



Needham Public Schools
1330 Highland Avenue
Needham, MA 02492

A school and community partnership that creates excited learners, inspires excellence, fosters integrity.

October 26, 2019

To: Needham School Committee
From: Anne Gulati, Assistant Superintendent for Finance & Operations
Re: FY 2020/21 – 2024/25 Five-Year Financial Forecast

Introduction

The Needham Public Schools is faced with opportunities and challenges over the next five years. As we pursue our goals for improving student learning over the next five years, we do so in an environment of limited resources, competing demands and constrained choices.

- The student body will grow by 182 students overall during the five-year period, driven by increasing enrollment at the secondary level. (These increases reflect the movement of the existing large class sizes through the system.) Elementary enrollment by contrast, is expected to grow by 47 students in FY21, and then decline steadily by approximately the same number over the next four years. However, although this is the trend overall at the elementary level, the Eliot and Newman populations will continue to grow through FY23, and the Broadmeadow School will maintain high enrollment over the same time period, as new children continue to arrive from the new residential developments in those areas.
- Another significant pressure is the need to meet increasingly intensive special education and support service needs. The district continues to see growth in the number of students with significant mental health challenges, behavioral concerns, and emotional disabilities. In addition, the caseloads of elementary special education teachers are large and growing. Finally, Needham continues to see unilateral placements by parents to out-of-district schools, as well as parents who move to Needham to receive services.
- In addition, shifting priorities at the state and federal level will likely result in reduced grant funds for Needham and a corresponding move to fund critical positions with ongoing local dollars.
- Finally, the School Department must balance its operational needs with the need to provide additional classrooms space, repair/replace aging facilities, and replace our technology and capital equipment infrastructure.

To better understand the ‘big picture’ challenges and to inform decision-making during the budget process, the School Department has developed this five-year financial forecast. This forecast projects school expenses based on a combination of historical trends, current data and identified needs. It is not a substitute for the budgeting process, but rather a planning document and tool for engaging in conversation.

The five-year forecast is presented on the following pages, and includes a discussion of both underlying assumptions and implications for future work. The enrollment projections upon which this analysis is based are *preliminary*, and reflect provisional estimates prepared by McKibben Demographic Research. At this point in time, the School Department has not yet received the final updated fifteen-year population forecast. The School Committee welcomes the opportunity to discuss this report, and the opportunities and challenges for sustainable growth with Town Meeting members, the Board of Selectmen and the Finance Committee.

FY 2020/21 – 2024/25 Expenditure “Needs” Projection

FY 2020/21 - 2024/25 PROJECTION	Budget 2019/20	Proj 2020/21	Proj 2021/22	Proj 2022/23	Proj 2023/24	Proj 2024/25	AVG ANNUAL INC
<u>SALARIES</u>							
Base Salary Costs (Current FTEs)	65,030,005	66,980,905	68,990,332	71,060,042	73,191,843	75,387,598	
Supplies and Services	10,975,760	11,483,892	11,961,726	12,462,289	12,986,747	13,536,329	
SubTotal	76,005,765	78,464,797	80,952,058	83,522,331	86,178,590	88,923,928	
\$ Increase/(Decrease) from Prior Year		2,459,032	2,487,261	2,570,273	2,656,260	2,745,337	
% Increase/(Decrease) from Prior Year		3.2%	3.2%	3.2%	3.2%	3.2%	
Approved FTE (2019/20)	794.19	794.19	794.19	794.19	794.19	794.19	
Additional Cost of New Positions		2,276,882	3,051,874	3,368,600	3,646,699	3,953,840	
Annual New FTE		49.21	13.90	7.82	1.74	4.08	
Cumulative New FTE		49.21	63.11	70.93	72.67	76.75	
Grand Total with Additional Positions	76,005,765	80,741,679	84,003,932	86,890,930	89,825,289	92,877,768	
\$ Increase/(Decrease) from Prior Year		4,735,914	3,262,253	2,886,999	2,934,359	3,052,479	
% Increase/(Decrease) from Prior Year		6.2%	4.0%	3.4%	3.4%	3.4%	3.56%
"Needs" FTE (2019/20)	794.19	843.40	857.30	865.12	866.86	870.94	
Projected School Revenue @ 4% Historical Growth	76,005,765	79,045,996	82,207,835	85,496,149	88,915,995	92,472,635	
\$ Increase		3,040,231	3,161,840	3,288,313	3,419,846	3,556,640	
% Increase		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
CUMULATIVE SURPLUS/(DEFICIT)		(1,695,683)	(1,796,096)	(1,394,782)	(909,294)	(405,134)	
INCREMENTAL GAP		(1,695,683)	(100,413)	401,315	485,487	504,161	

FY 2020/21 – 2024/25 Projected Staff Growth to Meet Enrollment, Mandates and Other Needs

