

Central Bucks School District Enrollment, Capacity, and Attendance Boundary Study

Redistricting: Enrollment, Programming, Capacity, and Condition

November 3, 2022

CR

Crabtree, Rohrbaugh & Associates



Purpose, Team, Process, and Goals



In July of 2020 the Central Bucks School District solicited proposals to conduct a study of enrollment projections and school zone boundary change scenarios. CRA was selected as the firm to complete the study. The team assigned to the project includes:



Brian Hanes, AIA, LEED AP
Principal | Director of Contract
Administration



John Beddia, AIA, LEED AP
Principal / Managing Partner



Frederick Withum, III, Ed.D
Director of Educational Planning



Leah Shiley, MBA
Principal / Director of Client Relations



70+

Professional Staff

200+

studies in the past 10 years

\$4B

in educational projects

CORPORATE INFORMATION

**ESTABLISHED FIRM
CLIENT ORIENTED APPROACH
COMPANY CULTURE
DIVERSE EXPERIENCE**



Albert Gallatin School District
Amelia County Public Schools
Annville Cleona School District
Armstrong School District
Bald Eagle Area School District
Bellefonte Area School District
Bermudian Springs School District
Bethlehem Center School District
Blue Mountain School District
Big Spring School District
Brandywine Heights School District
Brookville Area School District
Camp Hill School District
Capital Area Intermediate Unit
Carlisle Area School District
Catasauqua School District
Centennial School District
Central PA Inst. of Science & Tech
Central Dauphin School District
Central Valley School District
Chambersburg Area School District
Clarion Area School District
Clarke County Public Schools
Clearfield Area School District
Clearfield Co. Career Technology Center
Coatesville Area School District
Connellsville Area School District
Coudersport Area School District
Culpeper County Public Schools
Cumberland Perry Vo-Tech
Cumberland Valley School District
Dallas School District
Dallastown Area School District
Danville Area School District
Donegal School District
Dover Area School District

Eastern Lancaster Co. School District
Eastern Lebanon Co. School District
Eastern York School District
Elizabethtown Area School District
Everett Area School District
Fannett-Metal School District
Fairfax County Public Schools
Fayette Co. Area Vocational Tech. School
Fluvanna County Public Schools
Franklin County Career & Tech. Center
Garrett County Public Schools
Gettysburg Area School District
Gettysburg Montessori Charter School
Greencastle-Antrim School District
Halifax Area School District
Hanover Public School District
Harrisburg School District
Hazleton Area School District
Hempfield School District
Iroquois School District
Jersey City Public Schools
Jersey Shore School District
Juniata County School District
Juniata Mennonite School
Juniata Valley School District
King George Public Schools
Lampeter-Strasburg School District
Lancaster Country Day School
Lewisburg Area School District
Line Mountain School District
Littlestown Area School District
Lower Merion School District
Manheim Central School District
Manheim Township School District
Matawan-Aberdeen Regional SD
Mechanicsburg Area School District
Mecklenburg County Public Schools

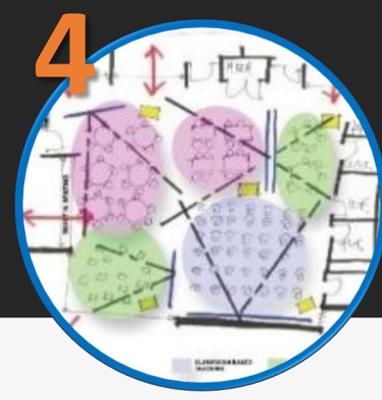
Madison County Public Schools
Middletown Area School District
Mid-West School District
Millersburg Area School District
Minersville Area School District
Monroe Career & Technical School
Moshannon Valley School District
Mount Carmel School District
Northeastern York School District
Northern Tioga County School District
Northern Potter School District
North Pocono School District
North Schuylkill School District
Northern Tier Career Center
Northern York County School District
Northumberland Vo-Tech
Otto-Eldred School District
Penn Cambria School District
Penn Manor School District
Penn's Valley Area School District
Pequea Valley School District
Phoenixville Area School District
Philipsburg-Osceola School District
Pocono Mountain School District
Polytechnic School District
Preston County Schools
Pottstown School District
Port Allegany School District
Prince George's County Public Schools
Queen Anne's County Public Schools
Richmond City Public Schools
Red Lion Area School District
Seneca Highlands AVTS & IU
Seneca Valley School District
School District of Philadelphia
Schuylkill Valley School District

