



Needham School Committee

November 5, 2019

7:00 p.m.

*Broadmeadow School
School Committee Room*

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



SCHOOL COMMITTEE MEETING AGENDA

Broadmeadow School School Committee Room

November 5, 2019 7:00 p.m.

Next School Committee Meeting: November 19, 2019

7:00 p.m. **Public Comments**

7:05 p.m. **School Committee Comments**

7:10 p.m. **Superintendent's Comments**

7:15 p.m. **Consent Agenda:**

1. Approve Minutes of the Meeting of October 2, 2019
2. Approve FY20 Budget Transfers

Discussion Items

7:15 p.m. Substance Prevention Alliance in Needham (SPAN) & Students Advocating for Life without Substance Abuse (SALSA)

7:55 p.m. Math Programming Update

8:30 p.m. **Action Items**

Approve 2019-2020 Superintendent's Goals
Adopt Fuel Efficient Vehicle Policy
Adopt Energy Reduction Plan

8:35 p.m. **School Committee Comments**

Information Items

- Student Opportunity Act Bills
- FY2020/21 - 2024/2025 Five-Year Financial Forecast
- FY2018-19 End of Year Financial Report
- FY21-35 Preliminary Projected Enrollment Update
- Disposal of Surplus Items



Needham School Committee

November 5, 2019

Agenda Item: **Public Comments**

Background Information:

- The School Committee Chair will offer the opportunity for the public to speak to the School Committee on issues not on the agenda.



Needham School Committee

November 5, 2019

Agenda Item: **School Committee Chair and Subcommittee Update**

Background Information:

- The Chair and subcommittee members may offer brief updates on issues not on the agenda.

Members of the School Committee available for comment:

Michael Greis, Chair
Andrea Longo Carter, Vice-Chair
Connie Barr
Heidi Black
Susan Neckes
Aaron Pressman
Matthew Spengler



Needham School Committee

November 5, 2019

Agenda Item: **Superintendent's Comments**

Background Information:

Superintendent Daniel E. Gutekanst will apprise the School Committee of events, information, and matters of interest not on the agenda.



Needham School Committee

November 5, 2019

Agenda Item: **Consent Agenda**

1. Approve Minutes of the Meeting of October 2, 2019
2. Approve FY20 Budget Transfers

Chair: "Does anyone wish to remove any item from the consent agenda?"

If none removed:

"There being no objection, these items are adopted by unanimous consent."

Needham School Committee
Minutes of the Meeting
October 2, 2019

Michael Greis, Chairman of the Needham School Committee called the meeting to order at 7:00 p.m.

Chairman Greis welcomed the Needham High School Chorale, led by Jonathan VanderWoude. Students performed the *National Anthem* and *You are the New Day*.

Members of the School Committee present were:

Michael Greis, Chair	Susan Neckes
Andrea Longo, Vice-Chair	Aaron Pressman
Connie Barr	Matthew Spengler
Heidi Black	

Aidan Michelow (non-voting student member)

Members of the Central Administration present were:

Dan Gutekanst	Mary Lammi
Terry Duggan	Alexandra McNeil
Anne Gulati	

Public Comments

Public Comments

Chairman Greis offered the opportunity for the public to speak to the School Committee on issues, not on the agenda.

There were no comments.

School Committee Chair and Subcommittee Update

School Committee
Chair and
Subcommittee
Updates

Chairman Greis wished a very Happy New Year to the community and friends celebrating Rosh Hashanah.

Chairman Greis noted that School Committee members are wearing blue in support of unity for Needham High School students who have organized themselves last Wednesday in a show of solidarity against racist graffiti found at the high school.

Aidan Michelow brought bracelets from the Jewish Student Union for School Committee members. The message on the bracelet is "Stand Together and Stop the Hate."

Connie Barr stated that it is solidarity, but it is also a stand against hateful words, hateful symbols, and bullying. Dr. Barr stated that this is about students who want to stand up for their peers and work on a positive level to ensure everyone is well taken care of.

Superintendent's Comments

Superintendent's
Comments

Superintendent Gutekanst stated that Rebecca Ping, Emergency Management Program Coordinator for the Town of Needham is reminding the community to sign up for Emergency Alerts and Notifications, through the Rave AlertSmart911. Superintendent Gutekanst stated that Rave Alert is the official emergency notification system used by the Town of Needham to communicate with the community's residents during emergencies. More information is available on the town's website, www.needhamma.gov Rave Alert Smart911 <https://smart911.com/smart911>.

Consent Agenda

Consent Agenda

1. Approve Minutes of the Meeting of September 17, 2019, as amended.
2. Accept Donations

Chairman Greis asked if members of the School Committee wanted to remove any item from the Consent Agenda. He stated that because there are no objections, the item is adopted by unanimous consent.

ACTION ITEM

Chairman Greis moved the Action Item forward for a brief discussion and vote. He took a moment to thank members of the Needham School Committee Negotiating Team, members of the Needham Education Association Negotiating Team and Town Manager, Kate Fitzpatrick. Chairman Greis stated that there was a successful ratification vote, and he described key provisions within the Unit A Collective Bargaining Agreement.

Andrea Longo Carter expressed her appreciation for the rich dialog over the months about some of the challenges that teachers are facing and collaborative conversations on how to work together to solve the challenges.

Connie Barr expressed her appreciation for the work done on Parental Leave and the Family Medical Leave Act (FMLA). She stated that it is important to provide teachers and staff what they need when caring for family members.

Michael Hirsh, Needham Education Association stated that what is most notable about this contract is the progress that was made in some really meaty issues in making the workplace more open and equitable for families of all different types, as well as addressing the needs of special needs students and the number of things teachers are being asked to do. He added that it was impressive that so many deep subjects were discussed, and that progress was made on them.

Kate Fitzpatrick expressed her appreciation for the work that was done on the Unit A Contract. She stated that the contract is very close to the town's sustainability target and she applauded the efforts of all involved.

Approve Unit A Contract Memorandum of Agreement

Approve Unit A
Contract
Memorandum of
Agreement

Upon the recommendation of the Superintendent, that the Needham School Committee approves the Unit A Memorandum of Agreement and Contract as submitted.

A motion
was made:

The motion was moved by Connie Barr and seconded by Andrea Longo Carter.
The vote was 8-0-0

DISCUSSION ITEMS

FY20 Transportation Update

FY20
Transportation
Update

Dr. Gutekanst introduced this item and welcomed Shane Marchand, Director of Transportation and invited him to present his annual report on transportation services for the Needham Public Schools.

Dr. Gutekanst stated that he is very pleased with the transportation program. He expressed his appreciation for the support of the School Committee for extra buses. He also stated that Shane Marchand and Diana Baccari are a great team in providing

support for students and families. Dr. Gutekanst stated that this year, school bus routes are full, and the transportation program is at capacity.

Shane Marchand provided a status update on regular transportation, morning transportation, and afternoon transportation. He also provided an update on a successful in-town summer transportation program as well as an update on the out-of-district transportation program. Mr. Marchand spoke about the introduction of a late bus that supports High Rock and Pollard students, who stay later for afterschool activities or homework help.

Mr. Marchand stated that 2179 students are receiving transportation bus service to and from school. He also stated that this year 1691 students registered on time this year vs. 1,488 students last year (not including METCO or Special Ed students who are registered differently), and that a total of 72 families with 235 students registered under the family cap this year. Mr. Marchand described some of the challenges and highlights for FY2020 and presented data on ridership. The full transportation report is available online at www.needham.k12.ma.us in the School Committee meeting packet. Discussion followed.

FY2021-2025 Draft Capital Improvement Plan (CIP) Request

FY2021-2025 Draft
Capital
Improvement Plan
Request

Dr. Gutekanst introduced this item. He stated that as part of the budget development process, the school administration has discussed and identified capital items for submission. He also stated that the capital list has been developed in collaboration with school and town staff and that the School Committee will vote the CIP at a subsequent meeting. Dr. Gutekanst invited Anne Gulati, Assistant Superintendent for Finance and Operations to present the FY2021-2025 Draft CIP Request.

Ms. Gulati stated that this five-year capital plan request is very similar to the prior year's submission and represents a "status quo" request in many respects. She added that several key studies related to school facilities (including the School Master Plan and the Emery Grover Feasibility Study) are still ongoing, the final recommendations from which will shape the scope and timeline of key school building projects. Ms. Gulati pointed out that the equipment requests also are consistent with last year's submission, with a few minor alterations.

Ms. Gulati stated that the capital summary for the five year period totals \$182,232,727. The capital request for FY2021 totals \$1,991,143. Ms. Gulati presented an overview of the request for new and replacement equipment as well as building projects request. The entire Draft FY2021-2025 Capital Improvement Plan Request is available online at www.needham.k12.ma.us in the School Committee meeting packet. Discussion followed.

