Demographic Study: October 2019 Update Public School Enrollments for Tredyffrin/Easttown School District 940 West Valley Road, Suite 1700, Wayne, PA 19087



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NOTES REGARDING THIS OCTOBER 2019 UPDATE

The projection uses the Standard methodology for Cohort Survival as described in previous studies and in the Appendix.

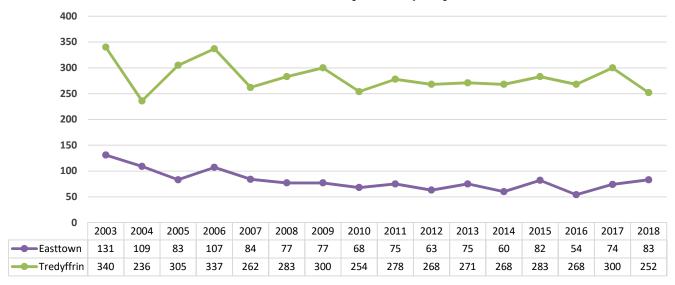
Adjustments are made for several recent trends.

The Birth to Kindergarten Survival Ratio and the Kindergarten to 1st Grade Survival Ratio are the average of the most recent three years. This significantly increases the K:1 ratio, but does not change the B:K ratio. This adjustment is made on the District level and at individual schools and has been verified as probable in projections for the last several years

Adjustments are also made for new housing in accordance with permitting and occupancy schedules determined in consultation with the Developers, however, Residential Sales of existing housing has a much greater impact on enrollment.

Adjustments continue to be made in the Beaumont, Devon and Hillside Elementary School projects in recognition of attendance area boundary changes made for school year 2018-19. That methodology is explained in Appendix C.



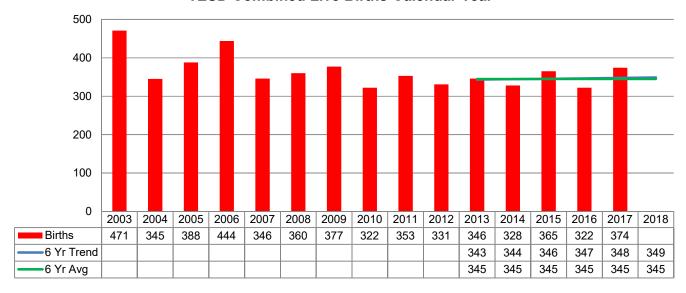


This study uses the 6-year Average of 345 annual Births for school years 2024-25 (5th year projection) and forward for which data is not available. This is 1 Birth higher than last years average.

The 6-year trend is for one more Birth per year, comparable to last year's trend.

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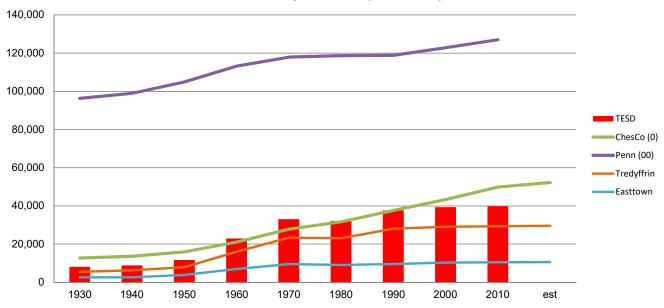


Comparative Population Growth

	1930	1940	1950	1960	1970	1980	1990	2000	2010	est 2018 ²
TESD	8,028	8,812	11,647	22,911	32,969	32,083	37,598	39,332	39,809	
Chester Co	126,629	135,626	159,141	210,608	278,311	316,660	376,396	433,501	498,886	522,046
Pennsylvania	9,631,350	9,900,180	10,498,012	11,319,366	11,793,909	11,863,895	11,881,643	12,281,054	12,702,379	
										est 2017 1
Tredyffrin	5,458	6,260	7,836	16,004	23,404	23,019	28,028	29,062	29,332	29,552
Easttown	2,570	2,552	3,811	6,907	9,565	9,064	9,570	10,270	10,477	10,584

¹⁻ Municipal estimates are from the 2013-1017 American Community Survey 5-Year Estimates

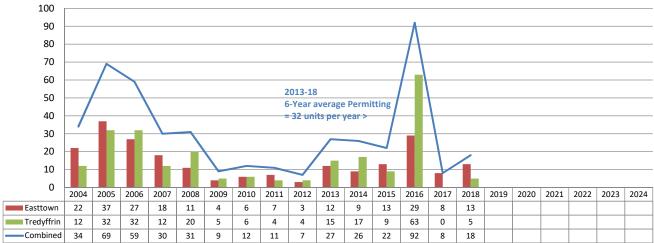
Local TESD -County-State Comparative Population



Enrollment Projections 2019

²⁻ County estimates are from "QuickFacts Chester County, Pennsylvania". United States Census Bureau

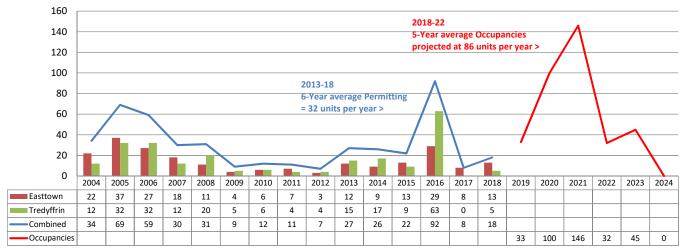




Permits for Residential units have averaged 32 per year over the most recent 6 years. Permitting peaked in year 2016 at 92 units.

356 units are permitted or near approvals and will be occupied in the next 4 years. They will average 86 units per year. Students from 54 units per year above the average, or between 28% to 78% each year, will impact the enrollments.

Residential Permits & Future Occupancy



356 units of housing are approved or planned for construction and occupancy over the next three years. These townhouse, apartment and single-family houses will generate school age children.

Future Housing Occupancy Schedule

Future Housing Occupanc	y Schedule												T . (.)
	Туре	Bdrms	Unit Count	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total Remain
Tredyffrin	туре	Duillis	Count	2010	2017	2010	2013	2020	2021	2022	2023	2024	Kemam
Wayne Glen	Twins	3 Bdrm	26						10	10	6		26
750 Walker Rd.	Townhouse	3 Bdrm	65						22	22	21		65
Occ start 11/20			91						32	32	27		91
Parkview at Chesterbrook	TH own	3 Bdrm	68	22	22	18	6						0
500 Chesterbrook Blvd.	TH rent	3 Bdrm	60	18	18								0
All units sold/occupied by 2019	TITTEIN	o Daim	128	40	40								0
· ··· · · · · · · · · · · · · · · · ·			0				-						
Village Square	Townhouse	2 Bdrm	4				3	1					1
23-45 So Valley Rd.	Townhouse	3 Bdrm	26				18	8					8
21 units occupied			30				21	9					9
Chestnut Rd Apts	Rental Apt	1 Bdrm	4					4					4
35, 37,39,43 Chestnut	Rental Apt	2 Bdrm	11					11					11
Occ after 11/19			15					15					15
1237 Lancaster Ave	Rental Apt	1 Bdrm	1						1				1
1237 Lancaster Ave, Berwyn	Rental Apt	2 Bdrm	3						3				3
Appr Aug '19	Rental Apt	Z Duilli	4						4				4
Applitudg 10			7						7				7
Station Square	Rental Apt	1 Bdrm	73					35	38				73
37 N. Valley	Rental Apt	2 Bdrm	83					41	42				83
Occ start 1/20			156					76	80				156
Peytons Crossing	Townhouse	3 Brdm	7						7				7
20-22 Berkley Rd.			7						7				7
Approved													
Mack Oil-Tredyffrin	Single Fam	4 Bdrm	5						5				<u> </u>
44-55 Branch Ave.			5						5				5
approved, no permits yet	5	4.5.1	4.40								74	74	440
400 Swedesford	Rental Apt	1 Bdrm	142								71	71	142
400 Swedesford Rd	Rental Apt	2 Bdrm	94								47	47	94
Review expires Oct '19	Rental Apt	3 Bdrm	14 250								125	125	<u>14</u> 250
Easttown			230								120	125	250
Lastrown													
Newtown Road	Single Fam	4 Bdrm	12						12				12
1016 Newtown Rd		•	12						12				<u>12</u> 12
Under Review, no approval													
Mack Oil-Easttown	Single Fam	4 Bdrm	18								18		18
44-55 Branch Ave.			18								18		18
SD Approved, not yet permitted													
Armstrong Prop	Single Fam	4 Bdrm	6						6				<u>6</u>
30-50 Price Ave			6						6				6
Under construction												00	00
Berwyn Square	Rental Apt	1 Bdrm	60									60	60
578 Lancaster	Rental Apt	2 Bdrm	60									60 120	60 120
Preliminary			120									120	120
WWEDFritz Lumber	Rental Apt	1 Bdrm	10									10	10
631 Lancaster Ave.	Rental Apt	2 Bdrm	32									32	32
Withdrawn/sold, no resubmit			42									42	42
TOTAL	Approved			40	40	36	33	100	146	32		0	323
	Approved & S	Speculative)	40	40	36	33	100	146	32	170	287	735

