

South Plainfield Public Schools

# Demographic Study

Ross Haber and Associates

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## Executive Summary

The South Plainfield Public Schools engaged Ross Haber and Associates to provide a demographic study. The South Plainfield Schools comprise six buildings including four K-4 schools, one 5-6 intermediate school, one 7-8 middle school and a 9-12 high school. Between the base year of the study (2013-14) to the current school year (2018-19)<sup>1</sup> the total enrollment in the District declined from 3,470 (including pre-K and self-contained special education) to 3,359. That was an overall decrease of 111 students or approximately 3.2%. The enrollment K-12 (excluding pre-K and self-contained special education) declined from 3,422 to 3,214, which is a decrease of 208 students or approximately 6.1%. The K-4 enrollment showed the most significant decrease declining from 1,280 in 2013-14 to 1,159 in 2018-19. This is a decrease of 121 students or approximately 9.5%. Grant (grades 5-6) showed a marginal increase of 13 students while the middle school declined from 553 to 527. This was a decrease of 23 students or approximately 4.1%. The high school enrollment declined from 1,088 in 2013-14 to 1,012 in 2018-19. This was a decrease of 76 students or approximately 7%. The cohort projections (projections based upon enrollment history only) indicated that this overall enrollment decline will continue through the projection period with a further total decrease from the current 3,359 to 3,285. This is an overall projected decline of 74 students or approximately 2.2%. This indicates that the enrollment in the District, based upon historical enrollment, appears to be leveling off. The K-4 school projections indicate a marginal increase in enrollment (from the current 1,158 to 1,185 in 2023-24). The Grant projection appears to remain stable while the middle school is projected to decline from the current 530 to 468 in 2023-24. This is a decrease of 628 students or approximately 11.7%. The high school is also projected to decline from the current enrollment of 1,012 to 961 in 2023-24. This is a decrease of 51 students or approximately 5%.

The decline in enrollment may be offset by significant new housing construction in South Plainfield. Specifically two developments (one under construction--Celebrations, and other approved on the former Motorola Property). These two developments are projected to add an estimated 220 students to the District when they are completed and occupied. For purposes of this study we are assuming that these will be completed and occupied by the 2023-24 school year. The total enrollment in the District, with all new housing considered, is projected to be 3,508 which would be 223 students higher than the cohort projection.<sup>2</sup>

## Methodology

The study used the cohort survival projection method. The cohort survival method tracks students as they move from grade to grade and creates a growth or decline ratio between grades. For example, in 2011-12 if there were 100 children in grade 1 and the same group, in 2012-13 had an enrollment of 110 that would show a 10% growth rate (1.10). This migration ratio would be calculated for six 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. To project kindergarten enrollment we used an alternative to live birth to kindergarten ratios. Typically kindergarten enrollment are projected by calculating the difference between live births attributed to a school district and kindergarten enrollments five years later (e.g.-children born in

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<sup>1</sup> The enrollment is as of late September for the 2018-19 school year which is not yet the final official enrollment which will be as of October 15, 2018. Current data provided by South Plainfield Schools.

<sup>2</sup> The slight difference between the total number of students projected from the new housing units and the enrollment projection is due to the incorporation of the housing yields with the cohort survival method.

2008 will become kindergarten students in 2013-14). An alternative to this is to use a moving average to project kindergarten. This can be used when the birth to kindergarten projection produces inconsistent kindergarten numbers (for example, if kindergarten is averaging 400 students per year but the live birth projections) are showing an average of 350 students per year this will result in significantly lower projections. For this study we used the averaging method. Overall the difference between using live birth and averaging was 55 students over five years.

### Housing Impact

There are two major developments which will impact the schools. The first, which is under construction, Celebrations, currently has nine buildings completed and 10 more about to be constructed. When Celebrations is completed it will consist of 340 units of which 68 are age restricted. Table 1 below shows the projections of school aged children (SAC) based upon the type of units to be built and not including the age-restricted units.

