Shrewsbury Public Schools
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To: School Committee

Subj: ENROLLMENT PROJECTION REPORT

Background

Enrollment projections are an essential element in short- and long-term school planning. We use enrollment projections for near-term class size and staff planning, as well as long-term projections for capital planning purposes. Enrollment projection models provide Shrewsbury three key elements of our budget development:

- evidence of trusted information to make enrollment projections
- short-term planning to make accurate projections for the number of sections and staffing needed each year to address School Committee class size guidelines
- long-term capital planning that projects enrollment trends over time to keep pace with physical space needs and evolving mandates for educating students

Enrollment Projection Models

The following projection methods provide Shrewsbury with a trusted source of information to forecast student enrollment.

- **Town Manager's [TM] Enrollment Report**
  - conducted annually. This is a standard *cohort survival method* using a five-year average for each cohort survival ratio.
- **New England School Development Council [NESDEC] Enrollment Report**
  - conducted annually through membership with the Council. This is a three-year *cohort survival method* for grades 1-12 and a 99% survival ratio for birth to kindergarten.
- **The McKibben Report**
  - This was a one-time report conducted in March 2022 as part of the PreK-12 Capital Investment and Assessment Study. This uses a *Cohort-Component Method,* which forecasts future population based on the survival of the existing population and the births that will occur.

Short-term enrollment projections

Short-term enrollment projections offer greater accuracy due to the known factors based on current enrollment and birth rate actuals. Chart 1 below details the enrollment projection from The Town Manager and NESDEC projections to the actual number of students enrolled as of October 1, 2023. The data shows an accuracy percentage of 1.29 to 1.54 variance between the projections and the actual number of enrollments for 2023-2024.

Chart 1: Enrollments projected versus actual for 2023-2024

	TM Projection	NESDEC Projection	Actual as of 10/1	
Preschool	na	205	202	

	TM Projection	NESDEC Projection	Actual	
Kindergarten	351	330	359	
Grade 1	415	412	392	
Grade 2	390	391	400	
Grade 3	381	379	390	
Grade 4	434	436	449	
Grade 5	453	455	470	
Grade 6	446	449	450	
Grade 7	509	509	483	
Grade 8	466	466	460	
Grade 9	446	450	491	
Grade 10	486	486	507	
Grade 11	444	445	438	
Grade 12	429	428	434	
	5,650	5,636	5,723	

		Accuracy	Variance	Variance
Actual v. Town Mgr		101.29%	1.29%	73
Actual v. NESDEC		101.54%	1.54%	87

