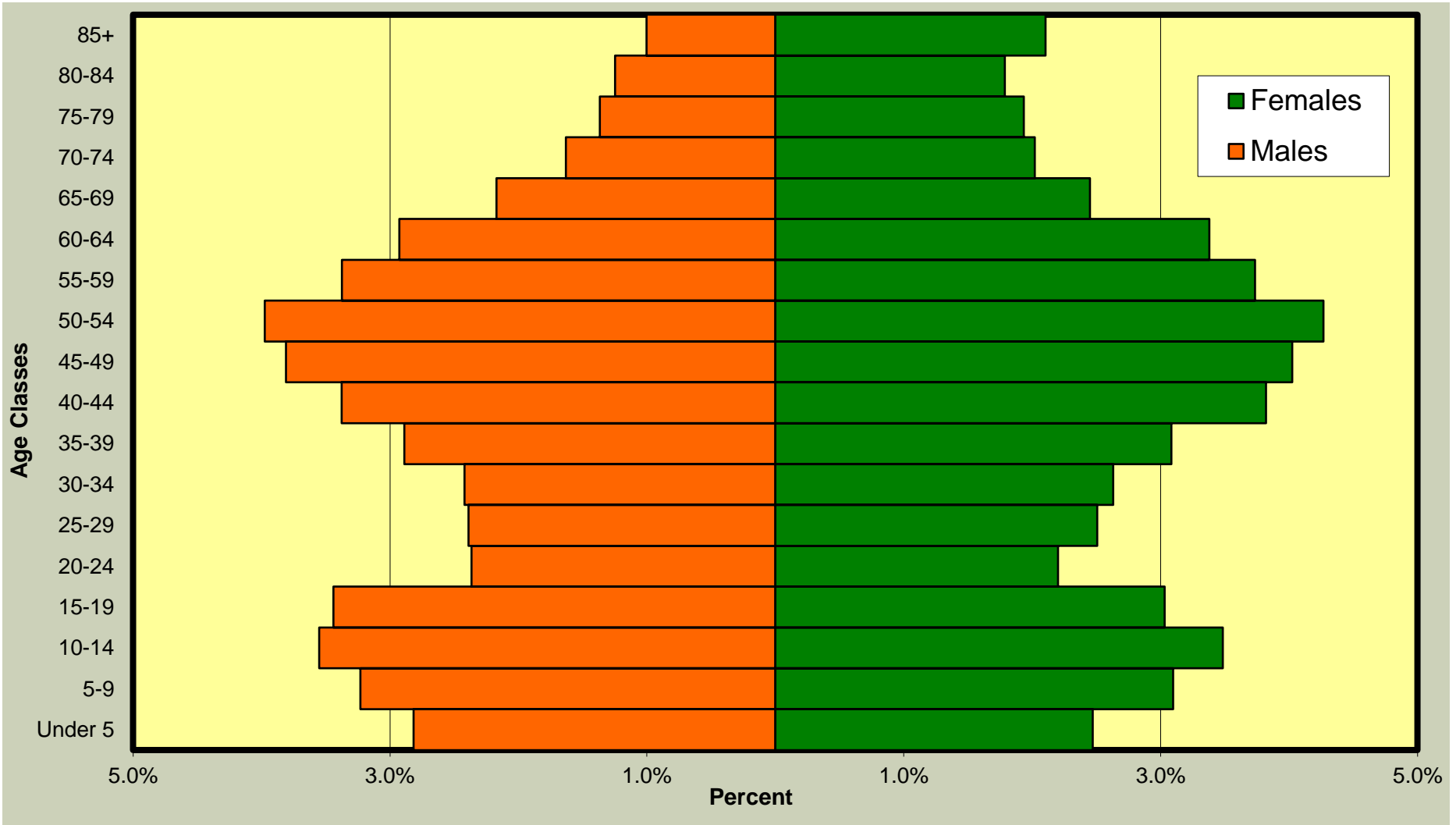
# TOTAL BIRTHS BY ATTENDANCE AREA 2009-2021



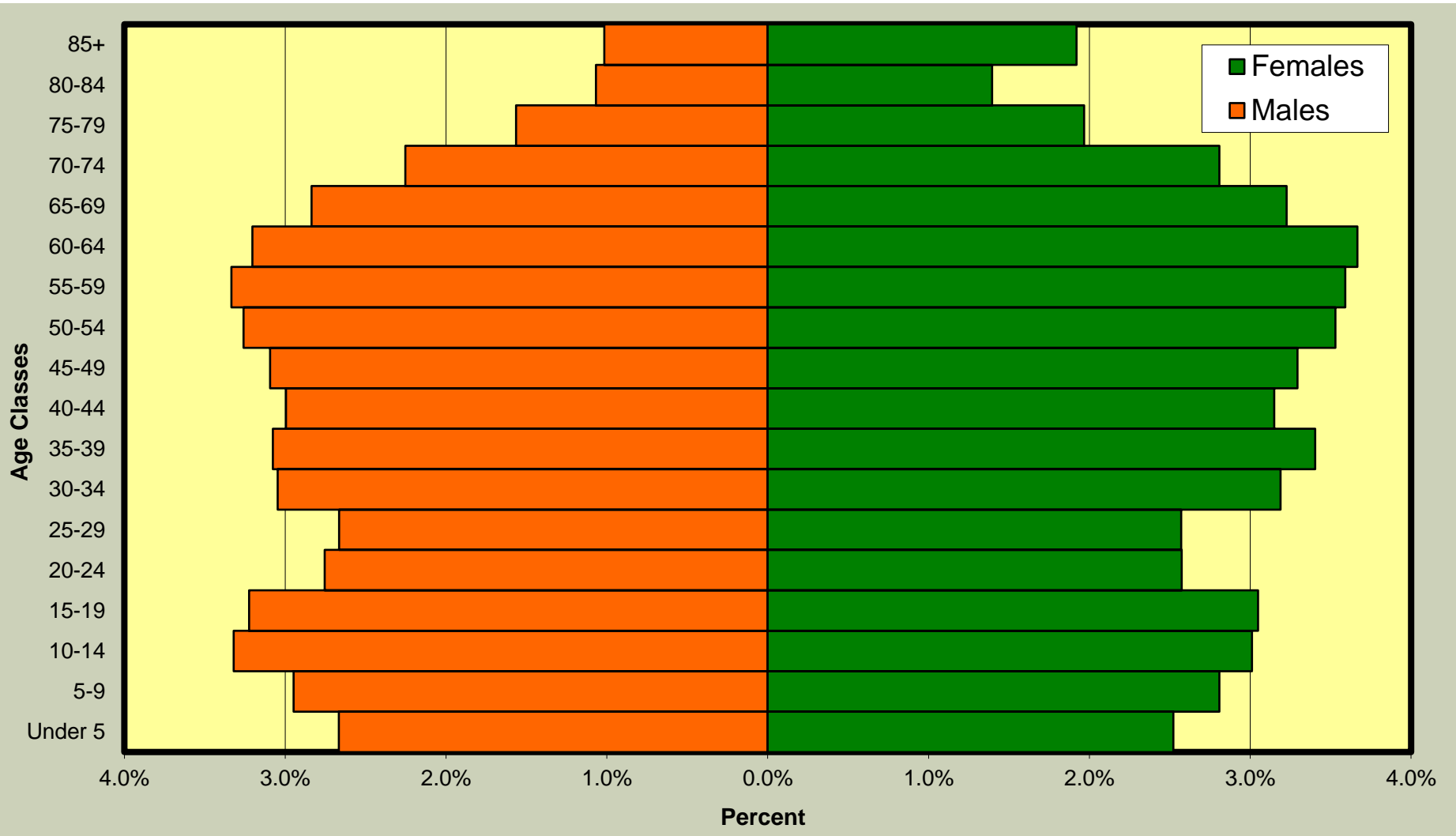




# AGE PYRAMID CHERRY HILL 2010 CENSUS



# AGE PYRAMID CHERRY HILL 2020 CENSUS



# CHANGE IN MALES AND FEMALES 2010-2020 CHERRY HILL

	Males		Females	
Age Group	Numerical Change	Percentage Point Change	Numerical Change	Percentage Point Change
Under 5	-13	-0.1	+125	+0.1
5-9	-97	-0.3	-107	-0.3
10-14	-48	-0.2	-230	-0.5
15-19	-40	-0.2	+120	0.0
20-24	+374	+0.4	+356	+0.4
25-29	+290	+0.3	+136	+0.1
30-34	+553	+0.6	+508	+0.6
35-39	+242	+0.2	+347	+0.3
40-44	-165	-0.4	-366	-0.7
45-49	<b>-399</b>	<b>-0.7</b>	<b>-404</b>	<b>-0.7</b>
50-54	-394	-0.1	-400	-0.7
55-59	+89	+0.4	+24	-0.1
60-64	+309	+1.0	+332	+0.3
65-69	<b>+572</b>	<b>+1.2</b>	<b>+665</b>	<b>+0.8</b>
70-74	+521	+0.9	+658	+0.8
75-79	+196	+0.3	+93	0.0
80-84	-90	+0.1	-230	-0.4
85+	+45	0.0	-64	-0.2