SCHOOL COMMITTEE COMMENTS

School Committee
Comments

Matthew Spengler stated that he had an opportunity to attend an Open House/Back to School Night at the high school and at the Mitchell Elementary School. Mr. Spengler expressed his appreciation to the staff for organizing the events and teachers for staying late in welcoming families to their classrooms.

Mr. Spengler also encouraged members of the community to look at the 2019 Needham Public Schools Performance Report that arrived in the mail.

A list of all documents used at this School Committee meeting is available at:

A List of Documents

http://www.needham.k12.ma.us/district_info/school_committee/packets/2019-2020

At approximately 8:35 p.m., a motion was made to adjourn the School Committee meeting of October 2, 2019.

Adjournment

A motion was made:

The motion was moved by Connie Barr and seconded by Sue Neckes.
The vote was 6-0-0

Respectfully submitted by Cheryl Gosmon, Note Taker

NEEDHAM SCHOOL COMMITTEE

Agenda Item #: _____

Date: November 5, 2019

Item Title: **FY 2019/20 Budget Transfers**

Item Description: Transfer of FY20 budget allocations between line items in the following amounts:

Salaries	(\$0.00)
Purchase of Service/Expense	\$0.00
Capital	<u>\$0.00</u>
Net Change:	\$0.00

Issues: Under Massachusetts General Law Chapter 71, Section 34, and School Committee Policy #DBJ, the School Committee is empowered to make changes in allocations between line items within its budget, once approved by Town Meeting. In no case may a transfer result in the aggregate Operating Budget being more than authorized by the Town. Transfers between separate, non-operating appropriations are prohibited except as permitted by law.

Recommendation/Options: Approve the attached line item budget transfers.

Rationale: The attached line item budget transfers are requested to more accurately reflect expenses to be incurred during this fiscal year.

Implementation Implications:

Supporting Data: Attached listing of requested line-item budget transfers within the FY20 Operating Budget.

School Committee (circle one)

Action	Information	Discussion	<u>Consent Calendar</u>
Central Administrator	Town Counsel	Sub-Committee:	_____

Will report back to School Committee (date): _____

Respectfully Submitted,

Anne Gulati

Anne Gulati
Assistant Superintendent for Finance & Operations

G/L ACCOUNT #	DEPARTMENT	SCHOOL	FUNCTION	OBJECT	DEBIT	CREDIT	NET
SALARIES							
0001.3110.005.21.2356.099.99.520.010.5136.300.01	Professional Dev	Broadmeadow	Costs for Instructional Staff to Attend PD	Salaries, Prof Dev Stipends		1,321.42	(1,321.42)
0001.3110.005.22.2356.099.99.520.010.5136.300.01	Professional Dev	Eliot	Costs for Instructional Staff to Attend PD	Salaries, Prof Dev Stipends		2,573.42	(2,573.42)
0001.3110.005.23.2356.099.99.520.010.5136.300.01	Professional Dev	Hillside	Costs for Instructional Staff to Attend PD	Salaries, Prof Dev Stipends		671.21	(671.21)
0001.3110.005.24.2356.099.99.520.010.5136.300.01	Professional Dev	Mitchell	Costs for Instructional Staff to Attend PD	Salaries, Prof Dev Stipends		72.42	(72.42)
0001.3110.005.25.2356.099.99.520.010.5136.300.01	Professional Dev	Newman	Costs for Instructional Staff to Attend PD	Salaries, Prof Dev Stipends		671.20	(671.20)
0001.3110.005.26.2356.099.99.520.010.5136.300.01	Professional Dev	High Rock	Costs for Instructional Staff to Attend PD	Salaries, Prof Dev Stipends	902.58		902.58
0001.3110.005.30.2356.099.99.520.010.5136.300.01	Professional Dev	Pollard	Costs for Instructional Staff to Attend PD	Salaries, Prof Dev Stipends	1,442.45		1,442.45
0001.3110.005.40.2356.099.99.520.010.5136.300.01	Professional Dev	Needham High Sch	Costs for Instructional Staff to Attend PD	Salaries, Prof Dev Stipends	2,964.64		2,964.64
	SUBTOTAL SALARIES				5,309.67	5,309.67	-
PURCHASE OF SERVICE & EXPENSE							
0001.3250.005.24.2358.090.99.520.030.5303.300.04	Newman	Mitchell	Outside PD for Instructional Staff	Professional & Technical Training		1,000.00	(1,000.00)
0001.3250.005.25.2358.090.99.520.030.5303.300.04	Newman	Newman	Outside PD for Instructional Staff	Professional & Technical Training	1,000.00		1,000.00
0001.3631.005.10.2454.099.99.520.030.5525.300.05	Media and Digital Learning	District	Instructional Hardware	Ed Supplies - Instructional Technology		22,125.00	(22,125.00)
0001.3133.005.30.2454.099.99.520.030.5525.300.05	General Supplies & Services	Pollard	Instructional Hardware	Ed Supplies - Instructional Technology	13,311.00		13,311.00
0001.3133.005.21.2454.099.99.520.030.5525.300.05	General Supplies & Services	Broadmeadow	Instructional Hardware	Ed Supplies - Instructional Technology	1,114.00		1,114.00
0001.3133.005.22.2454.099.99.520.030.5525.300.05	General Supplies & Services	Eliot	Instructional Hardware	Ed Supplies - Instructional Technology	1,114.00		1,114.00
0001.3133.005.23.2454.099.99.520.030.5525.300.05	General Supplies & Services	Hillside	Instructional Hardware	Ed Supplies - Instructional Technology	1,114.00		1,114.00
0001.3133.005.24.2454.099.99.520.030.5525.300.05	General Supplies & Services	Mitchell	Instructional Hardware	Ed Supplies - Instructional Technology	1,114.00		1,114.00
0001.3133.005.25.2454.099.99.520.030.5525.300.05	General Supplies & Services	Newman	Instructional Hardware	Ed Supplies - Instructional Technology	1,114.00		1,114.00
0001.3133.005.10.2454.099.99.520.030.5525.300.05	General Supplies & Services	District	Instructional Hardware	Ed Supplies - Instructional Technology	3,244.00		3,244.00
0001.3560.005.21.2356.011.99.520.030.5720.300.06	Reading Instruction	Broadmeadow	Costs for Instructional Staff to Attend PD	Out-of-State Travel	65.00		65.00
0001.3560.005.22.2356.011.99.520.030.5720.300.06	Reading Instruction	Eliot	Costs for Instructional Staff to Attend PD	Out-of-State Travel	65.00		65.00
0001.3560.005.23.2356.011.99.520.030.5720.300.06	Reading Instruction	Hillside	Costs for Instructional Staff to Attend PD	Out-of-State Travel	65.00		65.00
0001.3560.005.24.2356.011.99.520.030.5720.300.06	Reading Instruction	Mitchell	Costs for Instructional Staff to Attend PD	Out-of-State Travel	65.00		65.00
0001.3560.005.25.2356.011.99.520.030.5720.300.06	Reading Instruction	Newman	Costs for Instructional Staff to Attend PD	Out-of-State Travel	65.00		65.00
0001.3560.005.10.2358.011.99.520.030.5300.300.04	Reading Instruction	District	Outside PD for Instructional Staff	Professional & Technical Services	219.00		219.00
0001.3560.005.21.2358.011.99.520.030.5303.300.04	Reading Instruction	Broadmeadow	Outside PD for Instructional Staff	Professional & Technical Training	2,340.00		2,340.00
0001.3560.005.22.2358.011.99.520.030.5303.300.04	Reading Instruction	Eliot	Outside PD for Instructional Staff	Professional & Technical Training	1,000.00		1,000.00
0001.3560.005.24.2358.011.99.520.030.5303.300.04	Reading Instruction	Mitchell	Outside PD for Instructional Staff	Professional & Technical Training	2,115.00		2,115.00
0001.3560.005.25.2358.011.99.520.030.5303.300.04	Reading Instruction	Newman	Outside PD for Instructional Staff	Professional & Technical Training	350.00		350.00
0001.3560.005.26.2358.011.99.520.030.5303.300.04	Reading Instruction	High Rock	Outside PD for Instructional Staff	Professional & Technical Training	565.00		565.00
0001.3560.005.30.2358.011.99.520.030.5303.300.04	Reading Instruction	Pollard	Outside PD for Instructional Staff	Professional & Technical Training	565.00		565.00
0001.3560.005.21.2356.011.99.520.030.5710.300.06	Reading Instruction	Broadmeadow	Costs for Instructional Staff to Attend PD	In-State Travel		350.00	(350.00)
0001.3560.005.22.2356.011.99.520.030.5710.300.06	Reading Instruction	Eliot	Costs for Instructional Staff to Attend PD	In-State Travel		350.00	(350.00)
0001.3560.005.23.2356.011.99.520.030.5710.300.06	Reading Instruction	Hillside	Costs for Instructional Staff to Attend PD	In-State Travel		350.00	(350.00)
0001.3560.005.24.2356.011.99.520.030.5710.300.06	Reading Instruction	Mitchell	Costs for Instructional Staff to Attend PD	In-State Travel		350.00	(350.00)
0001.3560.005.25.2356.011.99.520.030.5710.300.06	Reading Instruction	Newman	Costs for Instructional Staff to Attend PD	In-State Travel		350.00	(350.00)
0001.3560.005.21.2430.011.99.520.030.5510.300.05	Reading Instruction	Broadmeadow	General Supplies	Educational Supplies	201.00		(201.00)
0001.3560.005.22.2430.011.99.520.030.5510.300.05	Reading Instruction	Eliot	General Supplies	Educational Supplies	138.00		(138.00)
0001.3560.005.23.2430.011.99.520.030.5510.300.05	Reading Instruction	Hillside	General Supplies	Educational Supplies	148.00		(148.00)
0001.3560.005.24.2430.011.99.520.030.5510.300.05	Reading Instruction	Mitchell	General Supplies	Educational Supplies	175.00		(175.00)
0001.3560.005.25.2430.011.99.520.030.5510.300.05	Reading Instruction	Newman	General Supplies	Educational Supplies	240.00		(240.00)
0001.3560.005.21.2410.011.99.520.030.5517.300.05	Reading Instruction	Broadmeadow	Textbooks	Ed Supplies - Textbooks/Workbooks		4,827.00	(4,827.00)
	SUBTOTAL PURCHASE OF SERVICE & EXPENSE				30,604.00	30,604.00	-
	GRAND TOTAL				35,913.67	35,913.67	-



