

Denville Public Schools

ROSS HABER AND ASSOCIATES

Denville Township Schools
Enrollment Projection Update
May, 2017

The Denville Board of Education has engaged Ross Haber and Associates to provide an update to the enrollment projection study done during the 2015-16 school year. The reason for this update is that the Township has been presented with proposals for three new housing developments that may yield additional school aged children. This study will use the current enrollment to create a five-year enrollment projection and estimate the impact that these developments may have on the schools.

In addition to the proposed housing developments the Township which has to address the issue of its affordable housing obligation has estimated a very wide range of possible new residential housing. At this time there are no developments proposed, no conceptual developments being considered and no proposals on the table other than the three outlined in this study. What currently does exist is a wide range of estimates that might impact Denville in the future. The range estimate for new housing is between 300 and 4,000 units of which 112 to 1,313 would be affordable. The estimates are based upon all of the land in Denville, which has included such things as the lakes and the highway medians. The estimates into the thousands are unlikely to be completed by 2025. Further, even very large scale construction of any number of new units (not counting what is proposed) certainly will not happen within the five years of this projection. *It is important to note that the COAH requirement includes the three proposed developments along with the already constructed Estling Lake Village Development.*

The first part of this study will deal with enrollment projections based upon the history of enrollment and will then estimate the number of new students that may come from the proposed three developments. The second part of this study (as an addendum) will *speculate* on a *reasonable* number of developments which might happen long term in order for the Township to meet its affordable obligation. It cannot be emphasized enough that this section is purely speculative.

Executive Summary

1. The total enrollment declined from 1,823 students in 2011-12 to 1,641 in 2016-17. This is a decline of 182 students or approximately 10%.
2. The total enrollment is projected to remain stable through 2021-22 (without the consideration of new housing units). The projection shows a marginal decrease of 5 students 1,636. However based upon the three housing developments it is possible that an additional 130 students could enter the schools. That would bring the projection to approximately 1,766 students by 2021-22.

3. The K-5 enrollment declined from 1,092 students in 2011-12 to 1,031 in 2016-17. This is a decline of 61 students or approximately 5.6%.
4. The K-5 enrollment is projected to increase to 1,061 students in 2021-22. This is an increase of 35 students or approximately 3.3%. It is estimated that the three new developments may add as many as 91 additional students to the elementary schools bringing the estimated total by 2021-22 to 1,152 students.
5. The middle school enrollment decreased from 680 students in 2011-12 to 575 students in 2016-17. This is a decrease of 105 students or approximately 15.45%.
6. The middle school enrollment is projected to decline from the current 575 to 539 in 2021-22. This is a decrease of 36 students or approximately 6.27%. The three new developments could add an additional 26 students to the middle school.

The enrollment in Denville has declined steadily during the past six years. The trend, at the elementary school appears to be changing as long term (five years) there is actually going to be an increase in enrollment. That increase in enrollment will be further enhanced by the proposed housing developments. Over time this growth at the elementary school level will filter up to the middle school. It is important to note, however, that with some modifications to the elementary schools the District should be able to absorb this enrollment increase.

Housing

Table 1: Estimates Based Upon the Proposed New Housing Developments

*High School Aged Students

Table 1	Type	Market Rate			Affordable			Total Students	K-5	MS	HS	Scho
		1	2	3	1	2	3					
	Units of Units	Bedroom	Bedroom	Bedroom	Students	0.70	0.20	0.10	0.70	0.20	0.10	
Redmond Press*	Rental	60	51	31	20	6	4	1	1	1	1	LV
RAM Associates	Sales	118	0	0	47	47	55	16	8	8	8	LV/R
Casterline-Mossberg	Rental	65	55	27	28	20	14	4	2	2	2	LV
Total Units		243			Total	105	74	21	11			

Market Rate	K-5	MS	HS*	Total
Affordable	73	21	10	104
	18	5	3	26
Total	91	26	13	130

*Redmond Press apartments is designated as a transit village. It is unlikely to yield many students to the District in that transit villages, being located near train stations, are usually not built with accommodations for children such as open areas and playgrounds.