Shamokin Area School District
Shippensburg School District
Southern Huntingdon County SD
South Middleton School District
South Western School District
South Eastern School District
Southern Columbia School District
Southern York County School District
Spring-Ford School District
Spring Grove Area School District
Susquehanna Township School District
Susquenita School District
Talbot County Public Schools
Troy Area School District
Trinity High School
Tulpehocken Area School District
Tussey Mountain School District
Tuscarora School District
Twin Valley School District
Uniontown Area School District
Upper Adams School District
Warrior Run School District
Warren County School District
Waynesboro School District
Washington County Public Schools
West Shore Christian Academy
West Shore School District
Westmoreland County Public Schools
Williams Valley School District
Wilson School District
Wyomissing Area School District
Wyalusing Area School District
York Catholic School
York County School of Technology
York Suburban School District
Vida Charter School
Vista School

The overall goal of this study is to develop recommendations to effectively and efficiently integrate programming, enrollment, capacity, and the condition of facilities for the benefit of all Central Bucks School District stakeholders, especially students.



STUDY APPROACH



✓ **DEFINE GOALS**

✓ **INFORMATION GATHERING**

✓ **ANALYZE DATA**

COMMUNITY

RECOMMENDATIONS

Educational Visioning
Guiding Principles
Establish Benchmarks

Enrollment Analysis
Current Use of Space
Educational Program

Building Capacity Analysis
Space Analysis
Educational Adequacy
Program Compliance

Community Engagement
Cost Estimating
Operational Savings

Short and Long Term Planning
Prioritize Projects
Final Report



CENTRAL BUCKS SCHOOL DISTRICT GOALS FOR REDISTRICTING:

1. Increase efficiencies and cost savings.
2. Consider shuttering schools that are in greatest need of capital improvements.
3. Target all elementary schools at 80% of capacity.
4. Target secondary schools at 75% of capacity.
5. Change the district grade alignment to K-5, 6-8, 9-12.
6. To avoid threat of future redistricting over next decade maintain available seats in the limited areas of growth
7. Create boundaries that allow transportation to maintain current average length of bus runs.
8. Create as few elementary to middle school splits as possible.
9. Create as few middle to high school splits as possible.
10. Provide for redistricting in one or two phases.