Positions	Projected 20/21	Projected 21/22	Projected 22/23	Projected 23/24	Projected 24/25	Total 24/25
<u>Classroom Teachers</u>						
Broadmeadow	1.00	2.00	-	(1.00)	(1.00)	1.00
Eliot	3.00	1.00	1.00	-	-	5.00
Hillside	1.00	-	1.00	(1.00)	-	1.00
Mitchell	-	(1.00)	1.00	-	-	-
Newman	-	-	-	(1.00)	-	(1.00)
High Rock	-	-	-	-	-	-
Pollard	2.00	2.00	-	-	-	4.00
<u>High School</u>	<u>1.75</u>	<u>1.25</u>	<u>1.00</u>	<u>2.00</u>	<u>2.00</u>	<u>8.00</u>
Subtotal Classroom Teachers	8.75	5.25	4.00	(1.00)	1.00	18.00
<u>Other Staff</u>						
Classroom Teaching Assistants	1.00	-	-	-	-	1.00
Enrollment Specialists	4.35	1.45	1.57	0.44	0.68	8.49
Other Instructional: Instructional Technology Specialists	0.50	0.20	0.20	0.20	0.20	1.30
Other Instructional: STEM Engineering Teachers	1.00	-	-	-	-	1.00
Other Instructional: Interdisciplinary Learning Specialists	0.10	0.20	0.20	-	-	0.50
Other Instructional: Science/Engineering Program Specialists	0.93	-	-	-	-	0.93
Guidance Counselors	1.90	-	-	-	-	1.90
Psychologists	1.50	-	-	-	-	1.50
Nurses	1.30	-	-	-	-	1.30
SpEd Teachers	10.30	1.60	-	-	-	11.90
SpEd Instructional Assistants	6.20	-	-	-	-	6.20
SpEd Coordinators	0.30	0.30	-	-	-	0.60
ELL Teachers	0.20	-	-	-	-	0.20
Literacy Specialists	1.50	0.60	0.35	0.20	0.20	2.85
Math Specialists/Interventionists	1.00	1.00	-	-	0.50	2.50
Math Coaches	1.00	0.50	0.50	0.50	0.50	3.00
K-5 Math Coordinators	0.50	-	-	-	-	0.50
K-5 Social Studies Coordinators	-	1.00	-	-	-	1.00
Assistant Directors - Fine & Performing Arts	0.60	0.40	-	-	-	1.00
Assistant Directors - World Language	0.60	0.40	-	-	-	1.00
Professional Development Coordinators	-	-	-	0.40	-	0.40
Permanent Building Substitutes	2.00	1.00	1.00	1.00	1.00	6.00
Van Drivers	1.43	-	-	-	-	1.43
Clerical Staff	1.00	-	-	-	-	1.00
Assistant Principals	1.25	-	-	-	-	1.25
SubTotal	40.46	8.65	3.82	2.74	3.08	58.75
Grand Total	49.21	13.90	7.82	1.74	4.08	76.75
Annual \$ Cost	2,276,882	774,992	316,726	278,099	307,142	3,953,840
Cumulative \$ Cost	2,276,882	3,051,874	3,368,600	3,646,699	3,953,840	3,953,840

FY 2020/21 – 2024/25 Projected New Staff to Meet Enrollment, Mandates and Other Needs

Positions	District	Elementary (Including Preschool)	Middle	High	Projected Total Change
Staffing for Enrollment		6.0 Elementary (FY21-25) 1.0 Elementary K Teaching Asst. (FY21-25) 1.69 Elementary Specialists (FY21-25) (Excluding Teachers Listed Below)	4.0 Pollard (FY21-22) 2.6 Pollard Elective Teachers (FY21-25) 1.0 Pollard STEM Engineering Teacher (FY21) (Excluding Teachers Listed Below)	8.0 NHS (FY21-25) 4.2 NHS Elective Teachers (FY21-25) 0.1 Interdisciplinary Learning Specialist Teacher - (FY21) 0.2 Interdisciplinary Learning Specialist Teacher - (FY22) 0.2 Interdisciplinary Learning Specialist Teacher - (FY23) 0.5 DaVinci Workshop Program Specialist (FY21) (Excluding Teachers Listed Below)	29.49 FTE
Technology		0.2 Broadmeadow Instructional Technology Specialist (FY25) 0.2 Eliot Instructional Technology Specialist (FY23) 0.2 Williams Instructional Technology Specialist (FY24) 0.2 Newman Instructional Technology Specialist (FY22)	0.5 High Rock Technology Interventionist Teacher (FY21)		1.3 FTE
Guidance		0.2 Broadmeadow Guidance Counselor (FY21) 0.2 Williams Guidance Counselor (FY21) 0.6 Mitchell Guidance Counselor (FY21)	0.5 Pollard Guidance Counselor (FY21)	1.0 Adjustment Counselor (FY21)	2.5 FTE
Psychology		0.5 Broadmeadow Psychologist (FY21)		Convert 0.6 Guidance Counselor to 1.0 Psychologist (FY21)	0.9 FTE
Nursing	1.0 Substitute Transport Nurse (FY21)		0.3 Pollard Nurse (FY21)		1.3 FTE
SPED Teachers/ SLP's/ BCBA's		0.3 Broadmeadow BCBA (FY21) 0.5 Broadmeadow SpEd teacher (FY21) 0.3 Eliot BCBA (FY21) 1.0 Eliot SpEd Teacher (FY21) 1.5 Williams SpEd Teacher (FY21) 0.5 Williams SpEd Occupational Therapist (FY21) 0.3 Williams SpEd Occupational Therapist (FY22) 0.2 Mitchell BCBA (FY21) 0.3 Mitchell SpEd Teacher (FY21) 1.5 Newman SpEd Teacher (FY21) 0.5 Newman SpEd Speech Language Pathologist (FY21) 0.5 FTE Newman SpEd Occupational Therapist (FY21) 0.3 FTE Newman SpEd Occupational Therapist (FY22) 0.125 All Elementary SpEd Adaptive PE Teacher (FY21)	1.0 Pollard SpEd Teacher (FY21) 1.0 Pollard SpEd Teacher (FY22) 0.5 Pollard SpEd Reading Teacher (FY21) 0.5 Pollard BCBA (FY21) 0.025 High Rock SpEd Adaptive PE Teacher (FY21) 0.025 Pollard SpEd Adaptive PE Teacher (FY21)	1.0 NHS SpEd Teacher (FY21) 0.025 NHS SpEd Adaptive PE Teacher (FY21)	11.9 FTE
SPED TA's/ SLPA's		3.0 Broadmeadow Teaching Assistants - Connections (FY21) 0.5 FTE Williams COTA (FY21) 1.0 FTE Williams Teaching Assistant (FY21) Upgrade 3.0 FTE Williams TA's to Behavior Technicians (FY22) 0.5 FTE Newman COTA (FY21) Move 0.2 FTE Newman SLPA to Pollard (FY21)	0.4 FTE Pollard SLPA (FY21) Upgrade 4.0 FTE Pollard TA's to Behavior Technicians (FY22)	Convert 1.0 FTE TA to SpEd Teacher (FY21) Upgrade 3.0 FTE TA's to Behavior Technicians (FY22) 2.0 FTE SpEd TA's - Postgrad (FY21)	6.2 FTE
Literacy		0.2 Eliot Literacy Specialist - Title I Grant Cut (FY21) 0.2 Eliot Literacy Specialist - Title I Grant Cut (FY22) 0.15 Eliot Literacy Specialist - Title I Grant Cut (FY23) 0.1 Mitchell Literacy Specialist (FY21) 1.0 Newman Literacy Specialist (FY21) 0.2 Broadmeadow Literacy Specialist (FY22) 0.2 Eliot Literacy Specialist (FY23) 0.2 Williams Literacy Specialist (FY24) 0.2 Newman Literacy Specialist (FY25)	0.2 Pollard Literacy Specialist (FY21) 0.2 Pollard Literacy Specialist (FY22)		2.85 FTE