Needham School Committee

November 5, 2019

Agenda Item: **Discussion**

Substance Prevention Alliance in Needham (SPAN) & Students Advocating for Life without Substance Abuse (SALSA)

Background Information:

- Karen Shannon will provide an overview of the SPAN program.
- Needham High School students Reese Murphy, Luca Mancino, and Caitlin Sullivan will present an overview of the SALSA program and survey results regarding vaping awareness.

Persons Available for Presentation:

Ms. Karen Shannon, Program Director, Drug Free Communities Grant
Ms. Reese Murphy, Student SALSA Leader
Mr. Luca Mancino, Student SALSA Leader
Ms. Caitlyn Sullivan, Student SALSA member

Needham Youth Substance Use

Karen Shannon

SPAN

Vision: Needham is a cohesive community that supports all of our youth to grow and develop to be substance free and healthy in mind, body, and spirit.

Mission: The Coalition incorporates a collaborative, community-based and data-driven prevention approach to reduce alcohol, marijuana, and other drug use among Needham youth. Through community education, partnership, and strategic action we will work to decrease the risk factors indicated in substance use and increase the protective factors that are known to support youth to make healthy and safe choices.



COMMUNITY OVERVIEW



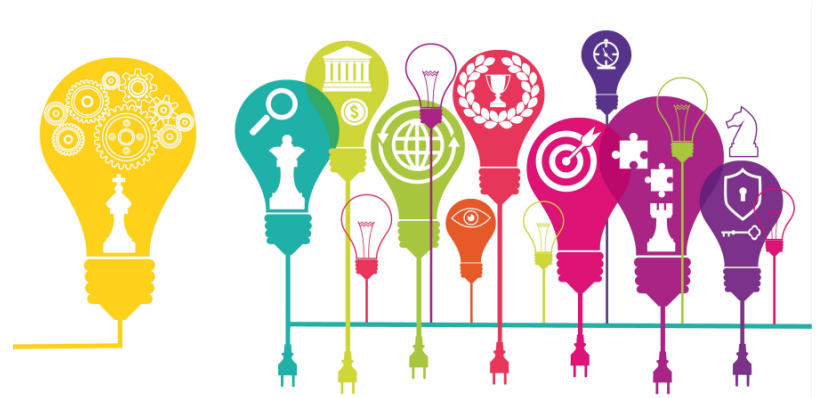
Substance Prevention Alliance of Needham (SPAN)

- Formerly Needham Coalition for Youth Substance Abuse Prevention (NCYSAP)
- Coalition of about 50 volunteers
- Three action teams: Community, Parent, Youth
- Use data to inform our initiatives



SPAN Initiatives

- Vaping educational forums
- Hidden in Plain Sight (HIPS)
- S.A.L.S.A.
- Student-designed prevention posters
- Team Dad: building a community among Needham Dads
- Be a Good Neighbor Campaign
- Family Dinner Project



SPAN Partnerships

- **Needham Public Schools**

- ❖ *SPAN Steering Committee and Action Teams:*
NHS Administration, Director of Health & Wellness,
Director of Nursing, School Resource Officers
- ❖ *Vaping Explained:* Principals Sicotte and Bibbo
- ❖ *SALSA:* Middle School Health teachers

- **Vaping Task Force**

- ❖ Multi-disciplinary group
- ❖ Educate the community about the epidemic of youth vaping and e-cigarette use and their associated health impacts.



MetroWest Adolescent Health Survey 2018

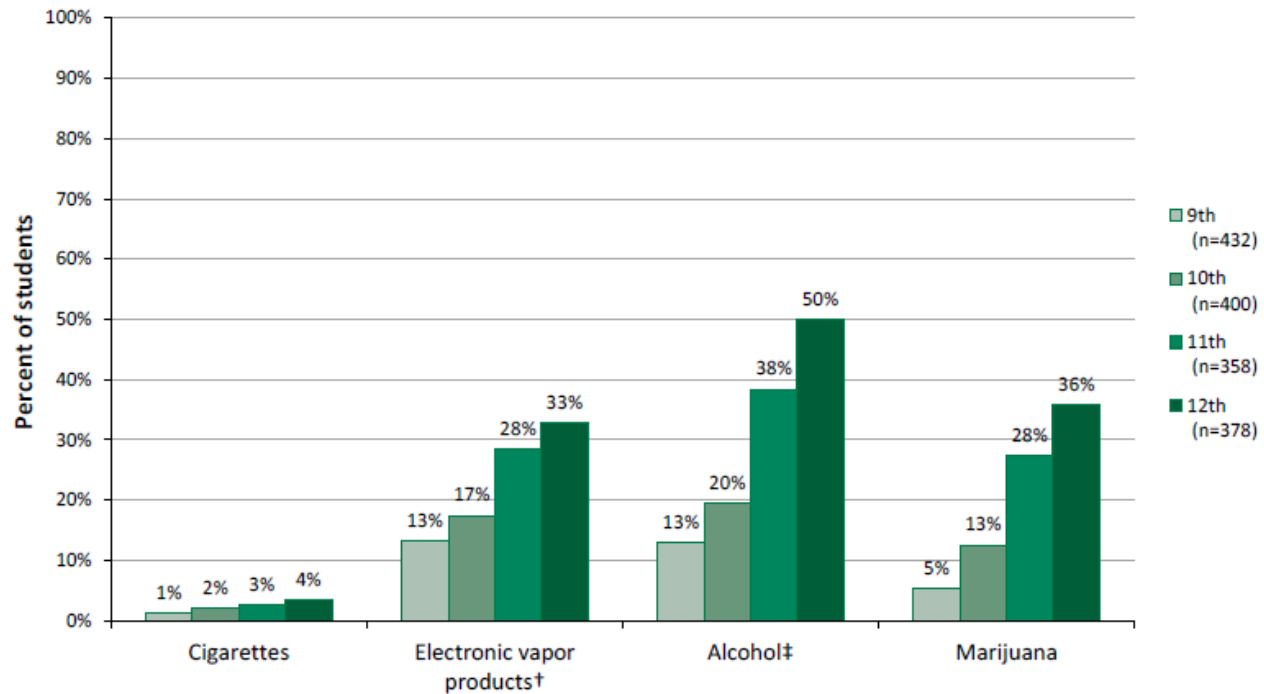


MetroWest Adolescent Health Survey 2018

- First administered in 2006
- Biennial
- Results: 6th, 7th & 8th | 9th - 12th
- Total surveys
 - High School: 1,584 (92% participation rate)
 - Middle School: 1,217 (95% participation rate)



Figure 2-3B. Current Substance Use* by Grade, 2018
Needham High School (Grades 9-12)
MetroWest Adolescent Health Survey



* Used one or more times in the past 30 days

† Includes electronic cigarettes like JUUL, Phix, Vuse, MarkTen, and blu, and other electronic vapor products, like vapes, vape pens, e-cigarettes, e-hookahs, hookah pens, and mods

‡ Does not include drinking a few sips of wine for religious purposes

Figure 2-3C. Trends in Current Substance Use,* 2006-2018
Needham High School (Grades 9-12)
MetroWest Adolescent Health Survey

