



Needham Public Schools

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

October 21, 2016

To: Needham School Committee
From: Anne Gulati, Director of Financial Operations
Re: FY 2017/18 – 2021/22 Five-Year Financial Forecast

Introduction

The Needham Public Schools is faced with opportunities and challenges. 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 FY18-22 budget picture presents special challenges. The desire to expand programming for students will be squeezed by the contravening needs imposed by a growing student body, ever more intensive special education and support service needs (particularly at the elementary level) and the demands of maintaining a technology-rich environment. Additionally, elementary enrollment has not begun its long-anticipated decline, in a way that allows a significant amount of resources to be shifted to growing sectors of the budget. Finally, the School Department must balance its operational needs, with the need to expand Needham High School, repair/replace aging facilities, such as the Hillside School, the Mitchell School, and the School Administration Building and make needed improvements to the Pollard School.

As a result of these challenges, the School Department will need to make difficult decisions within its operating and capital budgets that involve weighing program objectives, managing expectations and balancing desired program improvements with economic reality. Toward this end, the School Department has developed this five-year financial forecast to better understand the ‘big picture’ challenges we face and to inform decision-making during the budget process. This forecast complements the Pro Forma budget developed by the Town Manager, by projecting school expenses based on current data and identified needs, rather than historical trends. It is not a substitute for the budgeting process, but rather a planning document and tool for conducting scenario analysis.

This year, we focus our scenario analysis around the anticipated implementation of Full-Day Kindergarten in the 2019/20 School Year. Full-Day Kindergarten is a voted priority of the School Committee and a long-awaited priority of the Needham parent community. The five-year forecast is based upon preliminary (working) enrollment projections developed in October 2016 by McKibben Demographic Research, updated to reflect September 1 attendance information. Final, updated projections will be prepared in late October, after consulting with the Finance Committee and Board of Selectmen, and based on the official October 1 counts for the 2016/17 School Year.

The five-year forecast and scenario analysis are presented on the following pages, and includes a discussion of both underlying assumptions and implications for future work. 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 2017/18 – 2021/22 Expenditure “Needs” Projection

FY18-22 PROJECTION	Budget 2016/17	Proj 2017/18	Proj 2018/19	Proj 2019/20	Proj 2020/21	Proj 2021/22	AVG ANNUAL INC
<u>SALARIES</u>							
Base Salary Costs (Current FTEs)	55,679,870	57,665,964	59,099,210	61,037,988	63,007,588	64,990,687	
Cumulative FTE	718.14	718.14	718.14	718.14	718.14	718.14	
% Inc/(Dec) Prior Year		3.57%	2.49%	3.28%	3.23%	3.15%	3.14%
Cumulative Cost of New Positions		1,412,838	2,069,589	2,147,729	2,334,959	2,486,842	
Annual New FTE		31.41	14.94	2.53	2.98	1.83	
Cumulative FTE		749.55	764.49	767.01	769.99	771.82	
Subtotal Salaries	55,679,870	59,078,802	61,168,800	63,185,717	65,342,547	67,477,529	
% Inc/(Dec) Prior Year		6.10%	3.54%	3.30%	3.41%	3.27%	3.92%
<u>SUPPLIES & SERVICES</u>							
SpEd Out-of-District Tuition	3,261,020	3,761,020	3,949,071	4,146,525	4,353,851	4,571,543	
SpEd Transportation	1,398,127	1,440,071	1,483,273	1,527,771	1,573,604	1,620,812	
SpEd Professional Services	410,696	431,231	452,792	475,432	499,204	524,164	
Other Supplies & Services	<u>4,440,201</u>	<u>4,487,042</u>	<u>4,535,379</u>	<u>4,584,258</u>	<u>4,629,076</u>	<u>4,674,334</u>	
Subtotal	9,510,044	10,119,364	10,420,515	10,733,985	11,055,735	11,390,854	
% Inc/(Dec) Prior Year		6.4%	3.0%	3.0%	3.0%	3.0%	3.68%
GRAND TOTAL	65,189,914	69,198,165	71,589,315	73,919,702	76,398,282	78,868,383	
\$ Inc/(Dec) Prior Year	3,709,227	4,008,252	2,391,149	2,330,387	2,478,580	2,470,101	
% Inc/(Dec) Prior Year	6.03%	6.15%	3.46%	3.26%	3.35%	3.23%	3.89%

FY 2017/18 – 2021/22 Projected Staff Growth to Meet Enrollment, Mandates and Other Needs