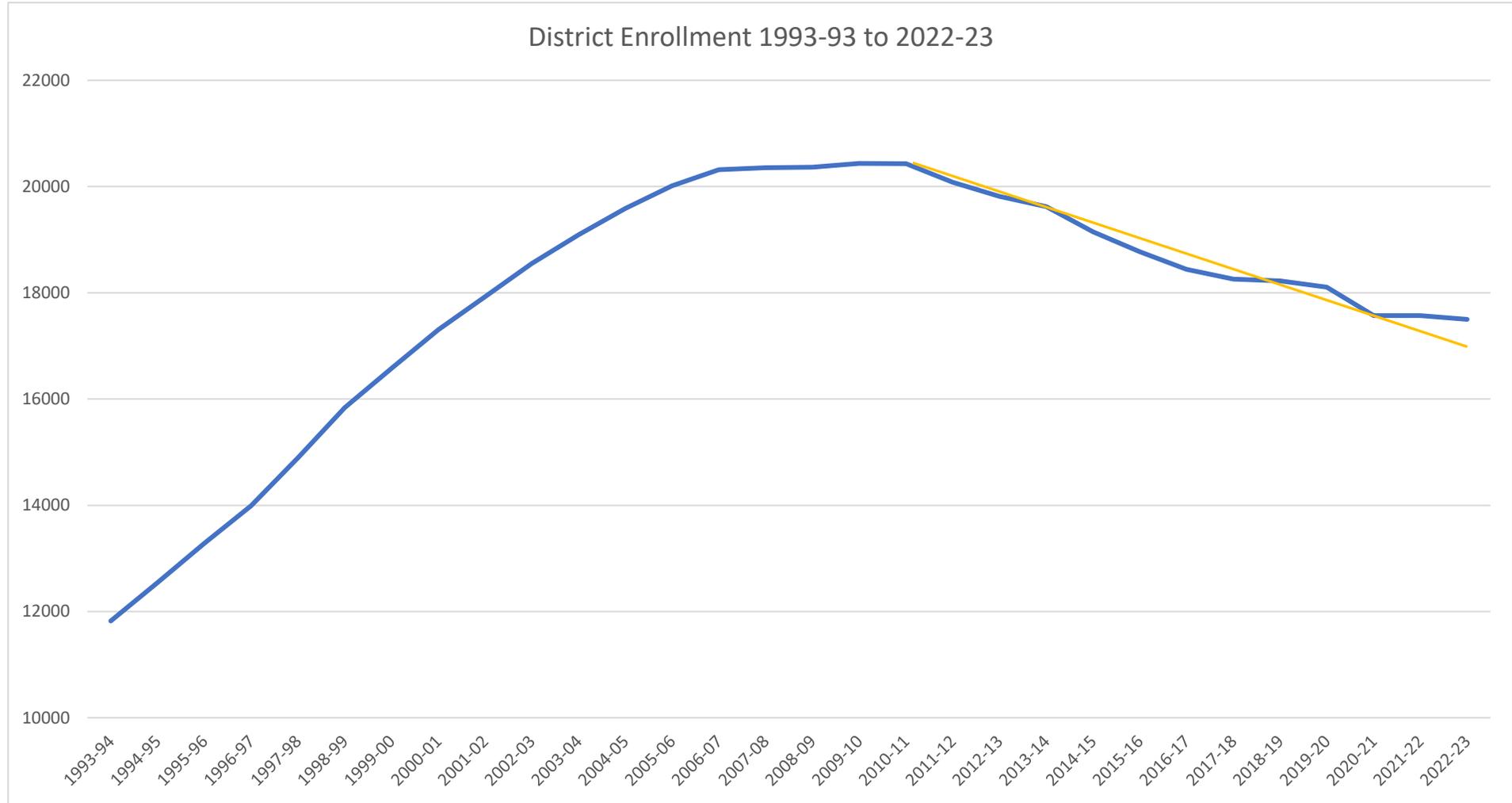


Information Gathering:

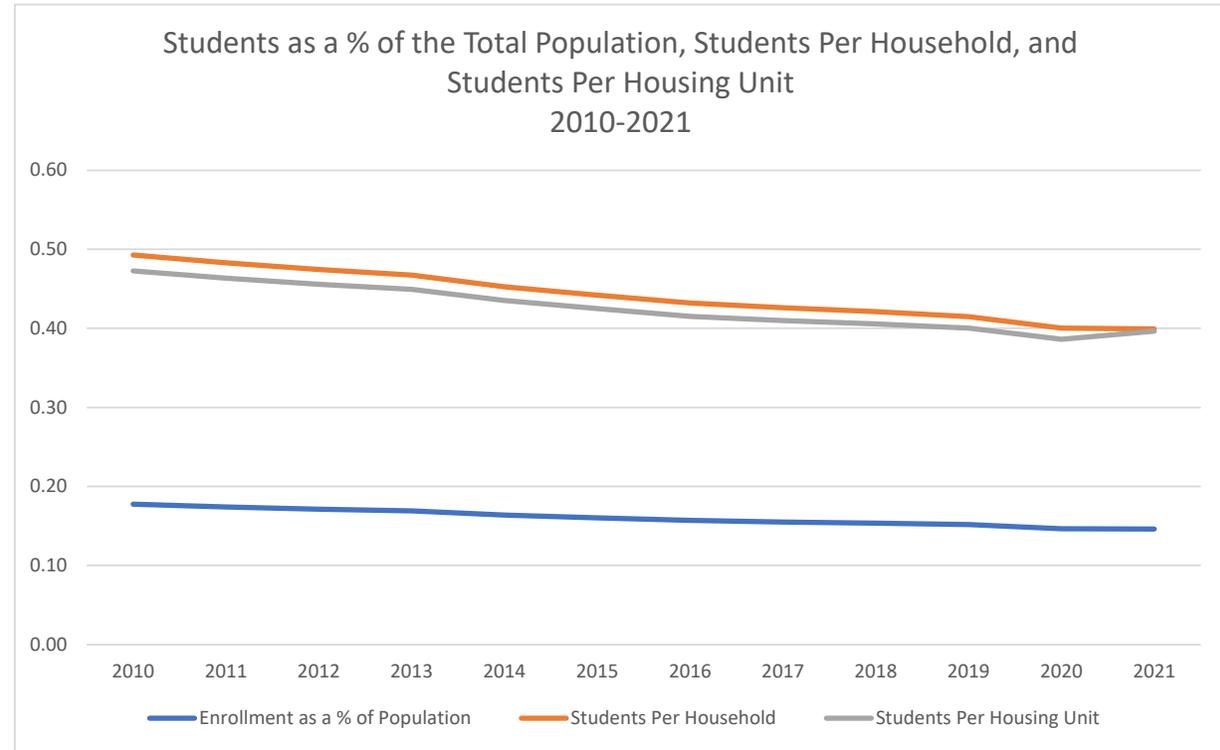
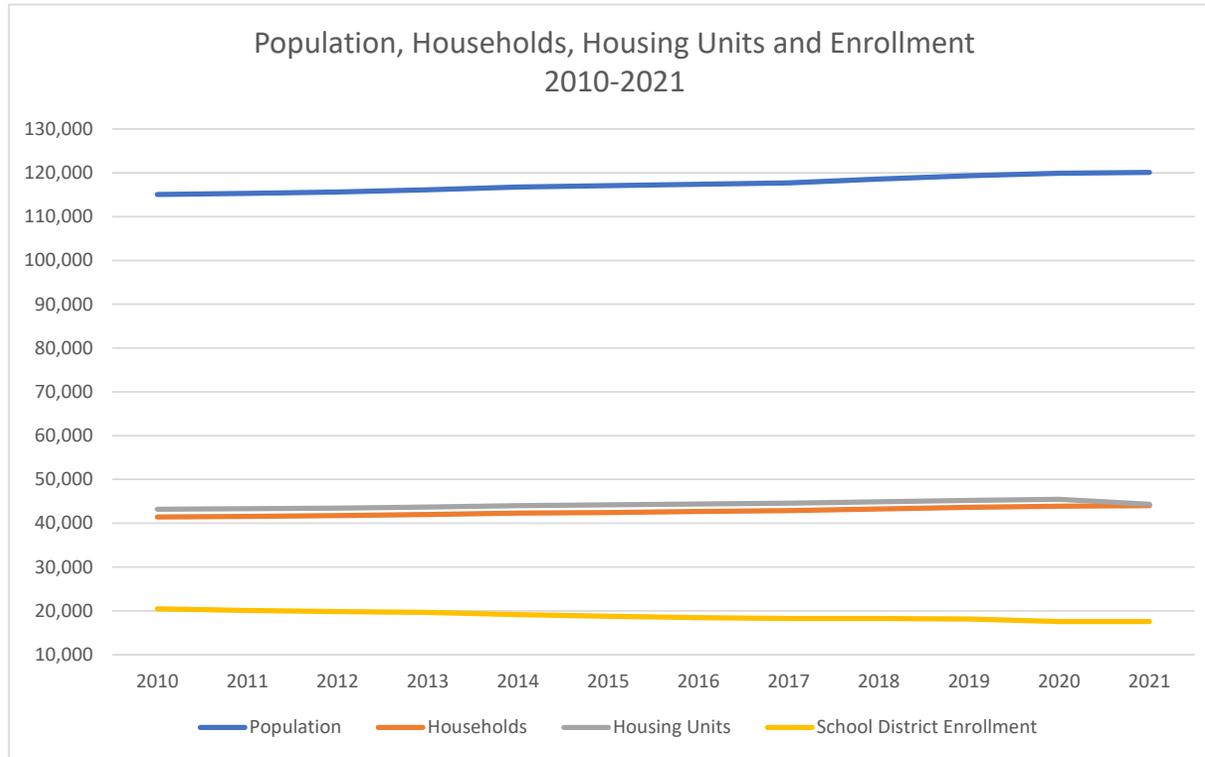
Historic Enrollment, Enrollment Projections,
Facility Index, Capacity, and Demographics