- Proposed Projects that have not received approvals

Multipliers by Unit Type and Number of Bedrooms

	-	Rutgers			ECS
	_		Public		
		School	School		
		Age	Age		
	_	Children	Children		
	-				
Townhouse Own	2 Bdrm	0.160	0.150	(0.238
Townhouse Own	3 Bdrm	0.420	0.360		0.348
				_	
Townhouse Rent	3 Bdrm	0.680	0.590	(0.528
•					
Apartment Rent	1 Bdrm	0.040	0.040	(0.022
Apartment Rent	2 Bdrm	0.210	0.190	(0.039
Apartment Rent	3 Bdrm	0.730	0.700	(0.313
-					
Single Family	4 Bdrm	1.060	0.840		0.667

Ratgers University, Center for Urban Policy Research
Residential Demographic Multipliers

Estimates of the Occupants of New Housing
(Resident, State), Apr. Children, Polic Schmid Apr. Children
by State, Streening Type, Streening State, and Streening Prese

Proposed by

Basic Children, Ph.D.

Basic Children, Ph.D.

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Basic Children, Ph.D.

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Jane 2004

Multipliers for School Age Children by Unit Type and Number of Bedrooms are sourced from "Residential Demographic Multipliers for Pennsylvania" prepared by the Edward J. Bloustein School of Planning and Public Policy at Rutgers the StateUniversity of New Jersey.

A second source of Multipliers was used for a comparative analysis from Econsult Solutions of Philadelphia. They are an aggregate of local "select" geographies (PUMAs-Public Use Microset Areas) representative of the population served by the Tredyffrin-Easttown School District. These PUMAs were selected primarily because median income and school district quality are comparable to the Tredyffrin-Easttown School District area as shown in the map.

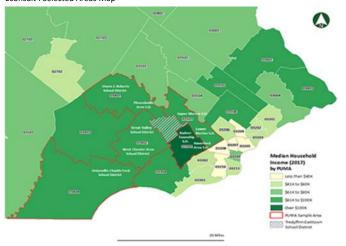
These ECS Multipliers are from more recent American Community Survey data using methods derived from the Rutgers University analyses. The use of more current and more local data results in reduced Multipliers.

However, analysis of Students from "above the average" New Housing is impacting less and less on the projection than is 1) Resales of Existing Housing and 2) the "built-into the Survival Rates" portion of previous new housing.

The 5-Year Average Annual Enrollment Growth (all factors) has been 152 students per year. The Rutgers analysis projects between 95 to 150 students (approved to approved plus planned over 5 years) from new housing of which only 50 to 110 per year are above the average and added to the standard projection. That is 10-20 students per year above the average or 6-13% of the 152 student growth per year.

The Econsult Solutions analysis projects between 70 to 86 students (approved to approved plus planned over 5 years) from new housing of which only 36 to 62 per year are above the average and added to the standard projection. That is 7-12 students per year above the average or 5-8% of the 152 student growth per year.





Additional Field Survey:

Student Counts were made incorporating the addresses of the recently completed **Parkview at Chesterbrook** development where 128 rented and owned, 3-Bedroom Townhouses yielded 75 students as follows;

Student 0	Counts	Grade Leve Multiplier	el
Elem K-Gr 5	35	0.273	
Middle Gr 6-8	19	0.148	
High Gr 9-12	21	0.164	
	75		
			Yield
Field Survey Multip	lier (Own & Rent)	0.586	75
Comparative Rutge	ers	0.550	70
Comparative ECS		0.438	56

	Future Public School Stud	ents by Occup	oancy Sch	edule PSAC/	Rutge	ers P	SAC N	lultipl	iers					Total
	Tredyffrin	Туре	Bdrms	Unit	2016	2017	2018	2019	2020	2021	2022	2023	2024	Remain
1	•	Turina	2 Dalum	0.260						2.6	2.6	2.2		0
1	Wayne Glen 750 Walker Rd.	Twins Townhouse	3 Bdrm 3 Bdrm	0.360 0.360						3.6 7.9	3.6 7.9	2.2 7.6		9 23
	Occ start 11/20	Townhouse	3 Dullii	0.720	-					11.5	11.5	9.7		33
	000 014.11 1/120			0.120						11.0	11.0	0.7		00
2	Parkview at Chesterbrook	TH own	3 Bdrm	0.360	22	22	18	6						0
	500 Chesterbrook Blvd.	TH rent	3 Bdrm	0.590	18	18								0
	All units sold/occupied by 2019				40	40	36	12						0
3	Village Square	Townhouse	2 Bdrm	0.150				3	0.2					0
Ü	23-45 So Valley Rd.	Townhouse	3 Bdrm	0.360				18	2.9					3
	21 sale units occupied	TOWINGGE	O Bailii	0.000				21	3.0					3
4	Chestnut Rd Apts	Rental Apt	1 Bdrm	0.040					0.2					0
	35, 37,39,43 Chestnut	Rental Apt	2 Bdrm	0.190					2.1					2
	Occ after 11/19								2.3					2
5	1237 Lancaster Ave	Rental Apt	1 Bdrm	0.040						0.0				0
J	1237 Lancaster Ave, Berwyn	Rental Apt	2 Bdrm	0.040						0.6				1
	Appr Aug '19	rtontarript	2 Bailii	0.100	-					0.6				1
6	Station Square	Rental Apt	1 Bdrm	0.040					1.4	1.5				3
	37 N. Valley	Rental Apt	2 Bdrm	0.190					7.8	8.0				16
	Occ start 1/20								9.2	9.5				19
7	Peytons Crossing	Townhouse	3 Brdm	0.360						2.5				3
·	20-22 Berkley Rd.		0 2.4	0.000						2.5				3
	Approved													
8	Mack Oil-Tredyffrin	Single Fam	4 Bdrm	0.840						4.2				4
	44-55 Branch Ave.									4.2				4
9	approved, no permits yet 400 Swedesford	Rental Apt	1 Bdrm	0.040								2.8	2.8	6
J	400 Swedesford Rd	Rental Apt	2 Bdrm	0.190								8.9		18
	Review expires Oct '19	Rental Apt	3 Bdrm	0.700								4.9	4.9	10
					-							16.7	16.7	33
	Easttown													
10	Newtown Road	Single Fam	4 Bdrm	0.840						10.1				10
10	1016 Newtown Rd	Single Faili	4 Dullii	0.040						10.1				10
	Under Review, no approval													
11	Mack Oil-Easttown	Single Fam	4 Bdrm	0.840								15.1		15
	44-55 Branch Ave.											15.1		15
10	SD Approved, not yet permitted	Oin als Fam	4 D. I	0.040						5 0				_
12	Armstrong Prop 30-50 Price Ave	Single Fam	4 Bdrm	0.840						5.0 5.0				<u> </u>
	Under construction									5.0				3
13	Berwyn Square	Rental Apt	1 Bdrm	0.040									2.4	2
	578 Lancaster	Rental Apt	2 Bdrm	0.190									11.4	11
	Preliminary												13.8	14
14	WWEDFritz Lumber	Rental Apt	1 Bdrm	0.040									0.4	0
17	631 Lancaster Ave.	Rental Apt	2 Bdrm	0.040									6.1	6
	Withdrawn/sold, no resubmit												6.5	6
	TOTA	Approved & S	Spoordative		40	40	36	33	14.5	43.5	11.5	24.8	0.0	94
		Approved & S	speculative	:					14.5	43.5	11.5	41.5	37.0	148

