

SECTION 9 ENROLLMENT PROJECTIONS

The following charts illustrate the student enrollment projections for the Rye Elementary School, Rye Middle School, and those students who will be attending Portsmouth High School from Rye. These charts are created using the Cohort Survival Method, utilizing the concept of the five (5) year weighted average, five (5) year straight average and three (3) year weighted average. Primarily these charts use progression ratios to predict the future student enrollment. These charts should be used to examine enrollment trends and not as exact student numbers.

By computing three (3) averages, instead of only one (1) average, a more accurate range can be done when analyzing future years' student enrollment. It should be noted that the accuracy of the enrollment trends, regardless of the method utilized, should be for the entire school population and not for a specific grade level.

The projection enrollments are created by using a complex formula, which gives statistical weight to prior years' student enrollment data in determining the future student enrollment. Data on resident live births are as recorded and reported by the State of New Hampshire. Actual enrollment data is calculated by using October 1st enrollments.

At the elementary school you will note that the projected student population for the 2016-2017 projects an increase of three (3) students school wide. However, beginning in 2017-2018, there is a projected decrease of 11 students. This decrease levels off for the years 2018-2019 and 2019-2020 with approximately the same number of students and a school wide enrollment for these years of 268 students.

There is a significant increase in the progression ratio between resident live births and the number of students' actually entering kindergarten. You will note that the progression ratio indicates an approximate increase of more than 39%. For 2015-2016, this same age group had a 30% increase in students. This progression ratio is very interesting as the resident live births for 2014 were only 24 which is the lowest resident live birth recorded in the last ten (10) years. A possible explanation is that families of child bearing age are still moving into the Town with children of pre-elementary school age but at a slower rate than prior years, or due to the economy, parents are electing to send their child(ren) to public kindergarten rather than remain in a private setting.

At the middle school, the student population decreased by nine (9) students in 2015-2016 when compared to the prior year. It is estimated that there will be a further decrease in students at the middle school of seven (7) students for 2016-2017. The student population is projected to decrease for the next several years with the potential number of students in four (4) years being in the 135 range.

Further, you will note that in the 2016-2017 budget, it is projected that five (5) Rye students would not be attending Portsmouth High School, but would be attending a private school. These five (5) students represent approximately 11% of the current eighth grade student population, less any New Castle students.

In 2016-2017, there is a projected decrease of twenty-three (23) students attending Portsmouth High School over the number of students budgeted in 2015-2016, but please remember that these figures are projections only. With the potential decrease of twenty-three (23) fewer students at Portsmouth High School for 2016-2017 the appropriation has naturally decreased. The appropriation decrease for high school tuition is still significant as the budgetary decrease is anticipated to be \$72,496. A consideration why the 2016-2017

appropriation is not greater is that the per student tuition cost estimated for 2016-2017 is \$953 greater than the actual amount budgeted for 2015-2016.

Currently there are 188 students attending Portsmouth High School which is nine (9) students fewer than the number of students appropriated. This fewer number of students has created a budgetary surplus of \$121,701 if the budgetary and actual estimates of students attending Portsmouth High School were in complete agreement. When fewer students attend Portsmouth High School it is generally due to one (1) of the following reasons:

- 1) students attending Portsmouth High School are attending a private school;
- 2) students have moved out of Rye;
- 3) the total number of high school age students, whether they attend private or public school in the aggregate is less than the prior year;
- 4) more current eighth grade students are attending private schools.

Naturally, there is always the possibility that more students may move into or may move out of the Town, increasing or decreasing the number of students who will or will not attend Portsmouth High School.