Highlights

The accuracy of these projections provides a strong set of data for short-term class size decisions, however there are limiting factors that do not account for sudden changes in enrollment that may impact the forecast formula. Highlighted above, the actual numbers in Grades 7, 9 and 10 have greater variances. This is information that the School Department attributes to upstream causes such as the loss of access to Assabet Regional Technical High School in Grade 9 and 10. Acceptance to the recently formed St. John's Middle School has an impact in Grade 7, with 15 students from Shrewsbury enrolling in that program. The District is also monitoring the impact on migration to Shrewsbury, including the unexpected settling of homeless families and potential impacts across all levels (and would not have been factored into enrollment formulas.) Graph 1 below shows the variances across grade spans.
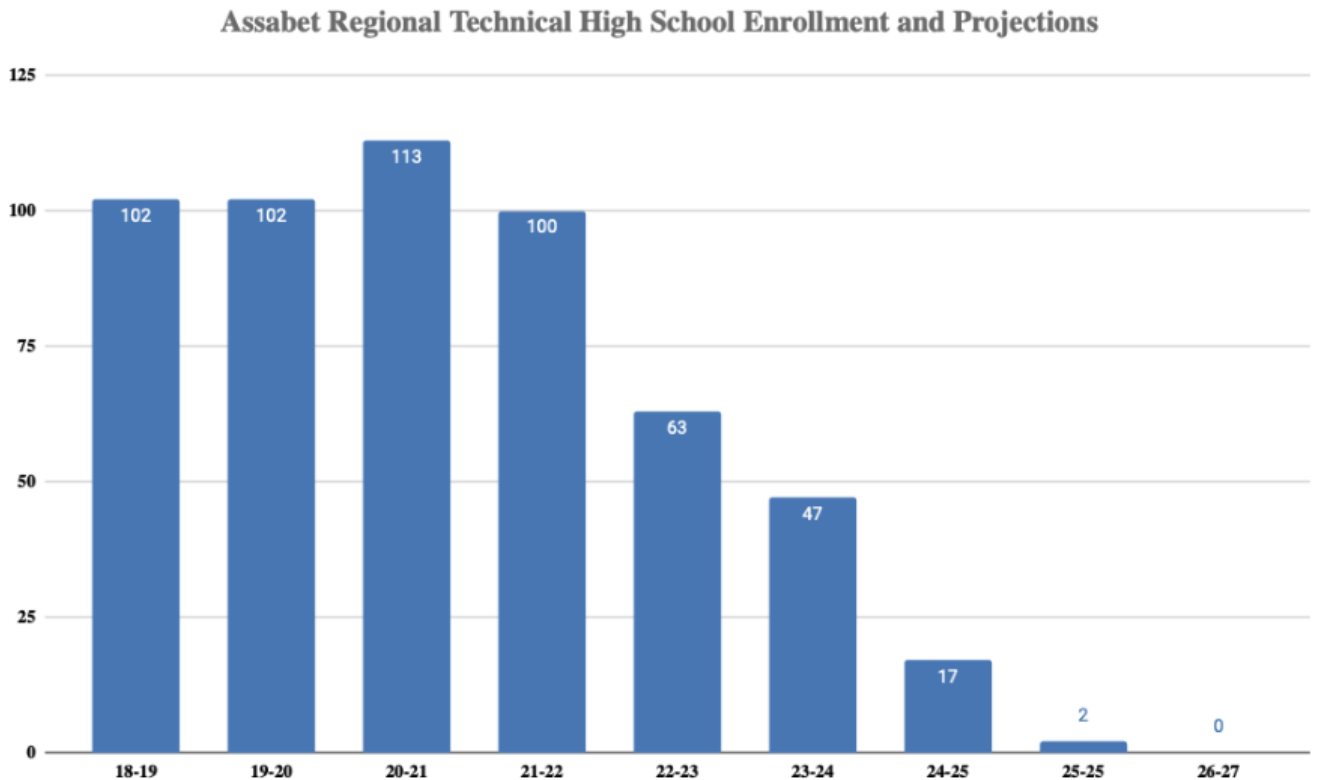
Graph 1: 2023-2024 Projections versus Actual Enrollments
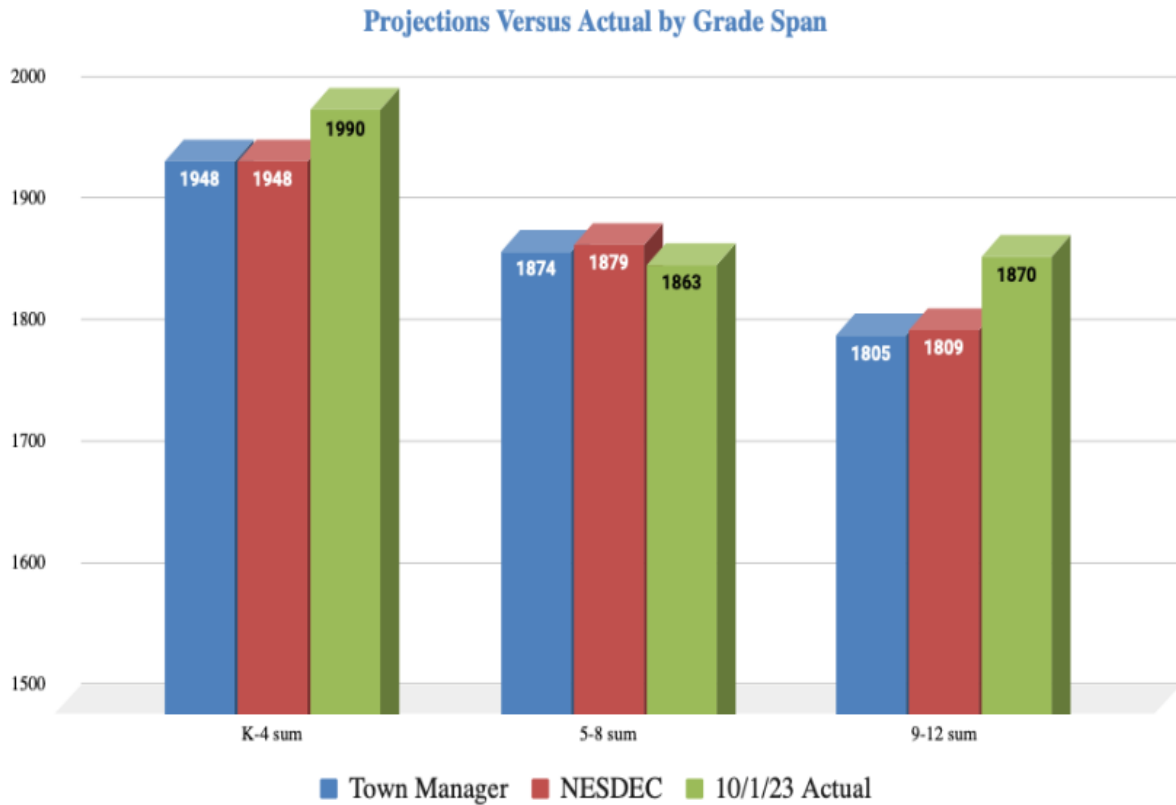
Assabet Regional Technical High School

