

Monroe Public Schools

Enrollment Projections

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Introduction

The enrollment in the Monroe Township public schools increased by 9.13% between the 2014-15 and 2019-20 school year. Most of this growth came from new residential homes being built and occupied. Because Monroe Township has had a great deal of open space and developers have purchased and continue to purchase open land that is available (this does exclude wetlands, farm preservation and/or land declared to be used for public purposes). This growth is continuing at a rapid pace, and this study will show the impact of new residential construction.

The New Jersey Department of Education requires that a school district file a Long-Range Facility Plan when renovating or constructing schools. By formula the State sets guidelines for maximum class size. If the total number of students exceeds the capacity for a district, those students are considered "unhoused" and the District may receive debt service aid in terms of either expanding existing buildings or for new building construction. It is important to note that, by statute, the State Education Department only considers five-year enrollment projections. Further, the basic Long-Range Facility Plan, does not consider new housing developments in the Long-Range Facility Plan form which must be submitted to the State Education Department. Districts are, however, allowed to submit additional information showing the impact that new housing developments may have upon the existing school buildings. This additional information must show the potential impact of any new housing which is likely to be built in a community within the five-year projection.

The student data in this report was provided by the Monroe Township Schools. The historical enrollment (2014-2019) is based upon the ASSA enrollment for each year¹. This is a requirement of the State Education Department and although the data does change during the school year, to be in compliance, we used the October data. The data on new housing was provided by the Township. The Planning Department provided us with the most recent listing of new housing construction. This data included developments which have been approved, are under construction or are pending.

Methodology

This study used a modified cohort survival projection. The cohort survival model tracks students as they move from grade to grade and creates a growth or decline ratio between grades. For example, in 2014-15 there were 409 children in grade 1 and the same group, in 2015-16 had an enrollment of 459 that would show a 1.122% growth rate. This migration ratio would be calculated for five years of enrollment history to get a five-year average, which is then the multiplier for the projections based upon the average growth per grade. Because Monroe, has a half-day kindergarten, we modified the projections by using births five years earlier to project kindergarten but then used a moving average to project first grade.

The cohort survival method is limited because its projections are solely based upon historical enrollment. New housing, especially in a Township like Monroe must be an essential part of the projection. Future developments must be considered in order for the Board of Education and the Township to adequately plan for future growth. In order to project the impact of new housing on enrollment, a student yield ratio must be developed. That ratio estimates the number of students that can be reasonably expected from different types of housing units. Typically, many

¹ The ASSA report is the annual enrollment report required to be filed with the State Education Department.

demographers use yield ratios based upon the "Rutgers Study."² The problem with using this as the basis for student yields is that the study is outdated. For this study we used student yield ratios based upon Monroe specific students and residences. As a result, we developed three yield ratios: 2 for market rate residences (single and multi-family) and 1 for affordable units (there were no affordable single-family homes to consider). For single family market rate homes, the yield ratio is .78³, for multi-family homes .58; for affordable units the yield is .75. In calculating the yield rate, homes without children or without school aged children are considered. Age restricted housing is not considered in the calculation. We also do not count bedrooms (we also exclude studio apartments) because there is no relationship in a single-family home between the number of bedrooms and the number of children residing in a single-family home. We do make some ratio adjustments in apartment, condo and townhouses in terms of size of the unit.

² "Who Lives in New Jersey" David Listokin, Rutgers Center for Urban Studies, 2006 Our estimated yields are also in line with a Fiscal Impact study done for JSM Monroe. Our yield is slightly higher because we used Monroe specific data while the Impact study used data from comparable communities.

³ Based upon the most recent Township construction report virtually all the single-family homes have been constructed. We leave this ratio here for future reference.