Incremental Positions	16/17	17/18	18/19	19/20	20/21	21/22	CUM TOTAL
<i><u>Classroom Teachers</u></i>							
Broadmeadow	24.00	1.00	(1.00)	(2.00)	-	2.00	24.00
Eliot	16.50	2.00	(1.00)	(1.00)	-	2.00	18.50
Hillside	21.00	1.00	(1.00)	1.00	-	1.00	23.00
Mitchell	22.00	1.00	-	-	(1.00)	-	22.00
Newman	28.50	-	-	(1.00)	-	-	27.50
High Rock	20.60	-	0.40	1.00	(1.00)	-	21.00
Pollard	41.40	-	-	0.80	1.00	(4.00)	39.20
High School	73.95	3.32	2.00	(1.41)	0.82	1.23	79.91
Subtotal Classroom Teachers	247.95	8.32	(0.60)	(2.61)	(0.18)	2.23	255.11
<i><u>Other Staff</u></i>							
Specialists	111.97	4.53	4.33	(0.07)	0.45	(0.40)	120.81
Computer Tech./Media Aides	3.31	-	-	-	-	-	3.31
Guidance	27.00	-	0.20	0.20	-	-	27.40
Psychology	5.70	0.50	-	-	-	-	6.20
Nurse	8.66	-	0.40	-	-	-	9.06
SPED	68.40	2.30	1.00	1.00	1.00	-	73.70
SPED TA	89.22	5.30	1.00	1.00	-	-	96.52
SPED Team Chair	-	-	-	-	-	-	-
SPED Director	5.97	-	-	-	-	-	5.97
ELL	4.40	0.40	0.60	-	-	-	5.40
MCAS Tutor	-	-	-	-	-	-	-
Clerical	36.46	0.94	-	1.00	-	-	38.40
Department Head	7.40	-	-	-	-	-	7.40
Asst Principal	8.40	-	-	-	-	-	8.40
Principal	8.00	-	-	-	-	-	8.00
Other District	85.32	9.12	8.01	2.00	1.71	-	106.16
Grand Total	470.21	23.09	15.54	5.13	3.16	(0.40)	516.73
Grand Total	718.14	31.41	14.94	2.53	2.98	1.83	771.82
Annual \$ Cost		1,412,838	656,752	78,139	187,231	151,883	
Cumulative \$ Cost		1,412,838	2,069,589	2,147,729	2,334,959	2,486,842	2,486,842

FY 2017/18 – 2021/22 Projected New Staff to Meet Enrollment, Mandates and Other Needs

