## **Summary of Demographic and Utilization Study**

http://rosshaber-associates.com/

Ross Haber and Associates was engaged by the Denville Public Schools to prepare a demographic and facility utilization study. The purpose of this study was to provide the Board of Education and the school administration with data regarding future enrollment and its impact on each of the schools. The main objective of the study was to determine if it was feasible to limit and/or end the use of the temporary classrooms at each of the three District schools.

## **Enrollment Projection**

The first part of the study was an enrollment projection.

**Table 1: Summary of Enrollment History and Projections** 

	2010-11	2015-16	Total	Percent	2020-21	Total	Percent
	Enrolled	Enrolled	Change	Change	Projected	Change	Change
District	1,856	1,674	-182	-9.81%	1,570	-104	-6.21%
Lakeview	728	693	-35	-4.81%	661	-32	-4.62%
Riverview	459	378	-81	-17.65%	368	-10	-2.65%
Valleyview	669	603	-66	-9.87%	541	-62	-10.28%

Table 1 shows that the overall District enrollment has declined from the base year (2010-11) to the current year (2015-16). It also shows that the enrollment is projected to continue to decline but at a lesser rate than in the prior 6 years. It also shows that the K-5 enrollment is leveling off and will show a marginal increase during the next five years. The middle school enrollment has shown significant decline and that will continue until the current elementary enrollment starts to enter the middle school. It is also important to note that this does not include the construction of 100 apartment units. Based upon our discussions with Planning and Zoning this will be a mix of one and

two bedroom rental units. Based upon the yield ratios used by the Rutgers Study<sup>1</sup> these 100 units will yield approximately 26 K-12 students of which 19 are projected to be K-8 students. These will be in the Lakeview attendance area. While these numbers (approximately 2.1 students per grade) will not impact the number of sections they will have some impact on class size.

## **Facility Utilization**

The objective of the facility utilization component of the study was to determine if, based upon the enrollment projections, there was enough classroom space in each building to maintain programs and current class sizes if the temporary classroom units were eliminated. The study consisted of surveys and interviews with the principals of each building, analysis of the building floor plans, and on-site reviews. It is important to note that although the enrollment in the Denville Public Schools has declined the need for space, during that period of decline, has increased. The implementation of full day kindergarten increased the need for full sized rooms in the elementary schools. In addition, expansion of special services programs and related services has further taken up classroom space in each building. These are the reasons why even with declining enrollment space is at a premium.

At Riverview the two temporary classrooms are currently used by guidance and by the Child Study Team. There are some students who do spend some time in the Child Study Team area of the temporary units. At Lakeview the music programs occupy the two portable classrooms and at Valleyview there is some instruction in the temporary units. Based upon meetings with Central Administration and the building administrators it was determined that the music programs at Lakeview can be moved inside the main building thus making it possible to move special services into these units with some renovation. At Riverview there would no longer be need for the temporary units and they would be removed. The units at Valleyview can be closed and all programs which currently are in the temporary classrooms can be accommodated in the building.

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<sup>&</sup>lt;sup>1</sup> Who Lives in New Jersey Housing, Rutgers University Center for Urban Studies http://www.state.nj.us/state/planning/docs/wholivesquickguide.pdf

It is the opinion of Ross Haber and Associates that the solutions found in this study are good in the sense that many of the temporary units can be removed and that there will no longer be any students in these structures. However, this solution may not be sustainable over the long term. We strongly recommend that the District consider the feasibility of adding classroom space to Riverview (it appears that it might be possible to add a second floor to Riverview for additional classroom space. The District might consider studying the financial impact expanding classroom space at Riverview.

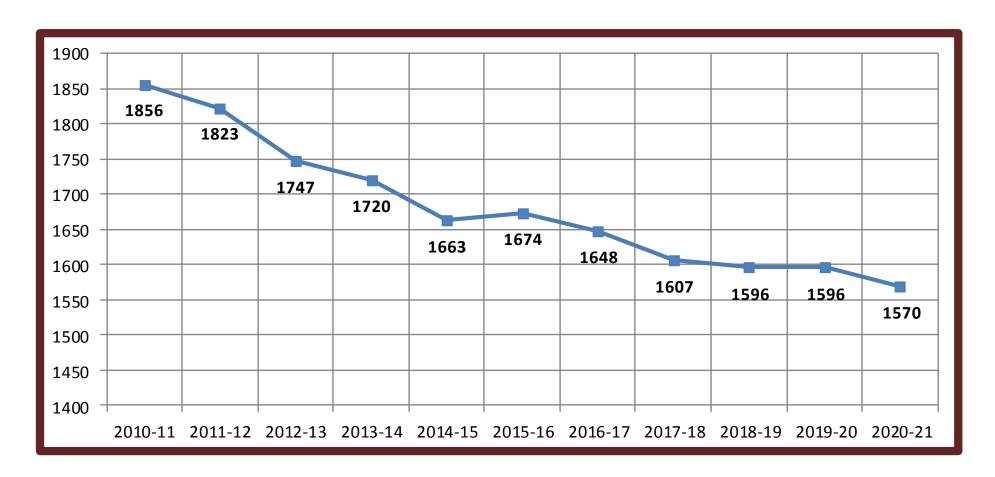
## Explanation of following tables:

- Table 2: Shows the District-wide enrollment history and projections through the 2020-21 school year. Kindergarten projections were based upon a moving average of students as opposed to birth to kindergarten. The standard method of using livebirths produced inconsistent results.
- Table 3: This is the Lakeview History and Project Table.
- Table 4: Lakeview Utilization Table-this shows the total number of sections needed (general education and special education) and the average class size per grade and for the entire building. The average class sizes per year range between 21 and 22. This table also shows that Lakeview is fully utilized and will remain so through the projection period.
- Table 5: This shows the distribution of full sized classrooms across all programs. There are 41 full sized rooms plus the two Learning Cottages which are currently being used for music. At this point there does not appear to be any room availability within the building for the music program.
- Table 6: This is the Riverview History and Projection Table.
- Table 7: Riverview Utilization Table-this shows the total number of sections needed (general education and special education) and the average class size per grade and for the entire building. The average class sizes per year range between 19 and 22. This table also shows that Riverview might have one open classroom beginning with the 2017-18 school year.
- Table 8: This is the Riverview classroom distribution table. It shows the total utilization of large classrooms across all programs.

The Learning Cottages are used for guidance and the Child Study Team. At this time there is no room or space in the building for these two services. One room might be available in 2017-18.

Table 9: This is the middle school enrollment history and projection. With the significant and continuing decline in enrollment it might be possible to move some District-wide programs from the elementary schools to the middle school. This might include the Child Study Team rooms and selected self-contained special education programs (which would need to be fully explored with the Director of Special Services.

**Chart 1: District-Wide Enrollment History and Projection** 



**Table 2: District-Wide Enrollment History and Projection** 

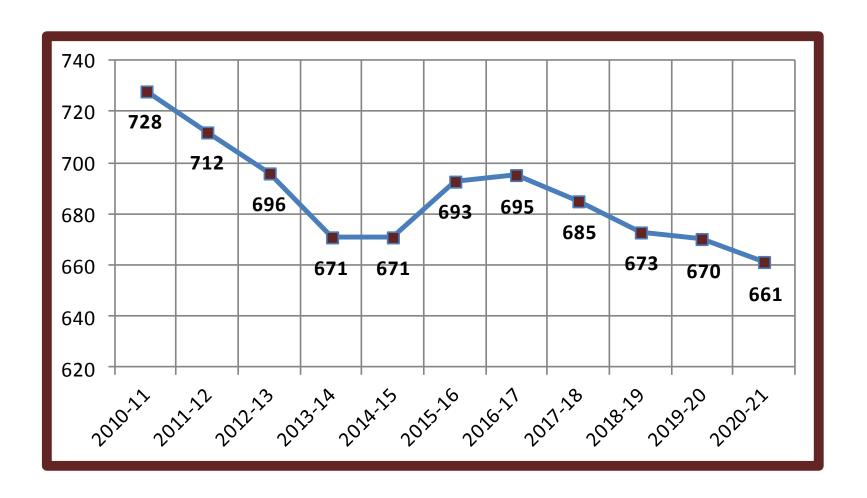
Year	Births		K		1		2		3		4		5		6		7		8	K-5	6.8	Sub	DΚ	SCSE	Total
1 cai	Dituis		IX		1				3		4		3		U		,		0	K-3	0-8	Total	ГK	SCSE	PK-8
2010-11	200	0.68	135		166		185		213		209		227		233		224		212	1135	669	1804	14	38	1856
				1.19		1.07		1.02		1.01		1.02		1.03		0.97		0.98							
2011-12	188	0.71	134		161		178		189		216		214		233		227		220	1092	680	1772	24	27	1823
				1.28		0.99		1.03		1.02		1.02		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
2010 11	104	0.75	1 4 5	1.25		1.05	100	1.03	11	1.01	104	0.98		0.99		1.01	200	0.98	210	1010		1.650	20	22	1720
2013-14	194	0.75	145	1.06	150	1.03	180	1.05	164	1.02	184	1.01	189	1.01	219	1.01	208	0.96	219	1012	646	1658	29	33	1720
2014-15	163	0.91	148	1.00	153	1.03	155	1.03	189		167		186	1.01	190	1.01	221		199	998	610	1608	26	29	1663
2014-15	103	0.71	170	1.12		1.10		1.06		1.05		1.04		1.01		1.15	221	0.90	1))	770	010	1000	20	2)	1003
2015-16	163	0.84	137	1,11	166	1110	169	1.00	165	1.00	199		173	1.01	187	1110	218		198	1009	603	1612	32	30	1674
		0.79		1.09		1.05		1.04		1.02		1.01		1.00		1.02		0.97							
Year			K		1		2		3		4		5		6		7		8	K-5	6-8	Sub	PK	SCSE	Total
																		`				Total			PK-8
2016-17	153		143		149		174		176		168		201		173		191		211	1011	575	1586	32	30	1648
2017-18	153		140		156		156		181		180		170		201		176		185	983	562	1545	32	30	1607
2018-19	153		142		153		164		162		185		182		170		205		171	988	546	1534	32	30	1596
2019-20	153		141		155		161		171		165		187		182		173		199	980	554	1534	32	30	1596
2020-21	153		142		154		163		167		174		167		187		186		168	967	541	1508	32	30	1570

