



Enrollment Projections for ORCSD, 2015-2025



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.

Decline in Enrollment largely offset by HS Tuition Students

- Peak enrollment was 2,393 in 2000.
- 2015-16 enrollment is 2,055, including 101 tuition students.
- *Decline over 15 years was 338.*
- **Projected 2025-26 with Barrington tuition students 1,896 (1,696 plus 200 tuition)**
- *The number of tuition students rises as native enrollment drops, net 10 year loss of only 159.*

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.

Full Day Kindergarten

- Base Case projections assume Full Day Kindergarten begins in 2016.
- Adds 4 -12 students to total enrollment each year (11-12 in 2016-2019).
- At the high end, could add another 7-8 students to Kindergarten each year in 2016-2019 (18-20 more than half day).
- Does not impact number of students in grades 1-12 in any year, as first grade is projected independently of kindergarten.

Kindergarten Methodology

- LRPC has always projected Kindergarten and First Grade separately.
- This is done because a significant number enter the system as first graders.
- Based on a poll of parents of new first graders by Dennis Harrington, the LRPC estimate is 3/5 between low end (half day K estimate) and high end (First Grade Model with births 5 years prior).

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 1.00 – 1.04 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 is used to project grades 2-4 based on projections for prior year grades 1-3 at that school.
- 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 – 2014 (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, 2015-16 Actual to 2025-26 Projected
(Full Day K Begins 2016-2017)**

Year	K	1-4	5-8	9-12	Total	Average Absolute Error of Estimate	
						Percent Error +/-	To Total
2015-16	107	560	674	714	2055	Actual Year	
2016-17	104	548	661	778	2091	One Year Out	1.6%
2017-18	97	508	659	804	2068	Two Years Out	2.6%
2018-19	105	482	643	818	2048	Three Years Out	3.6%
2019-20	99	455	626	849	2029	Four Years Out	4.8%
2020-21	106	436	612	852	2006	Five Years Out	6.0%
2021-22	111	437	569	861	1978	Six Years Out	7.1%
2022-23	113	450	539	848	1950	Seven Years Out	8.8%
2023-24	120	466	509	830	1925	Eight Years Out	10.1%
2024-25	123	488	488	816	1915	Nine Years Out	11.5%
2025-26	126	508	490	772	1896	Ten Years Out	13.3%

Kindergarten Projections

Year	Half Day K Actual	Births 5 Years Prior	Half Day K Projected	Full Day K Top of Range	Full Day K Projection Used	Full Day Proj. Used # More Than Half Day	Full Day Top of Range # More Than Proj. Used
2010	128	110					
2011	105	92					
2012	116	101					
2013	99	101					
2014	112	90					
2015	107	93	← Actual				
2016		74	93	111	104	11	7
2017		69	86	104	97	11	7
2018		82	93	113	105	12	8
2019		75	91	104	99	8	5
2020		85	101	110	106	5	4
2021		90	105	115	111	6	4
2022		89	109	116	113	4	3
2023		95	113	125	120	7	5
2024		97	116	128	123	7	5
2025		98	118	132	126	8	6

Elementary School Projections

LRPC Projections based on October 1, 2015 Enrollment, Full Day K Begins 2016

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>	
2015-16	54	59	61	58	53	285	53	74	70	95	90	382	667	
2016-17	45	50	59	60	59	273	59	73	74	74	99	379	652	
2017-18	42	45	51	59	61	258	55	66	72	77	77	347	605	
2018-19	45	43	46	50	60	244	60	61	65	76	81	343	587	
2019-20	43	44	43	45	51	225	56	63	61	69	79	328	554	
2020-21	46	43	44	43	46	221	60	62	63	64	71	320	542	
2021-22	48	46	43	44	43	224	63	66	62	66	67	324	548	
2022-23	49	48	46	43	44	230	64	69	66	65	69	333	563	
2023-24	52	50	48	46	43	239	68	72	69	70	68	347	586	
2024-25	53	52	50	48	47	250	70	75	72	72	72	361	611	
2025-26	54	54	52	50	48	258	72	78	75	76	75	376	634	

Middle School Projections

Year	Fifth	Sixth	Seventh	Eighth	Total
2015-16	162	163	176	173	674
2016-17	148	167	170	176	661
2017-18	163	153	173	170	659
2018-19	143	168	159	173	643
2019-20	145	147	175	159	626
2020-21	135	149	153	175	612
2021-22	121	139	156	153	569
2022-23	114	125	144	156	539
2023-24	117	117	130	145	509
2024-25	115	120	122	131	488
2025-26	124	119	125	122	490