6

New Students Above the Average by Attendance Area

Approved Only by changing % each year	2020 67.8%	2021 78.0%	2022 0.0%	2023 28.5%	2024 0.0%	Total	
by changing 70 cach year	07.070	9.0	0.070	2.8	0.070	11.8	New Eagle
		0.0		2.0			Valley Forge
	6.2	14.61		2.4		23.2	Hillside (45%)
	6.2	9.0	0.0	2.8	0.0	18.0	VFMS w Sta Sq
	3.6	8.3				11.9	Beaumont
		2.0				2.0	Devon
		14.6		4.3		18.9	Hillside (55%) w/ Sta Sq
	3.6	24.9	0.0	4.3	0.0	32.8	TEMS
	9.8	33.9	0.0	7.1	0.0	50.8	District Approved
Approved & Planned	2020	2021	2022	2023	2024	Total	
Approved & Planned by changing % each year	2020 67.8%	2021 78.0%	2022 0.0%	2023 81.1%	2024 88.8%	Total	
		-	-			Total 16.9	New Eagle
	67.8%	78.0%	-	81.1%		16.9 28.3	Valley Forge
	67.8%	78.0% 9.0	0.0%	81.1% 7.9 13.5	88.8%	16.9 28.3 6.2	-
	67.8%	78.0%	-	81.1% 7 .9	88.8%	16.9 28.3	Valley Forge
	6.2	78.0% 9.0 9.0	0.0%	81.1% 7.9 13.5	88.8%	16.9 28.3 6.2 51.4	Valley Forge Hillside (45%) VFMS w Sta Sq
	67.8%	78.0% 9.0 9.0 8.3	0.0%	81.1% 7.9 13.5	88.8% 14.8 14.8	16.9 28.3 6.2 51.4	Valley Forge Hillside (45%)
	6.2	9.0 9.0 8.3 2.0	0.0%	81.1% 7.9 13.5	88.8%	16.9 28.3 6.2 51.4 11.9 20.0	Valley Forge Hillside (45%) VFMS w Sta Sq Beaumont Devon
	67.8% 6.2 6.2 3.6	9.0 9.0 8.3 2.0 14.6	0.0%	81.1% 7.9 13.5 21.4	14.8 14.8 18.0	16.9 28.3 6.2 51.4 11.9 20.0 26.9	Valley Forge Hillside (45%) VFMS w Sta Sq Beaumont Devon Hillside (55%) w/ Sta Sq
	6.2	9.0 9.0 8.3 2.0	0.0%	81.1% 7.9 13.5	88.8% 14.8 14.8	16.9 28.3 6.2 51.4 11.9 20.0	Valley Forge Hillside (45%) VFMS w Sta Sq Beaumont Devon
	67.8% 6.2 6.2 3.6	9.0 9.0 8.3 2.0 14.6	0.0%	81.1% 7.9 13.5 21.4	14.8 14.8 18.0	16.9 28.3 6.2 51.4 11.9 20.0 26.9	Valley Forge Hillside (45%) VFMS w Sta Sq Beaumont Devon Hillside (55%) w/ Sta Sq

In each year, only a Percentage of New Students "Above the Average" is added to the standard projection for Elementary School Attendance Area. The sums of the Elementary Schools students are added to determine the "above average" Middle School students.

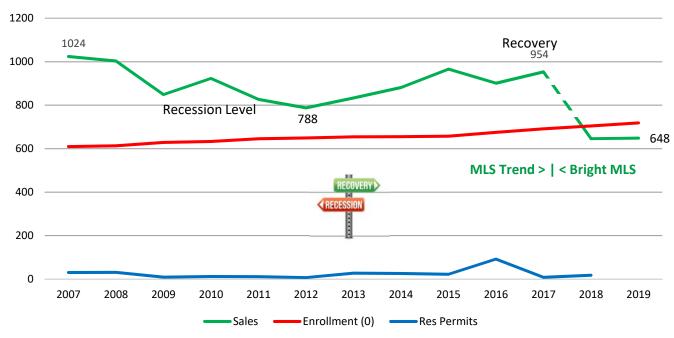
An exception is that students from Station Square are added in total to Valley Forge MS. Otherwise "new" Hillside ES students are divided 55% to TEMS and 45% to VFMS.

For example, in the Approved table, only 67.8% of the New students are above the average in year 2020, 78.0 % in 2021 and 0% in year 2020.

Enrollment Projections 2019

Factors Impacting Enrollments



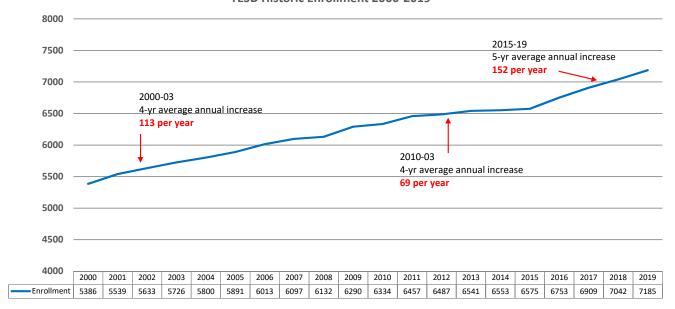


The level of sales of existing housing, returning to near 1,000 units per year in year 2017, has a stronger impact on enrollments than does permitting for new housing, which for the 10-year period preceeding 2018 averaged just 23 units per year.

The source of the data changed in 2018 from MLS Trend to Bright MLS such that the comparative post-2017 analysis may not be consistent due to methodology changes.

Additional enrollment growth may be generated by newly renovated Rental Housing for which there is no "turnover" data from which to document trends.

TESD Historic Enrollment 2000-2019

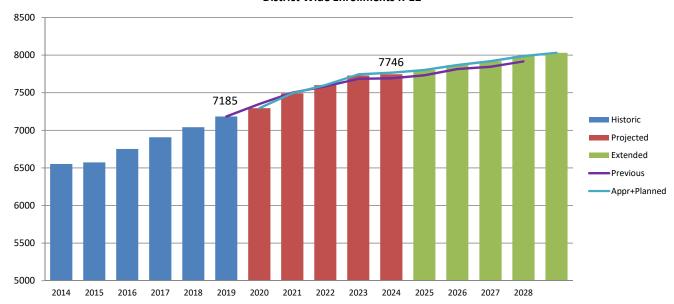


Recent enrollment growth averaging 152 new students per year from 2015-18, is down from last year's 4-year growth rate of 156.

Using the Rutgers Multipliers, between 95 to 150 students per year will be from new housing over 5 years. Only 10 to 20 students per year are from "above average" new construction and are added to the standard projection. The balance of the 130 to 140 student annual increase is coming from the multiple factors impacting the Grade Level Cohort Survival Ratios.

