

Enrollment Projections for ORCSD, 2014-2024

Long Range Planning Committee

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Summary of LRPC Goals

- Provide the School Board with enrollment projections for each of the next 10 years.
- Make every effort to provide projections for the following school year in the fall when they can be used in the budgeting process.
- Continually improve and refine the model used to make enrollment projections.

Enrollment Up this Year, But Decline Will Resume

- Peak enrollment was 2,393 in 2000
- 2014-15 (excluding tuition) is 2,008
- *Decline over 14 years was 385*
- Projected 2024-25 (excluding tuition) 1,647
 - *Decline over the next 10 years projected to be 361*
- Projected 2024-25 with Barrington tuition students 1,743 (1,772 with 125 tuition)

Methodology

- Kindergarten and Grade 1

Historical births and enrollment trends are used to project the number of students (using linear regression).

- Grades 2 – 12

Grade Progression Ratios (GPRs) are used to forecast the number of students.

Projections for Grades 2-12

- Calculate GPR's for each grade and year.
- Find the 5-year average GPR by grade.
- Apply average GPRs to actual and predicted enrollments to predict enrollments into the future.
- Takes into account the net migration (in-migration and out-migration) over time and by grade.

What is a “Grade Progression Ratio?”

Number of students in grade J and year t

+

Add students who move to ORSD in grade J+1 and year t+1

-

Subtract students who leave ORSD before grade J+1 and year t+1

=

Number of students in grade J+1 and year t+1

A numerical example:

200 students in 5th grade in October 2013

+ 10 new students join ORSD at the 6th grade for 2014

-5 students leave ORSD before 6th grade

= 205 students in 6th grade in 2014

GPR (5th to 6th = $205/200 = 1.025$)

GPRs Account for Net New Students

- More families with children moving in than moving out. (5 year average used)
- All GPRs are in the range of 1.01 – 1.05 except High School, which is impacted by tuition students coming in and native students going to private schools.

Elementary School Split

- Historical ratios used to estimate K and grade 1 split between the schools.
- GPR for each elementary school is used to project grades 2-4 based on projections for grades 1-3 at that school.
- Change in methodology – Different GPRs used for Moharimet and Mast Way.
- Future housing changes and redistricting are not reflected in the projected elementary split.

Projection Range (Plus and Minus)

- Historical LRPC Projections 1994 – 2013 (20 years of forecasts, each predicting 10 future years)
- Subtract Actual Enrollment for each predicted year
- Take the absolute value of the difference and divide by the actual enrollment figure to get a percentage.
- Find the average percentage difference for each forecast horizon (1 to 10 years out).

The Projections



**Enrollment Projections Summary
For Oyster River School District
Preliminary October 1, 2014-15 Actual to 2024-25 Projected**

Year	K	1-4	5-8	9-12	Total	Average Absolute Error of Estimate	
						Percent Error +/-	To Total
2014-15	112	585	679	719	2095	Actual Year	
2015-16	110	563	696	709	2078	One Year Out	1.6%
2016-17	89	546	686	759	2079	Two Years Out	2.7%
2017-18	83	497	679	785	2044	Three Years Out	3.5%
2018-19	91	463	662	782	1998	Four Years Out	4.7%
2019-20	86	436	637	800	1960	Five Years Out	6.1%
2020-21	94	415	617	788	1915	Six Years Out	7.6%
2021-22	96	418	563	782	1859	Seven Years Out	9.0%
2022-23	98	431	524	761	1814	Eight Years Out	10.3%
2023-24	100	446	493	732	1771	Nine Years Out	12.0%
2024-25	102	463	470	709	1743	Ten Years Out	14.6%