Enrollment Summary

1. From the 2014-15 school year to the 2019-20 school year the total student enrollment grew from 6,309 (including pre-K and self-contained special education students) to 6,885. This was an increase of 576 students.
2. The base projection, without considering new housing units, is projected to increase over the next five years to 6,976 students. This is an increase of 91 students. However, with the projected new housing developments the enrollment is projected to increase to 8,095. That would be a net gain of 1,210 students by the 2024-25 school year.
3. The K-5 enrollment declined from 2,624 students in 2014-15 to 2,576 students in 2019-20. That is a decrease of 48 students. The projection, without the new housing units, is projected to increase by 32, to 2,608 students by 2024-25. With the projected housing developments, the elementary school enrollment is projected to increase to 3,034 by the 2024-25 school year. This is a net increase of 458 students.
4. The middle school enrollment grew from 1,507 students in 2014-15 to 1,756 in 2019-20. This is an increase of 249 students. The middle school enrollment, based upon enrollment history alone, is projected to decline by 116 students by the 2024-25 school year. However, with the projected new housing units the enrollment in the middle school is projected to grow to 1,923 by 2024-25. That is an increase of 167 students.
5. The enrollment at the high school grew from 2,069 students in 2014-15 to 2,377 in 2019-20. This was an increase of 308 students. The high school based upon historical enrollment is projected to grow to 2,563 by 2024-25. That would be an increase of 186 students. With the projected new housing units, the high school would grow to 2,973 which is an increase of 596 students.

Chart 1: Comparative Projections

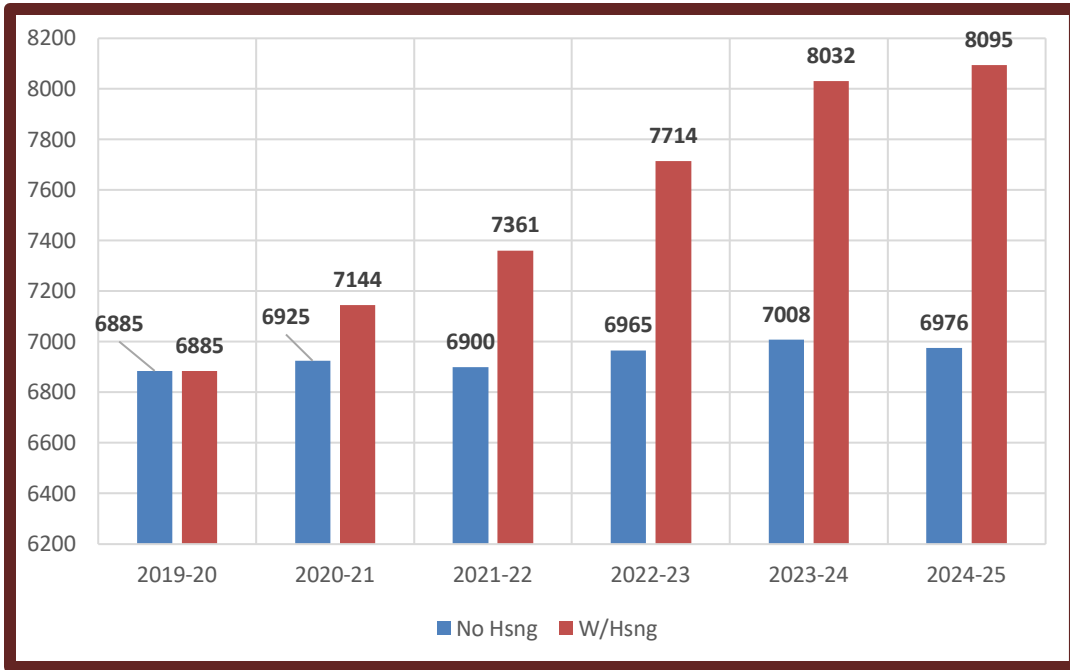


Chart 1 compares enrollment growth from the base year (2019-20) to the final projected year (2024-25). The chart shows that when the new developments are factored into enrollment based upon historical enrollment that the net increase in enrollment is projected to be 1,210 students.