Enrollment Projections 2019

District Wide Enrollments K-12



	Α	pproved			
		TOTAL A	Average	Change	%Chg
Historic	2014	6,553			
	2015	6,575			
	2016	6,753			
	2017	6,909	6,836		
	2018	7,042			
	2019	7,185		632	9.6%
Projected	2020	7,295			
	2021	7,493			
	2022	7,602	7,573		
	2023	7,729			
	2024	7,746		561	7.8%
Extended	2025	7,803			
	2026	7,869			
	2027	7,919	7,922		
	2028	7,987			
	2029	8,031		285	3.7%

TOTAL	Average	Change	%Cng
7.005			
7,295			
7,493			
7,602	7,580		
7,744			
7,766		581	8.1%
7,803			
7,869			
7,919	7,922		
7,987			
8,031		228	2.9%

App & Planned

Between 51 and 110 students are added to the standard projection (Approved vs. Approved & Planned) from the "above average" new housing.

District Enrollment at the end of the 5-year projection period is between 7,746 and 7,766, about 20 students different, or a less than 2 students per grade difference.

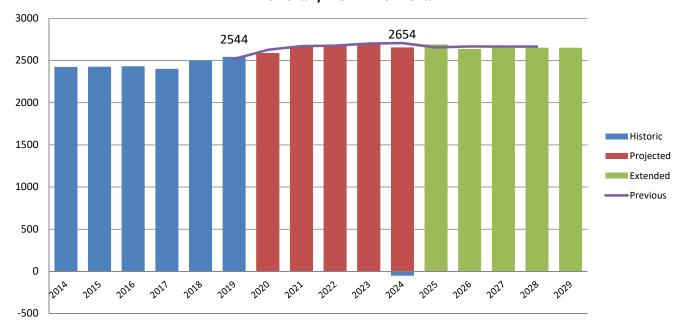
Overall 5-year growth is between 561 students (Approved) and 581 students (Approved & Planned).

Elementary K-Grade 4 Enrollments

21 Students from approved housing to these grades

41	Student	s from ap	proved p	lus plann	ed housi	ng	K-4	Period	Period		Previous	
		K	1	2	3	4	TOTAL	Average	Change	% Inc	2018-19	
Historic	2014	393	452	519	565	495	2,424					
	2015	356	496	462	529	582	2,425					
	2016	399	462	525	500	546	2,432					
	2017	380	483	481	544	513	2,401	2,455				
	2018	389	520	513	512	568	2,502					
	2019	420	506	540	539	539	2,544		120	5.0%	2,519	
Projected	2020	369	561	529	568	560	2,588				2,626	
	2021	431	496	589	559	592	2,666				2,671	
	2022	384	575	518	619	579	2,674	2,655			2,675	
	2023	396	512	601	544	642	2,696				2,701	
	2024	395	528	535	631	565	2,654		110	4.3%	2,707	
Extended	2025	395	527	551	562	655	2,691				2,656	
	2026	395	527	551	579	583	2,635				2,665	
	2027	395	527	551	578	601	2,652	2,656			2,665	
	2028	395	527	551	578	600	2,651				2,665	
	2029	396	527	551	578	600	2,652		-2	-0.1%		

Elementary K-Gr 4 Enrollments



Elementary enrollments that grew by 120 students in the historical period, will grow by 110 students in the projection period, an indicator for slightly slower growth in the future.

The current 5-year projection, at 2,654 students is for 47 fewer students that last years projection for that same year.

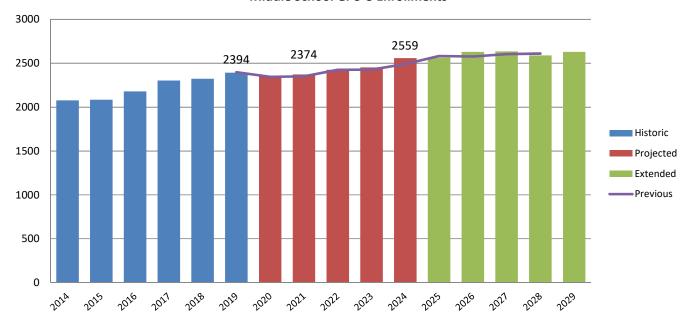
-52.35

Middle School Grade 5-8 Enrollments

12 Students from approved housing to these grades

21	Students t	from app	roved plu	s planne	d housing	Gr 5-8	Period	Period		Previous
		5	6	7	8	TOTAL	Average	Change	% Inc	2018-19
Historic	2014	523	500	536	519	2,078				
	2015	506	525	511	542	2,084				
	2016	600	520	540	520	2,180				
	2017	575	625	548	555	2,303	2227			
	2018	537	592	640	554	2,323				
	2019	570	576	600	648	2,394		316	15.2%	2,398
Projected	2020	557	591	593	610	2,351				2,346
	2021	580	579	610	605	2,374				2,351
	2022	610	600	595	620	2,425	2432			2,427
	2023	598	632	618	605	2,453				2,428
	2024	662	619	650	628	2,559		165	7.0%	2,492
Extended	2025	582	685	637	661	2,565				2,583
	2026	675	603	705	647	2,630				2,578
	2027	601	699	620	716	2,636	2610			2,605
	2028	620	622	719	630	2,591				2,610
	2029	619	641	640	730	2,630		72	2.8%	

Middle School Gr 5-8 Enrollments



Middle School enrollments that grew by 316 students in the historical period , will grow by 165 students in the projection period, an indicator for slower growth in the future.

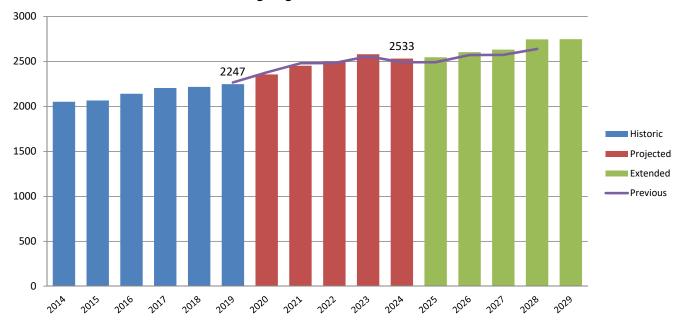
Nonetheless, the current 5-year projection, at 2,561 students is for 67 more students that last years projection for that same year.

High School Grade 9-12 Enrollments

16 Students from approved housing to these grades

29	Students f	rom appr	oved plus	s planned	l housing	Gr 9-12	Period	Period		Previous
		9	10	11	12	TOTAL	Average	Change	% Inc	2018-19
Historic	2014	531	506	507	507	2,051				
	2015	511	550	500	505	2,066				
	2016	563	523	554	501	2,141				
	2017	552	570	529	554	2,205	2155			
	2018	587	542	565	523	2,217				
	2019	560	575	547	565	2,247		196	9.6%	2,267
Projected	2020	669	564	577	546	2,356				2,379
	2021	632	676	568	578	2,453				2,481
	2022	624	636	677	566	2,503	2485			2,483
	2023	639	628	637	675	2,581				2,557
	2024	624	644	629	636	2,533		286	12.1%	2,492
Extended	2025	647	628	645	628	2,547				2,492
	2026	681	651	629	643	2,604				2,571
	2027	667	685	652	627	2,631	2655			2,573
	2028	738	671	686	650	2,746				2,640
	2029	649	743	672	684	2,748		216	8.5%	

Conestoga High School Grade 9-12 Enrollments



High School enrollments that grew by 196 students in the historical period, will grow by 286 students in the projection period, an indicator for increasing growth in the future.