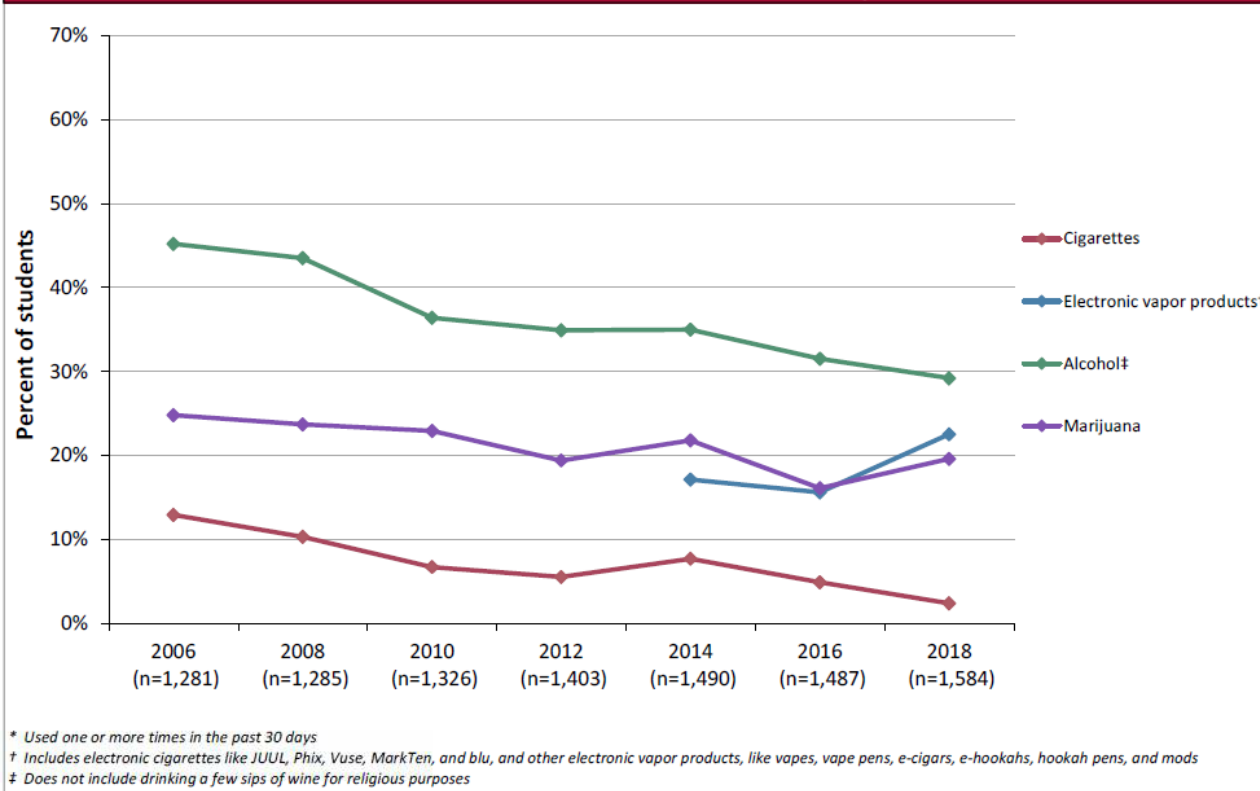
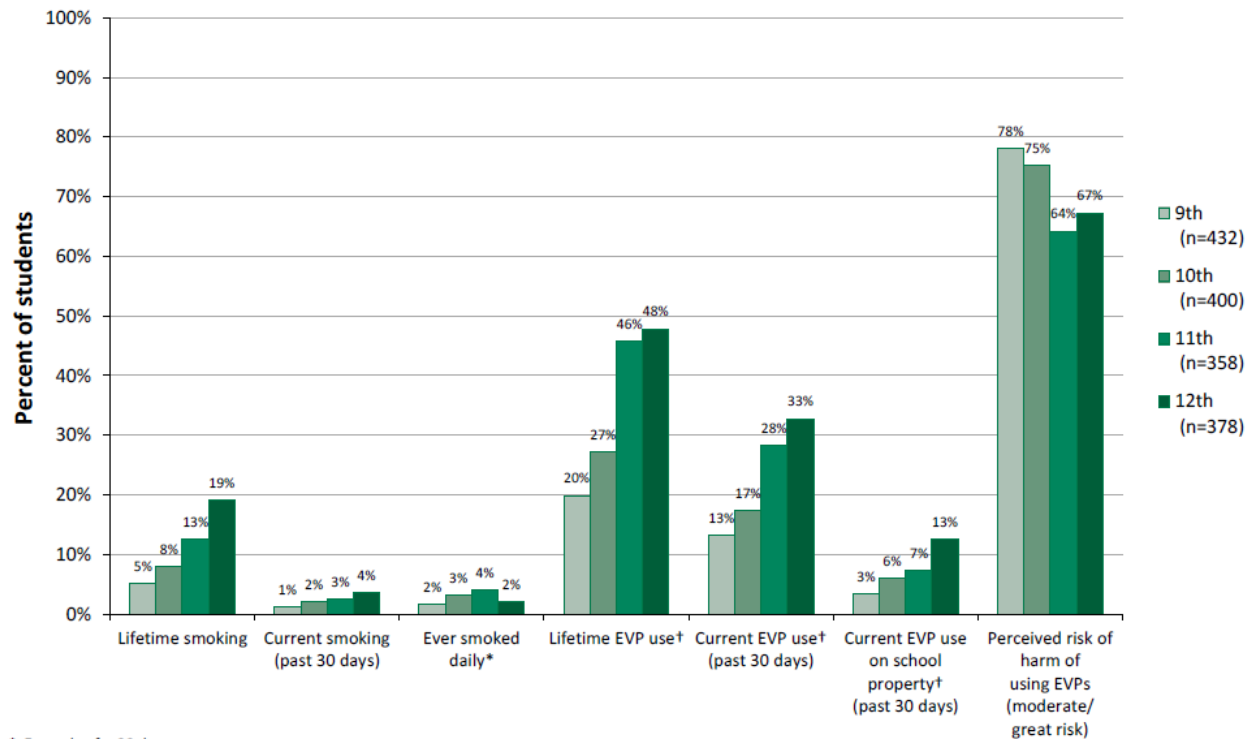


Figure 2-4B. Tobacco and Electronic Vapor Product Use by Grade, 2018 Needham High School (Grades 9-12)

MetroWest Adolescent Health Survey



* Every day for 30 days

† Includes electronic cigarettes like JUUL, Phix, Vuse, MarkTen, and blu, and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods

RESOURCES



Resources for Information

Partnership for Drug Free Kids:

<https://drugfree.org/article/risk-factors-why-teens-use/>

<https://drugfree.org/article/brain-development-teen-behavior/>

Conversations about your own use: <https://easyread.drugabuse.gov/content/talking-kids-about-drugs-what-say-if-you-used-drugs-past>

National Institute for Drug Abuse (NIDA):

<https://www.drugabuse.gov/>

Resources for Information

Addiction Resource Center:

<https://www.addictionresourcecenter.org/>

NIDA for parents:

<https://teens.drugabuse.gov/parents>

NIDA for Teens:

<https://teens.drugabuse.gov/>

Resources for Treatment

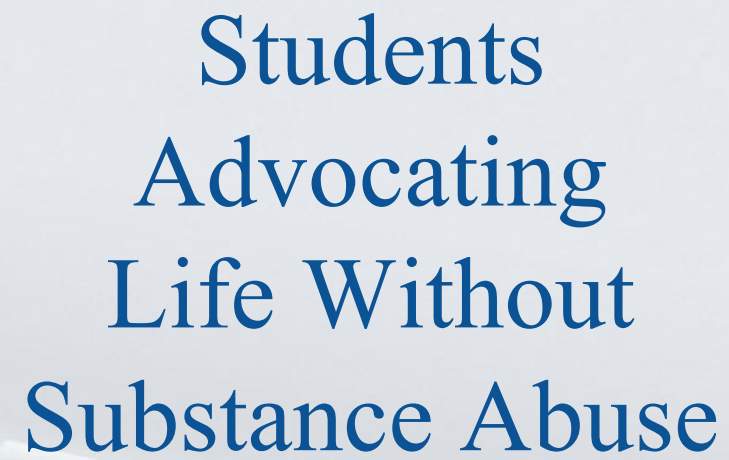
SAMHSA National Helpline (1-800-662-HELP): <https://www.samhsa.gov/find-help/national-helpline>

Interface (617-332-3666 x1411): FREE consultation & referral service for therapy & psychiatric services

Riverside Emergency Services: 781-769-8674— Crisis intervention & phone consultation for mental health & addiction related emergencies 24 hr/7 day

SPAN: www.spanneedham.org OR Karen Shannon at kshannon@needhamma.gov



A white rectangular sticky note is affixed to a light-colored wooden surface. The note has a small piece of clear adhesive tape at the top center. The text on the note is centered and reads: Students
Advocating
Life Without
Substance Abuse. The bottom-left corner of the note is curled up.

Students
Advocating
Life Without
Substance Abuse

Present in ALL 8th grade
wellness classrooms at Pollard
Middle School



District Attorney's "Challenges"

The Distracted Driving Project

The Public Service

Announcement



5th Quarter events after home
football games



HIGH ROCK PILOT

It starts in middle school.