As currently planned, Redmond & Casterline do not have any 3BR units proposed- this may change per COAH rules.

Table 1 shows the estimates of students coming from the three proposed developments. There are differences in the type of units each of these proposed developments represent. Redmond Press designated as a Transit Village. Transit Villages are generally designed for young professionals and are not built with accommodations for young children. Generally due to their locations in downtown areas or by train stations they do not attract families with children. RAM Associates is a development which will have 118 town house units for sale. This will be split between two and three bedroom units. The yield factor for this (number of students from each unit) is .78 from two bedroom units and 1.1 from three bedroom units. This yield factor is based upon similar units in comparable communities. Casterline-Mossberg is a rental development of 65 units. For this study we used a similar yield factor as with

townhouses. The actual yield number for apartments is usually a little lower than for town houses but because there are only 65 rental units of which 28 are two bedrooms (most likely to attract families with a child) the difference was negligible.

The total number of students estimated from these developments is 130 of which 91 are projected to be K-5; 26 are projected to be middle school students; and, 13 are projected to be in high school.¹

Redmond Press would impact Lakeview; Casterline-Mossberg would impact Lakeview; and RAM Associates would be split between Lakeview and Riverview. In addition there is a proposed 17 unit development on the corner of Indian Road and Route 53. This will have 14 market rate one bedroom apartments and 3 affordable one bedroom apartments. *We do not expect this development to have any impact on the schools.*

The following pages show the tables and charts for the District and for the Elementary Schools.

¹ The distribution between the grade levels is 70% to K-5; 20% to 6-8 and 10% to 9-12. Most people tend to move with younger children.

Table 2: District-Wide Enrollment History and Projection

Year	Births	District-Wide Enrollment History and Projection															
		K	1	2	3	4	5	6	7	8	K-5	6-8	Sub-Tot	PK	SCSE	Total	
2011-12	188	0.71	134	161	178	189	216	214	233	227	220	1092	680	1772	24	27	1823
		1.28	0.99	1.03	1.02	1.02	1.02	0.96	0.96	1.01							
2012-13	164	0.73	120	171	159	183	193	221	206	223	230	1047	659	1706	23	18	1747
		1.25	1.05	1.03	1.03	1.01	0.98	0.99	1.01	1.01	0.98						
2013-14	194	0.75	145	150	180	164	184	189	219	208	219	1012	646	1658	29	33	1720
		1.06	1.03	1.05	1.05	1.02	1.01	1.01	1.01	1.01	0.96						
2014-15	163	0.91	148	153	155	189	167	186	190	221	199	998	610	1608	26	29	1663
		1.12	1.10	1.06	1.06	1.05	1.05	1.04	1.01	1.15	0.90						
2015-16	163	0.84	137	166	169	165	199	173	187	218	198	1009	603	1612	32	30	1674
		1.05	1.04	1.05	1.05	1.05	1.05	1.05	1.05	1.02	0.93						
2016-17	153	1.02	156	144	172	177	173	209	182	191	202	1031	575	1606	34	1	1641
		0.83	1.15	1.04	1.04	1.03	1.02	1.00	1.03	0.95							
Year		K	1	2	3	4	5	6	7	8	K-5	6-8	Sub-Tot	PK	SCSE	Total	
2017-18	154	1.01	155	175	150	180	182	176	210	187	182	1018	579	1598	29	1627	
2018-19	157	0.94	148	178	182	157	185	186	177	216	179	1037	572	1608	30	1638	
2019-20	139	1.07	149	171	186	191	161	189	186	182	206	1046	575	1621	30	1651	
2020-21	156	0.93	145	171	175	177	201	161	189	192	174	1030	555	1585	31	1616	
2021-22	156	0.97	151	167	178	183	182	205	162	195	183	1066	539	1605	31	1636	

This table does not include the additional 117 students (not counting high school) who would be added to the projection, 91 to the elementary schools and 26 to the middle school.