Table 1: Projected New Residential Housing Developments

Development Name	Single Family Units (To Be Built)	Multi-Family Units (To Be Built)	Type	Projected Students	Impacted Schools	K-5	MS	HS
Stratford at Monroe	212		Single Family	165	OT/AP	116	33	17
Arbors-Shared Properties 1		63	Town Home	37	OT/AP	26	7	4
Monroe Place-Monroe 33 Developers		789	Town Home	458	OT/AP	320	92	46
Monroe Park Section 1 (Celebrations)		171	Condo/Townhome/Apartments	99	BB/BR	69	20	10
Countryside Developers		213	Town Homes (2 Bedroom)	43	OT/AP	30	9	4
Gateway Verde		60	Town Homes	35	OT/AP	24	7	3
Emily Court Estates	5			4	BB/BR	3	1	0
Pushtel	7			5	BB/BR	4	1	1
Barclay Brook Estates	8			6	BB/BR	4	1	1
Market Place North @ 33		736	Duplexes/Town Homes/Apts	427	OT/AP	299	85	43
Eagles Nest Shared Properties		215	Town Home	125	OT/AP	87	25	12
Monroe Park Section 2 (Celebrations)		136	Condo/Townhome/Apartments	79	OT/AP	55	16	8
Veterans Housing		80	Apartments	46	OT/AP	32	9	5
Total Units	232	2463	Projected Students	1529		1069	306	154

Table 1 is data provided by the Monroe Township Planning Board. While researching this study we met with members of the Township Government on two occasions to review the data. It is important to note that all the units in table 1 are market rate and non-age restricted. The total number of students projected from these units is 1,529. The net gain (standard projection plus new housing) is projected to be 1,210 students. The breakdown is estimated at 1,069 students to the elementary schools (70%); 306 students to the middle school (20%); and 154 students to the high school (10%). The distribution is based upon our experience in work with similar school districts. It is also important to note that the largest percentage of elementary school students coming from these developments will be in the Oak Tree and Applegarth attendance area.

Note that the multipliers that were used were .78 for single family homes and .58 for multi-family. For the Countryside Developers project we used a .20 multiplier. According to the Township these will be small two-bedroom apartments not designed for families with children.

Table 2: District-Wide Enrollment Projections without New Housing Units

Five-Year Projection No Housing																											
Year	Birhs		K	1	2	3	4	5	6	7	8	9	10	11	12	K-5	6-8	9-12	Total	PK	UG	Total					
2014-15	268	1.16	311	409	440	494	452	518	556	501	450	554	512	517	486	2624	1507	2069	6200	21	88	6309					
			1.31	1.12	1.11	1.04	1.06	1.04	1.03	0.99	1.12	1.01	1.00	1.00													
2015-16	294	0.96	283	406	459	490	514	479	537	572	496	503	561	510	519	2631	1605	2093	6329	34	107	6470					
			1.43	1.11	1.08	1.07	1.06	1.04	1.02	1.03	1.12	1.02	1.01	1.02													
2016-17	234	1.32	310	405	450	498	524	544	500	546	588	554	514	568	519	2731	1634	2155	6520	20	109	6649					
			1.40	1.09	1.10	1.04	1.05	1.06	1.03	1.01	1.10	1.02	0.99	1.01													
2017-18	239	1.15	276	435	440	496	519	552	577	514	550	649	563	510	571	2718	1641	2293	6652	28	105	6785					
			1.44	1.06	1.05	1.03	1.05	1.05	1.02	1.01	1.07	1.00	1.01	1.01													
2018-19	208	1.27	265	398	461	460	512	543	580	586	521	589	648	568	513	2639	1687	2318	6644	56	107	6807					
			1.48	1.07	1.04	1.05	1.03	1.05	1.03	1.01	1.09	1.00	0.99	1.02													
2019-20	247	1.09	269	393	424	480	482	528	569	595	592	566	589	643	579	2576	1756	2377	6709	54	122	6885					
Av		1.16	1.41	1.09	1.08	1.05	1.05	1.05	1.02	1.01	1.10	1.01	1.00	1.01													
Year	Births		K	1	2	3	4	5	6	7	8	9	10	11	12	K-5	6-8	9-12	Total	PK	UG	Total					
2020-21	226		262	407	428	457	502	506	553	582	601	651	572	589	650	2562	1736	2462	6760	54	111	6925					
2021-22	215		250	408	443	461	478	527	530	566	588	660	657	572	595	2567	1684	2484	6735	54	111	6900					
2022-23	233		271	408	444	478	482	502	553	542	572	646	667	657	578	2585	1667	2548	6800	54	111	6965					
2023-24	225		261	403	445	478	500	506	526	565	548	628	652	667	664	2593	1639	2611	6843	54	111	7008					
2024-25	225		261	404	439	479	500	525	531	538	571	602	634	653	674	2608	1640	2563	6811	54	111	6976					