”Talk About It”

And other resources for students
afraid to ask

VAPING AWARENESS

What we think may be the biggest
issue for classes to come

Vaping

- SALSA survey
- Vaping Awareness Campaign





NHS Vaping Survey & Awareness Campaign

Caitlyn Sullivan

SALSA Vaping Awareness Team

11/5/19




Anonymous online survey

Rising 9-12th graders

Administered 6/6/19

1,032 students participated (62% participation)

SSRE analyzed results/completed report on findings

WHO?

22% of NHS students report they have ever vaped (lifetime)

13% of NHS students report vaping regularly (last 30 days)

Use increases with age

Perceived health risk goes down with age

Perceived peer approval is high



WHAT?

Nicotine (74%)

Marijuana (58%)

Flavored Oils (53%)



WHY?

Experiment (60%)

Have a good time with friends (45%)

Feel good or get high (41%)

Relax/relieve tension (35%)

Because it's cool (23%)





WHERE?

On school property (42%)

Bathroom (72%)

Outside on school property (63%)

Classroom (53%)

Hallways (49%)

Locker Room (49%)

Cafeteria (47%)

Library (44%)

Quitting

16% reported wanting to stop, but can't on their own

Of those, 57% willing to come forward and ask for help if no consequences (school/sports)





ACTION PLAN: SHORT TERM

Educate Youth

NHS Awareness Week

Posters

PSA

School News Story

Hilltopper Article

Classroom Discussions

After School Activities

Educate Parents

Dr. Stern/Dr. Pinkham, Barbara

Singer/RJ Poirier/Keith Ford

Pamphlets in Doctors' Offices

PTC Newsletter articles

News From the Hill articles

Needham Facebook Page

posters/articles




ACTION PLAN: LONG TERM

Partner with local high schools and present to MIAA

Educate all Middle School Students- 6th,7th, 8th graders




SUPPORT NEEDED

Help spread awareness to parents and teachers

Know the facts

Know what to look for

Talk to children about vaping



THANK YOU FOR YOUR SUPPORT!



Needham School Committee

November 5, 2019

Agenda Item: **Discussion**

Math Programming Update

Background Information:

- Over the last four years, the mathematics department at the middle school level has incorporated a number of recommendations that resulted from the review of their program.
- John Shea and Tammy Ghizzoni will provide an update on the results of these changes, an overview of the equity work they are now collaboratively leading at the secondary level, and some potential possibilities for the future direction of the program.

Persons Available for Presentation:

Ms. Tammy Ghizzoni, Middle School Math Curriculum Leader
Mr. John Shea, Needham High School Math Department Chair

Mathematics, Grades 6-12 Needham Public Schools

Executive Summary:

This document outlines the work of the 6-12 mathematics department from 2011-current day. It is written in chronological order within each section, beginning with the Middle School story. We've highlighted challenges and celebrations in order to convey the thoughtful collaboration existing across grade levels and between the middle and high school staff. Most importantly, we've outlined the scope of our work over the past year and our plans for this school year.

Background: Middle School Program

In 2011, the Department of Elementary and Secondary Education (DESE) launched new mathematics frameworks which included a new emphasis on Standards for Mathematical Practice. At that time, there was one level of mathematics offered in grade six and two levels of mathematics offered in grades seven and eight. The majority of students were enrolled in Math 7A and Math 8A. Students who were identified as struggling in mathematics were enrolled in Math 7B and Math 8B. This organization of the learning progression for students limited our ability to enhance middle school mathematics programming for our highest achieving math students, reduced opportunities for our struggling students to advance to higher level courses, and constrained the prospects of all students having an opportunity to enroll in a Calculus course sometime during their four years at NHS. Additionally, DESE's new mathematics frameworks encouraged systems to re-think their programming at the middle level by offering students "for whom it is appropriate" the opportunity to complete a compacted curriculum and to eliminate the practice of clustering struggling math students into lower level classes.

For these reasons, the Middle School Math department undertook a three-year study regarding the status of the middle school math program. The new frameworks coupled with our desire to provide the opportunity for all students to enroll in Calculus at NHS while enhancing mathematics programming for high performing students at the middle level, launched our study. This task force researched best practices on curriculum decisions and instructional strategies, visited and consulted with like districts, solicited feedback from stakeholders, communicated with high school colleagues, and ultimately developed a plan for the middle school math program to address the needs aforementioned. The task force made the following recommendations:

1. Remove the lower level math courses (Math 7B and Math 8B) offered at Pollard. This one section per cluster clearly raised equity concerns. The demographic of the class was 80% or higher special education, students of color, economically disadvantaged students (LSES), and English language learners (ELL).
2. Place all students into the A level class (Massachusetts State Standards class), currently called Math 7 and Math 8 for both grades.
3. Implement a 2-year Accelerated Math program that completes grade 7, 8, and 9 state standards in 2 years as recommended by the 2011 Massachusetts Frameworks for Mathematics.¹
4. Implement a math support elective class for those students who need more support yet do not receive special education services.

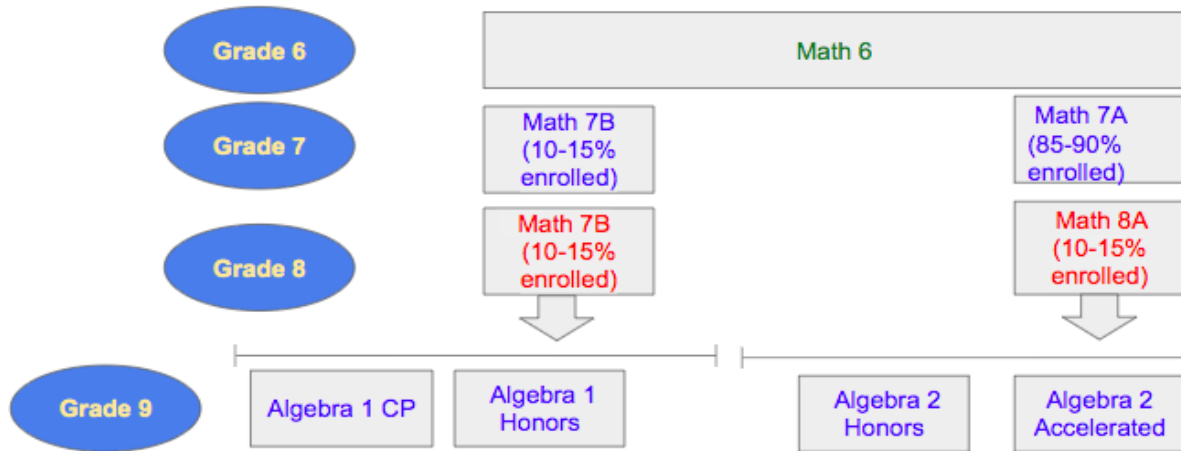
¹ See endnotes for DESE guidelines regarding offering the compacted curriculum in middle school

5. Implement “Calculus Project” (Launching Scholars Program) at Pollard to develop and enhance the skills, competencies, and confidence of our students of color.²
6. Cohort students by IEP goals and utilize learning centers to support special education students.

In the fall of 2015, Pollard began to systematically implement these recommendations. By fall of 2017, all of the above recommendations were in place.

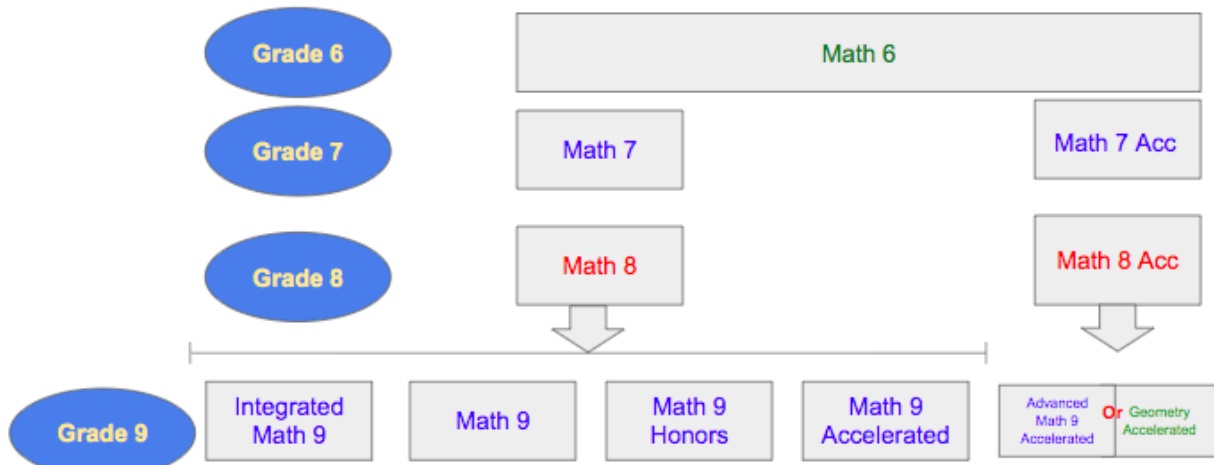
Course Pathways Prior to 2015

Middle School Math Program Prior to 2015



Current Course Pathways

Middle School Math Program 2015-present



Middle School Course Placement Process

² See Endnote for description of Launching Scholars program

The Accelerated math course sequence was meant to create an opportunity to address the learning needs of our highest achieving students and intended to prepare them for the most challenging mathematics courses at Needham High School.