Chart 1: District-Wide Enrollment History and Projection

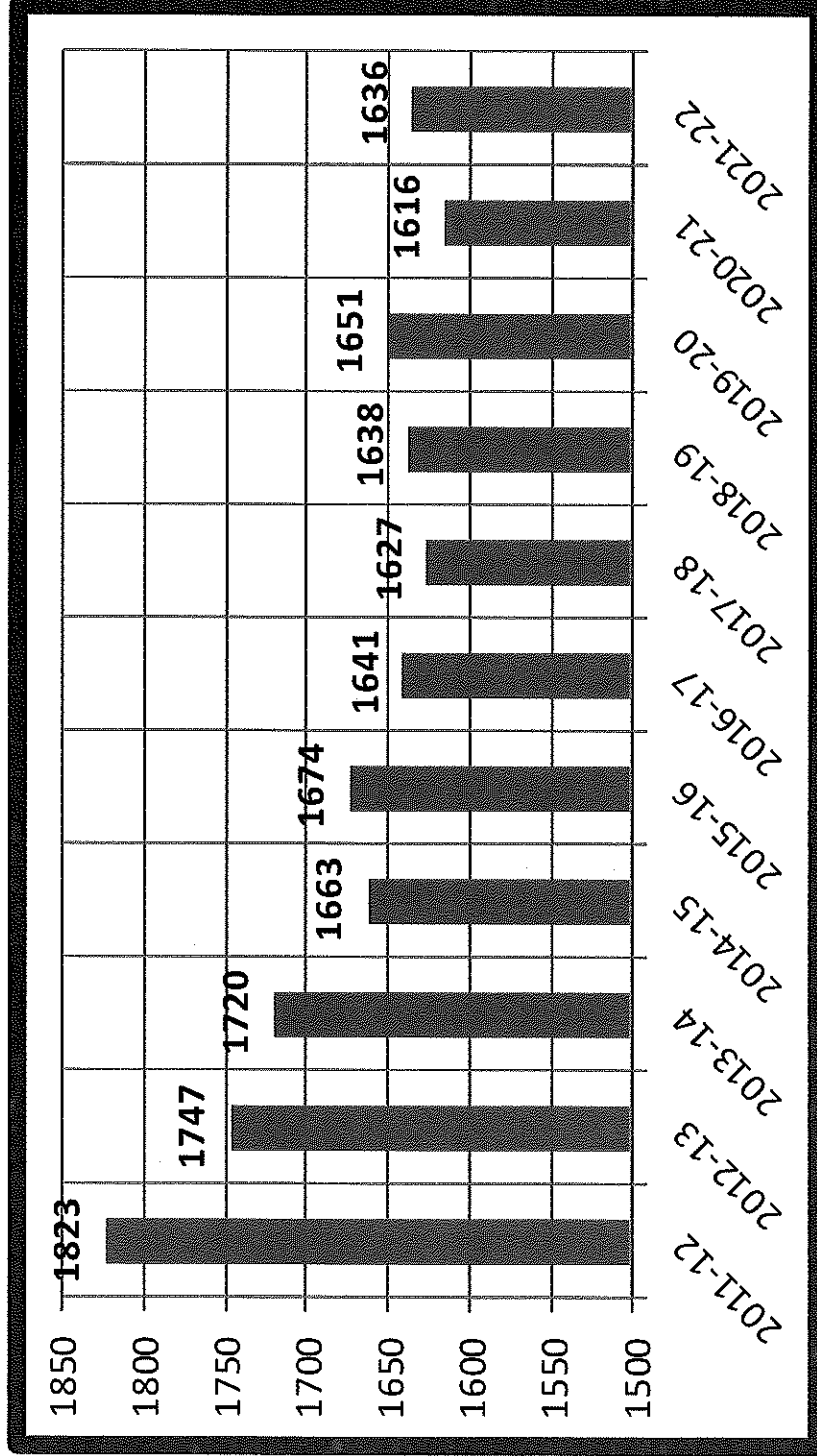
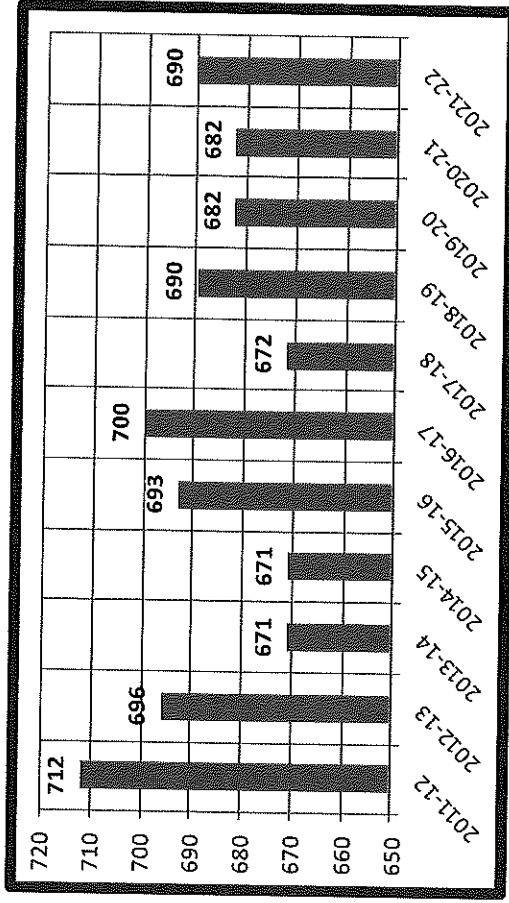