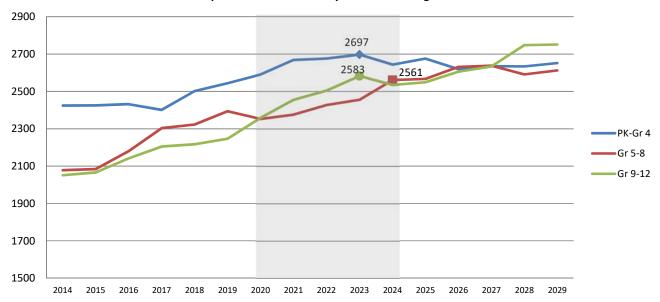
The current 5-year projection, at 2,533 students is for 40 more students that last years projection for that same year.

40

Comparative Enrollments by Grade Level Organization

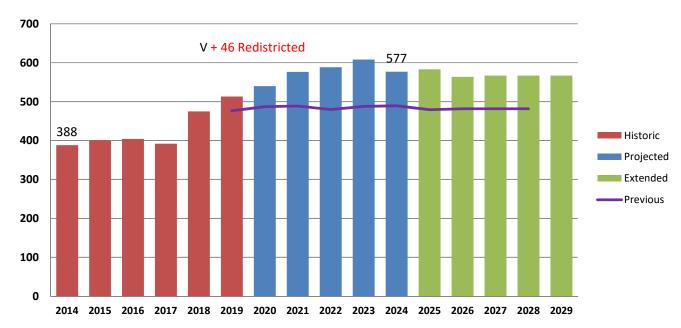
		K-4	Gr 5-8	Gr 9-12	TOTAL	
Historic	2014	2424	2078	2051	6553	
	2015	2425	2084	2066	6575	
	2016	2432	2180	2141	6753	
	2017	2401	2303	2205	6909	
	2018	2502	2323	2217	7042	
	2019	2544	2394	2247	7185	HIGH 5 Yr
Projected	2020	2590	2353	2358	7301	
	2021	2668	2376	2455	7499	
	2022	2676	2428	2505	7608	
	2023	2697	2455	2583	7735	
	2024	2643	2561	2535	7739	
Extended	2025	2675	2567	2549	7792	
	2026	2619	2632	2606	7857	
	2027	2635	2638	2633	7906	
	2028	2634	2591	2748	7973	
	2029	2652	2612	2751	8015	

Comparative Enrollments by Grade Level Organization



In the 5-year projection period, Elementary School and High School enrollments peak in the 4th year while Middle School enrollments peak a year later.

Beaumont ES Enrollment by Year



11 Approximate Kindergarten Students from Devon added each projection year 46 of possible 63 from Devon ES in Fall 2018

Beaumont Elementary School

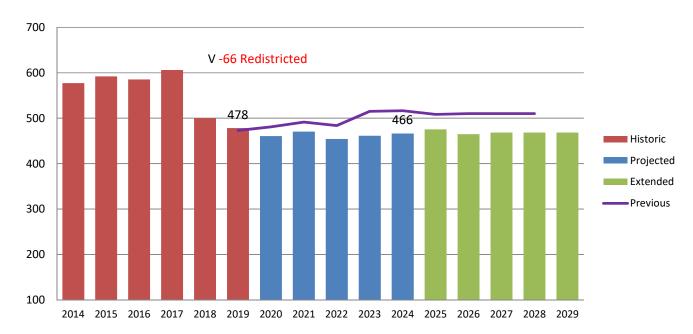
12 students from new housing yields5 students at this elementary school

					raaonio	at tillo t	Siornoritary correct	
		K	1	2	3	4	TOTAL Average Change	
Historic	2014	54	72	98	85	79	388	
	2015	59	76	79	96	91	401	
	2016	57	79	88	82	98	404	
	2017	60	65	85	94	88	392 429	
	2018	68	97	98	105	107	475	
	2019	99	92	110	106	106	513 1 <u>25</u>	32.2%
Projected	2020	75	134	104	115	112	540	
	2021	90	103	151	110	123	576	
	2022	77	122	116	158	115	588 578	
	2023	78	104	138	122	165	608	
	2024	78	107	118	145	128	577 64	11.8%
Extended	2025	78	107	121	124	153	583	
	2026	78	107	121	127	130	564	
	2027	78	107	121	127	134	567 569	
	2028	78	107	121	127	134	567	
	2029	78	107	121	127	134	567 -10	-1.7%

Oct 2018 enrollments are 7% higher than last years projection. Kindergarten, alone, is 39% higher than was projected.

		K	1	2	3	4	Tot
Actual	2019 -20	99	92	110	106	106	513
Projected for	2019 -20	71	86	109	102	111	479
(last year)							
_	Delta	28	6	1	4	-5	34

Devon ES Enrollment by Year



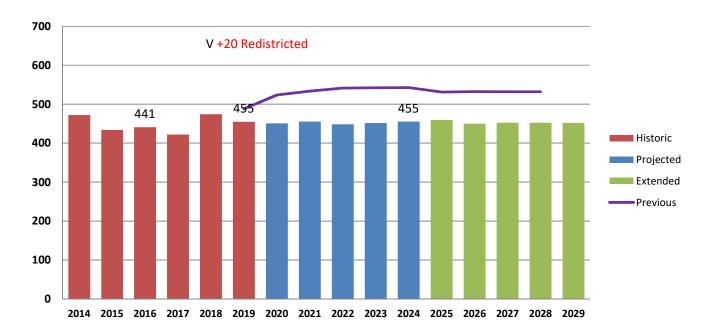
2018 > 16 Approximate Kindergarten Students from Devon subtracted each projection year
 66 of possible 92 students redistricted to Beaumont and Hillside in Fall 2018

Devon Elementary School

2 to 20 students from new housing yields 1 to 9 students at this elementary school

		1 to 9 students at this elementary school										
		K	1	2	3	4	TOTAL Average Change					
Historic	2014	102	110	109	154	102	577					
	2015	90	133	112	110	147	592					
	2016	103	123	135	120	104	585					
	2017	104	123	120	138	121	606 556					
	2018	62	111	94	107	126	500					
	2019	72	90	114	96	106	478 - <mark>99</mark>	-17.2%				
Projected	2020	66	95	89	117	93	460					
	2021	82	89	95	92	113	470					
	2022	71	109	88	97	89	454 462					
	2023	74	95	109	91	93	461					
	2024	74	98	95	112	88	466 -12	-2.6%				
Extended	2025	74	98	98	97	108	475					
	2026	74	98	98	101	94	465					
	2027	74	98	98	101	97	468 469					
	2028	74	98	98	101	97	468					
	2029	74	98	98	101	97	468 2	0.4%				

Hillside ES Enrollment by Year



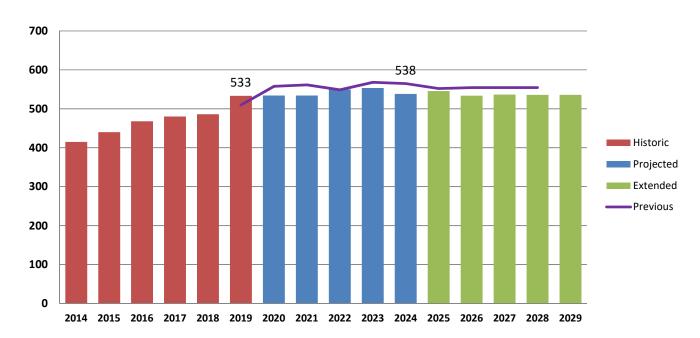
5 Approximate Kindergarten Students from Devon added each projection year 20 of a possible 29 redistricted from Devon in Fall 2018

Hillside Elementary School

25 to 33 students from new housing yields 10 to 15 students at this elementary school