	Total	Year to Year Change
1993-94	11824	
1994-95	12549	725
1995-96	13284	735
1996-97	13992	708
1997-98	14897	905
1998-99	15837	940
1999-00	16575	738
2000-01	17305	730
2001-02	17924	619
2002-03	18549	625
2003-04	19089	540
2004-05	19,586	497
2005-06	20,015	429
2006-07	20,315	300
2007-08	20,357	42
2008-09	20,364	7
2009-10	20,436	72
2010-11	20,432	-4
2011-12	20,081	-351
2012-13	19,814	-267
2013-14	19,621	-193
2014-15	19,145	-476
2015-16	18,772	-373
2016-17	18,441	-331
2017-18	18,257	-184
2018-19	18,224	-33
2019-20	18,104	-120
2020-21	17,571	-533
2021-22	17,573	2
2022-23	17,499	-74

HISTORIC ENROLLMENT 1993-94 to 2022-23

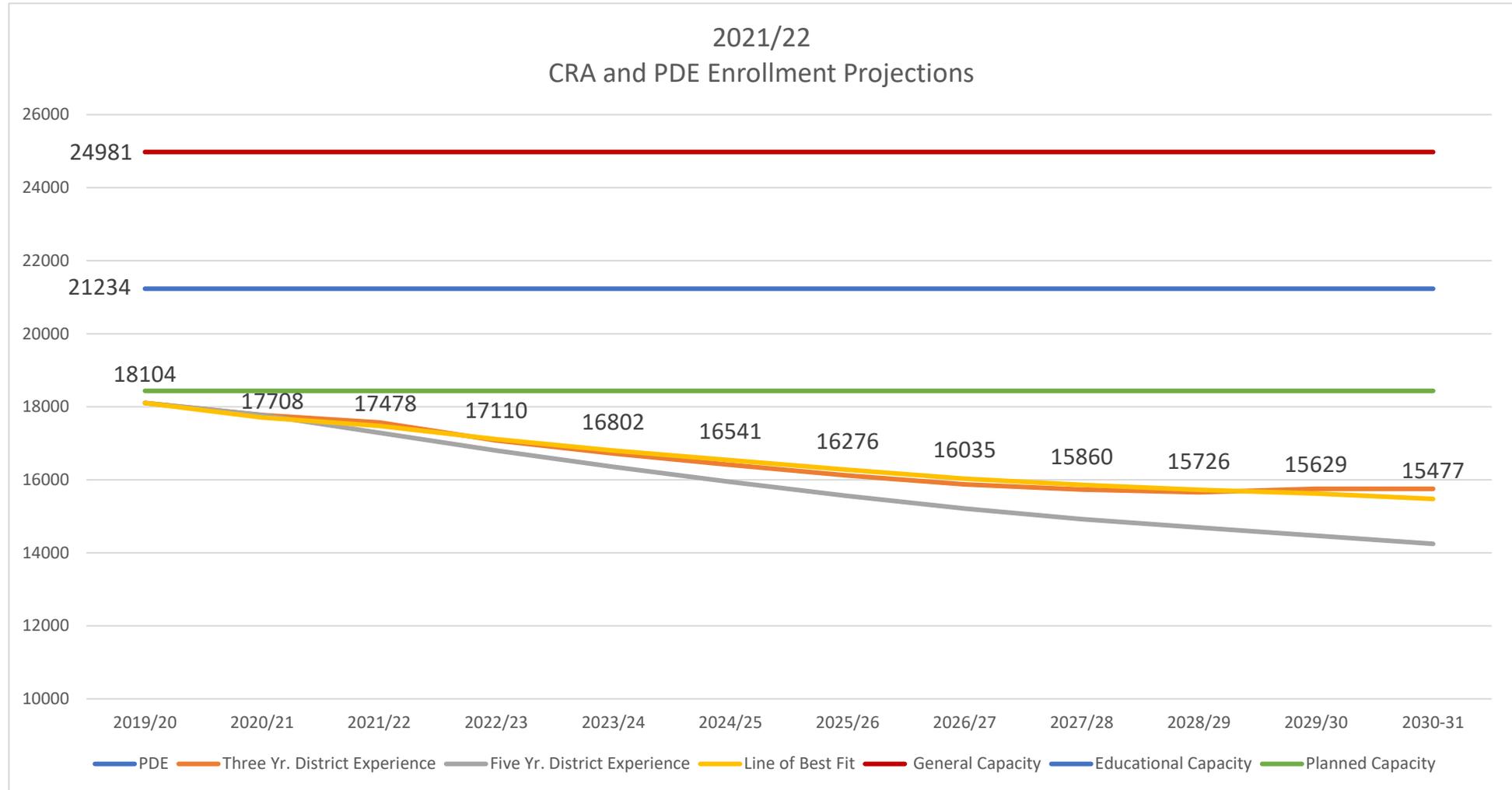


Population, Households, Housing Units and Enrollment 2010-2021

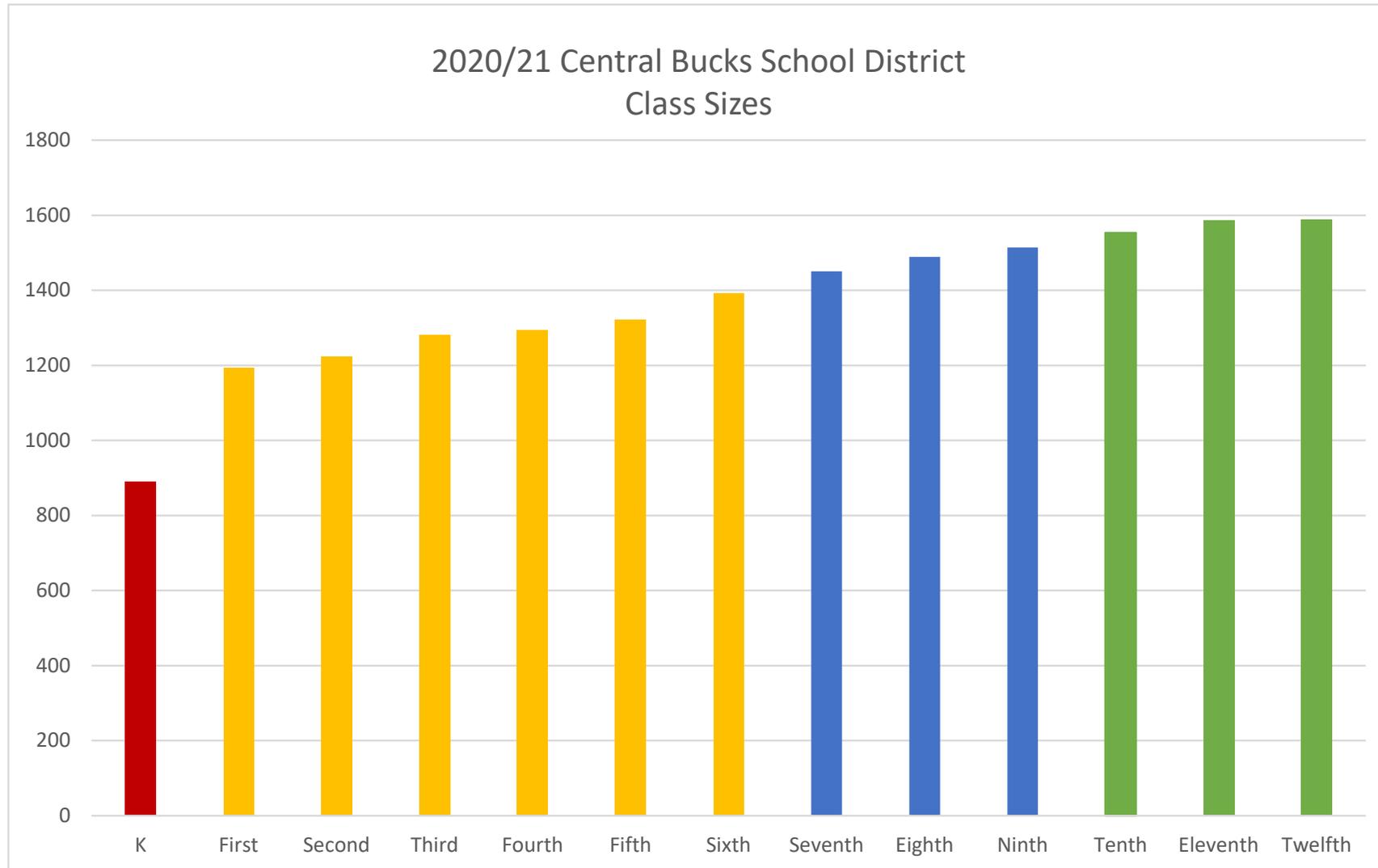


- It is worth noting that the number of students per residential property has declined from 0.47 to 0.40 since 2010 with an average over that time period of 0.43 students per residential unit.
- If a housing development of 100 homes were constructed the district can anticipate an additional 43 students. That is the equivalent of 3.31 students per grade level.
- While the type of development will yield numbers above or below the 0.43 students per unit average, 0.43 students per residential unit is a fair approximation for planning.