**Table 1: Celebrations**

				0.35	0.75	Total	0.7	0.2	0.1
Celebrations	Total Units	Age Restricted	Non-Age Restricted	2 Br*	3Br*	SAC	K-4	5-8	9-12
Units	340*	68	272	96	40				
SAC**		0	64	34	30	<b>64</b>	45	13	6

\* As of this writing 9 of 19 units have been completed and occupied. These projections are estimates based upon the number of units still to be completed. \*\*School aged children

Table 1 shows the number of units from which school aged children can be expected. The total number of units was reduced by the number of age restricted residences. The yield ratios are based upon current units in South Plainfield as well as data from similar communities. The total number of school aged children is projected to be 64 distributed as per the last three columns. This development lies totally within the Roosevelt attendance zone.

**Table 2: Motorola Development**

				0	0.35	0.75	0	0.5	1.05	Total	K-4	5-8	9-12
				Condominium Market Rate			Condominium Market Rate			SAC			
Motorola	Total Units	Affordable	Market	1 Br	2Br	3Br	1Br	2Br	3Br				
Units	170	82	88	16	88	0		46	20				
SAC				0	31	0		23	21	75	53	15	8
	Town Hse												
Units	240		240	0	60	180							
SAC					21	135				<b>156</b>	109	31	16

The development on the former Motorola Property (Table 2) is projected to add an additional 156 students to the schools. The last three columns of the table show the grade level impact. This property is located completely within the Roosevelt attendance area.

**Chart 1: District-wide Enrollment History**

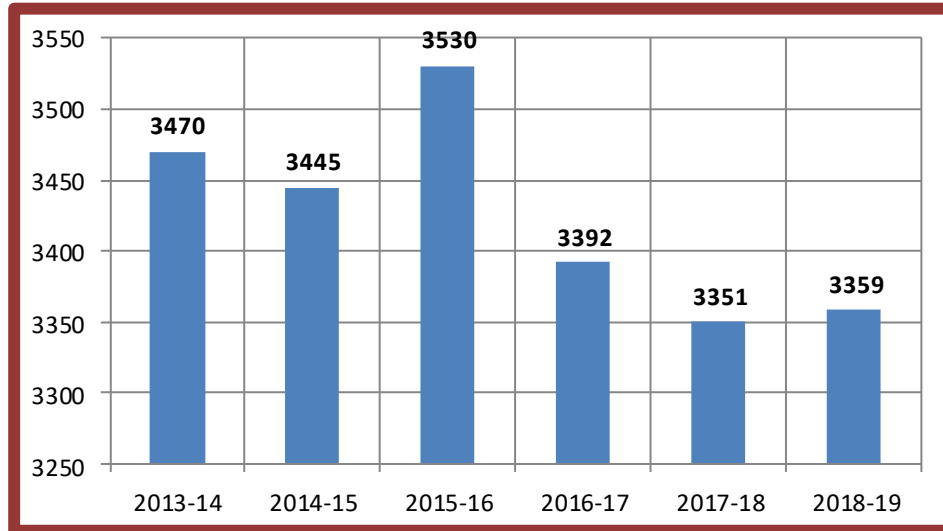


Chart 1 shows the District-wide total enrollment between 2013-14 and 2018-19. The overall trend has been a decline in enrollment with one "bubble" year (2015-16).