Highlighted cells represent a bubble group passing through the system.

**Table 3: Lake View Elementary School Enrollment History and Projection** 

Lakeview		KG	1	2	3	4	5	K-5	Sp Ed	PK	Total
	Births										
2010-11	200	83	103	104	149	122	129	690	24	14	728
2011-12	188	79	102	106	107	151	125	670	18	24	712
2012-13	164	82	100	102	108	116	154	662	11.00	23	696
2013-14	194	91	106	105	104	108	108	622	20.00	29	671
2014-15	163	95	95	110	109	106	112	627	18.00	26	671
2015-16	163	88	107	106	117	115	107	640	21.00	32	693
* 7		TZC	- 1			4	-	T7 5	G F1	DIZ	m . 1
Year		KG	1	2	3	4	5	K-5	Sp Ed	PK	Total
2016 17	152	02	06	111	100	110	117	(12	21	22	(05
2016-17	153	92	96	111	108	118	117	642	21	32	695
2017-18	153	90	100	100	112	100	120	632	21	32	685
2017-10	133	30	100	100	113	103	120	032	21	32	003
2018-19	153	91	98	104	102	114	111	620	21	32	673
2010 13	133	7.	30	101	102	1		320		<i></i>	073
2019-20	153	91	99	102	106	103	116	617	21	32	670
2020-21	153	90	99	103	104	107	105	608	21	32	661

Chart 2: Lake View Elementary School Enrollment History and Projection



**Table 4: Lakeview Utilization** 

						Lak	eview							
2015-16		Rooms	Actual	Average	2016-17		Rooms	Actual	Average	2017-18		Rooms	Actual	Average
				Class Size					Class Size					Class Size
KG	88	3.52	4	22	KG	92	3.68	4	23	KG	90	3.60	4	23
1	107	4.28	5	21	1	96	3.84	5	19	1	100		5	20
2			5	21			4.44		22	2	_			20
3	106	4.24	5	23	3	111 108	4.44	5	22	3	100 113	4.52	5	23
4	117	4.60	5	23	3 4	118		5	24	4	109	4.36	5	23
5	115 107	4.00	5	21	5	117		5	23	5	120		5	24
		4.28	-	21	-		4.68		23	-		4.80		24
Spec Ed	21	2.00	6		Spec Ed	21	2.00	6		Spec Ed	21	2.00	6	
PK	32	3.00	3		PK	32	3.00	3		PK	32	3.00	3	22
	600	17.00	20	22		605	17.00	25	22		605	16.00	25	22
	693	17.80	38	22		695	17.32	25			685	16.88	25	
Total Rms			41		Total Rms			41		Total Rms			41	
Rooms GE			29		Rooms GE			29		Rooms GE			29	
Rooms SE			6		Rooms SE			6		Rooms SE			6	
Rooms PK			3		Rooms PK			3		Rooms PK			3	
Other Used			3		Other Used			3		Other Used			3	
Open			0		Open			0		Open			0	
2018-19		Rooms	Actual	Average	2019-20		Rooms	Actual	Average	2020-21		Rooms	Actual	Average
				Class Size					Class Size					Class Size
KG	91	3.64	4	23	KG	91	3.64	4	23	KG	90	3.60	4	23
1	98	3.92	5	20	1	99	3.96	5	20	1	99	3.96	5	20
2	104	4.16	5	21	2	102	4.08	5	20	2	103	4.12	5	21
3	102	4.08	5	20	3	106	4.24	5	21	3	104	4.16	5	21
4	114		5	23	4	103		5	21	4	107		5	21
5	111	4.44	5	22	5	116	4.64	5	23	5	105	4.20	5	21
Spec Ed	21		6		Spec Ed	21		6		Spec Ed	21		6	
PK	32	3.00	3		PK	32	3.00	3		PK	32	3.00	3	
	673	16.72	38	22		670	16.40	25	21		661	16.52	25	21
Total Rms	0/3	10.72	41	22	Total Rms	070	10.40	41	21	Total Rms	001	10.32	41	<u> </u>
Rooms GE			29		Rooms GE			29		Rooms GE	-		29	
											-			
Rooms SE			6		Rooms SE			6		Rooms SE			6	
Rooms PK			3		Rooms PK			3		Rooms PK			3	
Other Used			3		Other Used			3		Other Used			3	
Open			0		Open			0		Open			0	