FY 2020/21 – 2024/25 Projected New Staff to Meet Enrollment, Mandates and Other Needs

Positions	District	Elementary (Including Preschool)	Middle	High	Projected Total Change
Math		1.0 Newman Math Coach (FY21) 0.5 Eliot Math Coach (FY22) 0.5 Williams Math Coach (FY23) 0.5 Broadmeadow Math Coach (FY24) 0.5 Mitchell Math Coach (FY25)	1.0 High Rock Math Intervention Specialist (FY21) 1.0 Pollard Math Intervention Specialist (FY22) 0.5 Pollard Math Intervention Specialist (FY25)		5.5 FTE
Science		0.43 Science Center All Elementary Program Specialist (FY22)			0.43 FTE
ELL Teachers		0.2 Mitchell ELL (FY21)			0.2 FTE
Transportation	1.43 SpEd Van Driver (FY21)				1.43 FTE
Clerical				1.0 Academic Department Chair Secretary (FY21)	1.0 FTE
Substitutes		0.5 Eliot Permanent Building Substitute (FY21) 0.5 Mitchell Permanent Building Substitute (FY21) 0.5 Broadmeadow Permanent Building Substitute (FY22) 0.5 Newman Permanent Building Substitute (FY22) 0.5 Eliot Permanent Building Substitute (FY23) 0.5 Mitchell Permanent Building Substitute (FY23) 1.0 Williams Permanent Building Substitute (FY25)	1.0 High Rock Permanent Building Substitutes (FY24)	1.0 NHS Permanent Building Substitutes (FY21)	6.0 FTE
Other Administrative	0.4 Coordinator of Professional Development (FY24) 0.6 K-12 Assistant Director Fine & Performing Arts (FY21) 0.4 K-12 Assistant Director Fine & Performing Arts (FY22) 0.6 K-12 Assistant Director World Language (FY21) 0.4 K-12 Assistant Director World Language (FY22)	0.3 Eliot Assistant Principal (FY21) 0.4 Williams Assistant Principal (FY21) 0.15 Mitchell Assistant Principal (FY21) 0.3 Eliot Special Education Coordinator (FY21) 0.3 Mitchell Special Education Coordinator (FY22) 0.5 K-5 Math Coordinator (FY21) 1.0 K-5 Social Studies Coordinator (FY22)	0.4 High Rock Assistant Principal (FY21)		5.75 FTE
TOTAL	4.83 FTE	36.65 FTE	16.65 FTE	18.63 FTE	76.75 FTE

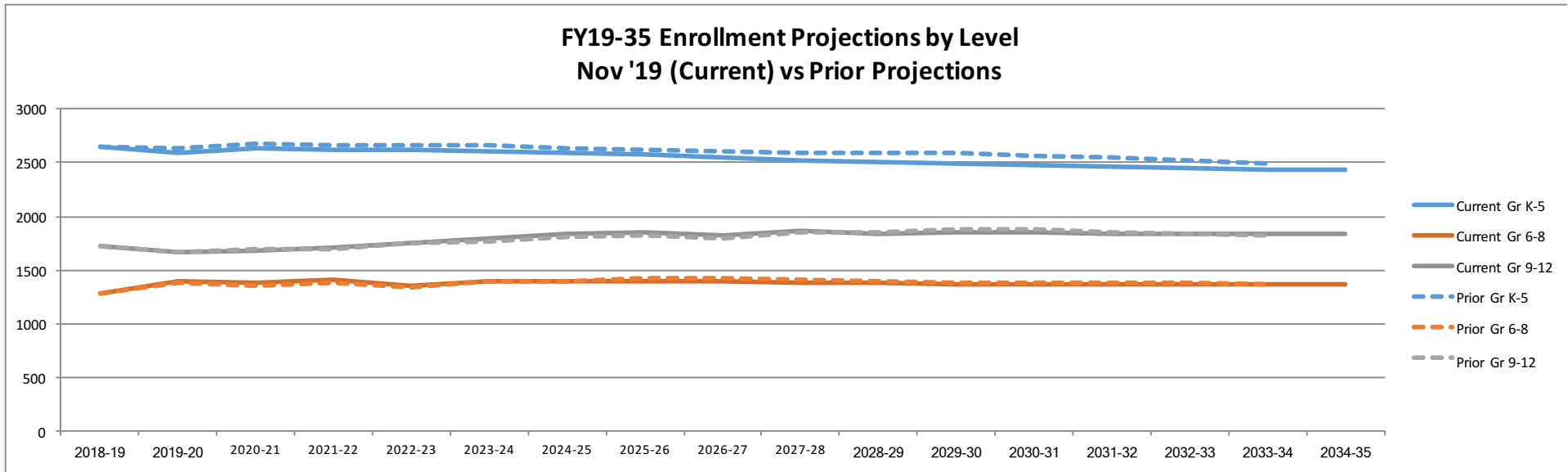
Assumptions

Enrollment Growth (November 2019 McKibben Demographic Research Projection)

- Since 2010/11, Needham’s enrollment (excluding out of district and preschool students) has increased by 341 (6.4%), at an average of about 0.7% per year. (The K-12 enrollment in October, 2010 was 5,301, compared to an October, 2019 estimate of 5,642 pupils.)
- Over the next fifteen years, K-12 enrollment is projected to remain relatively flat, but decline slightly, at a rate of about (0.01%)/year (or 0.19% overall), to approximately 5,631 pupils by September 2034.
- Although the long-term trend continues to be for 'level enrollment,' the short term will continue to be characterized by a rapid increase and then a rapid decrease in population. According to the projections, K-12 enrollment will grow from the current level of 5,642 to a peak of 5,824 students in the 2024/25 School Year, and then decline to 5,631 by 2034/35. The period where enrollment is increasing will add 182 anticipated new students to the system. During the declining enrollment period, Needham will lose an estimated 193 students.
- The K-12 enrollment projection for FY21 is for an additional 61 students, or 5,703 students overall. This projection reflects 47 more elementary students, seven fewer middle students and 21 more at Needham High School. The changes at the secondary level reflect the current year classes moving through the system. Also noteworthy, the 2020/21 school year begins the march of high school students toward a peak Grade 9-12 enrollment of 1,863 in 2027/28.