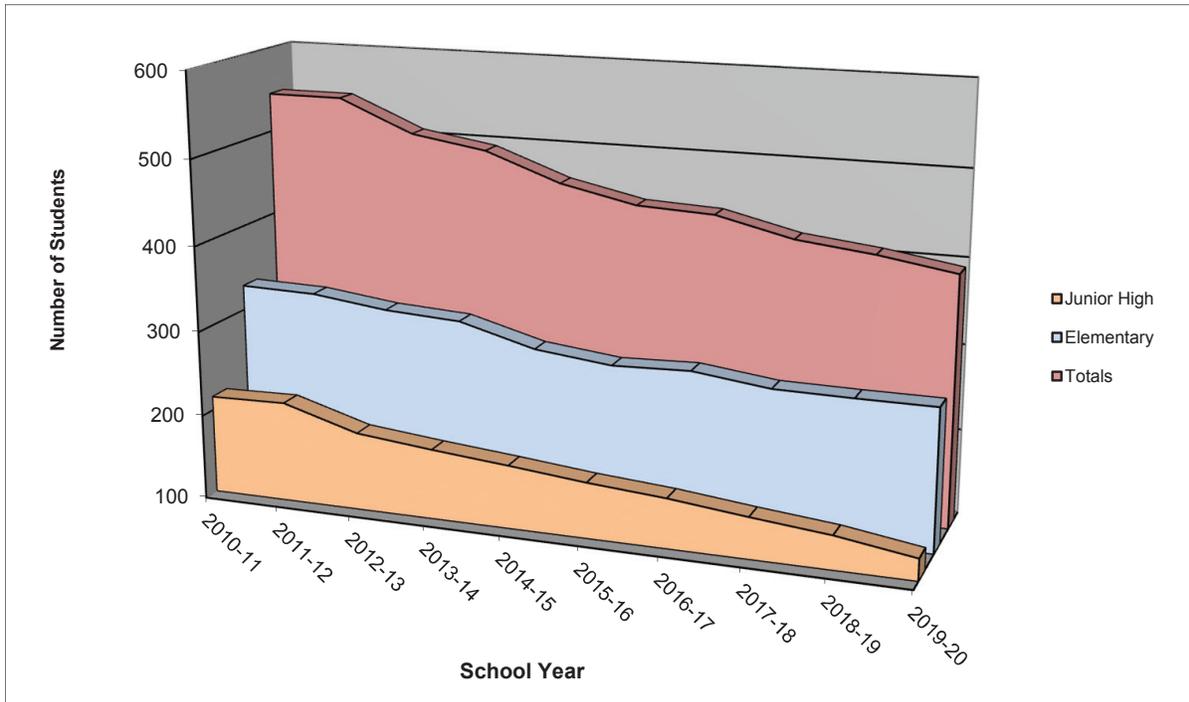
Again, the enrollment projections are used as a tool to project enrollment trends, and are not meant to be used as an exact forecast for the number of students. Further exploration and close monitoring of students population will need to be continually undertaken.



STUDENT ENROLLMENT AT THE RYE ELEMENTARY AND JUNIOR HIGH SCHOOLS

Data based on five (5) year weighted average and General Fall Reports.

<u>School Year</u>	<u>Junior High</u>	<u>Elementary</u>	<u>Totals</u>
2010-11	216	329	545
2011-12	218	327	545
2012-13	192	316	508
2013-14	183	311	494
2014-15	175	287	462
2015-16	166	277	443
2016-17	159	280	439
2017-18	149	269	418
2018-19	140	268	408
2019-20	126	268	394



**RYE SCHOOL DISTRICT
PROJECTED ENROLLMENT FIVE YEAR WEIGHTED AVERAGE
COHORT SURVIVAL METHOD UTILIZING DATA AS OF OCTOBER 1, 2015**

YEAR	RESIDENT LIVE BIRTHS	YEAR/GRADE	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL		
																K-5	6-8	TOTAL
2005	45	2010-11	50	57	61	47	50	64	64	90	62	46	46	34	55	329	216	181
2006	26	2011-12	46	53	57	67	55	49	67	67	84	46	51.5	50	39	327	218	186.5
2007	37	2012-13	40	50	47	58	66	55	45	79	68	52	44	49.5	47.5	316	192	193
2008	26	2013-14	37	45	50	53	59	67	52	52	79	44	53	43	48.5	311	183	188.5
2009	41	2014-15	47	36	44	51	51	58	64	58	53	60.5	40	58.5	45	287	175	204
2010	31	2015-16	50	48	33	42	55	49	48	63	55	35	57	36	60	277	166	188
PROGRESSION RATIOS			139.0%	104.05%	95.12%	102.46%	102.89%	98.41%	91.19%	108.37%	98.54%	68.58%	96.25%	99.04%	102.00%			
2011	37	2016-17	51	52	46	34	43	54	45	52	62	38	34	56	37	280	159	165
2012	30	2017-18	42	54	49	47	35	43	49	48	51	43	36	33	58	269	149	170
2013	29	2018-19	40	43	51	51	48	34	39	53	48	35	41	36	34	268	140	146
2014	24	2019-20	33	42	41	52	52	47	31	42	53	33	34	41	37	268	126	144
		2020-21		35	40	42	54	51	43	34	41	36	31	34	41		118	143
		2021-22			33	41	44	53	47	47	33	28	35	31	34		127	129
		2022-23				34	42	43	48	51	46	23	27	34	32		145	116
		2023-24					35	41	39	52	50	32	22	27	35		141	116
		2024-25						34	38	42	51	34	30	22	28		131	114
		2025-26						31	41	41	42	35	33	30	22		114	121
		2026-27						34	40	34	40	29	34	33	31			126
		2027-28							33	33	28	28	28	34	33			122
		2028-29								23	27	27	27	27	34			111

Note: Any student who is in a joint custody situation with a parent who resides in a town other than Rye has still been counted as one (1) student, rather than the tuition invoice of .5 .