Elementary School Projections

LRPC Projections based on October 1, 2014 Enrollment

Mast Way Projections							Moharimet Projections							
						MW						MOH	Total	
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Total</u>	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Total</u>	<u>Both</u>	
2014-15	49	55	58	50	74	286	63	75	94	94	85	411	697	
2015-16	46	54	55	57	51	263	63	72	77	101	98	412	674	
2016-17	37	51	53	54	58	254	51	69	74	83	105	383	637	
2017-18	35	44	51	53	55	238	48	60	71	80	86	344	582	
2018-19	38	41	44	50	54	227	52	56	61	76	83	328	555	
2019-20	36	43	41	44	51	214	50	58	57	66	79	310	524	
2020-21	40	43	43	41	44	209	54	58	59	61	69	301	510	
2021-22	40	46	42	42	41	212	56	62	59	64	64	304	516	
2022-23	41	46	45	42	43	218	57	63	63	63	67	312	530	
2023-24	42	49	46	45	43	225	58	66	64	68	66	322	547	
2024-25	43	50	49	46	46	233	59	67	68	69	71	334	566	

Middle School Projections

Year	Fifth	Sixth	Seventh	Eighth	Total
2014-15	162	178	176	163	679
2015-16	164	167	187	178	696
2016-17	153	169	175	188	686
2017-18	167	158	178	177	679
2018-19	145	172	165	179	662
2019-20	141	149	181	167	637
2020-21	133	145	157	182	617
2021-22	116	137	152	158	563
2022-23	108	119	144	153	524
2023-24	112	111	125	145	493
2024-25	112	116	116	126	470

HS Tuition Students in Projection

Actual 

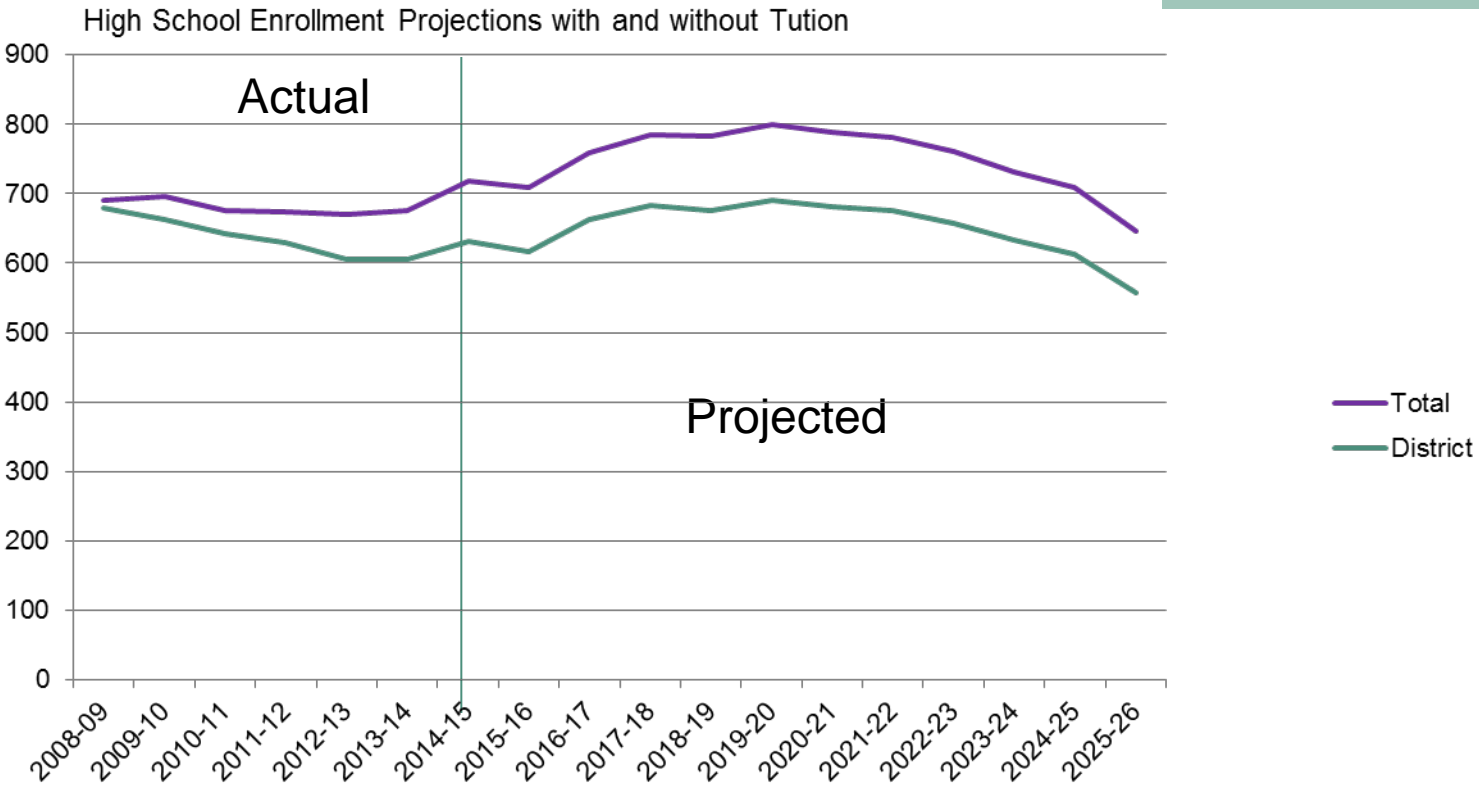
Year	9th	10th	11th	12th	Total Tuition
2014	23	22	24	18	87
2015	25	22	23	24	93
2016	27	24	22	23	96
2017	29	26	25	22	102
2018	27	28	27	25	106
2019	28	26	28	27	109
2020	26	26	27	28	107
2021	28	25	27	27	106
2022	24	27	25	27	103
2023	24	23	28	25	100
2024	22	23	24	27	96
2025	19	21	23	24	88