Needham Public Schools K-12 Total Enrollment by Level: FY20-35																												
McKibben Demographics																			Cum Change	Cum Change	Cum Change							
Nov-19 Best Series	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	FY20-35	FY20-25	FY25-35
<u>Enrollment</u>																												
Gr K-5	2,575	2,568	2,519	2,559	2,522	2,542	2,552	2,593	2,641	2,587	2,634	2,618	2,618	2,605	2,584	2,572	2,547	2,525	2,504	2,485	2,472	2,461	2,448	2,432	2,428	(159)	(3)	(156)
Gr 6-8	1,277	1,270	1,313	1,298	1,312	1,290	1,297	1,304	1,282	1,392	1,385	1,405	1,361	1,401	1,399	1,401	1,398	1,385	1,380	1,374	1,363	1,365	1,369	1,371	1,364	(28)	7	(35)
Gr 9-12	1,449	1,522	1,562	1,582	1,631	1,672	1,659	1,685	1,722	1,663	1,684	1,711	1,753	1,800	1,841	1,846	1,818	1,863	1,845	1,849	1,850	1,840	1,843	1,838	1,839	176	178	(2)
Total	5,301	5,360	5,394	5,439	5,465	5,504	5,508	5,582	5,645	5,642	5,703	5,734	5,732	5,806	5,824	5,819	5,763	5,773	5,729	5,708	5,685	5,666	5,660	5,641	5,631	(11)	182	(193)
<u>Annual Inc/(Dec)</u>																												
Gr K-5		(7)	(49)	40	(37)	20	10	41	48	(54)	47	(16)	-	(13)	(21)	(12)	(25)	(22)	(21)	(19)	(13)	(11)	(13)	(16)	(4)			
Gr 6-8		(7)	43	(15)	14	(22)	7	7	(22)	110	(7)	20	(44)	40	(2)	2	(3)	(13)	(5)	(6)	(11)	2	4	2	(7)			
Gr 9-12		73	40	20	49	41	(13)	26	37	(59)	21	27	42	47	41	5	(28)	45	(18)	4	1	(10)	3	(5)	1			
Total		59	34	45	26	39	4	74	63	(3)	61	31	(2)	74	18	(5)	(56)	10	(44)	(21)	(23)	(19)	(6)	(19)	(10)			

- The enrollment patterns by level will follow a familiar theme. Over the next fifteen years, elementary enrollment is projected to decline, driven by the Town's declining birth rate, albeit more rapidly than previously predicted. Middle and high school enrollment will remain strong, as the existing classes of 400+ students cycle through the system.



- As the charts and graphs illustrate, the anticipated decline in elementary enrollment will happen more rapidly than previously anticipated, given updated assumptions around existing home sales. For the current (2019) series projections, existing home sales are held constant at a minimum of 230 per year, versus 250 in the 2018 series. According to McKibben, the past twelve months saw a decline in home sales, particularly in the Broadmeadow, Mitchell and Newman neighborhoods, as well as slightly smaller household sizes, overall. McKibben indicates this could signal a trend toward empty nester homeowners 'staying put' longer in their homes, and not placing them on the market. Since Needham relies heavily on in-migration to maintain population, reducing the assumed rate of existing home sales is projected to lead to slower or declining enrollment growth over time.

Needham Public Schools PreK-12 Total Enrollment by Level: Current (Nov '19) v. Prior (Nov '18) Projection

McKibben Demographics																					Cum Change	Cum Change	Cum Change						
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	FY20-24	FY20-25	FY25-34	
Current (2019)																													
PreK	76	74	82	84	82	82	80	82	83	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	-	-	-
Gr K-5	2,575	2,568	2,519	2,559	2,522	2,542	2,552	2,593	2,641	2,587	2,634	2,618	2,618	2,605	2,584	2,572	2,547	2,525	2,504	2,485	2,472	2,461	2,448	2,432	2,432	(155)	(3)	(152)	
Gr 6-8	1,277	1,270	1,313	1,298	1,312	1,290	1,297	1,304	1,282	1,392	1,385	1,405	1,361	1,401	1,399	1,401	1,398	1,385	1,380	1,374	1,363	1,365	1,369	1,371	1,371	(21)	7	(28)	
Gr 9-12	1,449	1,522	1,562	1,582	1,631	1,672	1,659	1,685	1,722	1,663	1,684	1,711	1,753	1,800	1,841	1,846	1,818	1,863	1,845	1,849	1,850	1,840	1,843	1,838	1,838	175	178	(3)	
PreK-Total	5,377	5,434	5,476	5,523	5,547	5,586	5,588	5,664	5,728	5,717	5,778	5,809	5,807	5,881	5,899	5,894	5,838	5,848	5,804	5,783	5,760	5,741	5,735	5,716	5,716	(1)	182	(183)	
Prior (2018)																													
PreK	76	74	82	84	82	82	80	82	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	-	-	-	
Gr K-5	2,575	2,568	2,519	2,559	2,522	2,542	2,552	2,593	2,641	2,633	2,675	2,661	2,667	2,663	2,640	2,619	2,606	2,597	2,596	2,587	2,569	2,547	2,518	2,492	2,492	(141)	7	(148)	
Gr 6-8	1,277	1,270	1,313	1,298	1,312	1,290	1,297	1,304	1,282	1,381	1,362	1,389	1,346	1,391	1,400	1,420	1,428	1,409	1,397	1,385	1,385	1,379	1,379	1,374	1,374	(7)	19	(26)	
Gr 9-12	1,449	1,522	1,562	1,582	1,631	1,672	1,659	1,685	1,722	1,670	1,693	1,702	1,746	1,769	1,808	1,824	1,797	1,856	1,859	1,874	1,874	1,857	1,840	1,828	1,828	158	138	20	
PreK-Total	5,377	5,434	5,476	5,523	5,547	5,586	5,588	5,664	5,728	5,767	5,813	5,835	5,842	5,906	5,931	5,946	5,914	5,945	5,935	5,929	5,911	5,866	5,820	5,777	5,777	10	164	(154)	
Variance																													
PreK	-	-	-	-	-	-	-	-	-	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)			
Gr 1-5	-	-	-	-	-	-	-	-	-	(46)	(41)	(43)	(49)	(58)	(56)	(47)	(59)	(72)	(92)	(102)	(97)	(86)	(70)	(60)	(60)				
Gr 6-8	-	-	-	-	-	-	-	-	-	11	23	16	15	10	(1)	(19)	(30)	(24)	(17)	(11)	(22)	(14)	(10)	(3)	(3)				
Gr 9-12	-	-	-	-	-	-	-	-	-	(7)	(9)	9	7	31	33	22	21	7	(14)	(25)	(24)	(17)	3	10	10				
PreK-Total	-	-	-	-	-	-	-	-	-	(50)	(35)	(26)	(35)	(25)	(32)	(52)	(76)	(97)	(131)	(146)	(151)	(125)	(85)	(61)	(61)				