CRA and PDE Enrollment Projections



Central Bucks School District Class Sizes 2021/22





The Central Bucks School District Facility Condition Index



PennState

FCI Data

Charts

Facility Condition Index Data

Export

	Facility	Identifier	Last Assessment	Policy Deficiency	Program Deficiency	Physical Deficiency	Total Deficiency	Replacement Value	Physical Deficiency FCI %	Total Deficiency FCI % ▼
	Doyle Elementary School	DOYLE-ELEM	1-Jul-2020	\$2,219,776	\$0	\$2,817,320	\$5,037,097	\$11,161,058	25.2 %	45.1 %
	Gayman Elementary School	GAYMAN-ELEM	1-Apr-2021	\$2,011,930	\$0	\$2,718,818	\$4,730,748	\$12,994,736	20.9 %	36.4 %
	Kutz Elementary School	KUTZ-ELEM	17-Aug-2020	\$2,185,244	\$0	\$3,210,867	\$5,396,110	\$15,724,362	20.4 %	34.3 %
	Titus Elementary School	TITUS-ELEM	17-Jun-2019	\$1	\$0	\$4,168,359	\$4,168,360	\$15,945,786	26.1 %	26.1 %
	Pine Run Elementary School	PINE-ELEM	9-Jul-2019	\$16,780	\$0	\$3,998,503	\$4,015,283	\$15,952,003	25.1 %	25.2 %
	Warwick Elementary School	WARWICK-ELEM	15-Jul-2020	\$0	\$0	\$4,346,892	\$4,346,892	\$17,510,539	24.8 %	24.8 %
	Buckingham Elementary School	BUCKINGHAM-ELEM	27-Jul-2020	\$724,364	\$0	\$2,787,325	\$3,511,689	\$14,407,361	19.3 %	24.4 %
	Linden Elementary School	LINDEN-ELEM	7-Jul-2020	\$0	\$0	\$2,874,695	\$2,874,695	\$13,247,649	21.7 %	21.7 %