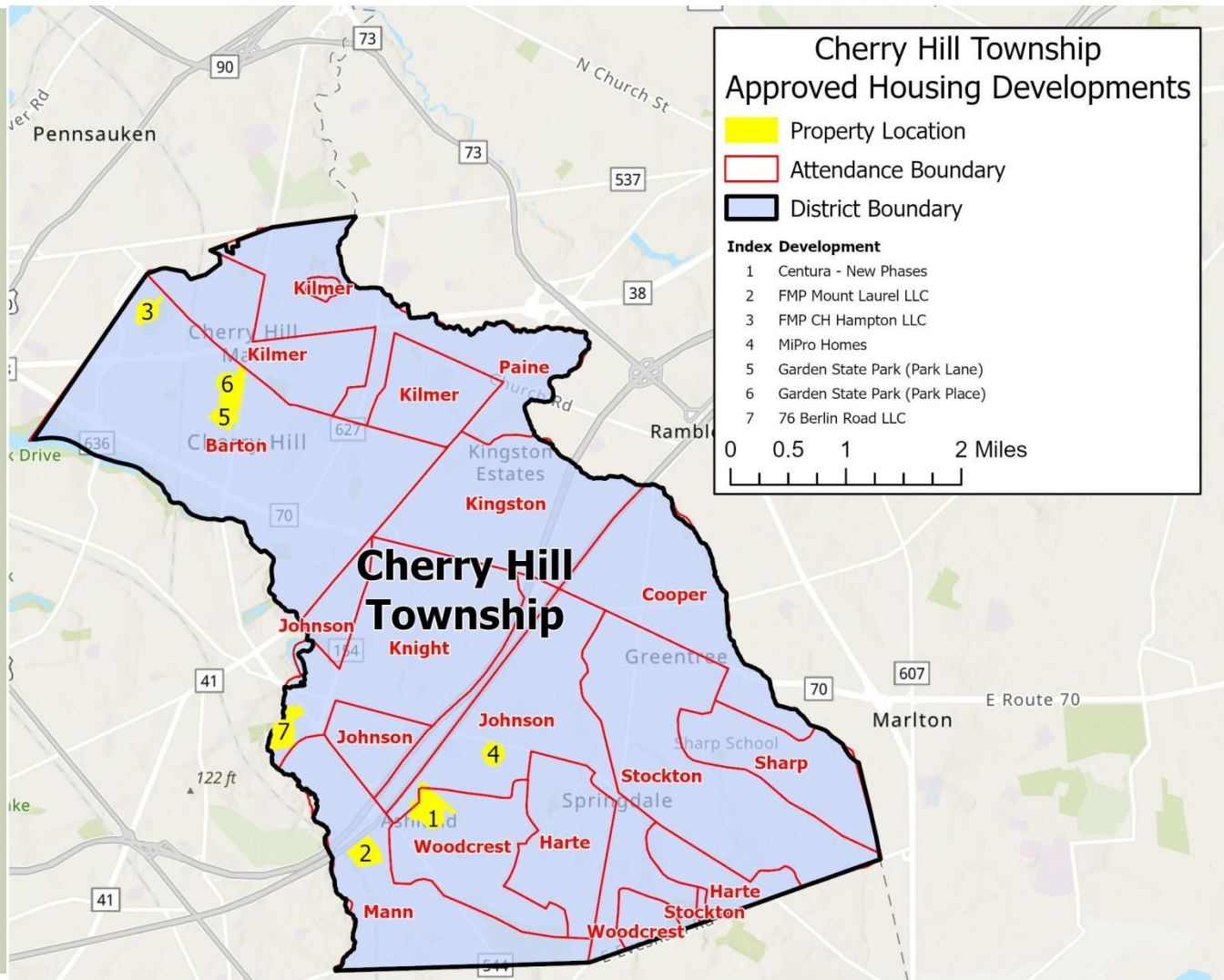
# CHERRY HILL APPROVED NEW HOUSING

- 1,761 non age-restricted new housing units are approved.
- Majority of units are multi-family (Apts., TH)
- 70% of units will be in Barton attendance area.
- 497 public school children (K-5 = 255, 6-8 = 104, and 9-12 = 138) are projected from new housing.

# CHERRY HILL APPROVED NEW HOUSING

Development/ (Location)	Attendance Areas	Number of Units	Bedroom Distribution	Housing Type	Notes/Status
<b>Centura – New Phases</b> (Browning Lane)	<b>Woodcrest/Rosa /H.S. East</b>	<b>144</b>	Market-Rate TH (112) All 3-BR  Affordable TH (32) 20 2-BR 12 3-BR	<b>Townhouse</b> (market-rate and affordable)	Construction has not begun. Will be built in three phases. Infill will also occur in the Normandy and Cotswold sections. These units are in addition to 155 units that were constructed in the 1980s and 1990s; received Preliminary site plan approval on December 3, 2018. Going back to Board for amended preliminary and final approval in spring of 2024. Phase 1&2: 78 units, Phase 3: 45 units, Infill: 21 units. 32 units will be set aside for Low-Moderate Income households.
<b>FMP Mount Laurel, LLC</b> (Victory/Enclave at Woodcrest Station) (110 Woodcrest Road)	<b>Mann/Rosa/ H.S. East</b>	<b>370</b>	196 1-BR 162 2-BR 12 3-BR	<b>Apartments</b> (market-rate and affordable)	Expected to open March 2024. 56 units will be set aside for Low-Moderate Income households.
<b>FMP CH Hampton, LLC</b> (614 Hampton Road)	<b>Barton/Carusi/ H.S. West</b>	<b>252</b>	71 1-BR 172 2-BR 9 3-BR	<b>Apartments</b> (market-rate and affordable)	Site is cleared. Construction anticipated to begin during spring 2024 with possible occupancy in fall 2025; Preliminary and Final major site plan approved on November 18, 2019. 45 units will be set aside for Low-Moderate Income households.
<b>MiPro Homes</b> (902 and 920 Kresson Road)	<b>Johnson/Rosa/ H.S. East</b>	<b>16</b>	16 5-BR	<b>Detached Single-Family</b>	Under construction. No COs issued yet. Received Amended Preliminary and Final approval on December 16, 2019.
<b>Garden State Park</b> (Park Lane Apartments) (Haddonfield Road and Route 70)	<b>Barton/Carusi/ H.S. West</b>	<b>615</b>	Market-Rate APT (530) 311 1-BR 163 2-BR 56 3-BR  Affordable APT (85) 20 1-BR 65 2-BR	<b>Apartments</b> (market-rate and affordable)	278 units built to date. 337 units under construction. 85 units will be set aside for Low-Moderate Income households. Does not include an additional 76 1-BR affordable housing units for senior citizens.
<b>Garden State Park</b> (Park Place Townhouses and Condos) (Haddonfield Road and Route 70)	<b>Barton/Carusi/ H.S. West</b>	<b>360</b>	Condominium (256) 232 2-BR 24 3-BR Townhouse (104) 104 3-BR	<b>Townhouse and Condominium</b> (market-rate and affordable)	Under construction. 24 units (3-bedroom) units will be set aside for Low-Moderate Income households.
<b>76 Berlin Road, LLC</b> (76 Haddonfield-Berlin Road)	<b>Knight/Rosa/ H.S. West</b>	<b>4</b>	2 1-BR 2 2-BR	<b>Apartments</b>	Approvals received in 2023. Construction has not begun. Conversion of one office and one apartment to four apartments.
<b>Total</b>					<b>1,761 Units</b>