Table 3: Lakeview Enrollment History and Projection

Lake View Enrollment History and Projection												
Year	Births	K	1	2	3	4	5	K-5	PK	SCSE	Total	
2011-12	188	79	102	106	107	151	125	670	18	24	712	
2012-13	164	82	100	102	108	116	154	662	11	23	696	
2013-14	194	91	106	105	104	108	108	622	20	29	671	
2014-15	163	95	95	110	109	106	112	627	18	26	671	
2015-16	163	88	107	106	117	115	107	640	21	32	693	
2016-17	153	104	95	111	110	124	122	666	34	0	700	
Av												
Year	K	1	2	3	4	5	K-5	PK	SCSE	Total		
2017-18	154	100	107	97	107	115	125	651	21	672		
2018-19	157	94	119	120	101	120	113	667	23	690		
2019-20	139	94	112	123	119	101	110	659	23	682		
2020-21	156	92	110	111	110	125	110	658	24	682		
2021-22	156	95	102	112	114	113	125	661	29	690		

Chart 2: Lakeview Enrollment History and Projection

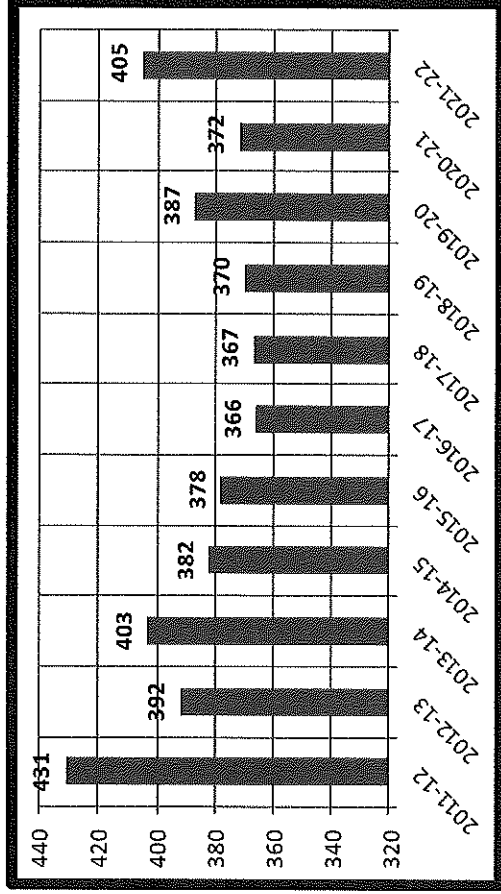


Lakeview will receive the larger amount of students from the proposed developments (Casterline-Mossberg and Redmond Press) and will split the students coming from the proposed development by RAM Associates.