Base Budget (Salary and Non-Salary):

The base school budget includes salaries, as well as non-salary expenditures for supplies and services. These expenses are projected to grow at approximately 3.2% per year, reflecting the following assumptions:

- The base salary budget grows at 3% per year over the five-year period, representing the historical average rate of growth in this area. Salaries represent the largest portion (86%) of the school operating budget. Base salary expenditures represent the ongoing cost of all current positions, including steps, lanes and cost of living adjustments for all currently funded positions (794.19 FTE.)
- The non-salary budget grows at 4.6% in FY21, followed by 4.2%/year over the subsequent four years. This projection is based on special education tuition, professional services and transportation expenditures growing at the (historical) rate of 5%/year, regular transportation expenditures growing at an average of 7%/year (based on the last three years), legal expenses growing at 6%/year (also based on the last three years, and including the cost of settlements), and all other expenses growing at approximately 2%/year.

Additional Positions (Staff Growth):

The model forecasts the need for 76.75 FTE new positions over the next five years, which include: 27.49 FTE enrollment teachers and classroom teaching assistants; 23.6 FTE special education and student services personnel; 9.85 FTE curriculum specialists in Literacy, Math and Social Studies; 3.73 FTE other instructional specialists (in Technology, Engineering and Interdisciplinary Studies); 3.25 FTE Assistant K-12 Directors and Assistant Principals; and 8.83 FTE in other district personnel. The other district staff members include: 6.0 FTE Permanent Building Substitutes, 1.43 FTE Van Drivers, 1.0 FTE NHS Secretary, and a 0.4 FTE Professional Development Coordinator.

New Staff Positions	20/21	21/22	22/23	23/24	24/25	Total
Enrollment Positions	14.10	6.70	5.57	(0.56)	1.68	27.49
SpEd & Student Services	21.70	1.90	-	-	-	23.60
Curriculum Specialists (Literacy, Math, Social Studies)	4.00	3.10	0.85	0.70	1.20	9.85
Other Instructional Specialists (Technology, Engineering, Interdisciplinary)	2.53	0.40	0.40	0.20	0.20	3.73
Assistant Directors & Assistant Principals	2.45	0.80	-	-	-	3.25
Other District Staff Members	<u>4.43</u>	<u>1.00</u>	<u>1.00</u>	<u>1.40</u>	<u>1.00</u>	<u>8.83</u>
Grand Total	49.21	13.90	7.82	1.74	4.08	76.75

As evident from the chart above, the majority of these new positions are identified in FY 2020/21, which reflects the 'pent up demand' for staffing from prior years, as previous budget increases have not been sufficient to fully fund identified "needs." Also, as evident from the chart below, the FY21-25 position projection is generally consistent with prior year estimates.

Projected Five-Year Forecast Staffing "Needs"	FY18-22	FY19-23	FY21-25
Enrollment Growth	10.00	26.79	27.49
Full Day Kindergarten	16.90	19.22	-
Special Education	12.60	8.46	18.70
Student Support Svc	6.60	9.99	4.90
Permanent Substitute	11.00	10.00	6.00
Technology	1.70	1.35	1.30
Administration	1.94	1.10	4.65
Grant Reduction	(0.30)	0.63	0.55
Other District	<u>9.74</u>	<u>10.21</u>	<u>13.16</u>
Subtotal	70.18	87.75	76.75

The following pages describe the staffing forecast in greater detail.

Enrollment-Related Positions:

The model forecasts the need for 27.49 FTE new enrollment-related staff positions, which include 18.0 FTE classroom teachers (6.0 FTE elementary teachers, 4.0 FTE middle school teachers and 8.0 FTE high school teachers), as well as 8.49 FTE specialist teachers and 1.0 FTE regular education classroom TAs (for Kindergarten.)

New Positions for Enrollment Growth	20/21	21/22	22/23	23/24	24/25	Total
Classroom Teachers						
Broadmeadow	1.00	2.00	-	(1.00)	(1.00)	1.00
Eliot	3.00	1.00	1.00	-	-	5.00
Hillside	1.00	-	1.00	(1.00)	-	1.00
Mitchell	-	(1.00)	1.00	-	-	-
Newman	-	-	-	(1.00)	-	(1.00)
High Rock	-	-	-	-	-	-
Pollard	2.00	2.00	-	-	-	4.00
<u>High School</u>	<u>1.75</u>	<u>1.25</u>	<u>1.00</u>	<u>2.00</u>	<u>2.00</u>	<u>8.00</u>
Subtotal	8.75	5.25	4.00	(1.00)	1.00	18.00
Classroom TA's (K)	1.00	-	-	-	-	1.00
Specialists						
Elementary	1.45	0.35	0.77	(0.66)	(0.22)	1.69
Middle	1.70	0.90	-	-	-	2.60
High	<u>1.20</u>	<u>0.20</u>	<u>0.80</u>	<u>1.10</u>	<u>0.90</u>	<u>4.20</u>
Subtotal	4.35	1.45	1.57	0.44	0.68	8.49
Grand Total	14.10	6.70	5.57	(0.56)	1.68	27.49

Elementary classroom and specialist teachers are projected based on the staffing ratios presented in the chart on the next page.