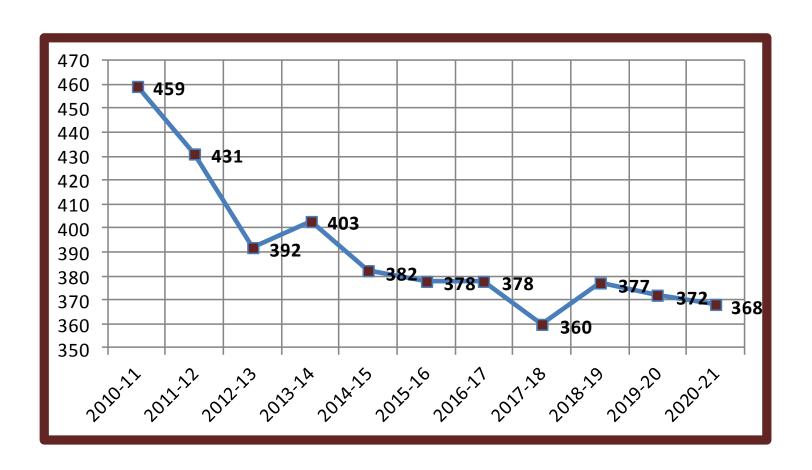
**Table 5: Lakeview Room Distribution** 

			Lakeview			
General Educ	ation R	ooms	Other Full Size	d Rooms		
Grade	Room	Size	Resource	B16	F	
			Resource	B14	F	
KG	AO1	F	Pre-K	A03	F	
KG	A03	F	Pre-K	AO4	F	
KG	C05	F	Pre-K	A07	F	
KG	C06	F	K - SC	A02	F	
1	A08	F	SC 1-2	A05	F	
1	A09	F	SC 3-4-5	C 18/19	F/S	(split room)
1	A010	F	Science	C21	F	
1	A011	F	Computer	C03	F	
1	A012	F	Art	B11	F	
2	B01	F	Grades 3-4/BSI/Erly Connection	B07	F	
2	B02	F				
2	воз	F	Total		12	
2	B15	F				
2	B17	F	Total of 41 full sized rooms			
3	B04	F	excluding the Learning Cottage			
3	B05	F	which is currently used for			
3	BO6	F	music.			
3	B08	F	Child study team in main			
3	B12	F	office, and/or art on a cart.			
4	C07	F	Music out of cottages and into room B 11 or other alternater			
4	C08	F	room.			
4	C09	F	100111.			
4	C16	F				
4	C17	F				
5	C10	F				
5	C11	F				
5	C13	F				
5	C14	F				
5	C15	F				
Total Gen Ed		29				