Table 4: Riverview Enrollment History and Projection

RiverView Enrollment History and Projection												
Year	Births	K	1	2	3	4	5	K-5	PK	SCSE	Total	
2011-12	188	55	59	72	82	65	89	422	9	431		
2012-13	164	38	71	57	75	77	67	385	7	392		
2013-14	194	54	44	75	60	76	81	390	13	403		
2014-15	163	53	58	45	80	61	74	371	11	382		
2015-16	163	49	59	63	48	84	66	369	9	378		
2016-17	153	52	49	61	67	49	87	365	1	366		
Av												
Year	K	1	2	3	4	5	K-5	PK	SCSE	Total		
2017-18	154	55	68	53	67	70	54	367	0	367		
2018-19	157	54	59	62	56	65	74	370	0	370		
2019-20	139	52	55	64	77	60	79	387	0	387		
2020-21	156	53	61	64	67	76	51	372	0	372		
2021-22	156	56	65	66	69	69	80	405	0	405		

Chart 3: Riverview Enrollment History and Projection



Addendum: Speculation on Future Housing Developments

This section of the report provides simulations of the numbers of students based upon speculation as to what might happen in Denville to meet its affordable obligation. THERE IS NO APPROVAL, NO PLAN, NO CONCEPT or any other concrete number of units that might be constructed in the future (beyond the three developments discussed in this study). The Township has estimated between 300 and 4,000 units of which 112 to 1,313 would be affordable units based on the expert reports submitted to the courts.

Based upon actual land availability and other economic factors it is, in our opinion, not likely that the number of units into the distant future could be in the thousands, however, for this report we have created three simulations. Simulation 1 (Table 5) simulates an additional 300 units; Simulation 2 (Table 6) simulates an additional 900 units; Simulation 3 (Table 7) simulates 1,350 units.

Again, these are simulations with clearly the following limitations:

1. Location of future developments is not known.
2. Size and type of units is not known.
3. These are clearly estimates.

Table 5: 300 Unit Simulation

Table 2	Type	Market Rate			Total	Affordable			
		1	2	3		1	2	3	
		Total	Bedroom			Total	Bedrooms		
		Units	Students			Total	Students		
		of Units	0.70	0.20	0.10	0.70	0.20	0.10	HS
Rentals	Rental	200	80	80	80	40	20	10	
Students			12	46	58	3	8	11	7
Condos	Sales	100	80	40	16	20	6	10	4
Students			23	18	41	8	10	17	12
Total Units		300							
			Total	99	69	20	10		
			Total	99	69	20	10		
			Total	119	75	23	216		
			Total	119	75	23	216		
			Total	99	69	20	188		
			Total	20	6	3	28		
			Total	119	75	23	216		

Table 5 is a 300 unit simulation. This would add a total of 216 students of which 119 would go to the elementary schools, 75 to the middle school and 23 to the high school. This is above the students added to the current projection based upon the proposed developments. This applies to tables 6 and 7 which follow

Table 6: 900 Unit Simulation

Table 3	Type	Total Units	Market Rate						Total Students	Affordable												
			1	2	3	Total	K-5	MS		HS	1	2	3	Total	K-5	MS	HS					
Rentals	Rental	600	480	240																		
Students	Condos	300	Bedroom			Bedroom			Bedroom			Bedroom			Bedroom			Bedroom				
			240	72	120	48	175	123	35	18	120	60	30	30	32	22	6	3	30	23	6	3
Students		900	70	53	122	86	24	12														
Total Units																						
			Total									298	208	60	30	45	13	6				
			K-5			MS			HS			Total										
Market Rate			298	208	60	565																
Affordable			45	13	6	64																
Total			342	221	66	629																

This would add 629 students to the Township of which 342 would be elementary, 221 to the middle school and 66 to the high school.