Level	Music Freq/Wk	Music Min/Cls	Art Freq/Wk	Art Min/Cls	Phys Ed Freq/Wk	Phys Ed Min/Cls	World Lang Freq/Wk	World Lang Min/Cls	Media Freq/Wk	Media Min/Cls	Tech Freq/Wk	Tech Min/Cls	STEAM Freq/Wk	STEAM Min/Cls
K	1	40	1	40	1	40	1	40	1	40	1	40		
1	1	40	1	40	2	40	1	40	1	40			1	40
2	1	40	1	40	2	40	1	40	1	40			1	40
3	1	40	1	40	2	40	2	40	1	40			1	40
4	1	40	1	40	2	40	2	40	1	40				
4 Chorus*	1	40												
5	1	40	1	60	2	40	2	40	1	40				
5 Chorus*	1	40												
FTE Equivalent	1200 Min/1.0 FTE		1200 Min/1.0 FTE		1200 Min/1.0 FTE		1200 Min/1.0 FTE		900 Min/1.0 FTE		1200 Min/1.0 FTE		1200 Min/1.0 FTE	

* Chorus Per 75 Students

STEAM: Technology, Art, Music, Engineering offered in rotation

Average Class Size	
K-3	22
4-5	24
6-8	24

Middle School staffing requirements are based on the trimester cluster model. At High Rock (Grade 6), there are five clusters, each staffed by four teachers and a special education teacher. Staffing is based on the following six period schedule, in which students attend four core ‘cluster’ courses daily (of Math, Science, English and Social Studies), plus two elective blocks over a two-day cycle, each trimester. (Electives include some combination of Physical Education, Health, Fine and Performing Arts, Technology, Literacy or Language.) In addition, every other day, cluster teachers teach a seventh instructional ‘flex block’, for the purpose of meeting the service delivery grid for students on an IEP and to provide general education reading supports for students. At the Pollard (Grades 7 and 8), there are also five clusters at each grade, each of which are staffed by four teachers and a special education teacher. At Grade 7, students have four core courses daily, plus two elective blocks. The elective offerings change on a trimester basis, with a rotating (A/B) schedule on alternate days. World Language is taught every other day all year long (3x/yr.) Other electives are taught on the following basis: Physical Education (2x/yr), Health (1x/yr), Technology (1x/yr), Engineering (1x/yr), Art (1x/yr), plus one of the following: either Band/Chorus/Strings (3x/yr), OR an arts rotation of Music Ex (1x/yr), Experiential Education (1x/yr), and Ceramics (1x/yr.) At Grade 8, students attend four core courses daily, plus two elective blocks. The elective offerings change on a trimester basis, with a rotating (5/6/7) schedule every three days. World Language is taught two of every three days all year long (6x/yr.) Other electives are taught on the following basis: Physical Education (3x/yr), Health (1x/yr), Art 8 (1x/yr), Engineering (1x/yr), plus one of the following: either Band/Chorus/Strings (6x/yr), OR an arts rotation of Experiential Education (1x/yr), Chinese Culture (1x/yr), Global Art (1x/yr), Ceramics (1x/yr), 2D Design (1x/yr) and Theater (1x/yr.)

Grade 6

	T1		T2		T3	
Per 1	PE	PA	PE	PA	PE	PA
Per 2	L	WL	A	WL	T	WL
Per 3	Core	Core	Core	Core	Core	Core
Per 4	Core	Core	Core	Core	Core	Core
Per 5	Core	Core	Core	Core	Core	Core
Per 6	Core	Core	Core	Core	Core	Core
Per 7	Flex		Flex		Flex	

Key:
PE = Physical Education
H = Health
L = Literacy
M=Music
A=Art
T=Technology
EE = Experiential Education
Eng = Engineering
Ch Cu = Chinese Culture
BCS = Band, Chorus or Strings
Th = Theater

Program:

- 1) 6 Period Day, where each student will have 4 core courses daily, plus 2 elective blocks over two-day cycle.
- 2) Every other day, flex block
- 2) Core subjects are: math, science, english, social studies.
- 3) Electives include some combination of phys ed, health, arts, technology, literacy, performing arts, foreign language.
- 4) teachers teach 5 classes/day, or 10 classes/trimester, or 30 classes/year.

Grade 7

	T1		T2		T3	
Per 1	H	BCS/M	PE	BCS/EE	PE	BCS/A
Per 2	T	WL	Eng	WL	A	WL
Per 3	Core	Core	Core	Core	Core	Core
Per 4	Core	Core	Core	Core	Core	Core
Per 5	Core	Core	Core	Core	Core	Core
Per 6	Core	Core	Core	Core	Core	Core

Program:

- 1) Six period day, where each student will have 4 core classes, daily plus two elective blocks. The elective offerings change on a trimester basis, with a rotating (A/B) schedule on alternate days.
- 2) Core subjects are: Math, Science, English, Social Studies.
- 3) World Language every other day at Gr 7.
- 4) Electives: PE (2x/yr), Health (1x/yr), Tech (1x/yr), Eng (1x/yr), Art (1x/yr), plus one of the following: Band/Chorus/Strings (3x) OR Arts Rotation: Music Ex (1x), EE (1x), Ceramics (1x)

Grade 8

	T1			T2			T3		
	Day 1	Day 2	Day 3	Day 1	Day 2	Day 3	Day 1	Day 2	Day 3
Per 1	Core	Core	Core	Core	Core	Core	Core	Core	Core
Per 2	Core	Core	Core	Core	Core	Core	Core	Core	Core
Per 3	Core	Core	Core	Core	Core	Core	Core	Core	Core
Per 4	Core	Core	Core	Core	Core	Core	Core	Core	Core
Per 5, 6, or 7	pd. 5 WL	pd. 7 BCS/Ch C	pd. 6 PE	pd. 5 WL	pd. 7 BCS/A	pd. 6 PE	pd. 5 WL	pd. 7 BCS/A	pd. 6 PE
Per 5, 6 or 7	pd. 6 H	pd. 5 WL	pd. 7 BCS/EE	pd. 6 A	pd. 5 WL	pd. 7 BCS/A	pd. 6 Eng	pd. 5 WL	pd. 7 BCS/Th

Program:

- 1) Six period day, where each student will have 4 core classes, daily plus two elective blocks. The elective offerings change on a trimester basis, with a rotating (Period 5/6/7) schedule every three days.
- 2) Core subjects are: Math, Science, English, Social Studies.
- 3) World Language is an elective rotation of 2/3 days.
- 4) Electives: PE (3x/yr), Health (1x/yr), Art 8 (1x), Eng (1x), plus one of the following: Band/Chorus/Strings (6x) OR Arts Rotation: EE (1x), Ch Cu (1x), Global Art (1x), Ceramics (1x), 2D Design (1x), Theater (1x)
- 5) Teachers teach 4 classes/day

High School staffing is based on elective course offerings, and an assumed student-to-teacher ratio of 24 students per teacher.