	Groveland Elementary School	GROVELAND-ELEM	29-Jun-2021	\$18,226	\$0	\$6,224,038	\$6,242,264	\$30,629,059	20.3 %	20.4 %
	Barclay Elementary School	BARCLAY-ELEM	14-Feb-2019	\$770,682	\$0	\$2,242,619	\$3,013,301	\$15,026,167	14.9 %	20.1 %
	Mill Creek Elementary School	MILL-ELEM	14-Jul-2021	\$19,702	\$0	\$5,724,144	\$5,743,846	\$30,109,460	19.0 %	19.1 %
	Bridge Valley Elementary School	BRIDGE-ELEM	25-Aug-2021	\$32,276	\$0	\$5,035,655	\$5,067,931	\$32,780,755	15.4 %	15.5 %
	Jamison Elementary School	JAMISON-ELEM	24-Aug-2020	\$0	\$0	\$2,204,245	\$2,204,245	\$22,426,794	9.8 %	9.8 %
	Simon Butler Elementary School	SIMON-ELEM	16-Jun-2021	\$10,270	\$0	\$1,370,914	\$1,381,184	\$19,472,344	7.0 %	7.1 %
	Cold Spring Elementary School	COLD-ELEM	22-Jul-2019	\$6,353	\$0	\$840,658	\$847,011	\$21,674,945	3.9 %	3.9 %

Elementary Enrollment and Capacity

- The Central Bucks School District is currently operating 15 elementary schools at 77% of their capacity.
- Standard planning practices target efficient elementary schools to operate at 90% of capacity.
- The 90% target is often lowered based on the distribution of students in the district, instructional practices, and number of support and special education students.
- Because schools operating above 90% or below 80% are considered educationally and financially inefficient, redistricting is necessary.