To ensure that students were placed in courses that optimally met their learning needs, we implemented a performance-based, data-driven placement process that was grounded in clearly articulated guidelines. The intent of the guidelines was to help inform placement decisions for the grade level (Math 7) and compacted curriculum courses (Math 7 Accelerated). Each spring, grade six teachers send a letter home informing families of their child’s placement for grade 7.

For students to qualify for the Accelerated program, they must meet 4 of 7 benchmarks:

- score in the top 15% on the 5th grade MCAS (6th grade scores are not released in time for articulation);
- score in the top 15% of unit tests (before test corrections) in grade 6;
- score in the top 15% in the StarMath adaptive exam (administered in September and February);
- score in the top 15% on common trimester assessments in the 1st and 2nd trimester;
- teacher recommendation

If students do not meet the benchmarks, they are enrolled in the Math 7 course. However, families have an opportunity to override the district’s placement decision. They must also agree to provide extra support and help in order for the student to be ready and prepared for the rigor of a compacted curriculum.

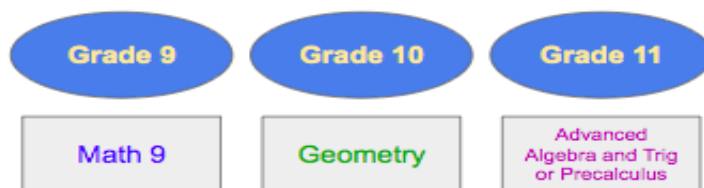
Unanticipated Outcome: Placement Override Requests and Waitlist

Leading into the first year of the program (spring 2014), twenty-two families submitted requests to override the sixth grade teacher’s placement recommendations. Pollard’s Principal and Middle School Math Department Chair together met with each of the families. After sharing student data and discussing the rigors of the program, twenty families decided to continue with the override. Three years later, when this group of students was in grade nine, 18 of these 20 students were enrolled in Math 9--the same course they would have been in had they not chosen to override the middle school placement decision. This trend has continued throughout subsequent years.

There were 126 middle school math override requests from 2015-2019. Nine of these were “double” overrides (override from 6 to 7 and then from 7 to 8). Of the students who overrode, 95.8% of students identified as White or Asian; 4.2% identified as Hispanic. (See table below for further override demographic information). We were only able to obtain economically disadvantaged status as shared by families.

Total Overrides 2015-19	White or Asian	Hispanic	Black/African American	Economically Disadvantaged	ELL
126	95.8%	4.2%	0%	0.8%	0%

There are currently 75 students at NHS who overrode and were enrolled in Accelerated Math 7 or Accelerated Math 8 as rising 7th and 8th grade students. 69 of these students are currently enrolled in the grade level course that matches with the grade level sequence below (Math 9 as freshmen, Geometry as sophomores, and PreCalculus as Juniors). 92% of the students who overrode into the compacted curriculum ended up in the same place they would have been had they taken the original, recommended placement, thus defeating the purpose of a middle school override and potentially compromising student achievement and growth. Fifteen of the override students are now enrolled in Honors math courses at NHS. This data speaks to the strength of the thorough performance-based placement process used in grades 6 and 7.



Initially, Pollard scheduled one section of accelerated math in each of the clusters at grade 7 and grade 8³. The unexpected outcome of offering one class per cluster was that too many students in the Math Accelerated class were not prepared to matriculate to Geometry in grade 9. We granted every override in the first two years and we learned that our initial benchmarks were too low to ensure success for many students enrolled in the accelerated program. The sixth grade team refined and readjusted its placement benchmarks to match those of students who successfully matriculated to Geometry in grade 9 and to those who enrolled in Math 9. These adjusted qualifying benchmarks have been in place for the last two years. As a result, approximately 50 students each year have met the qualifying benchmarks for the accelerated math program in grade 7. With fewer students qualifying for the accelerated math program, we only needed to schedule two sections of accelerated math in grade 7 (and subsequently two sections in grade 8).

During the 2018-19 school year, Pollard offered two sections of Accelerated Math 7 to meet the placement needs for 57 students; it was also the first year of a waitlist for overrides in order to maintain a reasonable class size of 26 or less in all math classes.

At the beginning of the 2019-20 school year, Pollard again offered two sections of Accelerated Math 7 and two sections of Accelerated Math 8 to meet the placement needs. Pollard continues to have an override waitlist.

Unanticipated Outcomes: Other

1. Much energy is channeled to address concerns with the Math program:
 - a. The impact of the accelerated course on the composition and number of students in other cluster classes meeting at the same time;
 - b. Pressure to recommend students who are not demonstrating readiness to please parents;
 - c. Pressure from parents who want their child in the accelerated course despite not meeting 4 of 7 benchmarks because of the perception that placing a child in a more accelerated course will provide an advantage for the child;

³ There are 5 clusters at grade 7 and 5 clusters at grade 8 and one math teacher/cluster. Thus, we initially scheduled 5 sections of accelerated math at grade 7 and 5 sections in grade 8.

- d. Continuing to address ongoing requests for accelerated placement when scores and classroom performance do not demonstrate readiness for the level of compaction and acceleration demanded by the course;
 - e. Math teachers, guidance counselors, and administrators spend a disproportionate amount of time explaining to families why their children are best placed in the grade level math class and communicating the nature of the program to parents;
 - f. Supporting students who overrode, and thus are overwhelmed or stressed and struggle academically and emotionally with the pace of the accelerated program;
 - g. Math is perceived to be more important than all other subject areas, and that Accelerated Math demonstrates what and who we value.
2. The opportunity gap for many students enrolled in Accelerated math remained.
- a. Families who have social, financial, etc. capital often advocate for overrides (as the data shows); this conflicts with protocol and often puts teachers and school-based administration at odds with parents.
 - b. Parents invest in outside support in order to enable their children to score well on the three standardized placement benchmark assessments. For parents with the financial capacity, enrolling children in additional math support beyond the school day causes a larger divide in the opportunity gap. Students' families who have the ability, financial or other, to support their children in this rigorous program have access; while others do not.
3. The symbolic nature of placement into the accelerated program.
- a. Generated a competitiveness among the students and families;
 - b. Developed a culture of entitlement;
 - c. Resistance to change of placement when students are struggling;
 - d. Requires a disproportionate amount of time and resources to be devoted to a small cohort of students and families who overrode the school's placement or continue to advocate for their children to be in the accelerated course even though classroom performance indicates otherwise.

We expected that the data driven placement process would minimize these types of responses, but it has not.

Anticipated Outcomes and Celebrations

1. The achievement of all students at Pollard has increased.
- a. On the spring 2019 Math MCAS, Grade 7 Math at Pollard ranked second in the state (tied with Southborough Public and Community Day Charter School) for the percentage of students (85%) who Met or Exceeded state expectations.
 - b. On the spring 2019 Math MCAS, Grade 8 Math at Pollard ranked third in the state for the percentage of students (83%) who Met or Exceeded state expectations.
 - c. Pollard was one of 67 schools in MA to be recognized by the state for high growth on the spring 2019 MCAS.
2. Teachers report that our most struggling math students demonstrate stronger student skills and confidence as the school year progresses.

3. All students enrolled in Math 7 or Math 8 have the capacity to take Calculus senior year at NHS.
4. Our highest achieving students placed into Accelerated Math 7 who matriculated to Geometry in grade 9 continue to perform at the top of their classes (multi-grade) at Needham High School.