			10 10	10 8	students	at triis e	elementary school	
		K	1	2	3	4	TOTAL Average Change	
Historic	2014	86	78	101	99	108	472	
	2015	59	96	73	102	104	434	
	2016	76	78	98	81	108	441	
	2017	71	91	78	99	83	422 450	
	2018	84	101	101	90	98	474	
	2019	76	88	94	99	98	455 -17	-3.6%
Projected	2020	75	89	86	98	103	451	
_	2021	86	89	88	90	103	455	
	2022	76	101	86	91	93	448 452	
	2023	79	90	99	90	94	451	
	2024	79	93	88	102	93	455 0	0.0%
Extended	2025	78	93	90	91	106	459	
	2026	78	93	90	94	95	450	
	2027	78	93	90	94	98	452 453	
	2028	78	93	90	93	97	452	
	2029	78	93	90	93	97	452 - 3	-0.7%

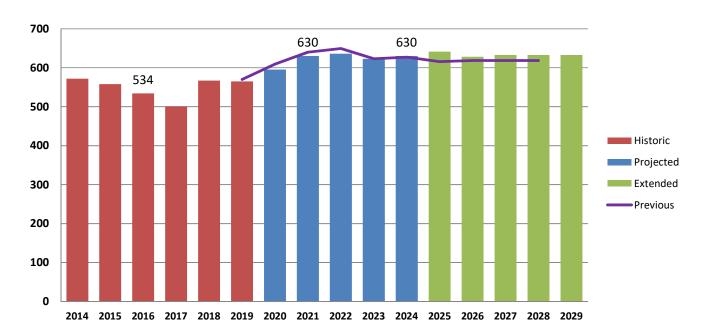
New Eagle ES Enrollment by Year



New Eagle	Elem School		12 to	17	students	from new l	housing yields			
			5 to	8	students	at this eler	mentary school			
		K	1	2	3	4	TOTAL Av	erage	Change	
Historic	2014	56	80	92	99	88	415			
	2015	83	77	85	94	101	440			
	2016	94	97	88	94	95	468			
	2017	72	115	107	90	96	480	470		
	2018	72	97	119	106	92	486			
	2019	88	105	98	125	117	533		118	28.4%
Projected	2020	72	121	111	101	129	534		<u>.</u>	
	2021	84	100	129	116	106	534			
	2022	75	117	106	133	119	550	542		
	2023	77	104	125	111	137	553			
	2024	77	107	111	129	114	538		5	1.0%
Extended	2025	77	107	114	115	133	546			
	2026	77	107	113	118	118	534			
	2027	77	107	113	117	122	536	537		
	2028	77	107	113	117	121	535			
	2029	77	107	113	117	121	535		-3	-0.5%

Enrollment Projections 2019

Valley Forge ES Enrollment by Year



Valley Forge Elementary School

0 to 28 students from new housing yields 0 to 13 students at this elementary school

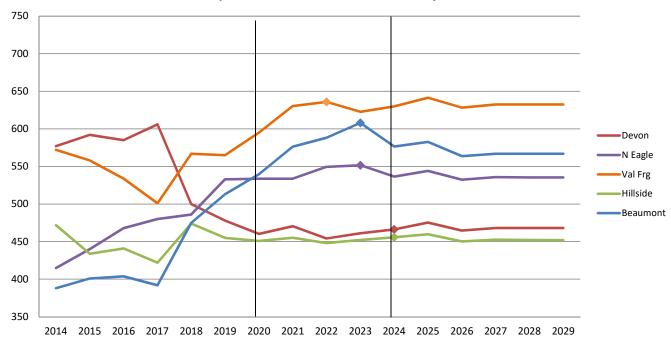
							····· ,···-	_
		K	1	2	3	4	TOTAL Average Change	_
Historic	2014	95	112	119	128	118	572	_
	2015	65	114	113	127	139	558	
	2016	69	85	116	123	141	534	
	2017	73	89	91	123	125	501 550	
	2018	103	114	101	104	145	567	
	2019	85	131	124	113	112	565 -	7 -1.29
Projected	2020	81	118	138	135	123	595	_
	2021	94	114	124	150	148	630	
	2022	85	132	120	135	164	636 623	
	2023	87	119	140	131	146	623	
	2024	87	122	125	153	143	630 69	10.9%
Extended	2025	87	122	129	137	167	641	_
	2026	87	122	129	141	149	628	
	2027	87	122	129	141	154	633 634	
	2028	87	122	129	141	154	633	
	2029	87	122	129	141	154	633	0.4%

Comparative Elementary Schools

					New	Valley
		Beaumor D	evon	Hillside	Eagle	Forge
Historic	2014	388	577	472	415	572
	2015	401	592	434	440	558
	2016	404	585	441	468	534
	2017	392	606	422	480	501
	2018	475	500	474	486	567
	2019	513	478	455	533	565
Projected	2020	540	460	451	534	595
	2021	576	470	455	534	630
	2022	588	454	448	550	636
	2023	608	461	452	552	623
	2024	577	466	456	536	630
Extended	2025	583	475	460	544	641
	2026	564	465	450	533	628
	2027	567	468	453	536	633
	2028	567	468	452	535	633
	2029	567	468	452	535	633



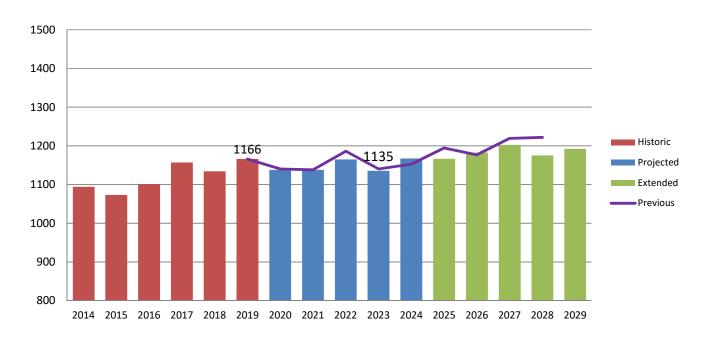
Comparative Enrollments: Elementary Schools



Following the impact of realignment in Oct 2018, the elementary enrollments are generally stable throughout the projection period except for Beaumont that continues to increase, primarily due to the higher than expected Kindergarten count this year.

At the end of the 5-year projection, Beaumont ES is approximatly 100 students over prior projections while Devon is 25 students below projection and Hillside is 75 students below prior projection.

Tredyffrin-Easttown MS Enrollment by Year

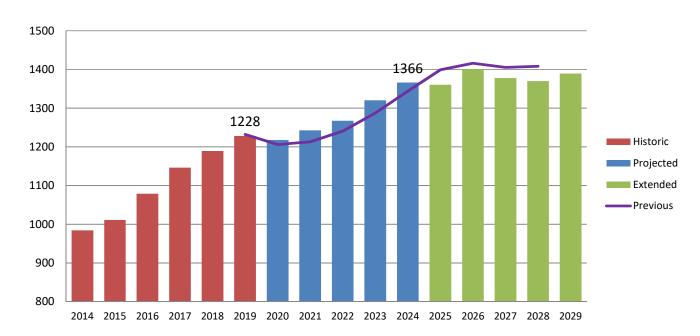


Tredyffrin-Easttown Middle School

39 to 65 Students from new housing, yields14 to 20 Students at this Middle School

		5	6	7	8	TOTAL Average Change
Historic	2014	271	263	292	268	1,094
	2015	249	268	262	294	1,073
	2016	302	259	276	264	1,101
	2017	279	316	275	287	1,157 1,121
	2018	255	285	316	278	1,134
	2019	283	276	287	320	1,166 72
Projected	2020	271	293	282	292	1,138
	2021	266	283	301	288	1,138
	2022	295	276	288	306	1,165 1,149
	2023	255	306	281	293	1,135
	2024	306	264	312	286	1,167
Extended	2025	264	317	269	317	1,167
	2026	313	274	323	273	1,182
	2027	272	324	279	328	1,203 1,184
	2028	280	282	330	283	1,175
	2029	280	290	287	336	1,192 25