**Table 6: Riverview Enrollment History and Projection** 

Riverview		KG	1	2	3	4	5	K-5	Sp Ed	PK	Total
	Births										
2010-11	200	52	63	81	64	87	98	445	14		459
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
	4 - 0	- 10				0.4		•			
2015-16	163	49	59	63	48	84	66	369	9		378
Vaar		KG	1	2	3	4	5	V 5	Co Ed	DV	Total
Year		NG	1		3	4	3	K-3	Sp Ed	PK	Total
2016-17	153	51	53	63	68	50	8/1	369	9		378
2010-17	133	31	33	03	00	50	0-	307			370
2017-18	153	50	56	56	68	71	50	351	9		360
2018-19	153	51	55	60	60	71	71	368	9		377
									_		
2019-20	153	50	56	59	65	62	71	363	9		372
2020-21	153	52	55	60	63	67	62	359	9		368

**Chart 3: Riverview Enrollment History and Projection** 



**Table 7: Riverview Utilization** 

							Rivervie	w						
2015-16		Rooms	Actual	Average	2016-17		Rooms	Actual	Average	2017-18		Rooms	Actual	Average
				Class Size					Class Size					Class Size
KG	49	1.96	3	16	KG	51	2.04	3	17	KG	50	2.00	3	17
1	59	2.36	3	20	1	53	2.12	3	18	1	56	2.24	3	19
2	63	2.52	3	21	2	63	2.52	3	21	2	56	2.24	3	19
3	48	1.92	3	16	3	68	2.72	3	23	3	68	2.72	3	23
4	84	3.36	4	21	4	50	2.00	3	17	4	71	2.84	3	24
5	66	2.64	3	22	5	84	3.36	4	21	5	50	2.00	3	17
Spec Ed	9	2.0.	3		Spec Ed	9	0.00	3		Spec Ed	9	2.00	3	
									20					20
	378	10.16	22	19		378	9.36	22			360	10.04	21	
Total Rms			28		Total Rms			28		Total Rms			28	
Rooms GE			19		Rooms GE			19		Rooms GE			18	
Rooms SE			3		Rooms SE			3		Rooms SE			3	
Other Used			6		Other Used			6		Other Used			6	
Open			0		Open			0		Open			1	
2018-19		Rooms	Actual	Average	2019-20		Rooms	Actual	Average	2020-21		Rooms	A atual	Average
2016-19		Kooms	Actual	Class Size	2019-20		Kooms	Actual	Class Size	2020-21		Kooms	Actual	Class Size
				Class Size					Class Size					Class Size
KG	51	2.04	3	17	KG	50	2.00	3	17	KG	52	2.08	3	17
1	55	2.20	3	18	1	56	2.24	3	19	1	55	2.20	3	18
2	60	2.40	3	20	2	59	2.36	3	20	2	60	2.40	3	20
3	60	2.40	3	20	3	65	2.60	3	22	3	63	2.52	3	21
4	71	2.84	3	24	4	62	2.48	3	21	4	67	2.68	3	22
5	71	2.84	3	24	5	71	2.84	3	24	5	62	2.48	3	21
Spec Ed	9		3		Spec Ed	9		3		Spec Ed	9		3	
	377	9.84	21	21		372	9.68	21	21		368	9.80	21	20
Total Rms			28		Total Rms			28		Total Rms			28	
Rooms GE			18		Rooms GE			18		Rooms GE			18	
Rooms SE			3		Rooms SE			3		Rooms SE			3	
Other Used			6		Other Used		15	6		Other Used			6	
Open			1		Open			1		Open			1	

**Table 8: Riverview Classroom Distribution** 

eneral Educ	cation R	ooms	Other Full Sized Ro	Other Full Sized Rooms							
Grade	Room	Size	Computer	1	Large						
			Resource	3	Large						
KG		F	Art	1	Large						
KG		F	Science Resource	1	Large						
KG		F	Speech	1	Large						
1		F	Self Contained	2							
1		F									
1		F									
2		F									
2		F									
2		F									
3		F									
3		F									
3		F	Total	9							
4		F									
4		F									
4		F	Guidance in Learning Cottage								
4		F	CST in Learning Cottage								
5		F	Music on stage in All Purpose								
5		F	room.								
5		F									
tal Gen Ed		19									

**Table 9: Middle School Enrollment History and Projection** 

Year	6	7	8	Total
2010-11	233	224	212	669
2011-12	233	227	220	680
2012-13	206	223	230	659
2013-14	219	208	219	646
2014-15	190	221	199	610
2017 10		212	100	
2015-16	187	218	198	603
	6	7	8	
	О	/	ŏ	
2016-17	173	191	211	575
2010-17	1/3	151	211	3/3
2017-18	201	176	185	562
	_ <b></b>			
2018-19	170	205	171	546
2019-20	182	173	199	554
2020-21	187	186	168	541

Chart 4: Middle School Enrollment History and Projection