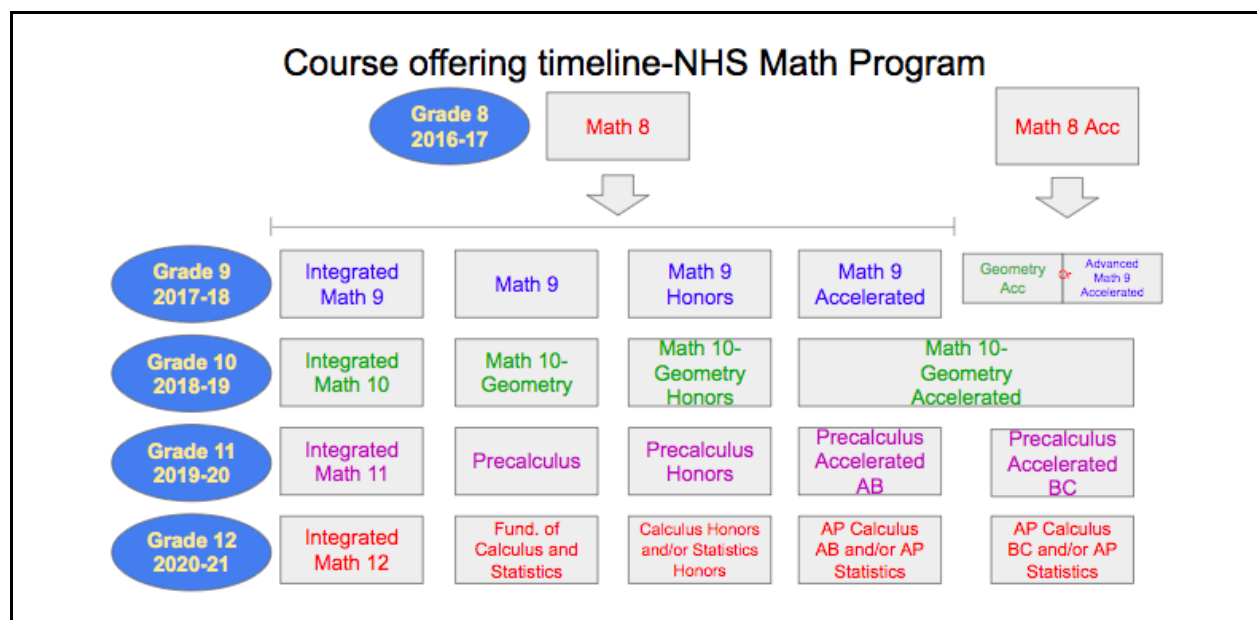
Background: Needham High School

During the summer of 2016, several members of the NHS Mathematics department revised the grade nine course offerings in order to be positioned to receive the students in the class of 2021. For 40% of these students, the middle school math learning experience was different from prior years. Our goal was to develop a program to meet the needs of all learners arriving at Needham High School in the Fall of 2017.

As part of our work, we considered moving Geometry to grade 9 for all students. Our self-reflection included such activities as developing several course sequences and organizing focus groups for students and families. Ultimately, we determined that:

1. Geometry would remain as a 10th grade course and maintained our existing traditional mathematics course sequence.
2. Students matriculating from Math 8 to grade 9 would enroll in either Integrated Math 9, a Math 9 course or Advanced Math 9, based on their performance in 8th grade.
3. A course, Advanced Math 9, was needed to formalize and extend the mathematics that students learned in Math 8 Accelerated by reviewing the essential topics from Math 8 Accelerated, and finishing any remaining topics which are taught in Math 9 Accelerated but not covered in Math 8 Accelerated.
4. Students who excelled in Math 8 Accelerated would enroll in (multi-grade) Geometry classes in grade 9.

The revised plan is below:



Prior to our work in the summer of 2016, the NHS Mathematics department engaged in quite a bit of self-reflection and reached out to other schools as we considered whether to adopt an integrative approach to learning or maintain the traditional math sequence. We studied the 8 Standards of Mathematical Practice and committed to incorporate these standards into our practice. We aligned the frameworks to our current courses and participated in a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis. Some of the areas identified by this analysis include:

- a. Strengths: collaborative department; teachers invested in students' learning and challenging students academically; we offer a wide variety of course options for students.
- b. Weaknesses: Not meeting the needs of lower-level students; time to explore new teaching strategies; out-of- date textbooks; curriculum overlap in Algebra 2 and Precalculus; inconsistencies within the same course.
- c. Opportunities: Teaching 4 classes with 2 preps (vs 5 classes with 2-3 preps); adopting a co-teaching model; a support class for students taking Algebra 1 upon entering NHS; better focus on the standards of mathematical practice; interdisciplinary and project-based courses; developing a discrete math class.
- d. Threats: Lack of technology resources; teaching a load of 5 classes; the stereotype of our college prep courses; common core alignment.

Many of the items from the analysis have already been addressed; the SWOT analysis as well as teacher input are used as a means to advance the work of the department.

Unanticipated Outcome: Placement Override Requests to Repeat a Course

Leading into the 2017-18 school year, 6% of the ninth grade students overrode their grade 8 teacher recommendation. These overrides took the typical form of level changes from Honors to Accelerated or College Prep to Honors and a new, unexpected, request of enrolling in Math 9 Accelerated after completing a full year of Math 8 Accelerated (in essence, repeating the course). 85% of these overrides were submitted by students who identify as White or Asian, while 15% were submitted by students who identify as Black or African American. Subsequent years indicate that the percentage of White and Asian overrides have increased while the percentage of Black and African American overrides have decreased.

Year	Total Overrides 9th grade students	White and Asian	Hispanic	Black/African American
2017-18	27	85%	0%	15%
2018-19	19	94.7%	0%	5.2%
2019-20	26	96.2%	0%	3.8%

Transition Challenges

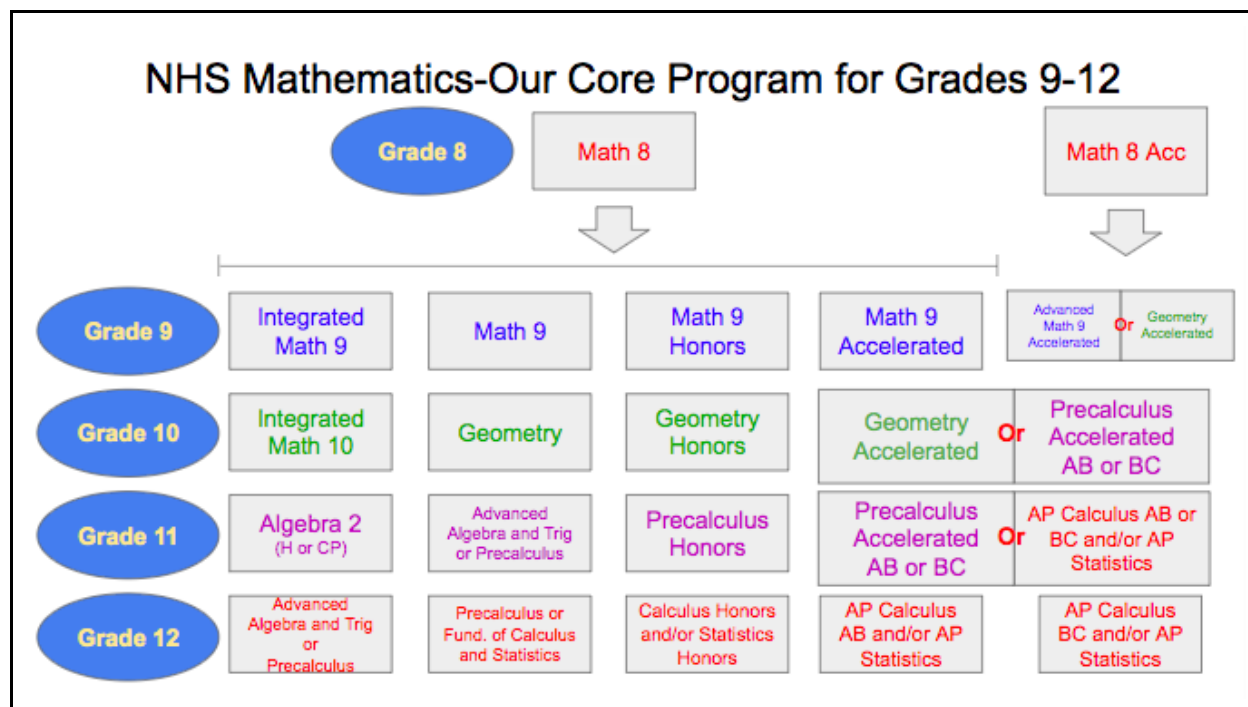
After piloting a new textbook in Spring of 2017 in all of the Algebra 2 classes, the high school math department adopted the textbook for our Math 9 courses. The textbook had been used in our Algebra 2 Accelerated classes for several years prior. We received a newer version of the textbook from the publisher, which was met unfavorably by teachers due to errors and misalignment of content. Additionally, we were in year 1 of a one-to-one environment; the online platform for the textbook was not the interactive platform that was piloted (and promised by the publisher) in the Spring of 2017. In the Fall of 2018, we abandoned the textbook after receiving updated versions of the textbook which still had the same errors and content misalignment that we had been told was corrected. During the 2019-2020 school year, all Math 9 courses are piloting a different textbook. Textbook issues coupled with students enrolled in Math 9 Accelerated who were repeating the course caused the transition year to be challenging and disruptive for both students and teachers.

Further Course Alignment and Enhancement

During the Summers of 2018 and 2019, a team of Math 9 teachers received summer curriculum funding to improve our Math 9 course alignment. In year 2 (2018-19), Integrated Math 10 was introduced as a new course, and students who were enrolled in Geometry Accelerated matriculated to Pre-Calculus. The table below outlines the 2018-19 enrollments for students in grades 9 and 10:

Grade	Math 9	Integrated Math 10	Geometry	Geometry Accelerated	Pre-Calculus AB	Pre-Calculus BC
9	409	0	0	39	0	1
10	0	14	179	122	20	32

In year 2, upon reviewing our current core offerings, it was determined that we offered courses (Algebra 2, Precalculus and Advanced Algebra and Trigonometry) already in place that would meet the needs of all of our students and thus eliminated Integrated Math 11 and 12 as course options. The outcome of this work is our current core program shown below. During the summer of 2019, further curricular alignments and changes were made for our Math 9, Geometry, Precalculus, and Advanced Algebra and Trigonometry courses.