**Chart 2: Comparison of Projection with and without New Housing Developments**

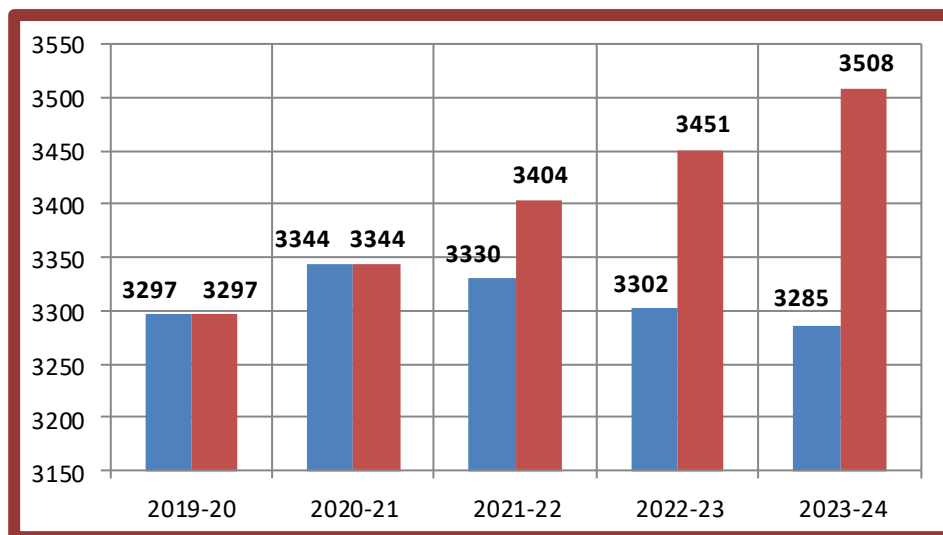


Chart 2 compares the enrollment trends with and without new housing. The blue bar represents enrollment without the new housing units the brown bar represents enrollment with the new units.

## General Community Demographics

**Table 3: General Community Demographics**

South Plainfield					
	2010	2017	Diff	% Change	% Population
Population	23,385	24,435	1,050	4.49%	
Housing	8,064	8,080	16	0.20%	
Median Age	40.2	41.1	0.90	2.24%	
Median Income	\$92,263	\$91,957	-\$306	-0.33%	
Mean Income	\$98,556	\$105,966	\$7,410	7.52%	
White	13,151	13,221	70	0.53%	54.11%
Black	2,624	2,492	-132	-5.03%	10.20%
Asian	3,655	3,921	266	7.28%	16.05%
Hispanic	3,080	3,452	372	12.08%	14.13%
Other	875	877	2	0.23%	3.59%

Table 3 shows changes in key community demographics between 2010 and 2017.<sup>3</sup> The population of South Plainfield grew by approximately 4.49%. The median age grew by less than 1% which is about average for Middlesex County. While the median income lowered marginally (less than 1%) the mean or average income increased significantly. The white population has remained relatively stable. The Asian and Hispanic population has increased significantly while the African American population has decline.

**Table 4: Residential Construction Permits and Certificates of Occupancy Issued between 2013 and 2018 (through June, 2018).<sup>4</sup>**

Year	Construction Permits			Certificates of Occupancy		
	SF	MF	Total	SF	MF	Total
2018	8	32	40	15	301	316
2017	22	38	60	8	33	41
2016	7	33	40	10		10
2015	8	32	40	25	32	57
2014	38	64	102	26	33	59
2013	22	21	43	16		16

Table 3 shows the issuance of residential building permits and certificates of occupancy between 2013 and 2018. The current year certificates of occupancy may not yet be reflected in the total population but years 2013-2017 show considerable growth in new housing. This also

<sup>3</sup> Source: American Community Survey, US Department of the Census.

<sup>4</sup> Source: New Jersey Department of Community Affairs.

may not be reflected in table 3 (highlighted cell). Table 4 is based upon monthly reports from municipalities to the New Jersey Office of Community Affairs. If added together the total number of new housing units between 2013 and 2018 would be 499 (based upon certificates of occupancy).