We continue to monitor the decrease in enrollment at Assabet Regional Technical High School numbers as a result of the change in policy for accepting Shrewsbury students into their program. Graph 2 below show the decline in Assabet Enrollments with the projection of 0 students attending by 2026-2027.

Graph 2: Assabet Regional Technical high School Enrollment: Impact on High School Projections

Assabet Regional Technical High School Enrollment and Projections

Year	Value
18-19	102
19-20	102
20-21	113
21-22	100
22-23	63
23-24	47
24-25	17
25-25	2
26-27	0

Planning for FY25

Chart 2 below compares the October 1, 2023 enrollment numbers by grade level with the 2024-2025 projections from the Town Manager's Office and NESDEC. The goal is to use these three data sets to build class sections and right-fit staffing. As a continuation from the data above, Grades 7 and 9 continue to project measurably higher variances, as does Grade 4. Regardless of these variances, the overall K-12 enrollment (Totals in Chart 2 below) provides a level of accuracy that is not projecting impactful changes to FY25 class size and staffing preparation.

Chart 2: Projection comparison: K-12 for 2024-2025 School Year

|	10/1/2023 Enrollment		Town Manager Projected for SY 24-25	Change: 10/1/23 to SY 24-25		NESDEC Projected for SY 24-25	Change: 10/1/23 to SY 24-25
K	359		396	37		359	0
Gr. 1	392		409	17		406	14
Gr. 2	400		412	12		414	14
Gr. 3	390		406	16		406	16
Gr. 4	449		399	-50		401	-48
K-4	1990		2022	32		1986	-4
Gr. 5	470		460	-10		462	-8
Gr. 6	450		478	28		480	30
Gr. 5 + Gr. 6	920		938	18		942	22
Gr. 7	483		445	-38		448	-35
Gr. 8	460		482	22		479	19
Gr. 7 + Gr. 8	943		927	-16		927	-16
Gr. 9	491		441	-50		444	-47
Gr. 10	507		496	-11		492	-15
Gr. 11	438		497	59		493	55
Gr. 12	434		437	3		437	3
Gr. 9-12	1870		1871	1		1866	-4
Totals	5723		5758	35		5721	-2

Preschool

For comparison purposes, preschool has not been factored into the short- and long-term projections shown above due to this cohort not being part of the Town Manager's calculation. Parker Road Preschool currently has a set number of seats it can offer through multiple programs based on day, time of day, and program need. Ten year projections for preschool shows a fixed enrollment of 242 students due to this being the maximum number of seats currently available.

Parker Road Preschool continues to review trends of interest in preschool from our community to monitor if it is the right-size fit for families, and the School Department will continue to monitor trends at the state level as conversations continue around universal public preschool.

Long-term planning

Long-term enrollment projections provide data for capital planning purposes that project enrollment trends over time to keep pace with physical space needs and evolving mandates for educating students. Graph 2 below depicts the three K-12 projection models at three-year intervals as compared to the 2023-2024 actual enrollment. All three projections show a slow and marginal decrease in enrollment over the projected term.