HS Tuition Students in Projection

Actual

Year	9th	10th	11th	12th	Total Tuition
2015	32	23	20	26	101
2016	33	34	27	24	118
2017	40	33	34	27	134
2018	48	40	33	33	154
2019	50	48	39	33	170
2020	50	50	47	40	187
2021	50	50	50	48	198
2022	50	50	50	50	200
2023	50	50	50	50	200
2024	50	50	50	50	200
2025	50	50	50	50	200

HS Enrollment From District

Actual

Year	9th	10th	11th	12th	Total District
2015	155	174	161	123	613
2016	169	156	172	163	660
2017	172	171	154	173	670
2018	166	174	168	156	664
2019	170	168	171	170	679
2020	156	171	165	173	665
2021	171	157	169	166	663
2022	150	173	154	171	648
2023	153	151	170	156	630
2024	141	154	149	172	616
2025	128	142	152	150	572

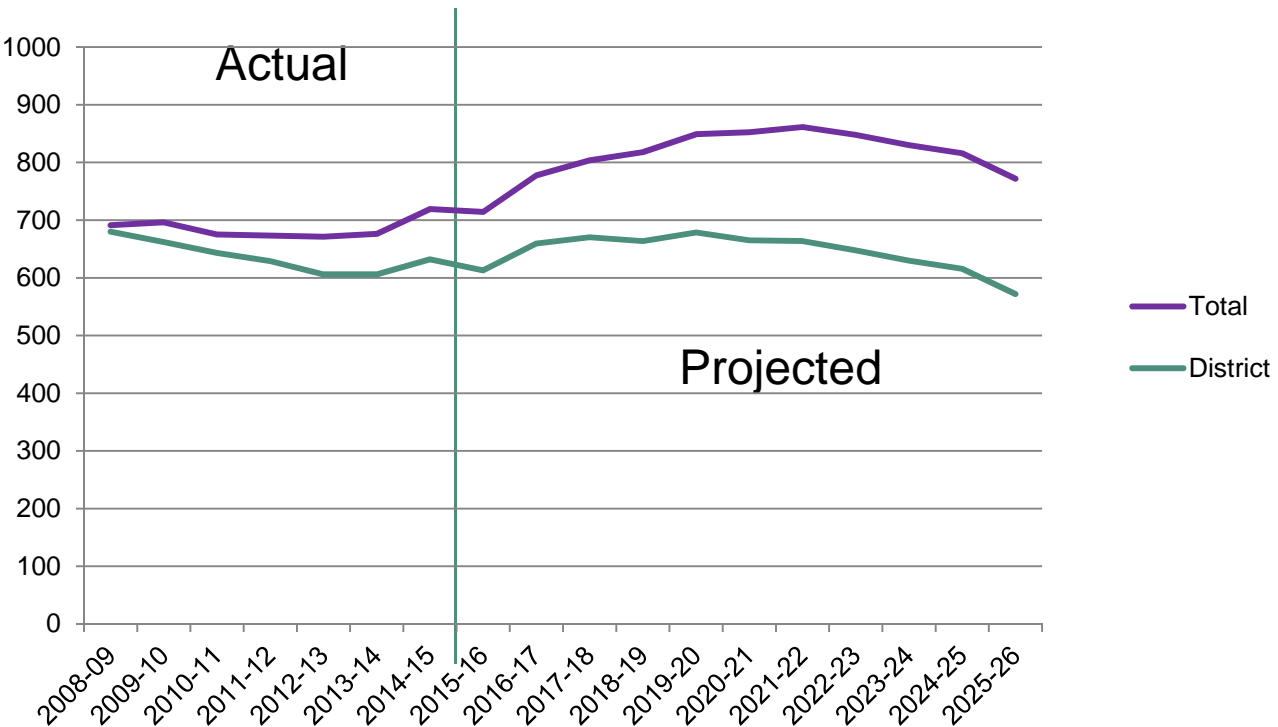
HS Enrollment Total by Grade

Actual

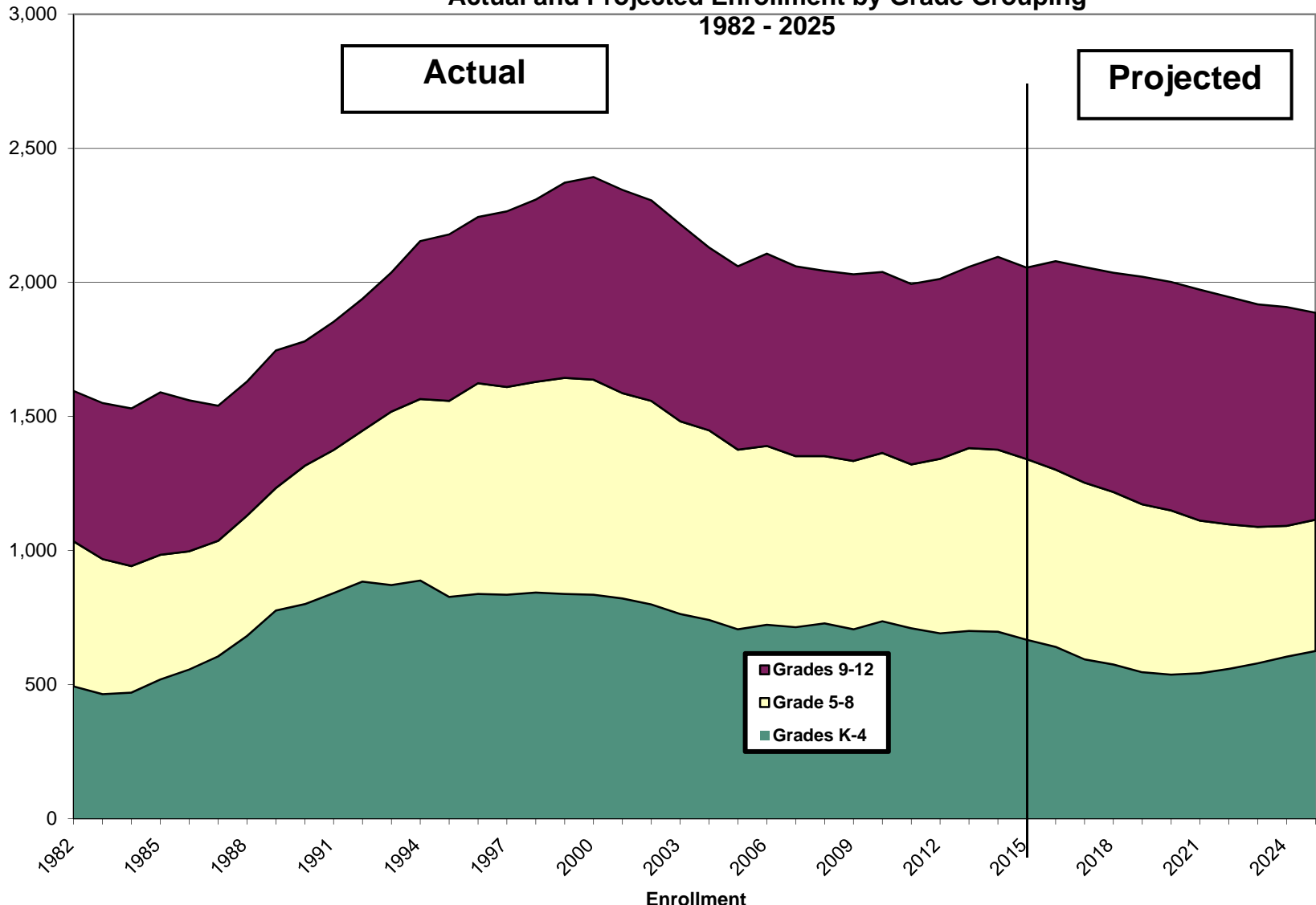
Year	9th	10th	11th	12th	Total District
2015	187	197	181	149	714
2016	202	190	199	187	778
2017	212	204	188	200	804
2018	214	214	201	189	818
2019	220	216	210	203	849
2020	206	221	212	213	852
2021	221	207	219	214	861
2022	200	223	204	221	848
2023	203	201	220	206	830
2024	191	204	199	222	816
2025	178	192	202	200	772