Student Support Services (Special Education, Guidance, Psychology, Nursing, ELL, Math, Reading):

Special education, guidance, psychology, nursing, and English language learner positions total 23.6 FTE over the five-year period and include: 11.9 FTE SpEd teachers, 6.2 FTE SpEd instructional assistants (TA's, COTAs, SLPAs, etc.), 0.6 FTE expanded SpEd coordinators, 1.9 FTE guidance counselors, 1.5 psychologists, 1.3 FTE nurses, and 0.2 FTE English language learner teachers. These positions are needed to address high caseloads and identified student needs at all levels.

Other Positions:

The model projects the need for 25.66 FTE other positions over the next five years. These additional positions include 9.85 FTE curriculum specialists, including 2.85 FTE literacy specialist teachers (0.55 FTE of which is needed due to an anticipated reduction in federal Title I funding), 2.5 FTE math specialist/interventionist teachers, 3.0 FTE math coaches, a 0.5 FTE expanded K-5 Math Coordinator and a 1.0 FTE K-5 Social Studies Coordinator. Other positions include: 3.73 FTE other instructional specialists (including 1.3 FTE instructional technology specialists, 1.0 FTE STEM/Engineering teachers, 0.5 FTE interdisciplinary learning specialists and 0.93 FTE Science/Engineering program specialists); 2.0 FTE Assistant Directors (for Fine/Performing Arts and World Languages); 1.25 FTE Assistant Principals at Eliot, Mitchell, Hillside and High Rock Schools; a 0.4 FTE Professional Development Coordinator; 6.0 FTE permanent building substitutes; 1.43 FTE SpEd van drivers; and a 1.0 FTE secretary for the NHS academic departments.

FY 2020/21 – 2024/25 Budget Impact of ‘Expenditure Needs’ Projection

The forecast assumes that revenue for school operations will grow at the historical average annual rate of 4.0%. In the long term, school operating ‘needs’ are forecast to grow at an average annual rate of 4.1%, which is roughly equal to projected revenue growth. This is an optimistic forecast for the school budget, overall.

In the short term, however, revenue deficits are projected, as the district struggles to address the 'pent up' demand for staffing and meet the aforementioned needs. In FY21, expenditure 'needs' are projected to exceed revenue by \$1.7 million. In FY22, expenditure needs could exceed revenue by another \$0.1 million. After FY22, projected expenditures are expected to remain within projected revenue.

FY 2020/21 - 2024/25 PROJECTION	Budget 2019/20	Proj 2020/21	Proj 2021/22	Proj 2022/23	Proj 2023/24	Proj 2024/25	AVG ANNUAL INC
Projected School Expenditures	76,005,765	80,741,679	84,003,932	86,890,930	89,825,289	92,877,768	
\$ Inc/(Dec) From Prior Year		4,735,914	3,262,253	2,886,999	2,934,359	3,052,479	
% Inc/(Dec) From Prior Year		6.23%	4.04%	3.44%	3.38%	3.40%	4.10%
Projected FTE (Cumulative)	794.19	843.40	857.30	865.12	866.86	870.94	
Projected FTE (Annual Increase)		49.21	13.90	7.82	1.74	4.08	
% Inc/(Dec) From Prior Year		6.20%	1.65%	0.91%	0.20%	0.47%	
Projected School Revenue @ 4% Historical Growth	76,005,765	79,045,996	82,207,835	85,496,149	88,915,995	92,472,635	
\$ Inc/(Dec) From Prior Year		3,040,231	3,161,840	3,288,313	3,419,846	3,556,640	
% Inc/(Dec) From Prior Year		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
CUMULATIVE SURPLUS/(DEFICIT)		(1,695,683)	(1,796,096)	(1,394,782)	(909,294)	(405,134)	
INCREMENTAL GAP		(1,695,683)	(100,413)	401,315	485,487	504,161	

FY 2020/21 – 2024/25 Forecast Implications

Although the forecast for long term budget growth is positive, in the short-term, the School District will continue to face significant challenges. As noted in previous forecast documents, there are no easy solutions to the external pressures placed by enrollment, mandates and student support service requirements, collective bargaining requirements, technology-intensive curricula and competing demands for funds. In many cases, the School Department’s ability to address these pressures is limited. In addition, all ‘strategies’ for balancing the budget must be weighed against the offsetting cost to children and teachers of diminished program and the competitive disadvantage of a wage reduction on our ability to attract and retain the School Departments most valuable resource - its personnel. The challenges and opportunities for managing budgetary increases are discussed in greater detail below.

Enrollment-Related Challenges:

Although enrollment is expected to level out in the long run, it is projected to grow over the next five years, particularly at the secondary level. Although the High school has been retrofitted to accommodate the anticipated growth, additional personnel will be needed to meet the demand for electives. The High Rock is undersized for its expected population and facing large class sizes as a result. Additional sections also will be needed at the Pollard in both Grades 7 and 8. Finally, at the Elementary level, enrollment will continue to grow at the Eliot, the District's smallest school.

Providing the additional staffing required to maintain reasonable class size will place pressure on both the operational budget, and on our classroom facilities. From an operational perspective, it is likely that the School Department will be able to 'afford' only some of the enrollment positions identified above. At the elementary level, the District may seek to provide only the minimum number of sections required at each grade level, by increasing class size where feasible and recommended. At the middle and high schools, budgetary and space constraints are likely to result in larger class sizes for students. At the Pollard, the administration is investigating scheduling efficiencies to minimize the need for additional enrollment teachers. From a capital facility perspective, Needham will need to look creatively at available space and potentially the need to rebalance population between schools. The Eliot School, for instance, is the District's smallest school, with only three sections per grade. In order to accommodate the projected increase in enrollment due to population growth, the school would need to become a four-section school by FY 2022/23, which is not a practical possibility. The District will need to think critically about how it will house its student population. The architectural firm of Dore and Whittier has been retained to study the space issue as part of an overall strategic master plan, the final report for which is due to the Permanent Public Building Committee and the School Committee by June, 2020.

In the longer term, the School Department's ability to meet budgetary challenges will depend, in part, on its ability to shift resources away from the elementary level, where enrollment ultimately is projected to decline, and toward growth areas. If elementary enrollments remain steady or increase, however, this will not be possible. Needham has been and likely will continue to be a destination community for parents with young families.