Graph 2: 10 Year Enrollment Projections
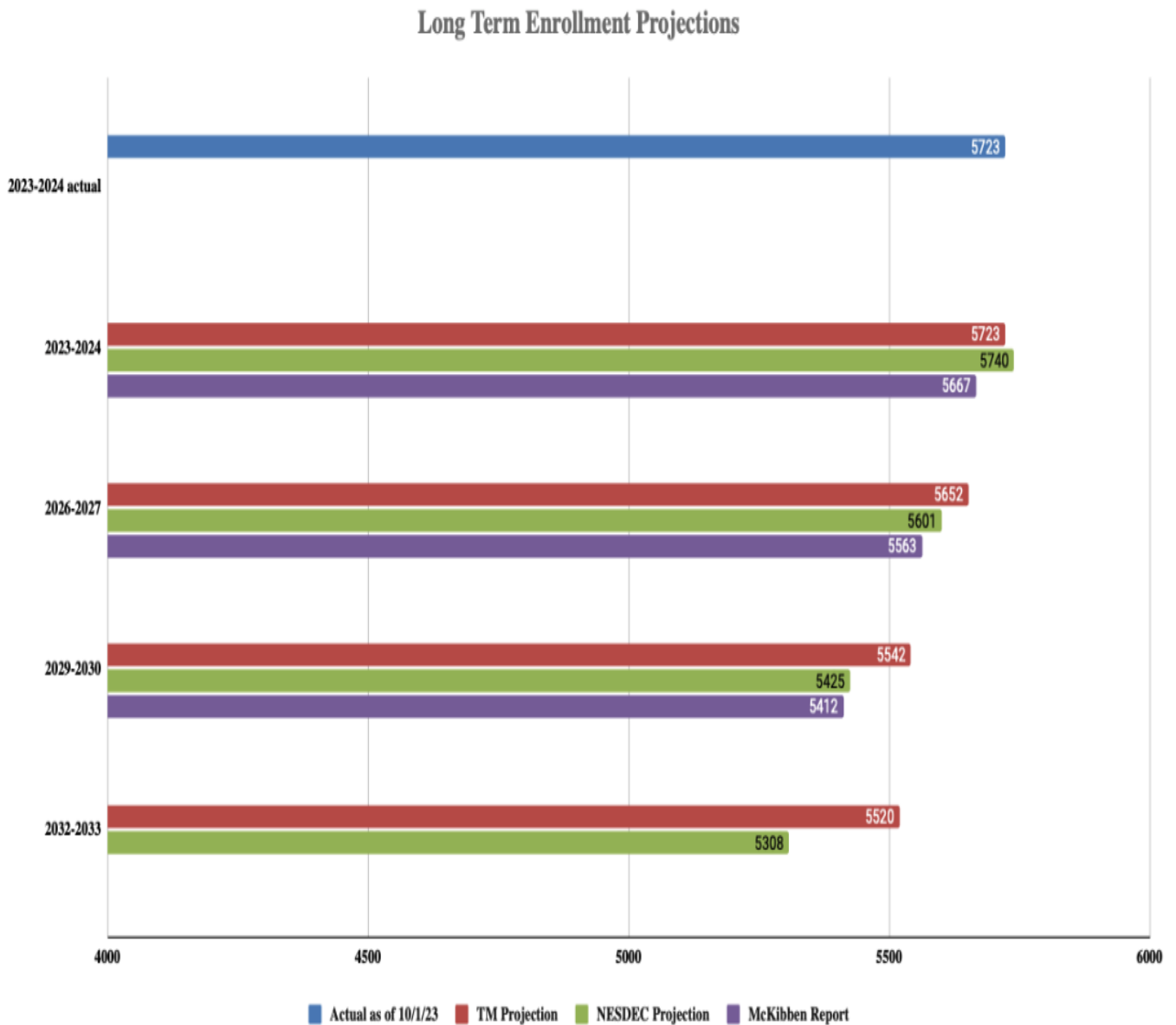
Post-pandemic: birth rates

A factor in declining enrollment projections is the low birth rate totals from 2020 and 2022, which one would equate to the COVID-19 pandemic. From 2011 through 2019, Shrewsbury averaged 340 births per year. 2020 and 2022 are exceptions from the average and will have a down-stream impact on 10 year projections.

Chart 3: Birth Rates as a factor for long-term projections

Births		Entering K		Birth to K ratio
2011	373	2016	388	1.040
2012	326	2017	355	1.089
2013	372	2018	351	0.944
2014	341	2019	362	1.062
2015	324	2020	287	0.886
2016	336	2021	343	1.021
2017	313	2022	358	1.144
2018	324	2023	359	1.108
			2 Year Avg	1.126
Projections				
2019	352	2024	0	0.000
2020	259	2025	0	0.000
2021	343	2026	0	0.000
2022	297	2027	0	0.000
	313	Avg		
Assumed (241 births through 10/27/2023)				

Summary

The enclosed enrollment projection models allow us to complete our short-term staff planning for the 2023-2024 school year. This takes into account the quantitative projections of enrollment trends over time through our projection models, as well as qualitative projections identifying variables such as Assabet and St. John's acceptance rates, migration to Shrewsbury, and potential changes to preschool.

The projection models also provide critical data for long-term capital planning with 10-year

enrollment projections. This is critical to our work with our current Statement of Interest to the Massachusetts School Building Authority for the potential expansion of Shrewsbury High School, as well as our PreK-4 Space Planning Committee to make recommendations on long-term capital planning for preschool and elementary facilities and programming.