# CHERRY HILL APPROVED NEW HOUSING



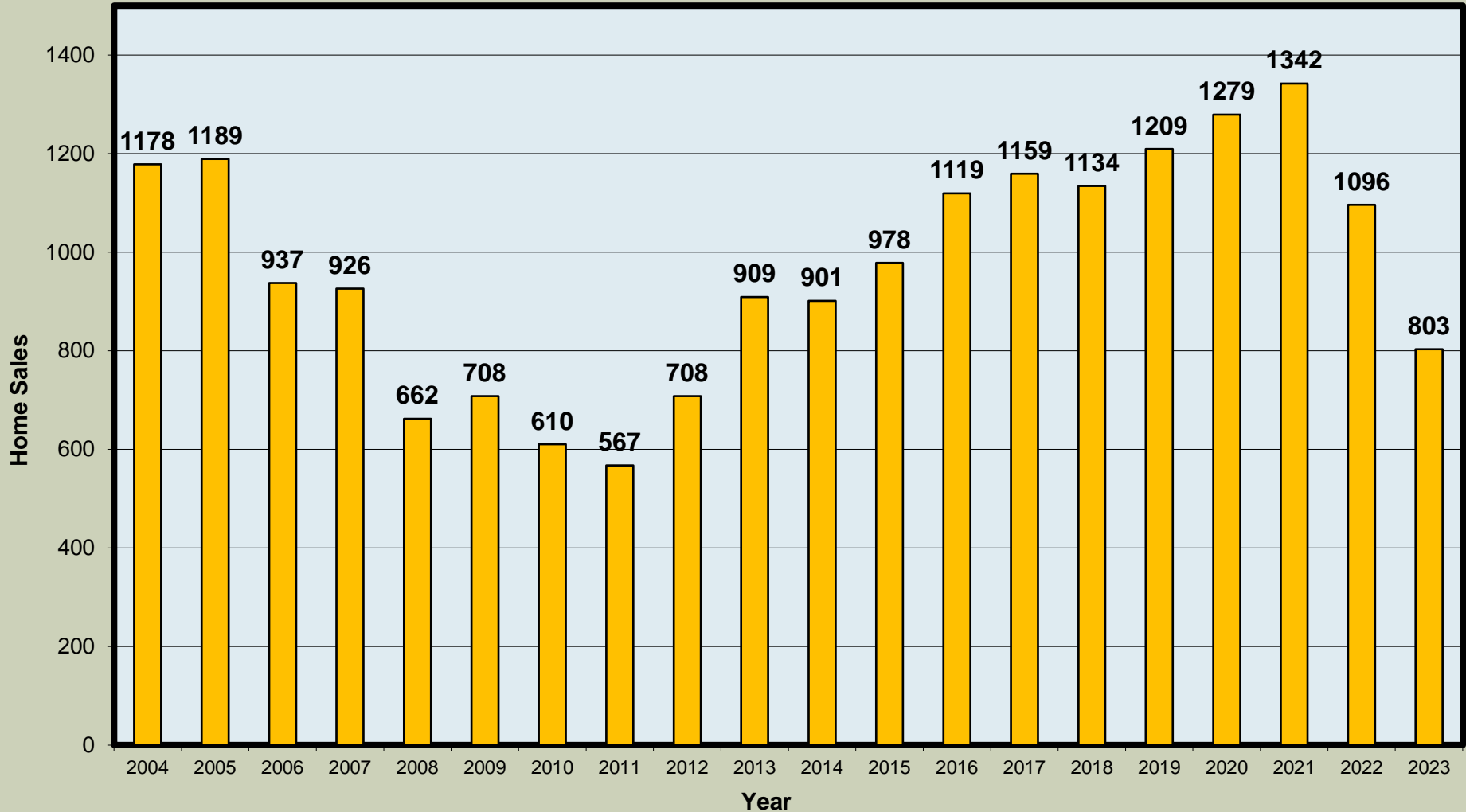
# HISTORICAL CONSTRUCTION 2018-2023

Year	Barton	Cooper	Harte	Johnson	Kilmer	Kingston	Knight	Mann	Paine	Sharp	Stockton	Wood-crest	Total
2018	0	0	0	1	2	1	152	0	0	0	0	1	157
2019	1	0	0	0	0	1	0	0	1	0	160	0	163
2020	2	0	0	0	0	0	1	0	1	0	0	1	5
2021	197	0	0	1	1	3	1	0	3	0	1	0	207
2022	1	0	0	1	0	0	1	1	0	0	0	54	58
2023	5	1	0	0	1	0	0	0	1	0	0	0	8
Total	352	1	0	3	4	5	155	1	6	0	161	56	744





# HOME SALES 2004-2023



# ENROLLMENT PROJECTIONS

- Enrollments were projected from 2024-25 through 2028-29, a 5-year period.
- Two sets of projections- baseline and adjusted for housing growth (assuming all approved housing gets constructed).
- Enrollments are projected to increase in both projections, primarily due to expansion of existing pre-kindergarten program.
- Baseline – 12,431 in 2028-29 (+1,753)
- Adjusted for Housing Growth – 12,891 in 2028-29 (+2,213)

# ENROLLMENT PROJECTIONS

Historical	PK-5		6-8		9-12	
2023-24	4,804		2,443		3,431	
Projected	PK-5 Baseline	PK-5 Adjusted	6-8 Baseline	6-8 Adjusted	9-12 Baseline	9-12 Adjusted
2024-25	5,259	5,360	2,313	2,354	3,392	3,444
2025-26	5,583	5,755	2,418	2,511	3,316	3,412
2026-27	6,143	6,331	2,471	2,608	3,267	3,375
2027-28	6,496	6,670	2,593	2,762	3,171	3,280
2028-29	6,669	6,829	2,563	2,753	3,199	3,309
5-year Change	+1,865	+2,025	+120	+310	-232	-122