Positions	District	Elementary	Middle	High	Preschool	Projected Total Change
Staffing for Enrollment		3.0 Classroom (FY18-22) 0.88 Specialist (FY18-22) (Excluding Teachers Listed Below)	(1.8) Classroom (FY18-22) (0.76) Specialist (FY18-22) (Excluding Teachers Listed Below)	5.96 Elective Teachers (FY18-22) 2.8 Specialist Teachers (FY18-22) (Excluding Teachers Listed Below)		10.08 FTE
Technology	Vocational School Work-Study Student (FY18) Peak Period Temporary Tech Assistants (FY18)	0.2 Mitchell ITS (FY18) 0.3 Eliot ITS (FY18) 0.2 Hillside ITS (FY18)		1.0 HS ITS (FY19)		1.7 FTE
Guidance				0.2 Adjustment Counselor (FY19) 0.2 Adjustment Counselor (FY20)		0.4 FTE
Psychology	1.0 PhD Psychologist/BCBA (FY21)	0.4 Newman (FY18)		0.1 Psychologist (FY18)		1.5 FTE
Nursing			0.1 High Rock Grant Nurse to Operating (FY19)	0.1 NHS Grant Nurse to Operating (FY19) 0.2 Nurse (FY19)		0.4 FTE
SPED Teachers/ SLP's/ BCBA's	1.0 HomeBased BCBA (FY20) Upgrade OT/PT to Unit A (FY18)	1.0 Eliot Language Based SpEd Teacher (FY21) 0.5 Broadmeadow SpEd Teacher (FY19) 0.4 Broadmeadow SLP (FY18) 0.5 Eliot SpEd Teacher (FY18) 0.4 Hillside SpEd Teacher (FY18) 1.0 Severe Newman SpEd Teacher (FY18) 0.25 Newman Assistive Technology Specialist (FY19) 0.2 Elementary Occupational Therapist (FY19)	1.0 High Rock SpEd Teacher (FY20)	0.25 NHS Assistive Technology Specialist (FY19)	0.86 Preschool Physical Therapist (FY18) 0.1 Preschool Physical Therapist (FY19)	7.46 FTE
SPED TA's/ SLPA's		1.0 Eliot TA from Grant to Operating (FY18) 0.5 Hillside TA (FY18) 1.5 Mitchell TA (FY18) 1.0 Newman TA (FY18) 0.8 Newman TA from Grant to Operating (FY18) Upgrade 3 Hillside TAs to Behavior Technicians (FY22)	1.0 High Rock TA (FY20) Upgrade 3 Pollard TAs to Behavior Technicians (FY22)	Upgrade 3 NHS TAs to Behavior Technicians (FY22) 0.5 NHS TA (FY18) 1.0 NHS TA (FY19)	1.0 Preschool TA (FY18) 0.16 Preschool TA from Grant (FY18)	8.46 FTE
English						
Reading		0.2 Literacy Specialist - Title I Cut (FY19) 0.2 Literacy Specialist - Newman (FY19) 0.2 Literacy Specialist - Broadmeadow (FY19) 0.2 Literacy Specialist - Mitchell (FY20)	0.5 Pollard Literacy Specialist FY19)			1.3 FTE
Math	Upgrade 1.0 Elem Curr Ldr to 1.0 K-5 Coord, Unit B (FY18)	0.5 Hillside Math Coach (FY18) 0.5 Eliot Math Coach (FY18) 0.5 Mitchell Math Coach (FY18) 0.5 Mitchell Math Coach (FY19)	1.0 Pollard Math Intervention Specialist (FY19)			3.0 FTE
Science	Upgrade 1.0 K-5 Sci. Ctr Mgr. to 1.0 K-5 Science Coord., Unit B (FY18) 1.0 Science Center Office Aide (FY19)					1.0 FTE
ELL Teachers	Upgrade 1.0 ELL Program Manager to Unit B (FY18) (Position would have 0.4 teaching @ HS)	0.3 Broadmeadow ELL (FY19) 0.2 Hillside ELL (FY18) 0.2 Newman ELL (FY18)	0.3 Pollard ELL (FY19)			1.0 FTE
Transportation	0.71 SpEd Van Driver (FY19) 0.71 SpEd Van Driver (FY21)					1.42 FTE
Clerical	1.0 Special Education Secretary (FY19) Extend Bookkeeper Work Year to 12 Months (FY18) 1.0 Student Support Services Budget Analyst (FY19)		0.57 High Rock Bookkeeper (FY18)	0.37 NHS Bookkeeper (FY18) Upgrade 1.0 Office Aide to Secretary (FY18) 1.0 NHS Secretary (FY20)		3.94 FTE
Substitutes		2.0 Elementary Permanent Substitutes (FY18) 3.0 Elementary Permanent Substitutes (FY19)	2.0 Pollard Permanent Substitutes (FY18) 1.0 High Rock Permanent Substitute (FY19)	2.0 NHS Permanent Substitutes (FY18)	1.0 Preschool Permanent Substitutes (FY20)	11.0 FTE
Other Administrative	1.0 Coordinator of Professional Development & Growth (FY18)					1.0 FTE
TOTAL	7.42 FTE	22.53 FTE	4.91 FTE	15.68 FTE	3.12 FTE	53.68 FTE