Elementary School	K-6 Enrollment (10/2021)	Capacity with Specials, Supprt, and Regional Classes	% of Capacity Utilized
Barclay Elementary School	695	650	106.92%
Butler Elementary School	817	800	102.13%
Warwick Elementary School	522	550	94.91%
Titus Elementary School	591	625	94.56%
Doyle Elementary School	437	500	87.40%
Buckingham Elementary School	454	550	82.55%
Kutz Elementary School	484	625	77.44%
Jamison Elementary School	558	750	74.40%
Cold Spring Elementary School	477	650	73.38%
Groveland Elementary School	816	1,150	70.96%
Mill Creek Elementary School	721	1,075	67.07%
Linden Elementary School	394	600	65.67%
Pine Run Elementary School	483	775	62.32%
Bridge Valley Elementary School	683	1,125	60.71%
Gayman Elementary School	416	725	57.38%
ELEM. SCHOOLS TOTALS/AVERAGE	8,548	11,150	76.66%

Secondary Enrollment and Capacity

- The Central Bucks School District is currently operating 5 middle schools at 54% of their capacity.
- The Central Bucks School District is currently operating 3 high schools at 61% of their capacity.
- Standard planning practices target efficient secondary schools to operate at 85% of capacity.
- The 85% target is often lower by the size, number, and locations of the schools, distribution of students in the district, instructional practices, and number of support and special education programs required by law.

	Total Capacity	2021/22 Enrollment	Capacity Utilized
Secondary School			
Holicong Middle School	1850	956	51.68%
Lenape Middle School	1625	866	53.29%
Tamanend Middle School	1390	841	60.50%
Tohickon Middle School	1800	878	48.78%
Unami Middle School	1420	806	56.76%
Middle School Totals:	8085	4347	53.77%
Central Bucks High School East	1926	1385	71.91%
Central Bucks High School South	2748	1722	62.66%
Central Bucks High School West	1940	1507	77.68%
High School Totals:	6614	4614	69.76%
Secondary Schools Totals:	14699	8961	60.96%

Secondary Enrollment and Capacity

- Schools operating above 85% or below 70% are considered educationally and/or financially inefficient.
- Given the number of secondary schools in the Central Bucks School District, their sizes, locations, the geographic distribution of students, and the locations of the elementary school's students attend the consolidation of secondary schools is nearly impossible.
- When altering elementary attendance boundaries, secondary boundaries will need to be examined.

	Total Capacity	2021/22 Enrollment	Capacity Utilized
Secondary School			
Holicong Middle School	1850	956	51.68%
Lenape Middle School	1625	866	53.29%
Tamanend Middle School	1390	841	60.50%
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Secondary Schools Totals:	14699	8961	60.96%

Consideration: Realign Grades to K-5, 6-8, 9-12

The District requested that an analysis be completed to determine if a change in grade realignment is possible.

If for educational reasons the district wishes to explore the feasibility of a K-5, 6-8, 9-12 alignment it is feasible.

The analysis finds that the District has the capacity to realign grades within its educational program if it desires to do so.

The District has the capacity to change the grade alignment from K-6, 7-9, 10-12 to K-5, 6-8, and 9-12.

- This allows for further efficiencies at the elementary schools.
- The middle schools remain three grade buildings with more than adequate space to serve the projected enrollment.
- The High Schools have just enough room to accept the ninth grade and the enrollment models indicate the high school student body will continue to decline.

Recommendation II: Close Linden

- Doyle along with its sister middle and high schools create a K-12 grouping in the geographic and demographic center of the district.
- Kutz is in better physical condition and though smaller than Linden is more efficiently enrolled.
- The cost of bringing Linden to physical and educational standards is costly and the market value of the land is reported as being high.
- Linden is the elementary school, that if consolidated, creates the greatest efficiencies and return on the investment.

NEXT STEPS



Crabtree, Rohrbaugh & Associates
www.cra-architects.com