Valley Forge MS Enrollment by Year



Valley Forge Middle School

18 TO 51 Students from new housing, yield 6 to 9 Students at this Middle School

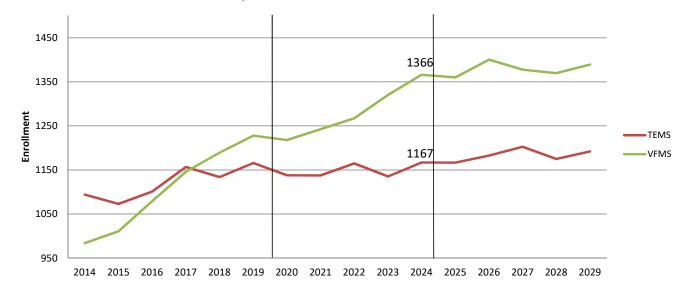
		5	6	7	8	TOTAL Average Change
Historic	2014	252	237	244	251	984
	2015	257	257	249	248	1,011
	2016	298	261	264	256	1,079
	2017	296	309	273	268	1,146 1,106
	2018	282	307	324	276	1,189
	2019	287	300	313	328	1,228 244 24.8
Projected	2020	290	297	312	319	1,218
	2021	315	300	310	318	1,243
	2022	315	326	312	315	1,267 1,283
	2023	338	326	339	317	1,320
	2024	333	350	339	344	1,366 138 11.39
Extended	2025	308	345	364	344	1,360
	2026	354	318	358	370	1,400
	2027	317	367	331	364	1,378 1,379
	2028	325	327	381	336	1,370
	2029	326	337	340	387	1,389 23 1.7°

Comparative Middle Schools

		TEMS	VFMS	
Historic	2014	1094	984	
	2015	1073	1011	
	2016	1101	1079	
	2017	1157	1146	
	2018	1134	1189	
	2019	1166	1228	
Projected	2020	1138	1218	
	2021	1138	1243	
	2022	1165	1267	
	2023	1135	1320	
	2024	1167	1366	
Extended	2025	1167	1360	
	2026	1182	1400	
	2027	1203	1378	
	2028	1175	1370	
	2029	1192	1389	



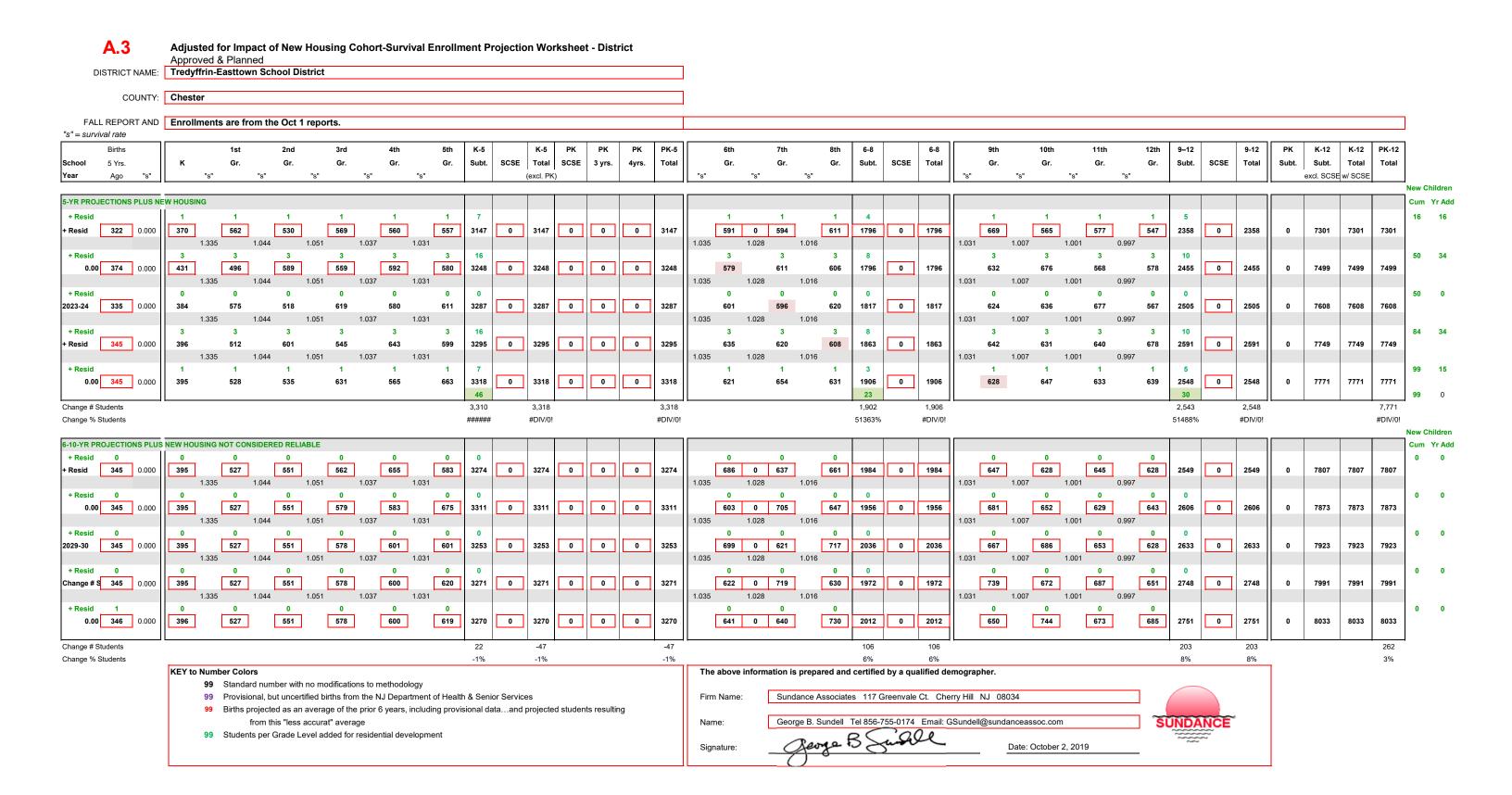
Comparative Enrollments: Middle School



Enrollment Projections 2019

Standard Cohort-Survival Enrollment Projection Worksheet DISTRICT NAME: Tredyffrin-Easttown School District COUNTY: Chester DATA ISSUES: Enrollments are from the Oct 1 reports. "s" = survival rate 9-12 K-12 K-12 PK-12 Births 5th K-5 K-5 PK PK-5 6th 7th 8th 6-8 6-8 12th 9-12 Gr. Gr. Gr. Gr Subt. Total SCSE Gr. Gr. Gr. Gr. Total 5 Cal Yrs EUG 3 yrs. Total Subt. Total Gr. Subt. Total Subt. Subt. Total 4yrs. MUG SUG (excl. PK) excl. SCSE w/ SCSE Year Ago F137 1.220 2014-15 2015-16 1.008 2016-17 1.205 1 036 1 054 1 028 1 042 2017-18 1.098 1.064 1.024 1.011 0.991 1.030 0.982 1.186 2018-19 1.013 1.011 2019-20 1.151 Yr Avg SF 3 Yr Avg SR 3 Yr 1.335 6 Yr> 1.044 1.037 1.031 Change # Students Change % Students 6% 6% 6% 17% 17% 10% 10% 10% 5-YR PROJECTIONS **2020-21 322** 1.145 1.051 1.037 1.031 1.016 1.001 0.997 2021-22 1.145 1.051 1.037 1.031 1.035 1.016 1.001 0.997 2022-23 1.145 6 Yr Avg 1.051 1.037 1.031 1.035 1.001 0.997 2023-24 1.145 1.037 1.031 1.001 0.997 2024-25 1.145 -25 Change # Students 6% 6% 12% 12% 7.2% Change % Students 6% 3% 3% **KEY to Number Colors** The above information is prepared and certified by a qualified demographer. 99 Standard number with no modifications to methodology 99 Provisional, but uncertified births from the PA Department of Health Firm Name: Sundance Associates 117 Greenvale Ct. Cherry Hill NJ 08034 Births projected as an average of the prior 6 years, including provisional data...and projected students resulting George B. Sundell Tel 856-755-0174 Email: GSundell@sundanceassoc.com Name: from this "less accurate" average 99 Students per Grade Level added for residential development Signature: Date: October 2, 2019 6-10 YR PROJECTIONS 2025-26 1.145 4 Yr Avg 1.051 1.037 1.031 1.035 1.007 1.001 0.997 1.145 2026-27 1.037 1.051 1.031 1.035 1.016 1.001 0.997 2027-28 1.145 1.037 1.031 1.051 1.035 1.001 0.997 2028-29 1.145 0.997 2029-30 1.145 Change # Students -32 -32 -32 -1% -1% -1% 6% 6% 8% 8% 4% Change % Students