HS Enrollment From District

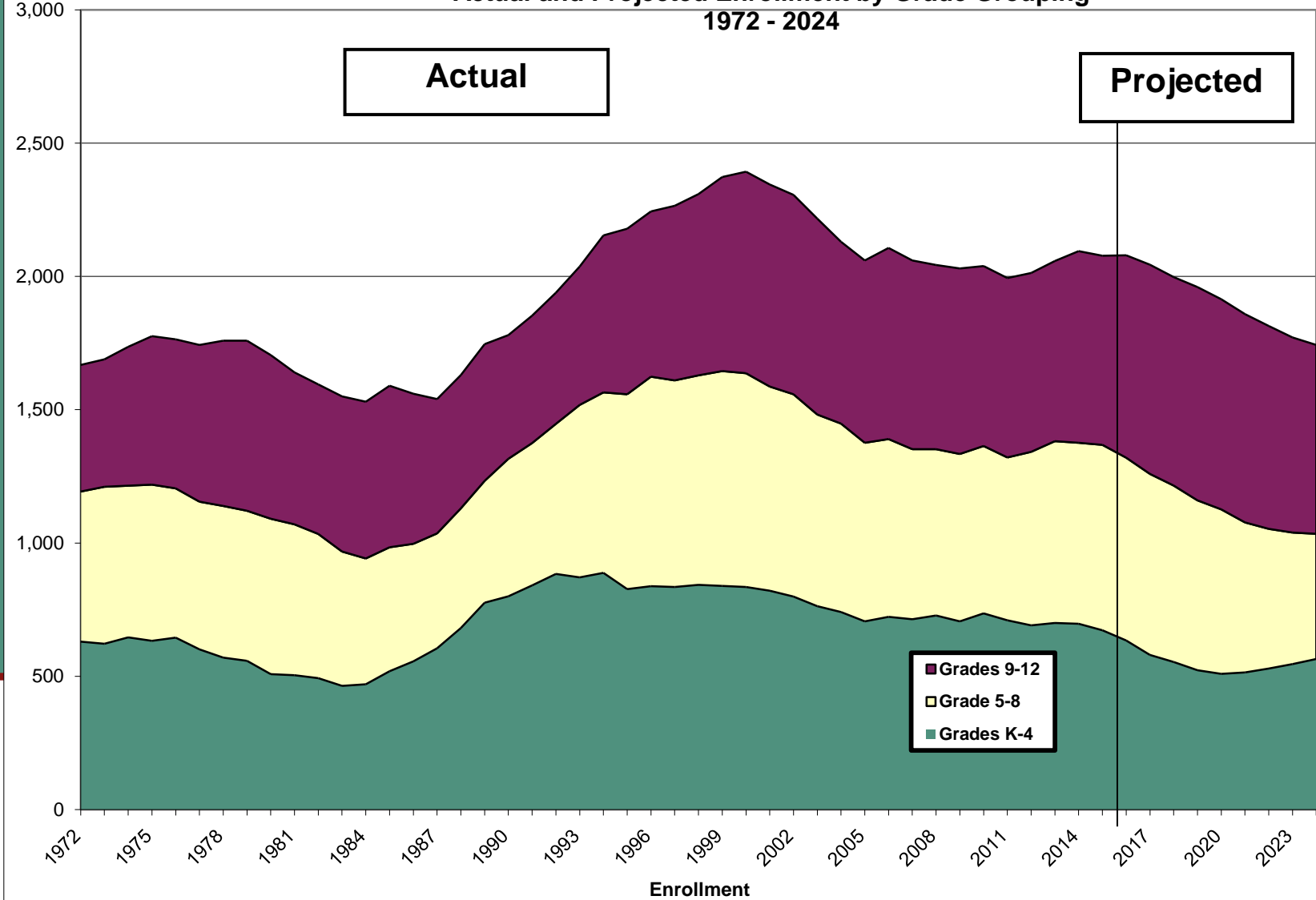
Actual 

Year	9th	10th	11th	12th	Total District
2014	175	162	122	173	632
2015	155	177	159	124	616
2016	169	157	174	162	663
2017	179	171	155	177	683
2018	168	182	169	157	676
2019	171	170	179	171	691
2020	159	173	168	182	681
2021	174	161	170	170	675
2022	151	176	158	173	658
2023	146	152	173	161	632
2024	139	148	150	176	612
2025	120	140	145	152	558