**RYE SCHOOL DISTRICT
PROJECTED ENROLLMENT FIVE YEAR STRAIGHT AVERAGE
COHORT SURVIVAL METHOD UTILIZING DATA AS OF OCTOBER 1, 2015**

YEAR	RESIDENT												TOTAL					
	LIVE BIRTHS	YEAR/GRADE	K	1	2	3	4	5	6	7	8	9	10	11	12	K-5	6-8	9-12
2005	45	2010-11	50	57	61	47	50	64	64	90	62	46	46	34	55	329	216	181
2006	26	2011-12	46	53	57	67	55	49	67	67	84	46	51.5	50	39	327	218	186.5
2007	37	2012-13	40	50	47	58	66	55	45	79	68	52	44	49.5	47.5	316	192	193
2008	26	2013-14	37	45	50	53	59	67	52	52	79	44	53	43	48.5	311	183	188.5
2009	41	2014-15	47	36	44	51	51	58	64	58	53	60.5	40	58.5	45	287	175	204
2010	31	2015-16	50	48	33	42	55	49	48	63	55	35	57	36	60	277	166	188
PROGRESSION RATIOS			140.65%	105.32%	95.62%	104.36%	104.26%	98.78%	93.87%	109.63%	98.32%	68.68%	98.93%	100.58%	102.98%			
2011	37	2016-17	52	53	46	34	44	54	46	53	62	38	35	57	37	283	161	167
2012	30	2017-18	42	55	50	48	36	43	51	50	52	43	37	35	59	274	153	174
2013	29	2018-19	41	44	52	53	50	35	41	56	50	36	42	38	36	276	146	151
2014	24	2019-20	34	43	42	55	55	49	33	45	55	34	35	42	39	278	133	150
		2020-21		32	41	44	57	54	46	37	44	38	34	35	44		127	150
		2021-22			34	43	46	56	51	51	36	30	37	34	36		137	138
		2022-23				35	45	46	53	56	50	25	30	38	35		158	127
		2023-24					35	44	43	58	55	34	24	30	39		156	127
		2024-25						33	41	47	57	38	34	25	31		145	127
		2025-26							36	45	46	39	37	34	25		121	136
		2026-27								35	45	32	39	37	35		143	143
		2027-28									24	31	31	39	39		140	140
		2028-29										17	30	32	40		119	119

Note: Any student who is in a joint custody situation with a parent who resides in a town other than Rye has still been counted as one (1) student rather than the tuition invoice of .5.

FIVE YEAR STRAIGHT AVERAGE

**RYE SCHOOL DISTRICT
PROJECTED ENROLLMENT THREE YEAR WEIGHTED AVERAGE
COHORT SURVIVAL METHOD UTILIZING DATA AS OF OCTOBER 1, 2015**

YEAR	RESIDENT												TOTAL					
	LIVE BIRTHS	YEAR/GRADE	K	1	2	3	4	5	6	7	8	9	10	11	12	K-5	6-8	9-12
2007	37	2012-13	40	50	47	58	66	55	45	79	68	52	44	49.5	39	316	192	184.5
2008	26	2013-14	37	45	50	53	59	67	52	52	79	44	53	43	48.5	311	183	188.5
2009	41	2014-15	47	36	44	51	51	58	64	58	53	60.5	40	58.5	45	287	175	204
2010	31	2015-16	50	48	33	42	55	49	48	63	55	35	57	36	60	277	166	188
PROGRESSION RATIOS			<u>142.57% 102.25% 95.09% 100.52% 102.95% 97.73% 88.98% 105.66% 98.05% 69.33% 94.40% 98.08% 102.50%</u>															
2011	37	2016-17	53	51	46	33	43	54	44	51	62	38	33	56	37	280	156	164
2012	30	2017-18	43	54	49	46	34	42	48	46	50	43	36	32	57	268	144	169
2013	29	2018-19	41	44	51	49	47	33	38	51	45	34	40	35	33	266	133	143
2014	24	2019-20	34	42	42	52	50	46	30	40	50	31	33	40	36	266	119	140
		2020-21		35	40	42	53	49	41	31	39	34	30	32	41		111	136
		2021-22		35	40	40	43	52	44	43	31	27	32	29	33		118	121
		2022-23				36	42	42	46	46	43	21	25	32	30		135	108
		2023-24					35	41	37	49	45	30	20	25	33		132	107
		2024-25						31	36	40	48	31	28	20	26		124	105
		2025-26							33	38	39	33	30	27	20		110	110
		2026-27								33	37	27	31	29	28			115
		2027-28									23	26	25	31	30			112
		2028-29										16	25	25	31			97

Note: Any student who is in a joint custody situation with a parent who resides in a town other than Rye has still been counted as one (1) student, rather than the tuition invoice of .5 .

THREE YEAR WEIGHTED AVERAGE

New Hampshire Resident Births by County and Town/City, 2004-2014

The data provide in this document include live births to mothers who are New Hampshire residents.

<u>TOWN/CITY</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
GREENLAND	38	34	38	35	50	33	47	44	37	52	46
NEW CASTLE	3	4	6	1	3	5	6	2	4	3	3
NEWINGTON	6	8	9	5	3	3	4	2	7	7	4
RYE	31	45	26	37	26	41	31	37	30	29	24

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