Adjusted for Impact of New Housing Cohort-Survival Enrollment Projection Worksheet - District Approved Only DISTRICT NAME: Tredyffrin-Easttown School District COUNTY: Chester FALL REPORT AND Enrollments are from the Oct 1 reports. "s" = survival rate PK-5 12th 9-12 9-12 K-12 K-12 PK-12 Births 1st 5th K-5 K-5 PK 8th 6-8 6-8 Gr. Gr. Total Gr. Gr Subt. Total SCSE Gr. Gr. Gr. Subt. 5 Yrs 3 yrs. Total Subt. SCSE Total Subt. SCSE Total Subt. Total SCSE 4yrs. (excl. PK) excl. SCSE w/ SCSE Year Ago 2020-21 1.145 1.037 1.031 1.035 1.016 1.031 1.001 0.997 + Resid 2021-22 1.145 1.044 1.051 1.037 1.031 1.035 1.028 1.016 1.031 1.007 1.001 0.997 + Resid 2022-23 1.145 1.051 1.037 1.031 1.035 0.997 + Resid 2023-24 1.145 1 037 1.031 1 035 0.997 1 051 1 031 1 001 + Resid 2024-25 Change # Students Change % Students 7% 7% 7% 4% 4% 13% 13% 8% New Children 6-10-YR PROJECTIONS PLUS NEW HOUSING NOT CONSIDERED RELIABLE Cum Yr Add + Resid 2025-26 1.145 1.035 1.031 + Resid 2026-27 1.145 1.037 1.031 1.035 1.031 1.001 0.997 + Resid 2027-28 1.031 1.035 1.044 1.051 1.037 1.001 0.997 + Resid 2028-29 1.037 1.031 1.035 0.997 + Resid 2029-30 Change # Students -47 -47 Change % Students -1% -1% -1% 6% 9% 9% 4% 6% **KEY to Number Colors** The above information is prepared and certified by a qualified demographer. 99 Standard number with no modifications to methodology 99 Provisional, but uncertified births from the NJ Department of Health & Senior Services Sundance Associates 117 Greenvale Ct. Cherry Hill NJ 08034 Firm Name: Births projected as an average of the prior 6 years, including provisional data...and projected students resulting George B. Sundell Tel 856-755-0174 Email: GSundell@sundanceassoc.com SUNDANCE from this "less accurat" average Name: 99 Students per Grade Level added for residential development Date: October 2, 2019 Signature:



Cohort Survival Methodology

Mathematical Analysis

Cohort Survival is the name given to the method of projecting enrollments which is recommended by the Pennsylvania Department of Education. The most important terms, concepts and methodology are illustrated herein.

Cohort Survival projections are based on historic enrollment and birth data in the individual school district and incorporate six years of demographic data. They are considered very reliable where trends are expected to continue, without significant change in housing or birth rates.

Cohort is the name given to the common groups of children originally born in a given year and progressing, together, through the school system, one grade level to the next.

Survival Ratios refer to the number of students from one year and grade level who "survive to" or enter the next grade level the following year.

For example, in the sample partial table in the side bar, historic enrollments show 366 students in 1st Grade in year 2013-14 following a 346 student Kindergarten in year 2012-13. This yields a Kindergarten to First Grade **Survival Ratio** of 1.061 (or $366 \div 346$). Another expression of the Survival Ratio would be that 106% of the Kindergarten students "survived" to 1st Grade.

Similar calculations are made for "survival" from Births Five Years Earlier to Kindergarten, and for each and every grade level transition in each and every year of historical enrollments which are used. In general, six years of historic data will yield five Survival Ratios for each grade level change, Birth to K, K to 1, 1 to 2, etc.

The **Average Survival Ratio** is then calculated for each grade level change. In the side-bar example 1.038 is the 5-year average 1st Grade to 2nd Grade ratio.

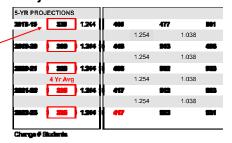
The sample projections use the current school year 2017-18 enrollments, at the bottom of the Historic chart, as a base year. The Averaged Cohort Survival Ratios are applied to those base year enrollments and to the actual and estimated births, and projected into the next year, one grade level higher.

In the side-bar example 329 Kindergarten students in 2018-19 survive at a rate of 1.244 as a 2019-20 First Grade of 409 students. This similar projection is made across all grade levels for a 5-year period. Finally, the individual grade level enrollment projections are summed across each year to determine district-wide enrollments in that year.

Enrollment projections have been made using the Cohort Survival method with modifications as described on the following page..

Historic Data | Chitis | Subsect |

Projected Enrollments



Cohort Survival Methodology

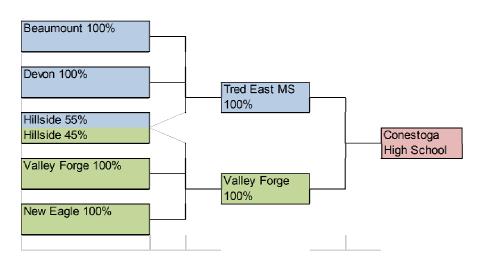
Adjustments to Standard Methods

Since the study also provides school level projections, it is important to define the feeder system from elementary school to middle school and middle school to high school.

That feeder system includes students from Hillside Elementary School split 55% to Tredyffrin-Easttown Middle School and 45% to Valley Forge Middle School.

This is not as much an adjustment to method as it is to distribution.

Elementary Middle Sr High



The Hillside Elementary School enrollment split to middle schools was addressed in the school level projections.

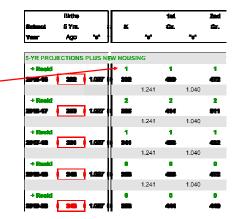
No adjustments were made for impact of private/parochial school closures, changes in Charter enrollment or changes in Out-of-District placement which are anticipated to continue within existing trends.

Adjustments were made to the standard Cohort Survival projection method for the **impact of the new Multi-family housing**. This is accomplished as an overlay to the standard projection.

In each year, the number of students from new housing is distributed equally across all grades and added to the standard projection (cohort) for the grade. In the subsequent years it is "survived" at the standard rates for that cohort.

Adjustments were made to the **Birth to Kindergarten Survival Ratio**. The Survival Ratio of the last three years only at 1.145 is used. The standard 6-year Survival Ratio is also 1.145. Similiary, a two-year S/R was used for K:1st Grade of 1.335, slightly more than the 6-year S/R of 1.288

No adjustment was made for Births in the future for unknown years. The standard 6-year Average was used. *In previous projections, the higher 4-year average has been used.* Also, Calendar Year Births are used. In previous projections school year Births were used. That data is not yet available for the most recent years.



Adjustments were made for the impact of students from new housing...and for the Birth to Kindergarten Survival Ratio.

Grade Level Cohort Survival Ratios

TEDS October 2019 Enrollment Projection