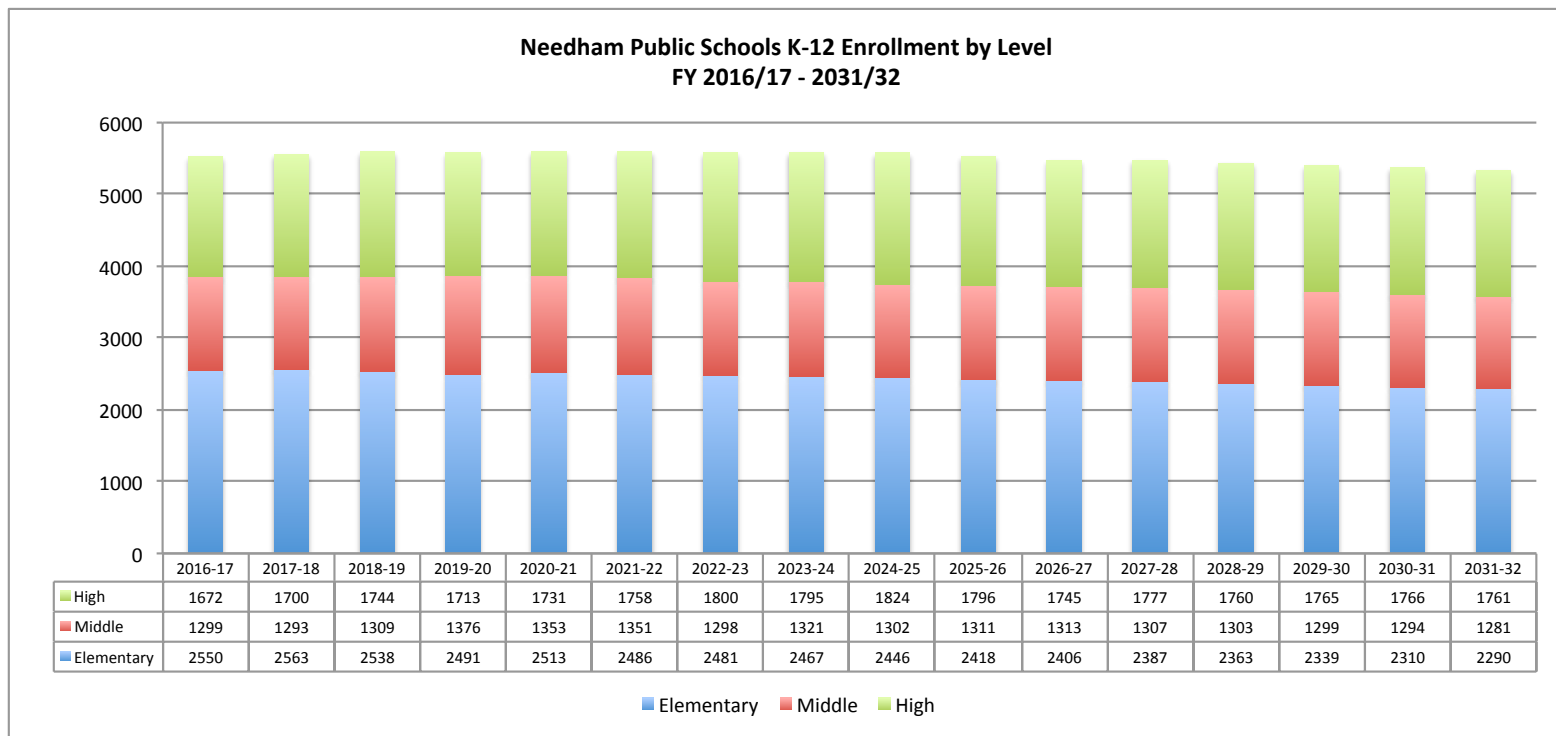
Assumptions

Enrollment Growth (McKibben Demographic Research Projection)

Since September 2006, Needham’s enrollment (excluding out of district and preschool students) has increased by 542 students, or 10.9% - the equivalent of a large elementary school - at an average of about 1.1% per year. (The K-12 enrollment in September 2006 was 4,979, compared to a preliminary September 1, 2016 estimate of 5,521 pupils.) By contrast, over the next 15 years, enrollment is projected to decline slowly at a rate of about 0.2%/year (or 3.4% overall), to approximately 5,332 pupils by September 2031. Incoming Kindergarten classes are expected to shrink in size, driven by the declining birth rate in Needham, while middle and high school enrollments are projected to remain relatively high, as the existing classes of 400+ students cycle through the system. In theory, over the long-term, the School Department should be able to shift operating resources from the elementary level to other areas of the budget experiencing growth or other pressures.

During the short term, however, enrollment will continue to grow overall. According to the McKibben analysis, over the next five years, K-12 enrollment will increase from 5,521 in FY17 to 5,595 in FY22, a cumulative increase of 74 students (1.3%.) While elementary enrollment is expected to decrease from 2,550 in FY17 to 2,486 by FY22, middle and high school enrollment will increase. At the middle school level, enrollment increases from the current 1,299 to 1,351 by FY22. The population of NHS is expected to grow from 1,672 to 1,758 over the same period and exceed 1,700 each year. Final updated projections will be prepared in late October, based on the official October 1 counts for the 2016/17 School Year.

The preliminary, projected school population through September 2031 is depicted below. Five-year projections by school are presented in Appendix A.



Base Salary Expenses:

Salary costs represent the largest portion (85%) of the school operating budget, and include the ongoing cost of all current positions, plus the additional positions needed to meet enrollment growth and service needs. Base salaries include the cost of steps, lanes and cost of living adjustments for all currently funded positions (718.14 FTE.) Projected salaries include the following collectively bargained COLAs for teachers: 1.5 % (FY17), 2.0% (FY18), and 2.25% (FY19.) In addition, FY18 includes the cost of extending the school year for teachers by one additional day, which was collectively bargained with the Needham Education Association. The FY18 cost of the 183rd day is \$220,783. Salary increases for other school employees reflect anticipated settlements within the Town’s assumed rate of revenue growth. The projection also assumes eight teacher retirements and eleven teacher resignations, per year.