# Projection Tables

**Table 5: District-wide Enrollment History and Projection without New Construction**

Enrollment History and Projection---without housing																																		
Year	Births*	K	1	2	3	4	5	6	7	8	9	10	11	12	K-4	SC	PK	5-6	SC	7-8	SC	9-12	SC	Total	Total	Total	Total							
																								K-12	SC	PK	District							
2013-14	292	0.822	240	261	233	265	281	259	242	269	284	263	261	288	276	1280	11	37	501	553	1088	3422	11	37	3470									
			1.004	1.011	1.009	1.015	1.007	1.015	0.983	0.970	0.961	1.046	1.046	0.993																				
2014-15	249	0.859	214	241	264	235	269	283	263	238	261	273	275	273	286	1223	18	172	546	499	15	1107	3375	33	37	3445								
			1.079	1.000	0.992	1.043	0.985	1.018	1.027	1.025	0.950	1.011	0.989	0.978																				
2015-16	249	0.843	210	231	241	262	245	265	288	270	244	248	276	272	267	1189	14	182	553	514	9	1063	6	3319	29	182	3530							
			1.062	1.000	1.000	1.023	1.020	1.008	0.997	0.981	0.951	1.020	0.978	0.956																				
2016-17	253	0.893	226	223	231	241	268	250	267	287	265	232	253	270	260	1189	14	85	517	552	10	1015	10	3273	34	85	3392							
			1.053	0.973	0.961	0.975	1.019	0.992	1.015	0.979	0.977	1.000	0.988	1.022																				
2017-18	267	0.906	242	238	217	222	235	273	248	271	281	259	232	250	276	1154	17	70	521	552	8	1017	12	3244	37	70	3351							
			1.000	1.000	0.995	1.000	1.030	0.993	1.032	1.011	0.911	1.039	0.987	1.032																				
2018-19	229	1.052	241	242	238	216	222	242	271	256	274	256	269	229	258	1159	29	90	513	9	530	5	1012	12	3214	55	90	3359						
Ave		0.896	1.040	0.997	0.991	1.011	1.012	1.005	1.011	0.993	0.950	1.023	0.998	0.996																				
Births		K	1	2	3	4	5	6	7	8	9	10	11	12	K-4	SC	PK	5-6	SC	7-8	SC	9-12	SC	Total	Total	Total	Total							
																								K-12	SC	PK	District							
2019-20	255		226	251	241	236	218	225	243	274	254	260	262	268	228	1172	15	109	468	9	528	8	1018	6	3186	29	82	3297						
2020-21	241		229	235	250	239	239	221	226	246	272	241	266	261	267	1192	21	142	447	9	518	11	1035	9	3192	43	109	3344						
2021-22	257		233	238	234	248	242	242	222	228	244	258	247	265	260	1195	22	136	464	9	472	10	1030	11	3161	45	124	3330						
2022-23	250		234	242	237	232	251	245	243	224	226	232	264	247	264	1196	24	126	488	9	450	10	1007	12	3141	49	112	3302						
2023-24	246		233	243	241	235	235	254	246	246	222	215	237	263	246	1187	26	135	500	9	468	10	961	12	3116	52	117	3285						

Table 5 shows the District-wide enrollment history and projection without adding in the impact of the new housing construction. This table indicates that the enrollment in the District has declined between 2013-14 and 2015-16. It also indicates that this decline will continue but will slow down by 2023-24 with the K-4 schools showing a trend upward beginning with 2019-20.