Table 2 is the District-wide projection without consideration of the projected new housing units. Kindergarten is projected by calculating the difference between kindergarten enrollment and births which occurred five years earlier and who are registered as residents of Monroe Township.⁴ A moving average was used to project the first grade, normal cohort multipliers were used for all other grades

⁴ Birth data from the New Jersey Department of Health, Vital Statistics.

Table 3: Enrollment Projections with New Housing Developments

Five-Year Projection With New Housing Units																																			
Year	Birhs		K		1		2		3		4		5		6		7		8		9		10		11		12	K-5	6-8	9-12	Total	PK	UG	Total	
2014-15	268	1.16	311		409		440		494		452		518		556		501		450		554		512		517		486	2624	1507	2069	6200	21	88	6309	
				1.31		1.12		1.11		1.04		1.06		1.04		1.03		0.99		1.12		1.01		1.00		1.00									
2015-16	294	0.96	283		406		459		490		514		479		537		572		496		503		561		510		519	2631	1605	2093	6329	34	107	6470	
				1.43		1.11		1.08		1.07		1.06		1.04		1.02		1.03		1.12		1.02		1.01		1.02									
2016-17	234	1.32	310		405		450		498		524		544		500		546		588		554		514		568		519	2731	1634	2155	6520	20	109	6649	
				1.40		1.09		1.10		1.04		1.05		1.06		1.03		1.01		1.10		1.02		0.99		1.01									
2017-18	239	1.15	276		435		440		496		519		552		577		514		550		649		563		510		571	2718	1641	2293	6652	28	105	6785	
				1.44		1.06		1.05		1.03		1.05		1.05		1.02		1.01		1.07		1.00		1.01		1.01									
2018-19	208	1.27	265		398		461		460		512		543		580		586		521		589		648		568		513	2639	1687	2318	6644	56	107	6807	
				1.48		1.07		1.04		1.05		1.03		1.05		1.03		1.01		1.09		1.00		0.99		1.02									
2019-20	247	1.09	269		393		424		480		482		528		569		595		592		566		589		643		579	2576	1756	2377	6709	54	122	6885	
Av		1.16		1.41		1.09		1.08		1.05		1.05		1.05		1.02		1.01		1.10		1.01		1.00		1.01									
Year	Births		K		1		2		3		4		5		6		7		8		9		10		11		12	K-5	6-8	9-12	Total	PK	UG	Total	
2020-21	226		277		422		417		477		522		526		573		602		621		671		592		609		670	2641	1796	2542	6979	54	111	7144	
2021-22	215		267		428		483		472		522		571		571		607		628		702		697		612		636	2743	1806	2647	7196	54	111	7361	
2022-23	233		296		440		491		545		519		573		624		609		637		715		734		723		643	2864	1870	2815	7549	54	111	7714	
2023-24	225		286		442		504		554		595		570		625		663		640		726		747		760		755	2951	1928	2988	7867	54	111	8032	
2024-25	225		286		450		506		568		604		620		603		645		675		709		738		753		773	3034	1923	2973	7930	54	111	8095	

Table 3 incorporates the student yield data from new housing with the projection based upon historical enrollment. The number of students is distributed over the grade levels based upon an estimate as to when the new housing construction will be completed. For this projection we are assuming completion and occupancy within the five-year projection period. The final projection is the net result of the new housing unit yield and the cohort projection. We are estimating 1,529 students from the new developments, with a decline in the cohort survival model regarding enrollment the *net* result is an overall increase in total student enrollment of 1,210 students by 2024-25. The middle school and high school will continue to be well above capacity during the projection period.