Special Education & Student Support Challenges:

Special education and student support services, such as Guidance, Psychology, Nursing and ELL, are significant expenditure drivers within the school budget.

Over the past several years, several 'trends' have emerged which drive cost in this area. The increase in students with significant mental health challenges, behavioral concerns, and emotional disabilities has led to an expansion of the district's specialized programs like Connections (Broadmeadow), Elementary Learning Center (Williams and Newman), Transitions (Pollard and NHS), and the Post Graduate Program (NHS.) These programs are designed to offer small, structured, highly specialized learning environments with small staff: student ratios to meet the needs of students enrolled. In addition, the caseloads of elementary special education teachers are large and growing, which has resulted in more and more teaching assistants being deployed to support students in classrooms and an over-reliance on pull out service delivery by licensed educators. In all of these areas, additional staffing is requested to meet student needs and reduce elementary caseloads to a reasonable size of 1:15 across all five elementary schools. Finally, Needham continues to see unilateral placements by parents to out-of-district schools, as well as parents who move to Needham to receive services.

The School Department's ability to control these costs is constrained by mandate, program growth, litigation and the regulatory appeals process. Special education and many of the related services are mandated. Going forward, the District will attempt to address identified student needs by redeploying resources to the extent possible, and requesting new funding to meet minimum requirements.

Collective Bargaining Requirements & State/Federal Mandates:

Since salary expenses represent about 86% of the District's operating budget, controlling the growth of compensation and benefits is key to maintaining a fiscally sustainable budget. Our ability to do this, however, is constrained by collective bargaining requirements, state and Federal educator mandates, as well as the need to offer competitive salaries for recruitment and retention purposes. Needham recently concluded negotiations with its Unit A teachers (FY20-22), will shortly settle a contract with Unit B administrators (FY20-22) and will begin negotiations with Units C (instructional assistants), D (administrative support personnel) and E (nutrition services workers) this year. In this endeavor, the School Department will work toward negotiating competitive yet fiscally sustainable contracts for these groups.

Technology Intensive Curricula:

Technology has become increasingly embedded in the school curriculum and in the fabric of school life. Textbooks, once a one-time purchase, are now acquired on a subscription basis that requires an ongoing fee per student. Testing and assessments are delivered online, and require that each student have access to a personalized learning device. 'Apps', such as Khan Academy, are used in the classroom to deliver differentiated instruction to students. Students use productivity software to manage their schedules and homework assignments. Classrooms that once had a student and teacher desktop computer now have a variety of devices, including an electronic whiteboard, a video projector, a teacher laptop and digital student devices to facilitate teaching and learning. Classroom teaching and learning now depends on mobile and flexible devices and environments.

The accelerated pace at which school life has become technology intensive has presented significant challenges for the School Department. The cost of purchasing and replacing school technology has increased dramatically over the past five years, as devices have proliferated and the useful lifespan of each device has become shorter. An example is the recent introduction of personalized learning devices at the secondary level. In addition, the proliferation of technology devices has placed significant demands on the District's network and technical support infrastructure. The ability to implement a technology-intensive curriculum will be constrained by our ability to support it, overall. It is a certainty that additional technology support resources will be required over the next five years. The School Department will seek to meet this need, within budget constraints.

Competing Demands:

Finally, over the next several years, the School Department will face several different and competing demands for scarce resources. Given these aforementioned constraints, the School Department will continue to work on long-term strategies for reducing cost and developing sustainable infrastructure in the areas of our budget, which are under our control. These efforts include:

- Providing resources to support District equity and "Portrait of a Needham Graduate" vision.
- Providing for only the most critical enrollment positions, at the expense of increased class size, where feasible.
- Negotiating fair, yet affordable contracts for teachers and other staff members.
- Creating sustainable programs 'in-house,' for expensive special education services.
- Continuing to provide pupil transportation services in the most cost-effective manner possible.
- Examining the extent to which existing resources could be redeployed to provide for identified student support services positions.
- "Managing" school expenditures by paring supply budgets back to minimal levels (where possible), conservation of energy and consumable resources and using one-time revenues, as available.
- Partnering with parents and other community groups to provide programming in new and innovative ways.
- Using fees and grant funds, where possible, to support operations.
- Continuing to implement 1:1 computing models at the secondary level.

Appendix A - Provisional Projections November 2019

DISTRICT ENROLLMENT (INCLUDING METCO)

	FY20	Projected FY21	Projected FY22	Projected FY23	Projected FY24	Projected FY25
Broadmeadow	548	557	555	553	560	546
K	77	86	86	85	84	84
1	102	86	89	89	88	87
2	84	105	89	92	92	91
3	95	86	107	91	95	95
4	97	96	87	108	92	96
5	93	98	97	88	109	93
Eliot	412	425	431	443	438	439
K	64	70	70	69	69	69
1	67	71	72	72	71	71
2	75	70	74	74	73	72
3	61	77	72	75	75	74
4	73	63	79	73	76	76
5	72	74	64	80	74	77
Willaims	518	533	531	527	523	528
K	83	83	82	82	82	81
1	80	87	86	85	85	84
2	92	83	90	89	88	88
3	93	93	84	91	90	90
4	92	94	94	85	92	91
5	78	93	95	95	86	94
Mitchell	484	481	462	447	450	437
K	65	70	70	69	69	68
1	83	71	72	72	71	71
2	70	85	72	73	74	73
3	88	71	86	73	74	75
4	94	89	72	87	74	75
5	84	95	90	73	88	75
Newman	625	638	639	648	634	634
K	102	101	100	99	98	96
1	104	105	104	103	102	101
2	120	105	108	107	106	105
3	97	121	106	109	109	108
4	107	98	122	107	111	111
5	95	108	99	123	108	113
High Rock	6	499	430	477	454	477
Pollard	893	955	928	907	931	922
7	460	504	434	482	459	468
8	433	451	494	425	472	454
High School	1,663	1,684	1,711	1,753	1,800	1,841
9	380	437	456	499	429	479
10	453	376	433	451	494	425
11	421	448	372	429	446	489
12	403	417	444	368	425	442
SP	6	6	6	6	6	6
K-12 District Total:	5,642	5,703	5,734	5,732	5,806	5,824

Source:
 FY20 - October 1 Preliminary Projection, Needham Superintendent
 FY21-25 - McKibben (provisional)