**Table 6: District-wide Enrollment History and Projection with New Housing Construction**

Enrollment History and Projection--with New Housing Estimates																													
Year	Births*		K	1	2	3	4	5	6	7	8	9	10	11	12	K-4	SC	PK	5-6	SC	7-8	SC	9-12	SC	Total	Total	Total	Total	
																									K-12	SC	PK	District	
2013-14	292	0.822	240	261	233	265	281	259	242	269	284	263	261	288	276	1280	11	37	501		553		1088		3422	11	37	3470	
			1.004	1.011	1.009	1.015	1.007	1.015	0.983	0.970	0.961	1.046	1.046	0.993															
2014-15	249	0.859	214	241	264	235	269	283	263	238	261	273	275	273	286	1223	18	172	546		499	15	1107		3375	33	37	3445	
			1.079	1.000	0.992	1.043	0.985	1.018	1.027	1.025	0.950	1.011	0.989	0.978															
2015-16	249	0.843	210	231	241	262	245	265	288	270	244	248	276	272	267	1189	14	182	553		514	9	1063	6	3319	29	182	3530	
			1.062	1.000	1.000	1.023	1.020	1.008	0.997	0.981	0.951	1.020	0.978	0.956															
2016-17	253	0.893	226	223	231	241	268	250	267	287	265	232	253	270	260	1189	14	85	517		552	10	1015	10	3273	34	85	3392	
			1.053	0.973	0.961	0.975	1.019	0.992	1.015	0.979	0.977	1.000	0.988	1.022															
2017-18	267	0.906	242	238	217	222	235	273	248	271	281	259	232	250	276	1154	17	70	521		552	8	1017	12	3244	37	70	3351	
			1.000	1.000	0.995	1.000	1.030	0.993	1.032	1.011	0.911	1.039	0.987	1.032															
2018-19	229	1.052	241	242	238	216	222	242	271	256	274	256	269	229	258	1159	29	90	513	9	530	5	1012	12	3214	55	90	3359	
Ave		0.896	1.040	0.997	0.991	1.011	1.012	1.005	1.011	0.993	0.950	1.023	0.998	0.996															
Births			K	1	2	3	4	5	6	7	8	9	10	11	12	K-4	SC	PK	5-6	SC	7-8	SC	9-12	SC	Total	Total	Total	Total	
																									K-12	SC	PK	District	
2019-20	255		226	251	241	236	218	225	243	274	254	260	262	268	228	1172	15	109	468	0	528	8	1018	6	3186	29	82	3297	
2020-21	241		229	235	250	239	239	221	226	246	272	241	266	261	267	1192	21	142	447	2	518	11	1035	9	3192	43	109	3344	
2021-22	257		243	248	244	258	252	246	226	232	248	260	249	267	262	1245	22	136	472	2	480	10	1038	11	3235	45	124	3404	
2022-23	250		246	263	257	252	271	259	251	232	234	238	268	251	268	1289	24	126	510	3	466	10	1025	12	3290	49	112	3451	
2023-24	246		247	266	272	265	265	278	264	258	234	224	245	269	252	1315	26	135	542	3	492	10	990	12	3339	52	117	3508	

Table 6 shows the District-wide enrollment history and includes the impact of the new housing units. These will have a significant impact on enrollment over the next five years. For this projection I have put the impact of these new developments spread over the last three years of the projection. I am also making the assumption that these will be completed within the next five years.



**Table 6: Franklin K-4**

Franklin									
Year	K	1	2	3	4	Total	SC	PK	Total
2013-14	52	64	42	67	80	305			305
2014-15	42	52	64	41	69	268			268
2015-16	49	40	57	64	47	257			257
2016-17	50	54	38	57	67	266		6	272
2017-18	38	52	48	39	54	231		9	240
2018-19	50	40	55	46	40	231		16	247
Year	K	1	2	3	4	Total	SC	PK	Total
2019-20	46	52	40	54	48	240		4	244
2020-21	47	47	52	40	57	243		9	252
2021-22	47	47	46	49	42	231		9	240
2022-23	46	49	47	46	53	241		11	252
2023-24	45	47	48	46	49	235		12	247

**Table 7: Kennedy K-4**

Kennedy									
Year	K	1	2	3	4	Total	SC	PK	Total
2013-14	42	57	48	56	56	259	11		270
2014-15	41	37	57	48	54	237	18		255
2015-16	42	46	35	56	49	228	14		242
2016-17	45	46	49	35	57	232	14	24	270
2017-18	57	45	47	50	36	235	17	21	273
2018-19	58	57	44	47	53	259	11	26	296
Year	K	1	2	3	4	Total	SC	PK	Total
2019-20	48	60	57	44	48	257		11	268
2020-21	48	49	60	57	45	259		21	280
2021-22	50	50	49	59	58	266		21	287
2022-23	52	51	50	48	60	261		25	286
2023-24	50	52	51	49	48	250		25	275