Table 7: 1,350 Unit Simulation

Table 4	Type	Market Rate						Affordable														
		1		2		3		1		2		3										
		Number of Units	Total	Bedroom	Bedroom	Bedroom	Bedroom	Bedroom	Bedroom	Bedroom	Bedroom	Bedroom	Bedroom									
Rentals	Rental	900	720	360	360	360	54	209	263	184	53	26	180	90	14	34	47	33	9	5		
Students	Sales	450	360	108	180	72	90	27	45	18	90	27	45	18	90	27	45	18	90	27	45	
Total Units	Students	1350	104	79	184	129	37	18	34	10	44	31	9	4	64	18	9	9	64	18	9	

K-5	MS	HS	Total	
Market Rate	446	312	89	848
Affordable	64	18	9	91

Total	510	331	98	939
-------	-----	-----	----	-----

A 1,350 unit simulation would add 939 students to the Township with 510 to the elementary schools, 331 to the middle schools and 98 to the high school.

Conclusion

Anyone of these simulations would probably create the need for an additional elementary school and an addition to the middle school. The three simulations provided show a range of students from these potential developments from 216 in a 300 unit simulation to 939 in a 1,350 unit simulation. In our opinion it is highly unlikely that the number of units coming in will even be close to the highest estimates discussed in this study. It is also important to note that this is very long term and not likely to happen for a good many years. However it is important for the Board to keep watching proposals and plans for further development being submitted to the Township.

Ross Haber and Associates, LLC

24 Garden Terrace
Milltown, NJ 08850

8/9/2017

Mr. Steven Forte
Superintendent of Schools
Denville Public Schools
400 Morris Avenue
Suite 279
Denville, NJ 07834

Re: Mossberg

Dear Mr. Forte:

After reviewing the data regarding the Mossberg Development it is our opinion, based upon similar developments that these apartments will yield approximately 71 additional students to the District. Table 1 breaks down the yield per unit type for both market rate and affordable units.

Table 1: Yield Per Unit

	Market Rate			
	1 BR	2 BR	3 BR	Total Units
Units	0	15	40	55
Yield Factor	NA	0.78	1.1	
Students		12	44	56

	Affordable Units			
	1 BR	2 BR	3 BR	Total Units
Units	1	7	2	10
Yield Factor	NA	1.03	1.26	
Students		12	3	15

Total Students				71
----------------	--	--	--	----

The yield factors are based upon similar units in similar developments, including those in Denville. These are *not Rutgers Study yields* in that those yield factors are out of date and should not be used or accepted.

Table 2 shows the estimated impact on the schools by grade level organization.

Table 2: Estimated Student Yield by Grade Count

	Student Yield by Grade Count			
Student	K-5	6-8	9-12	Total
Yield	0.7	0	.1	Students
71	50	15	6	71

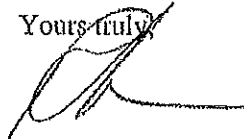
Phone: (732) 422-0979
Fax: (732) 865-7900

e mail: rhaber45@gmail.com
www.rosshaber-associates.com

I do not think that the 1 bedroom apartment will yield any students. Also, if there are more apartments to be built it is a matter of multiplying those apartments by the yield factors and then doing the grade level split on a 7:2:1 ratio. In my experience this ratio best distributes projected students by new housing developments.

If you have any questions please do not hesitate to contact me.

Yours truly,

A handwritten signature in black ink, appearing to read 'Ross Haber', with a long horizontal flourish extending to the right.

Ross Haber, Ed.