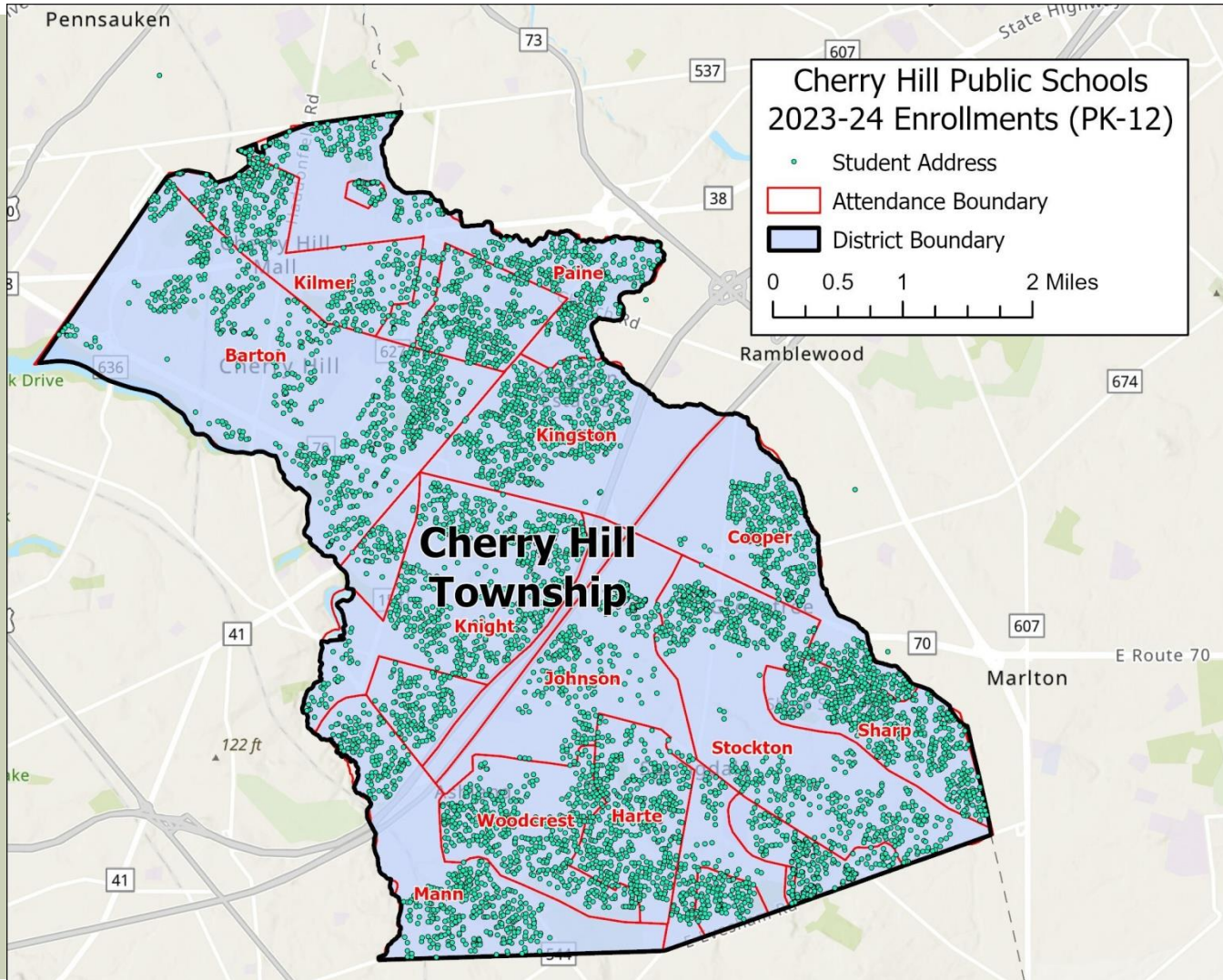
# CAPACITY ANALYSIS

School	Capacity	Current Enrollment 2023-24	Difference	Projected Enrollment 2028-29	Difference
Malberg E.C.C. (PK)	281/401	201	+80	285	+116
Barton E.S. (K-5)	551	508	+43	667	-116
Cooper E.S. (K-5)	319	269	+50	252	+67
Harte E.S. (K-5)	450	361	+89	416	+34
Johnson E.S. (K-5)	479	441	+38	432	+47
Kilmer E.S. (K-5)	506/626	406	+100	517	+109
Kingston E.S. (K-5)	439	408	+31	448	-9
Knight E.S. (K-5)	405	433	-28	468	-63
Mann E.S. (K-5)	364	274	+90	349	+15
Paine E.S. (K-5)	331	339	-8	356	-25
Sharp E.S. (K-5)	362	443	-81	418	-56
Stockton E.S. (K-5)	391	361	+30	457	-66
Woodcrest E.S. (K-5)	398	360	+38	433	-35
Beck M.S. (6-8)	792	805	-13	948	-156
Carusi M.S. (6-8)	994	884	+110	941	+53
Rosa M.S. (6-8)	767	754	+13	864	-97
Cherry Hill H.S. East (9-12)	1,816	2,095	-279	1,973	-157
Cherry Hill H.S. West (9-12)	1,410	1,304	+106	1,302	+108
Cherry Hill Alternative H.S. (9-12)	140	32	+108	34	+106

# MAPPING

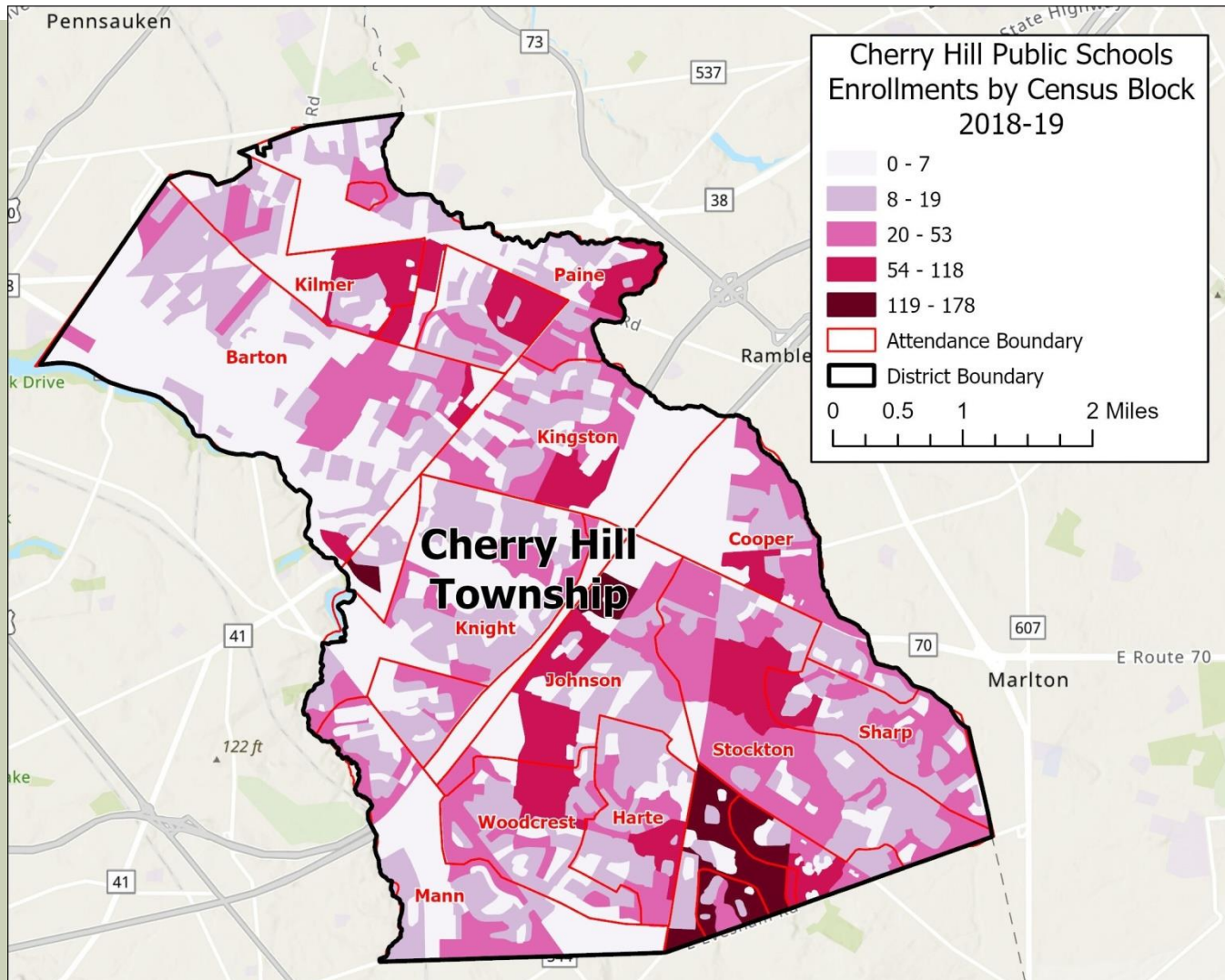
- Maps were created to compare student residential locations at two different times: 2018-19 and 2023-24.
- Student counts by census block
- Student density by census block
- Student yield by census block

# 2023-24 STUDENTS (PK-12)





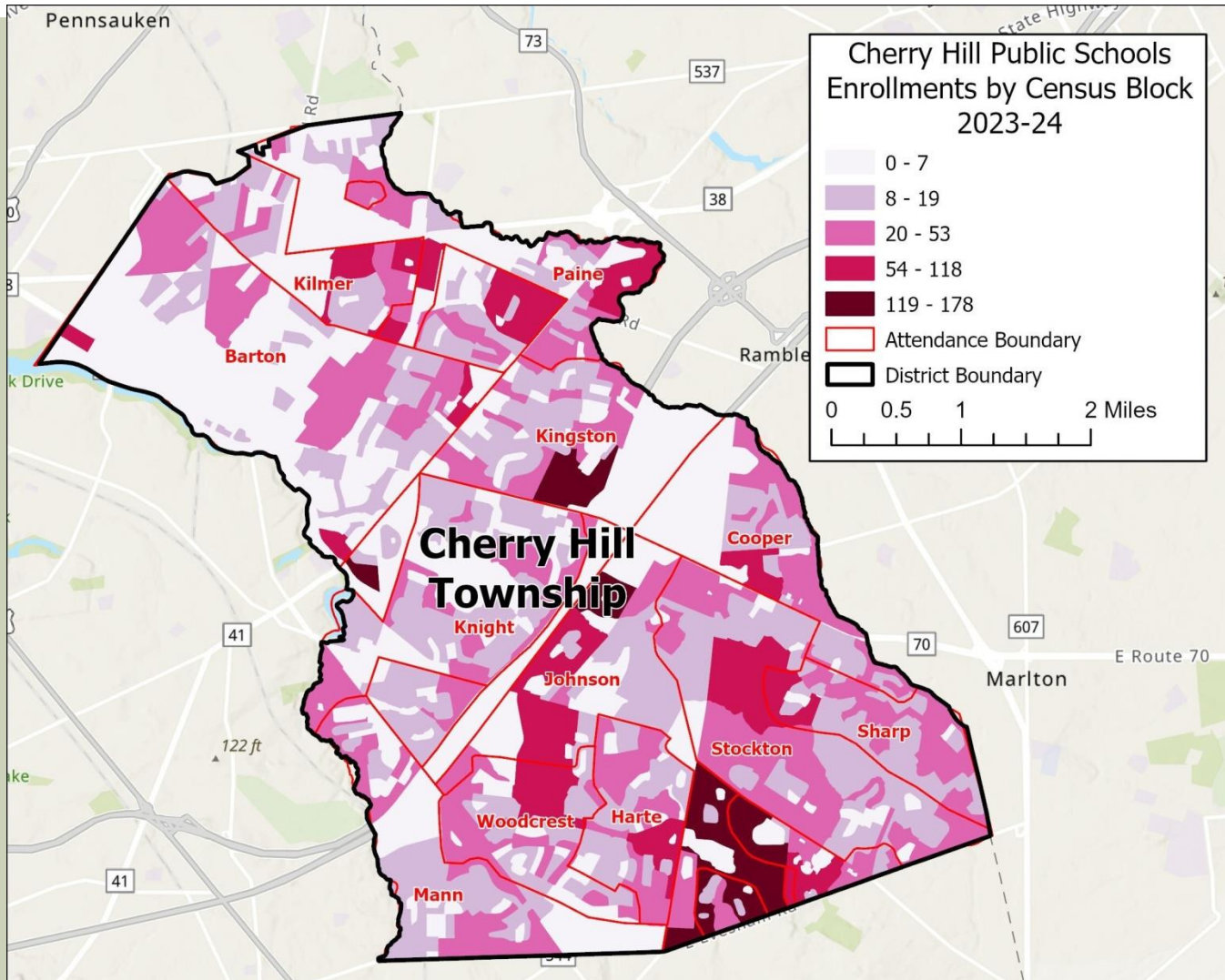
# STUDENT COUNTS BY CENSUS BLOCK 2018-19