HS Enrollment Projection with Current Barrington Tuition Arrangement

High School Enrollment Projections with and without Tuition



**Oyster River School District
Actual and Projected Enrollment by Grade Grouping
1982 - 2025**

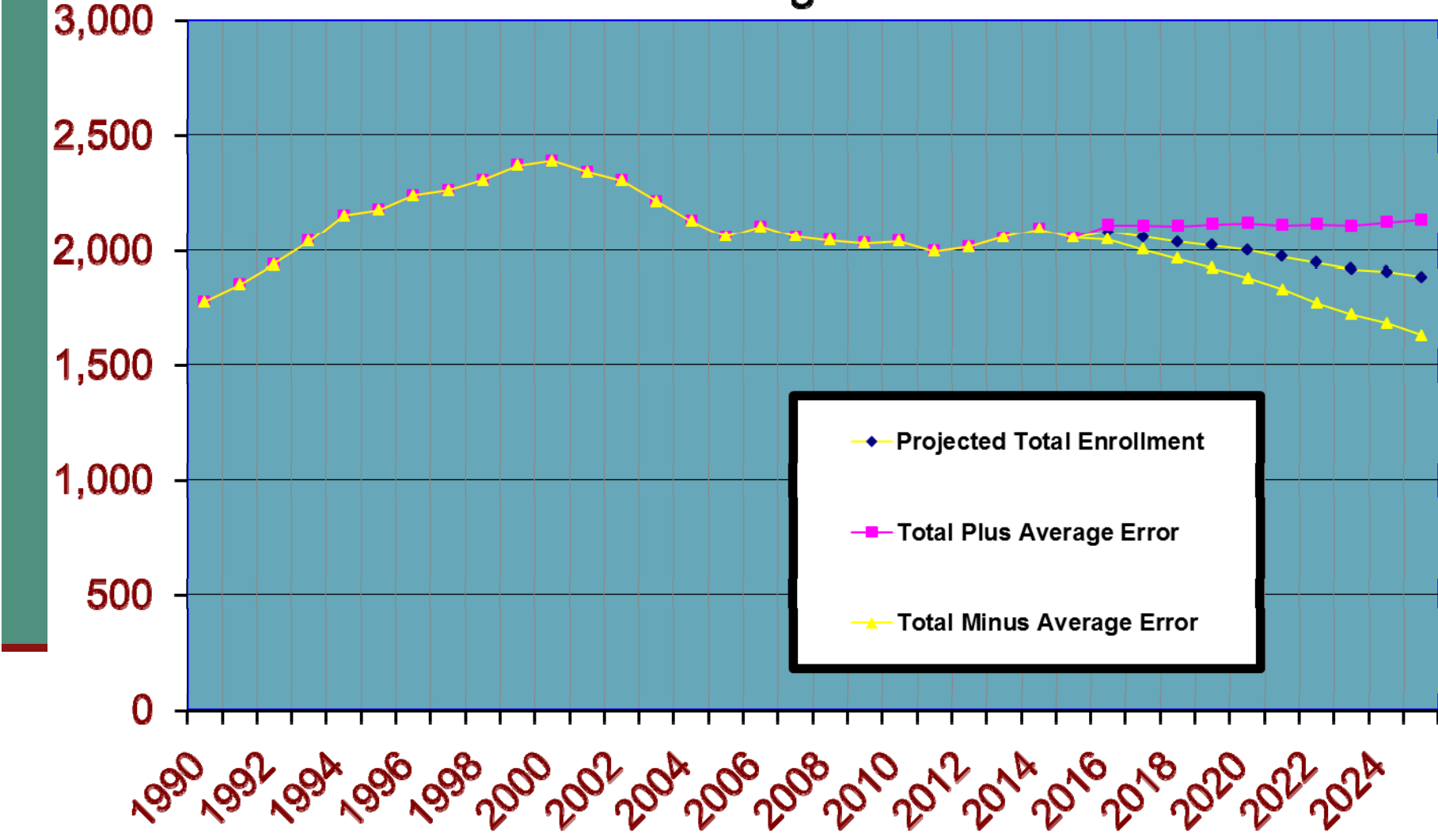


Actual

Projected

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

Actual and Projected Enrollment plus and minus Average Error of Estimate



Summary

- **Total ORCSD enrollment is projected to remain over 2,000 for 5 more years, then decline to 1,896 by 2025-26 (1,696 plus 200 tuition students). The number of native students declines by about 250 over the next ten years but tuition students offset most of the decline.**
- **Full day kindergarten is assumed. Half day kindergarten would reduce the projection by 4-12 students each year. High end estimate of full day K would raise the projection by 3-8 students each year.**
- **The number of elementary school students will decrease. Elementary enrollment drops from 667 now to 542 in 2020-21 then rebounds to 634 in 2024-25.**
- **Middle school enrollment, now 674, drops to 490 in 2025.**
- **High School enrollment (including Barrington), now 714, rises to 861 in 2021-22, then drops off to 772 in 2025-26 (572 plus 200 tuition students).**



Any Questions?



ORCSD Adults in Prime Childbearing Years

Source: *Us Census Bureau*