HS Enrollment Projection with Current Barrington Tuition Arrangement



**Oyster River School District
Actual and Projected Enrollment by Grade Grouping
1972 - 2024**

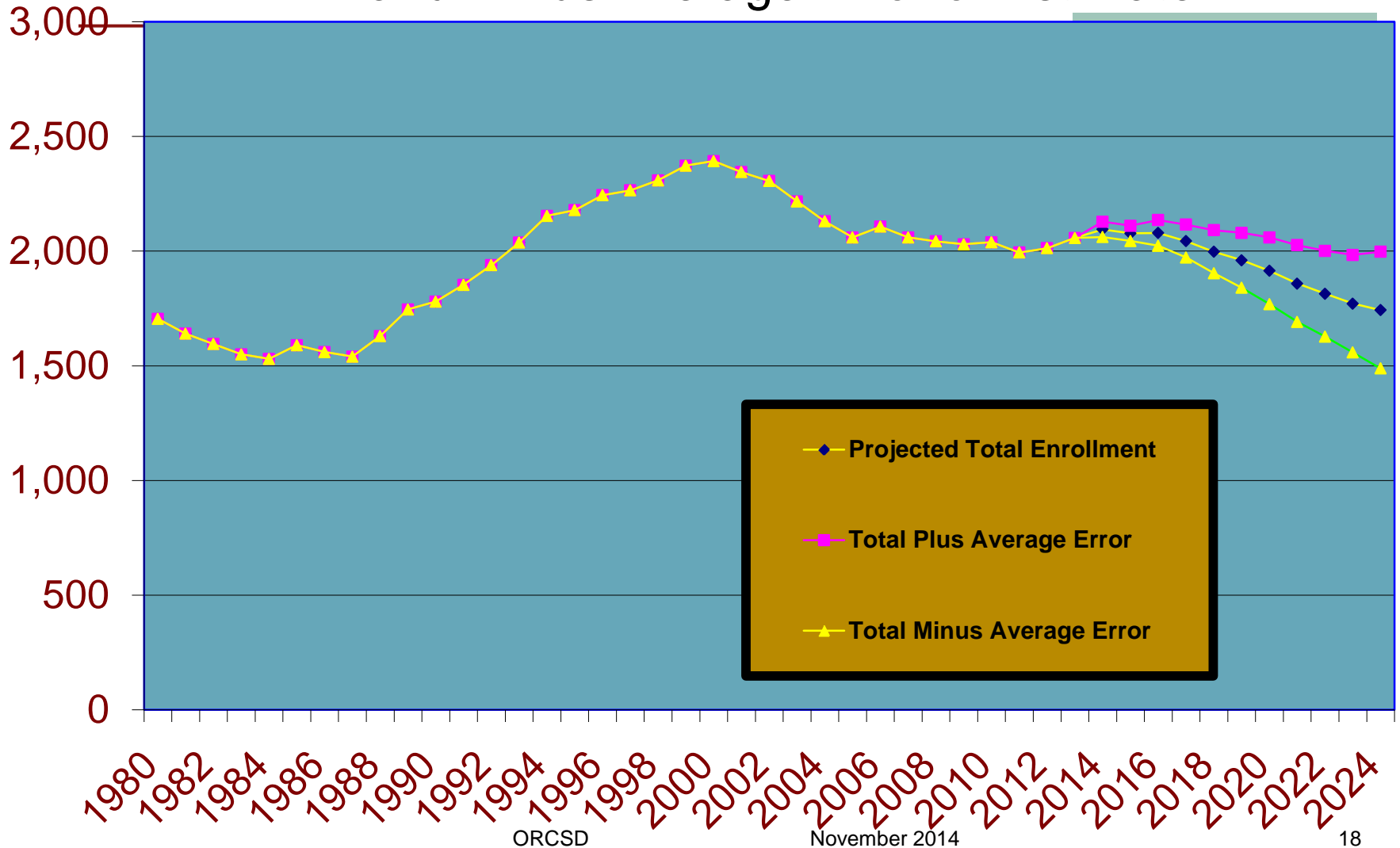


Actual

Projected

- Grades 9-12
- Grade 5-8
- Grades K-4

Actual and Projected Enrollment plus and minus Average Error of Estimate



Why Do We Project a Decline in Enrollment?

- Dramatic Decline in Adults of Childbearing Age, taking account of net move-ins.
- New Hampshire Lowest birth rate nationally.
- New England the lowest region.
- Confirmed by Actual Dramatic decline in Births over the past 10 years:
*130 in 2002 cohort, 69 in 2012 cohort,
82 in 2013 cohort, 72 in 2014 cohort*
- Elementary Enrollment begins to rebound in later years of projections.

Summary

- **Total ORCSD enrollment is projected to remain over 2,000 for 3 more years, then decline to 1,743 in 2024-25 (1,772 with 125 tuition students), reflecting a decline of about 350 students over ten years.**
- **The number of elementary school students will decrease, with elementary enrollment dropping from 697 now to 510 in 2020-21 then rebounding to 566 in 2024-25, a net drop of 130 students over 10 years.**
- **Middle school enrollment, now 679, is projected to rise to 696 in 2015-16, then drop to under 500 by 2023.**
- **High School enrollment (including Barrington), now 719, rises to 800 in 2019-20, then declines to 709 in 2024-25 (737 with 125 tuition students).**
- **Without tuition students, High School enrollment, now 632, rises to a peak of 691 in 2019-20, then declines to current level in 2023-24 and 612 in 2024-25**

Any Questions?

ORCSD Adults in Prime Childbearing Years

Source: *Us Census Bureau*