Staff Growth:

The model forecasts the need for a total of 53.68 FTE new positions over the next five years, which include: 16.0 FTE classroom and specialist teachers; 19.22 FTE to provide student support in the areas of Special Education, Guidance, Nursing and English Language Learner (ELL) support; 1.42 FTE special education van drivers; 1.0 professional development coordination, 4.94 FTE clerical/administrative support, 11.0 FTE permanent substitutes and 0.1 FTE grant positions shifted to the operating budget due to grant-related budget constraints. The largest numbers of new positions are projected in FY18 (31.41 FTE) for the reasons enumerated below.

Enrollment-Related Positions:

The model forecasts the need for 12.85 FTE net new enrollment-related staff positions in FY18, which include 8.01 elementary teachers and 4.84 FTE high school teachers. Since elementary enrollment is expected to remain relatively flat over the five-year period, the model predicts that 7.38 FTE of the 8.01 elementary teachers will be needed through FY22. The number of high school teachers increases from 4.84 FTE to 9.68 FTE in FY22, reflecting enrollment growth at that level. Classroom and specialist teachers are projected based on anticipated enrollments and the following class size multipliers summarized below.

Average Class Size	
K-3	22
4-5	24
6-8	23
Chorus Gr 4 & 5	75

Elementary Special Area		Elementary Specialist Staffing	
<i>Music:</i>		freq	Minutes/Wk
K	1	15	Based on 1200 min/ FTE
1-2	1	40	
3	1	40	
4-5	1	40	
4-5 Chorus	1	40	per 75 students
<i>Art:</i>			
K	0	0	
1-4	1	40	Based on 1200 min/ FTE
5	1	60	
<i>Media:</i>			
K	1	30	Based on 900 min/ FTE
1-2	1	40	
3-5	1	40	
<i>Physical Education:</i>			
K	1	30	
1-2	2	40	Based on 1200 min/ FTE
3-5	2	40	
<i>World Language:</i>			
K	0	0	
1-2	1	40	Based on 1200 min/ FTE
3-5	2	40	
<i>STEAM</i>			
K	0	0	
1-2	1	40	Based on 1200 min/ FTE
3	1	40	

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 schedule, in which students attend four core ‘cluster’ courses daily, plus two elective blocks over a two-day cycle, each trimester. 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 five clusters at each grade, each of which are staffed by four teachers. Core teachers teach four periods per day, as do the specialists. In Grade 7, there is an alternating A/B Day schedule, where students attend four core courses daily, plus two elective blocks over a two-day cycle each trimester. (World Languages are year-long classes.) In Grade 8, the students follow an A schedule for 30 days and then a B schedule for 30 days. During each trimester, students attend four core courses daily, plus two elective blocks per day. The elective blocks rotate, with electives 5 & 6 offered on Day 1; electives 6 & 7 offered on Day 2, and electives 5 & 7 offered on Day 3 of the cycle.

Grade 6

	T1		T2		T3	
	A	B	A	B	A	B
Per 1	PE	PA	PE	PA	PE	PA
Per 2	H	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	

Grade 7

	T1		T2		T3	
	A	B	A	B	A	B
Per 1	H	A/M	PE	A/M	PE	A/M
Per 2	T	WL	Eng	WL	EE	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

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	WL	CH C	A/M	WL	Eng/M	H	WL	Th/M	PE
Per 6	A/M	WL	CH C	H	WL	Eng/M	PE	WL	Th/M
Per 7/Drop	Ch C	A/M	WL	Eng/M	H	WL	Th/M	PE	WL

WL = World Language; PE = Physical Education; H = Health; A = Art; WL = World Language; T = Technology; M = Music; Eng = Engineering; EE = Experiential Education; Ch C = Chinese Culture; Th = Theater

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

Special education, guidance, psychology, nursing, and English language learner positions total 19.22 FTE over the five-year period and are based on the anticipated student needs summarized in the chart on page five. The majority of these positions (10.15 FTE) are projected at the elementary level, to meet special education, psychology and ELL needs. Only 2.4 FTE are projected at the Middle School to provide special education, nursing and ELL support. Similarly, 2.55 FTE positions are forecasted at the High School in the areas of Special Education, Guidance, Psychology and Nursing. Two additional positions are projected District-wide to provide BCBA support. Finally, 2.12 FTE Preschool special education personnel are anticipated.

As with enrollment staff, the majority of these positions (10.52 FTE) are projected in FY18, to meet identified needs for next year.