**Table 8: Riley K-4**

Riley									
Year	K	1	2	3	4	Total	SC	PK	Total
2013-14	66	61	68	77	65	337			337
2014-15	57	69	62	69	80	337			337
2015-16	67	84	78	79	78	386		8	394
2016-17	60	56	65	75	64	320		21	341
2017-18	52	59	59	65	73	308		19	327
2018-19	65	52	59	61	62	299		23	322
Year	K	1	2	3	4	Total	SC	PK	Total
2019-20	58	69	54	61	61	303		12	315
2020-21	60	63	70	55	60	308		21	329
2021-22	61	63	63	74	55	316		21	337
2022-23	60	64	63	64	73	324		23	347
2023-24	60	63	65	67	66	321		24	345

**Table 9: Roosevelt K-4<sup>5</sup>**

Roosevelt									
Year	K	1	2	3	4	Total	SC	PK	Total
2013-14	80	79	75	65	80	379		7	386
2014-15	74	83	81	77	66	381		6	387
2015-16	67	84	78	79	78	386		8	394
2016-17	71	67	79	74	80	371		34	405
2017-18	95	82	63	68	72	380		21	401
2018-19	65	93	81	61	69	369	16	20	405
Year	K	1	2	3	4	Total	SC	PK	Total
2019-20	74	70	90	77	61	372		17	389
2020-21	74	76	68	87	77	382		25	407
2021-22	75	78	76	66	87	382		25	407
2022-23	76	78	77	74	65	370		28	398
2023-24	77	81	77	73	73	381		27	408

<sup>5</sup> Roosevelt K-4 elementary school is currently zoned for both Celebrations and the Motorola Property development site. Based upon the estimated numbers of students who will come from these two developments this could add as many as 154 students to Roosevelt over time.

**Table 9: Grant Elementary<sup>6</sup>**

Grant	5	6	Total
2013-14	259	242	501
2014-15	283	263	546
2015-16	265	288	553
2016-17	250	267	517
2017-18	273	248	521
2018-19	242	271	513
	5	6	
2019-20	225	243	468
2020-21	221	226	447
2021-22	242	222	464
2022-23	245	243	488
2023-24	254	246	500

**Table 10: South Plainfield Middle School**

SPMS	7	8	SC	Total
2013-14	269	284		553
2014-15	238	261	15	514
2015-16	270	244	9	523
2016-17	287	265	10	562
2017-18	271	281	8	560
2018-19	256	274	5	535
	7	8	SC	Total
2019-20	274	254	8	536
2020-21	246	272	11	529
2021-22	228	244	10	482
2022-23	224	226	10	460
2023-24	246	222	10	478

<sup>6</sup> Projections for Grant, South Plainfield Middle School and South Plainfield High School projects include estimates from new housing.

**Table 11: South Plainfield High School**

SPHS	9	10	11	12	SC	Total
2013-14	263	261	288	276		1088
2014-15	273	275	273	286		1107
2015-16	248	276	272	267	6	1069
2016-17	232	253	270	260	10	1025
2017-18	259	232	250	276	12	1029
2018-19	256	269	229	258	12	1024
	9	10	11	12	SC	Total
2019-20	260	262	68	228	6	824
2020-21	241	266	261	267	9	1044
2021-22	258	247	265	260	11	1041
2022-23	232	264	247	264	12	1019
2023-24	215	237	263	246	12	973

## **Conclusion**

The enrollment in the South Plainfield Public Schools will see an increase based upon the completion of the Celebrations Development and the construction of residential units on the former Motorola Properties. The three stand-alone schools (Grant, the middle school and the high school) will be impacted by this enrollment. It appears that Grant will see the greatest impact from these developments with an increase in enrollment from the current 514 to 542 in 2023-24. The enrollment at the middle school will continue to decline for the next five years but even when it begins to increase as students from Grant enter it will not increase to a level higher than it was in 2013-14. The high school will also not get back to the numbers it had in 2013.14.

The most significant impact will be on Roosevelt Elementary which could increase in enrollment by as many as 154 students. This may mean re-distribution of students to other elementary schools depending upon facility needs (classroom availability and program locations). For long range planning the Board should consider a facility analysis and a possible rezoning or realignment of the K-4 schools.