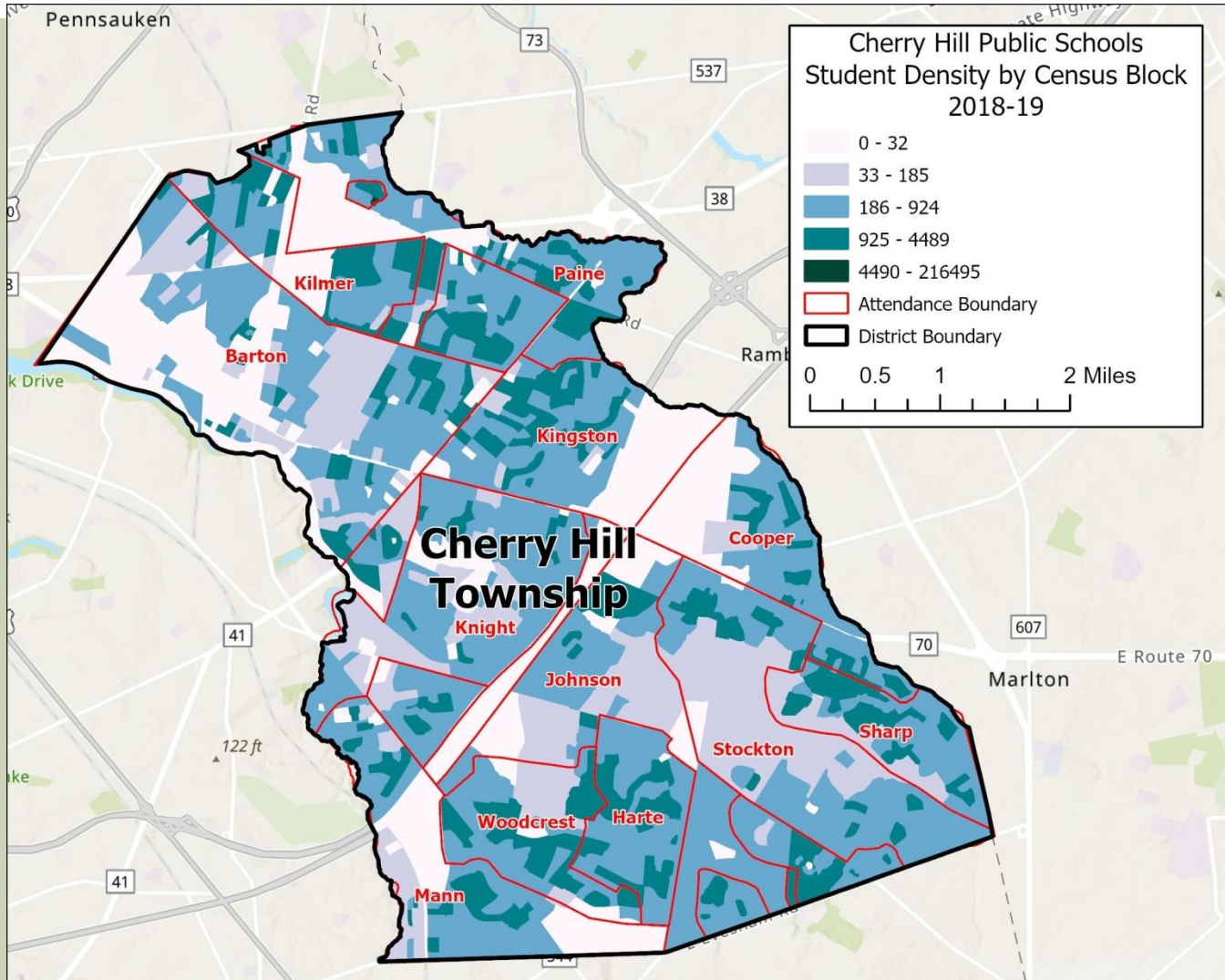
# STUDENT COUNTS BY CENSUS BLOCK

## 2023-24



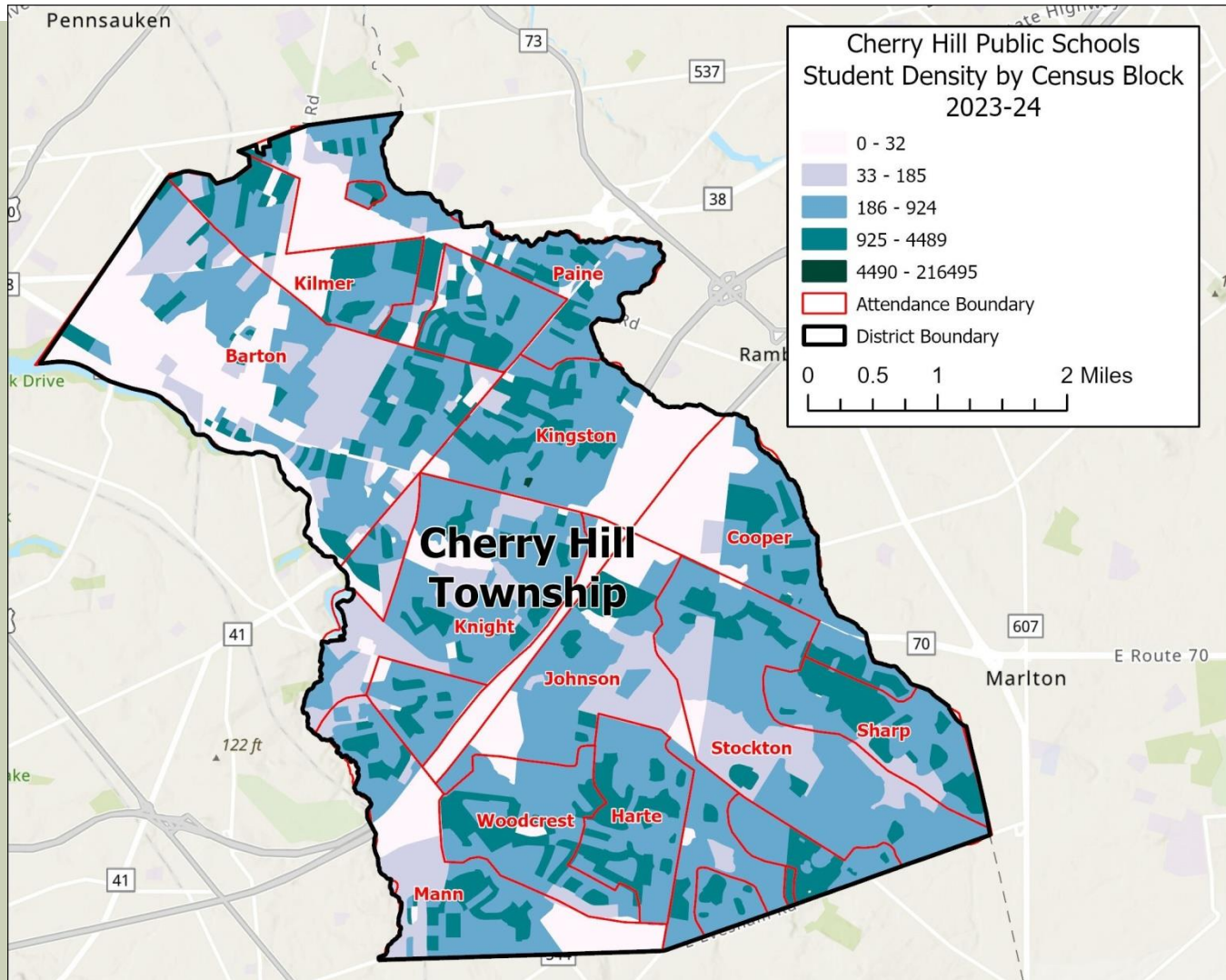
# STUDENT DENSITY BY CENSUS BLOCK

## 2018-19



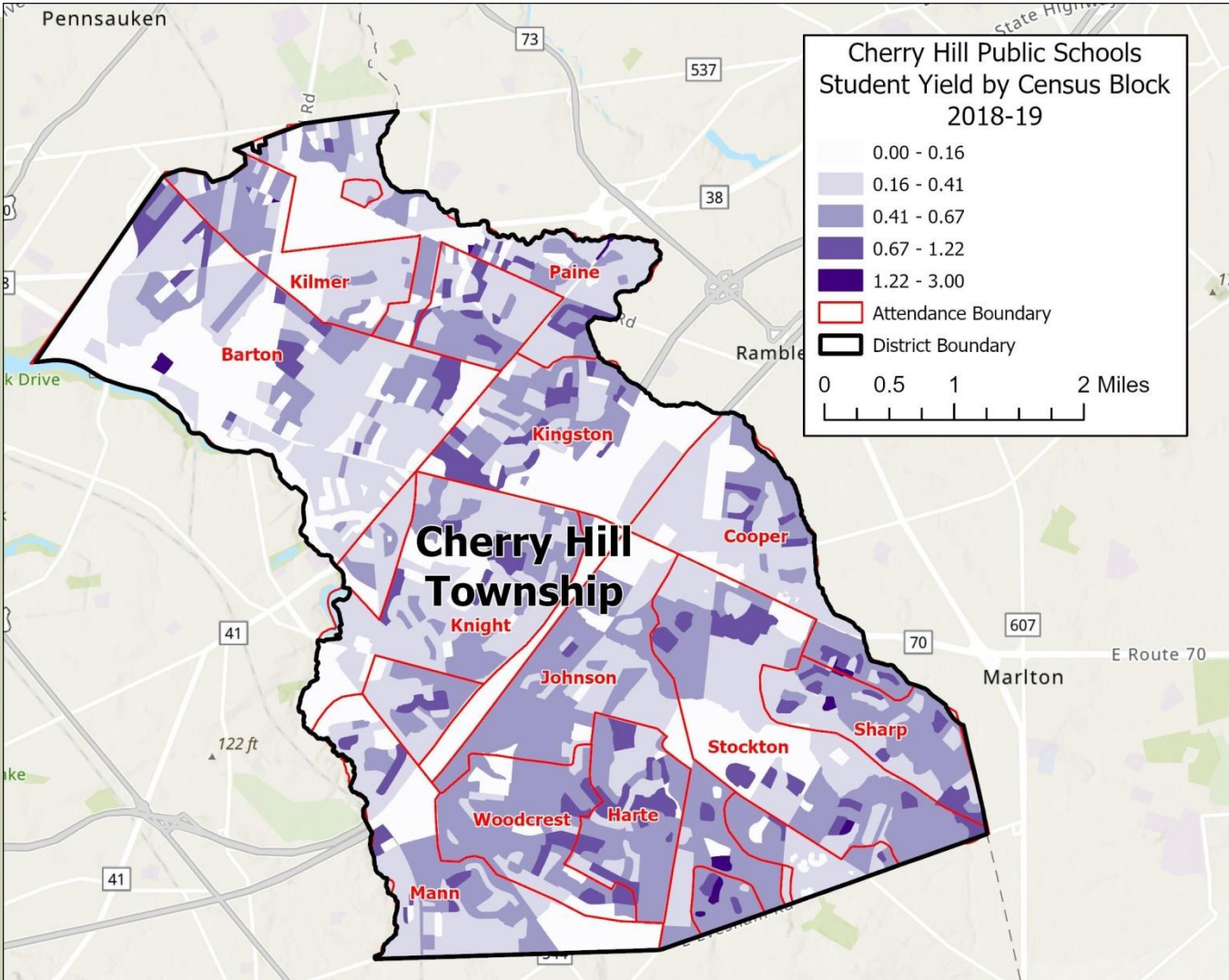
# STUDENT DENSITY BY CENSUS BLOCK

## 2023-24

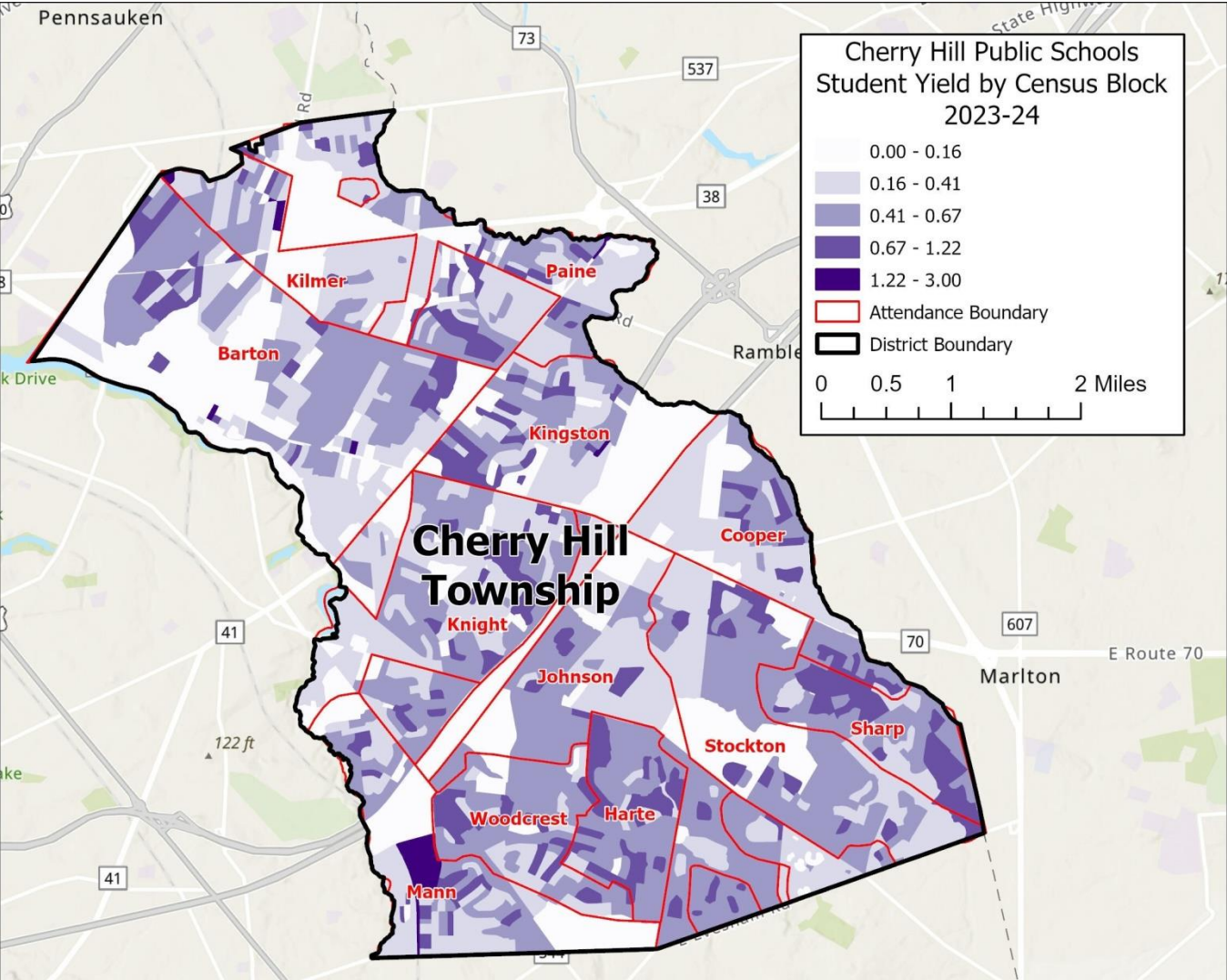