Other Positions:

The model projects the need for 18.42 FTE other positions over the next five years. These additional positions include 11.0 FTE permanent substitutes (of which 6.0 are projected in FY18) to address the dearth of daily substitutes to cover teacher absences in the buildings, 4.94 FTE clerical and administrative support staff (of which 0.94 represent expanded bookkeepers needed in FY18 at the middle and high schools), two (1.42 FTE) special education van drivers on a contingency basis to meet potential student needs in FY19 and FY21 and a 1.0 FTE professional development coordinator in FY18. In addition, the forecast places District Occupational and Physical Therapists in the Unit A contract (FY18), and upgrades the coordinators of the elementary Science Center, Math Curriculum and English Language Learner programs to be Unit B administrators. Finally, the work year of District Bookkeepers is extended to 12 months, to provide year-round coverage for payroll and ordering purposes.

Non-Salary Expenses:

The model projects a 1% cost of living adjustment for all non-salary costs accounts, with the exception of special education tuition, professional services and transportation expenses, which are projected based on anticipated student needs and historical information.

- Special education out-of-district tuition expenditures continue to escalate at a rapid pace. Although early estimates are less reliable than those made later in the year, the September 30, 2016 preliminary projection is for FY17 tuition expenditures to exceed budget by \$883,732. This overage reflects an 8.9% (\$505,708) increase in projected tuition expenditures since the budget was adopted, an 11.8% (\$182,652) reduction in estimated Circuit Breaker revenue and a structural budget deficit of \$195,372. (The preliminary Circuit Breaker allocation of \$1,367,465 @ 70% is \$182,652 less than the budget estimate of \$1,550,117 @ 73%.)

A funding source exists for \$522,194 of this amount, reflecting the pre-purchase of FY17 tuition from FY16 budget funds. The remaining deficit must be monitored and funded during the remainder of the FY17 fiscal year with budget savings in other areas or a reserve fund transfer.

- The FY18 forecast for special education tuition reflects the aforementioned increases, as modified to reflect changes in student placements and graduations, as well as a 2% cost of living adjustment for out of district schools. The FY18 projected tuition increase is \$500,000 (or 15.3 %) more than the FY17 budget, based on the September 30 tuition estimate. Tuition obligations for FY18-21 are projected to stabilize somewhat, based on projected student needs and assumed replacements. These expenses are estimated to increase by 5% per year, going forward.
- Special education transportation costs are assumed to grow by 3% per year, which is the historical average annual cost increase for special needs out of district transportation. Regular education transportation expenses are projected to grow by 1.5% (FY18), 1.7% (FY19), 1.7% (FY20), 0.8% (FY21) and 0.8% (FY22) based on the current negotiated yellow bus contract. Bus and van driver salaries are projected separately, with other salaries.
- Special education professional service expenditures (on psychologists, occupational/physical therapists and specialized contract personnel) are projected to increase by 5% per year.

FY 2017/18 – 2021/22 Budget Impact of ‘Expenditure Needs’ Projection

The model projects that school operating ‘needs’ could exceed available revenue by approximately \$1.4 million in FY18. In succeeding years, projected revenues are roughly equal to projected expenditures, which is an optimistic forecast for the school budget overall.

The forecast assumes that revenue for school operations grows at the historical average growth rate of 4%. This projection is slightly more than that projected by the Town Manager in the September 2016 Pro Forma projection of: 4.3% (FY18), 3.9% (FY19), 3.6% (FY20), 3.9% (FY21) and 3.3% (FY21.)

FY18-22 PROJECTION	Budget 2016/17	Proj 2017/18	Proj 2018/19	Proj 2019/20	Proj 2020/21	Proj 2021/22	AVG ANNL INC
Projected School Expenditures	65,189,914	69,198,165	71,589,315	73,919,702	76,398,282	78,868,383	
\$ Inc/(Dec) From Prior Year	3,709,227	4,008,252	2,391,149	2,330,387	2,478,580	2,470,101	
% Inc/(Dec) From Prior Year	6.03%	6.15%	3.46%	3.26%	3.35%	3.23%	
Projected FTE (Cumulative)	705.97	749.55	764.49	767.01	769.99	771.82	
Projected FTE (Annual Increase)	10.77	31.41	14.94	2.53	2.98	1.83	
% Inc/(Dec) From Prior Year	1.5%	4.45%	1.99%	0.33%	0.39%	0.24%	
Projected School Revenue @ 4% Core Revenue Growth	65,189,914	67,797,510	70,509,411	73,329,787	76,262,978	79,313,498	
\$ Inc/(Dec) From Prior Year	3,709,227	2,607,597	2,711,900	2,820,376	2,933,191	3,050,519	
% Inc/(Dec) From Prior Year	6.03%	4.00%	4.00%	4.00%	4.00%	4.00%	
CUMULATIVE SURPLUS/(DEFICIT)		(1,400,655)	(1,079,904)	(589,915)	(135,303)	445,115	
INCREMENTAL GAP		(1,400,655)	320,751	489,989	454,612	580,418	89,023

FY 2017/18 – 2021/22 Alternate Scenario Analysis with Full-Day Kindergarten in FY 2019/20

We conducted additional scenario analysis, in an effort to better understand the effect that implementing Full-Day Kindergarten will have on the school budget. The results of that analysis are depicted in the chart below and increase expenditures by approximately \$1.04 million in FY20, and increase staffing by 16.9 FTE. This estimate excludes the cost of benefits, which would be carried in the Town’s budget and are estimated at approximately \$242,500.

The revenue and expenditure impact of this scenario is presented in the chart below:

FY18-22 PROJECTION FULL DAY KINDERGARTEN IN FY20	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	AVG ANNUAL INC
Projected School Expenditures	65,189,914	69,198,165	71,589,315	74,956,880	77,432,386	79,905,505	
\$ Inc/(Dec) From Prior Year	3,709,227	4,008,252	2,391,149	3,367,565	2,475,505	2,473,119	
% Inc/(Dec) From Prior Year	6.03%	6.15%	3.46%	4.70%	3.30%	3.19%	
Projected FTE (Cumulative)	718.14	749.55	764.49	783.91	786.89	788.33	
Projected FTE (Annual Increase)		31.41	14.94	19.43	2.98	1.44	
% Inc/(Dec) From Prior Year		4.37%	1.99%	2.54%	0.38%	0.18%	
Projected School Revenue @ 4.0% Annual Growth	65,189,914	67,797,510	70,509,411	73,329,787	76,262,978	79,313,498	
\$ Inc/(Dec) From Prior Year	3,709,227	2,607,597	2,711,900	2,820,376	2,933,191	3,050,519	
% Inc/(Dec) From Prior Year	6.03%	4.00%	4.00%	4.00%	4.00%	4.00%	
CUMULATIVE SURPLUS/(DEFICIT)		(1,400,655)	(1,079,904)	(1,627,093)	(1,169,407)	(592,007)	
INCREMENTAL GAP		(1,400,655)	320,751	(547,189)	457,686	577,400	(118,401)
\$ Increase Over Base - Full Day Kindergarten				1,037,178	1,034,104	1,037,122	
FTE Increase Over Base - Full Day Kindergarten				16.90	16.90	16.51	

Since planning for Full-Day Kindergarten still is in its infancy, this analysis is based on the following assumptions:

- The preliminary updated McKibben enrollment projections, based on September 1 attendance.
- Full-Day Kindergarten implementation in September, 2019.
- Average class sizes remain the same as above, or K-3 22 students and Grade 4-5 24 students.
- Additional staffing needs of: 10 FTE Kindergarten teachers, 1.9 FTE elementary specialists and 5.0 FTE Special Education TA's. Kindergarten specialists are scheduled on the same basis as above, with the following exceptions: Art is scheduled once per week for 30 minutes, and Physical Education is scheduled twice per week for 30 minutes each. Additionally, 5.0 FTE additional teaching assistants are assumed, one at each school, to model the potential impact of implementing Full-Day Kindergarten or special education staffing schedules. It is unknown at this time whether more or fewer teaching assistants would be needed.
- Full-Day Kindergarten increases the number of Kindergarten classrooms from 10 to 20. Given total classroom capacity in the District, between 1-6 new classroom spaces are projected to be are needed, to accommodate this population.
- Supply costs are: \$5,100/ furniture per new classroom; \$510/ educational supplies per new section; \$1,326/ technology for each Kindergarten section and \$7,344 in curriculum expenses per new section. (FY17 \$)
- The cost of benefits is excluded from the above chart, since these expenses are budgeted by the Town, but are expected to cost between \$242,500 - \$260,750/year.

The preliminary estimate above is similar to that produced in December 2015 to quantify the cost of Full-Day Kindergarten. The 2015 estimate predicted an FY20 implementation cost of \$1.4 million (including benefits.) Most of the assumptions remain the same, with the exception that this five-year forecast is based on average class sizes of 22 students K-3 and 24 students in Grades 4-5, while the 2015 analysis used a ‘median’ class size assumption of 20 students K-3 and 22 students 4-5.