# STUDENT YIELD BY CENSUS BLOCK 2018-19



# STUDENT YIELD BY CENSUS BLOCK 2023-24



# 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.**

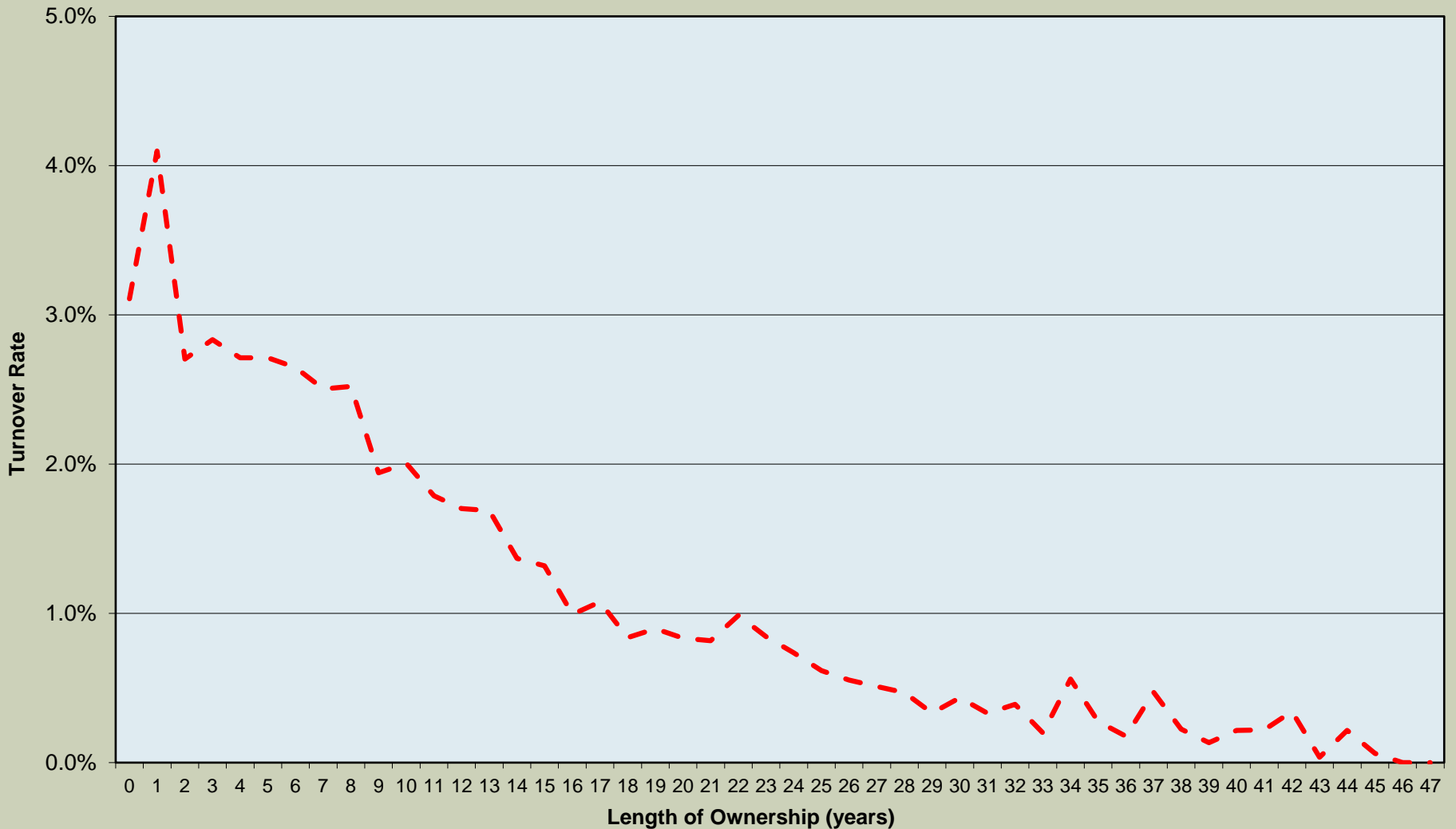
Three inputs:

- 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

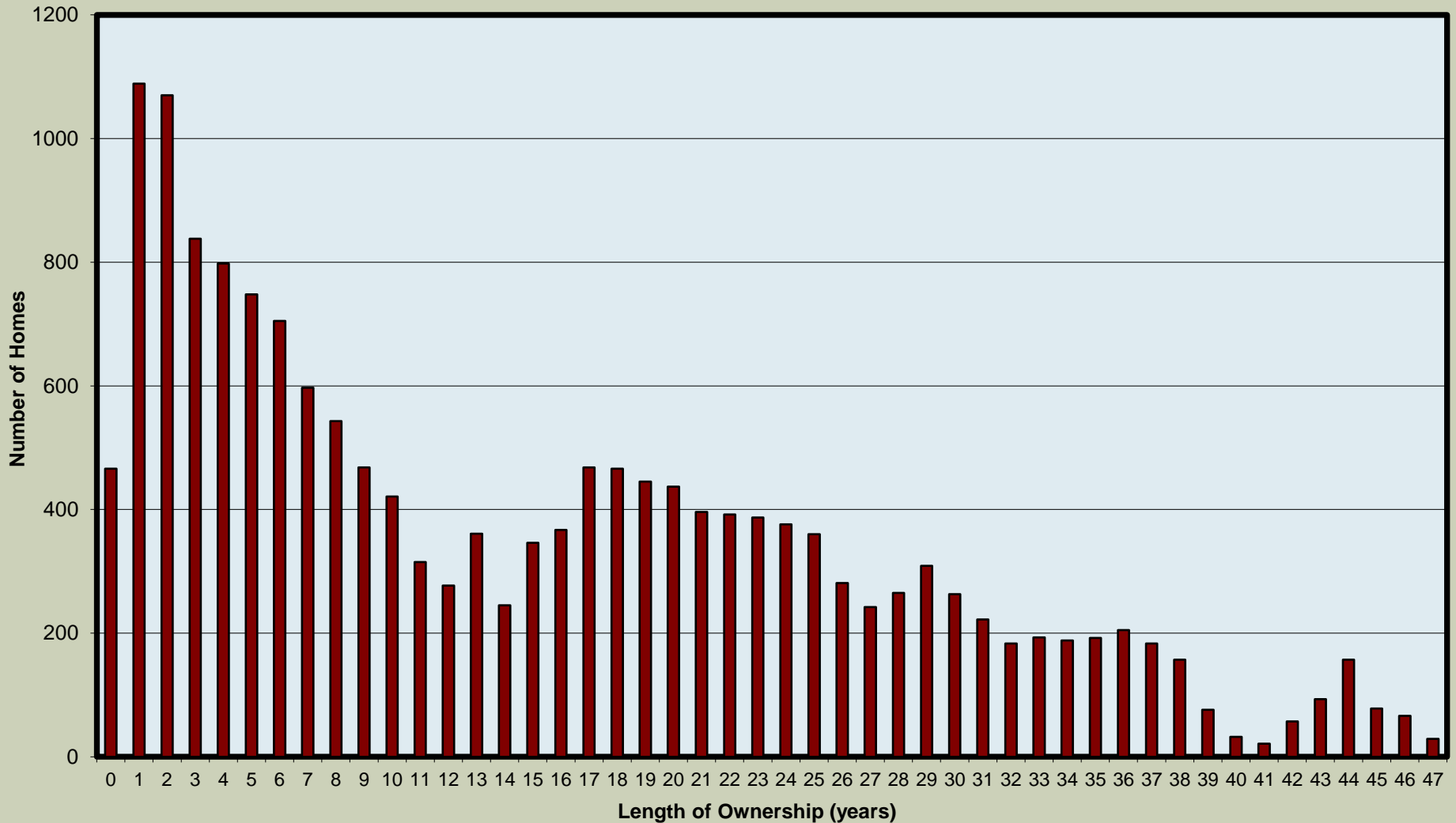
- Used parcel-level data to track each home through its “lifecycle”. Data contained sale dates, sale prices, and year home was built.
- Sales data were available from 1975-2022.
- Follow each year’s cohort of homes beginning in 1975 to see when they sell.
- Ex. Home built in 1970 sold in 1995, 1998, and 2006 (part of three cohorts). Length of ownership is 3 years after 1<sup>st</sup> sale, 8 years after 2<sup>nd</sup> sale. Current length of ownership is 16 years (2022 last year).