FY 2017/18 – 2021/22 Forecast Implications

The cost of implementing Full-Day Kindergarten represents a significant challenge for the District. At this time, a decision has not been made about whether or not an operational override would be needed to finance the implementation. The upcoming months and years will provide more public discussion on this topic, as well as on the final budget overall for this initiative.

As noted in previous forecast documents, there are no easy solutions to the external pressures placed on the School Budget 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:

It is likely that the School Department will be able to ‘afford’ only a fraction 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 High School, budgetary and space constraints are likely to result in modest additions to meet priority needs.

In the longer term, the School Department’s ability to meet budgetary challenges will depend, in part, on our ability to shift resources away from the elementary level, where enrollment 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. As evident above, approximately one third of the new staff members requested are special education and student support service personnel.

Over the past several years, several ‘trends’ have emerged which drive cost in this area. The increase in needs for students with autism and mental health concerns continues to be as significant factor in increased costs. These populations have required out-placements to specialized programs, as well as intensive in-district services such as tutoring and other educational supports. The preschool program is expanding and enrolling more students with autism and/or significant physical challenges. Other rapidly growing programs include the special education summer school and work/school vocational program for Needham High students. 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 absence of a true ‘contingency budget’ for many of these expenses, particularly out-of-district tuitions, has placed pressure on other areas of the budget to meet these needs.

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. For instance, the opening of a group home in 2015 imposed unexpected, but mandated, additional demands for service. Since the group home students are Needham residents, Needham must provide special education and transportation services to students on Individualized Education Plans, many of whom are 'high need.' Although Needham can bill the sending districts for a portion of our program costs, we are unable to apply these payments to school expenditures directly, since the payments are General Fund receipts. In addition, although Needham provides in-district transportation more cost effectively with its own fleet than by contracting for services, program costs have increased rapidly, driven by growth in the special education summer, preschool and work placement programs. Finally, Needham had hoped to reduce the cost of providing out-of-district transportation by joining the Bi-County Collaborative's regional transportation group, such savings have not materialized. In addition, many of the planned combinations of riders from different districts have not worked out as expected, due to rider incompatibility, distance, equipment requirements or parental objections. 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 85% 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 will renegotiate the Unit B administrator contract this year (for FY17-19) and the Unit C instructional assistant, Unit D administrative support and Unit E nutrition service worker contract (for FY18-20.) 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 the devices have proliferated and as the useful lifespan of each device has become shorter. Over the next two years, personalized learning devices will be implemented at Needham High. 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. For example, the District will renovate the Hillside School, and hopes to renovate the Mitchell and Pollard Schools, in partnership with the MSBA. The High School is

in need of additional classrooms and cafeteria space to meet anticipated enrollments. Finally, the Emery Grover School Administration Building is in need of significant overhaul.

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 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

PROJECTED ENROLLMENT (EXCLUDING METCO)

	Preliminary FY17	Projected FY18	Projected FY19	Projected FY20	Projected FY21	Projected FY22
Broadmeadow	554	553	534	514	518	514
K	71	77	78	79	78	79
1	90	84	85	86	87	86
2	84	92	86	87	88	89
3	110	85	93	87	88	89
4	107	109	84	92	86	87
5	92	106	108	83	91	84
Eliot	389	390	385	381	390	392
K	56	59	61	62	61	61
1	64	61	63	65	66	65
2	57	65	62	64	66	68
3	72	58	66	63	65	67
4	73	73	59	67	64	66
5	67	74	74	60	68	65
Hillside	470	483	494	496	513	514
K	75	78	80	80	79	76
1	82	81	83	85	85	84
2	70	85	84	86	88	88
3	87	71	86	85	87	90
4	79	88	72	87	86	88
5	77	80	89	73	88	88
Mitchell	495	504	499	501	499	485
K	77	76	75	74	74	74
1	91	81	80	79	78	78
2	82	94	83	82	81	80
3	80	84	96	85	84	83
4	89	81	85	97	86	85
5	76	88	80	84	96	85
Newman	642	633	626	599	593	581
K	89	92	92	91	90	90
1	107	99	98	98	97	96
2	104	109	101	100	100	99
3	124	103	108	100	99	99
4	105	122	101	106	98	97
5	113	108	126	104	109	100
Pollard	879	859	844	889	941	890
7	448	418	432	463	485	410
8	431	441	412	426	456	480
High Rock	6	420	434	465	487	412
High School	1,672	1,700	1,744	1,713	1,731	1,758
9	417	440	450	420	435	467
10	449	415	438	448	418	433
11	400	445	411	434	444	414
12	404	398	443	409	432	442
SP	2	2	2	2	2	2
District Total:	5,521	5,556	5,591	5,580	5,597	5,595