# WEIGHTED-AVERAGE TURNOVER RATES BY LENGTH OF OWNERSHIP

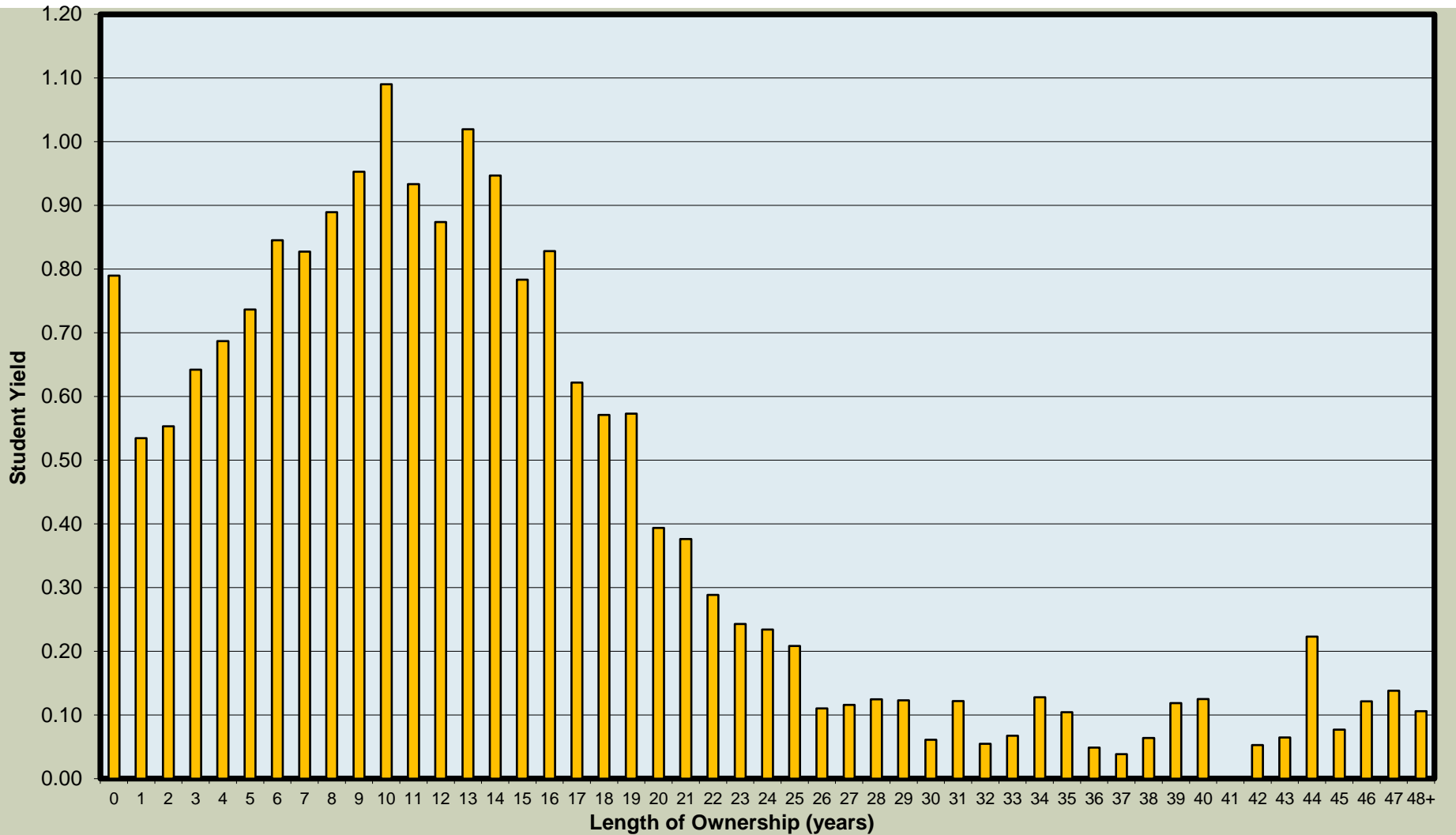




# CURRENT NUMBER OF HOMES BY LENGTH OF OWNERSHIP



# STUDENT YIELDS BY LENGTH OF OWNERSHIP



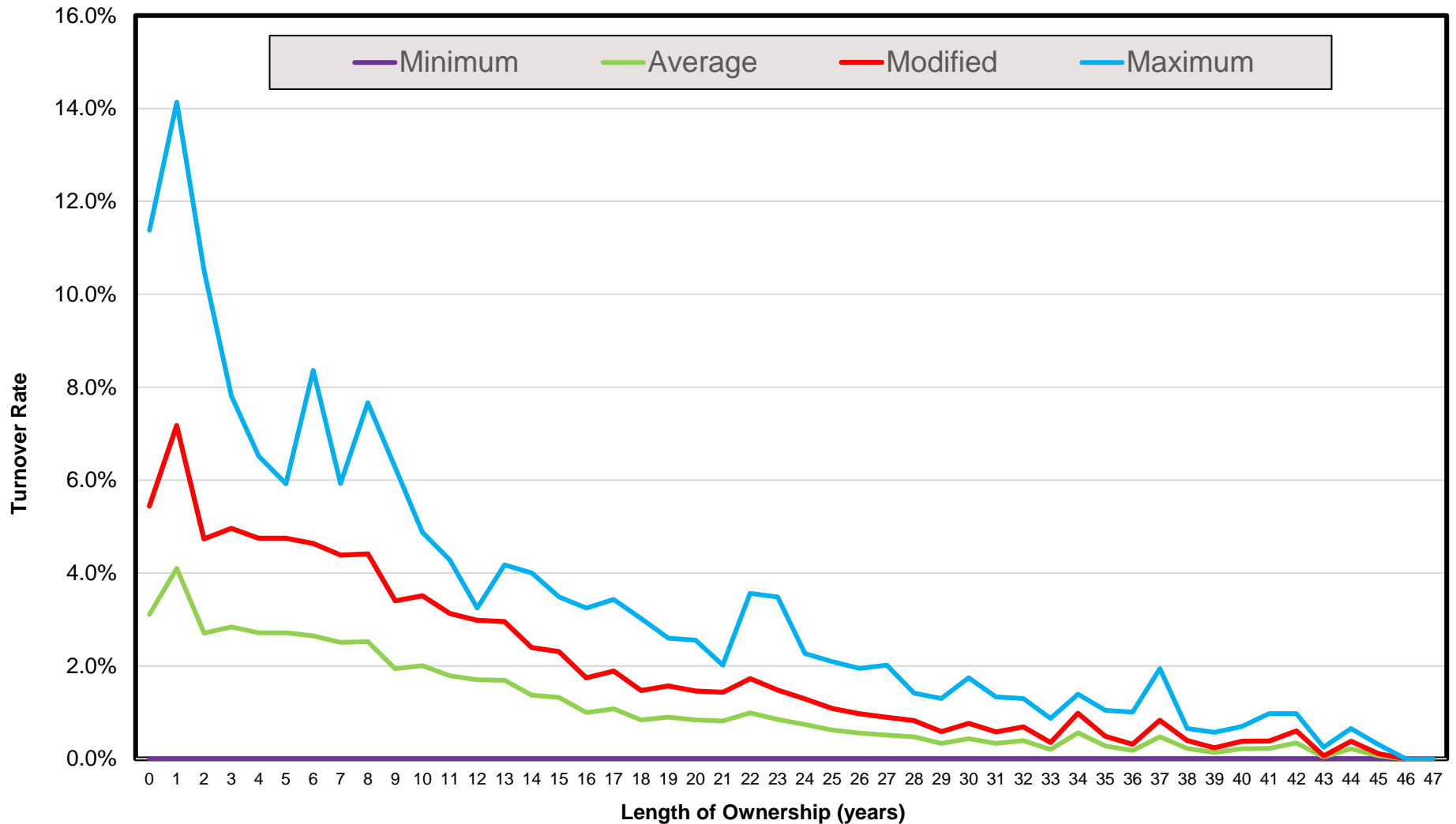
# HOUSING TURNOVER PROJECTION METHODOLOGY

- 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.

# ENROLLMENT PROJECTIONS USING HOUSING TURNOVER SCENARIO #1

	2023	2024	2025	2026	2027
<b>Students from One- to Four-Family Homes</b>	9,702	9,741	9,777	9,803	9,790
<b>Students from Apartments, Mixed-use units, no address, lived out of town, or unmatched (constant)</b>	2,128	2,128	2,128	2,128	2,128
<b>Pre-kindergarten</b>	920	920	920	920	920
<b>Total</b>	12,750	12,789	12,825	12,851	12,838

# HISTORICAL TURNOVER RATES 1975-2022



# ENROLLMENT PROJECTIONS USING HOUSING TURNOVER SCENARIO 2

	2023	2024	2025	2026	2027
<b>Students from One- to Four-Family Homes</b>	<b>9,587</b>	<b>9,505</b>	<b>9,419</b>	<b>9,325</b>	<b>9,197</b>
<b>Students from Apartments, Mixed-use units, no address, lived out of town, or unmatched (constant)</b>	<b>2,128</b>	<b>2,128</b>	<b>2,128</b>	<b>2,128</b>	<b>2,128</b>
<b>Pre-kindergarten</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>920</b>
<b>Total</b>	<b>12,635</b>	<b>12,553</b>	<b>12,467</b>	<b>12,373</b>	<b>12,245</b>

# SUMMARY

- After a period of decline, enrollments (PK-12) have increased in the last few years.
- Enrollments are projected to increase due to:
  1. Expansion of existing pre-kindergarten program,
  2. an inward migration of children,
  3. 1,761 new housing units, and
  4. an increase in township birth rate.
- Enrollment declines are projected at high school level as existing smaller upper elementary and middle school grades advance through the system.