Next Generation MCAS in Grade 10

In Spring 2019, grade 10 students (the class of 2021) took the Next Generation MCAS. This exam was administered in an electronic platform, which was new for this cohort of students. Subsequent classes will have experienced an online MCAS test throughout their elementary and middle school careers. In preparation for this new assessment platform, teachers in grades 9 and 10 purposefully created online math experiences for students. Additionally, students in the class of 2021 who scored a PM or NM on the grade 8 MCAS Mathematics exam were invited to participate in a small group instruction program that has been in place for more than a decade. Funding for the NHS MCAS Mathematics review program was initially provided by the State of Massachusetts and in recent years from the METCO grant. The NHS Mathematics department hopes to receive funding for the program in the Spring of 2020 as the MA State grant and funding from the METCO grant are no longer available.

The table below shows preliminary results of the Grade 10 Spring 2019 Next Generation Mathematics MCAS:

Current G11 Student Scores on 2019 Next Generation MCAS	Exceeds	Met	Partially Meeting	Not Meeting	NM (Required to Re-take)
	34.6%	55.5%	9%	0.2%	0.04%

Enrollment at NHS

During the 2017-18 school year (Year 1 of the course changes at NHS), 52 ninth grade students were enrolled in Geometry Accelerated while 354 were enrolled in Math 9 courses.

Enrollment remains steady as approximately 40 students are recommended for Geometry in ninth grade and the majority of the ninth grade students enroll in Math 9. The table below includes current enrollments for students in grades 9, 10 and 11 at NHS (Year 3):

Grade	Math 9	Inte-grated Math 10	Alg 2	Geom	Geom Acc	PreCalc	PreCalc AB	PreCalc BC	AP Calc AB	AP Calc BC
9	339	0	0	0	39	0	0	0	0	0
10	0	16	0	240	155	0	8	32	0	1
11	0	0	18	0	0	207	111	17	14	40

Calculus as an Option for Students

The class of 2021 is the first cohort to have experienced the changes in programming (elimination of B-level math and introduction of compacted curriculum) at the middle school. Students who are enrolled as juniors in CP PreCalculus (and who were enrolled in Math 7 and Math 8) followed the new sequence developed by NHS in 2016. Without the program enhancements, these students would have been enrolled in Algebra 2 as juniors without the possibility of enrolling in Calculus. All of these students will now have access to a Calculus course during their senior year. The current juniors enrolled in CP Precalculus are described as “better-prepared.” Teachers describe their students as being a bit more focused and more willing to engage in learning mathematics. High School teachers also report that collectively, students are better prepared and exhibit better mathematical student skills than past cohorts.

6-12 Collaboration

While 2017-18 was a challenging transition year at NHS, collaboration continues to be the strength of the K-12 math department. In order to create a better student experience, the team of middle and high school teachers revised the grade 9 course placement requirements for the 2018-19 school year. Students entering grade 9 are no longer able to override a teacher recommendation by enrolling in Math 9 Accelerated after having completed a full year of Math 8 Accelerated. Communication between Math 9 teachers and 7th/8th grade math teachers is thriving and relationships are strong. Teachers provide feedback on student placement and share data across buildings from High Rock to NHS.

Math Intervention at Pollard and High Rock Schools

For the 2017-18 school year, a math intervention teacher was allocated to Pollard to support students without IEPs who were struggling to meet state benchmarks as assessed on MCAS and to teach our grade 7 special education pull-out math class. This additional teacher has allowed

identified students to have an additional math support class every other day for 55 minutes and for our most vulnerable students to be taught math by a highly qualified math teacher. The Middle School Math Department Chair teaches math intervention at High Rock School, meeting with students once every six days for 45 minutes. Students are identified for math support in grade 6 using a triangulation of grade 5 Math MCAS, StarMath (computer adaptive assessment) and data from teacher observation and in-class student assessments. None of the identified students scored proficient on MCAS in grade 5. Students who continue with Math Support in grade 7 are identified using common benchmark assessments outlined on page 1.

The spring 2019 Mathematics MCAS results reflect that the mean Student Growth Percentile (SGP) was 68.8 for sixth grade students enrolled in math intervention. The overall SGP for all students in grade 6 was 65. Additionally, 48.8% of the sixth grade students who entered High Rock School with a “Needs Improvement” score on their 5th grade MCAS scored in the Proficient range on the 6th grade MCAS; 11% of the students scored 499 (proficient is a score of 500). Similarly, the mean SGP was 77.7 and 78% of seventh grade students enrolled in math intervention scored in the Proficient range on the 7th grade MCAS; the overall SGP for all students in grade 7 was 61.

Below is a snapshot into the efficacy of this model for the 2017-18 and 2018-19 school years. Highlighted scores represent students who matriculated from G6 math support to G7 math support. Coupled with excellent classroom instruction in their math classes, students enrolled in the math support courses are demonstrating strong growth and achievement. This is a success story and one that, through collaboration and hard work, continues.

Year	SGP G6 Intervention Students	Mean SGP All G6 Students	Percentage Proficient G6 (500 or better)	SGP G7 Intervention Students	Mean SGP All G7 Students	Percentage Proficient G7 (500 or better)
2018-19	68.8	65	48.8%	77.7	61	78%
2017-18	69.2	68.1	50%	68.2	57	53.3%

Launching Scholars

The Launching Scholars Program began at Pollard in the summer of 2015 and is based on a similar model at Brookline High School entitled *The Calculus Project*. Teachers and administrators from the middle schools, METCO, and NHS currently collaborate to identify, tutor, support and build a community of learners-- enabling students of color, low income, and ELL students to enroll in the program, and thereby, opening the opportunity to enroll in higher level math classes in high school. Prior to the first summer session, math teachers and

administrators worked with Adrian Mims (founder of the Brookline Calculus Project) to develop a plan and goals for the summer and school year sessions.

Identified students from High Rock are invited to the program as rising Pollard grade 7 students. We hold parent meetings, provide detailed information to families, and provide tours and introductions to these students each spring. Each summer, students attend a summer math intensive for a full week in August. During the summer week, math teachers pre-teach the main concepts and skills of the 7th and 8th grade math curricula while focusing on building a community of learners. Throughout each day, the students participate in team-building activities, school community activities using the all-school read, and explore ways to support one another in this program. Once the school year begins, approximately 30 students receive weekly support as these cohorts continue to progress through the 7th and 8th grade math curricula. This weekly program has shown positive outcomes including successful transitions to Pollard, confidence in the math curriculum, and a sense of scholarship and connection as a team.

In the fall of 2017, students from the first Launching Scholars cohort matriculated to Needham High School. These students were enrolled in the newly established Castle Program, designed to focus on increasing the representation of African American and Hispanic students in Honors, Accelerated, and AP courses. Students who experienced Launching Scholars at Pollard provided feedback around their experiences in the Castle program and their desire to return to a more mathematics-focused option. As a response to this request, NHS developed its own Launching Scholars extension for the 2018-19 school year, offering after school math support and community building once a week for students who wish to continue participating in the Launching Scholars program. All students in Launching Scholars at NHS are assigned to the same homeroom and receive advisory support from two classroom teachers and have weekly math support available to them after school.

Reviewing our 6-12 Programming

During the 2017-18 school year, the middle and high school math leadership made a plan to review the efficacy of the existing math programming. We agreed that it was an important time to reflect and study the course sequencing as our first cohort of students would be juniors in September 2019, reaching the conclusion of curricular changes originating in 2015.

In the opening meeting in August 2018, Dr. Gutekanst spoke passionately about equity and his expectation that the district focus on equity and access as the center of our work. Every year, teachers and administrators in the Needham Public Schools are required to work toward meeting a professional practice and student learning goal. After being inspired by the opening day and considering the March 2018 Equity Report, the High School and Middle School Math leaders met in September 2018 to discuss and plan for collaborating on a two-year professional practice goal allowing us to deeply study our current 6-12 mathematics programming and make

recommendations for enhancements moving forward. Most importantly, all of the research, conversation, and recommendations will occur with an emphasis on equity⁴.

The Collaborative 6-12 Math Department Goal outlines the following as our course of action:

2018-19: Engage in research and gather data. In the course of our work we will meet with our Boston-resident families, visit like districts, survey teachers/families/students.

2019-20: Continue our research and data gathering with a focus on collecting student data. By the end of year 2, we will make recommendations to address equity gaps in the mathematical opportunities for students in grades 6-12.

As a result of this work, we have identified and implemented professional development for teachers and will formulate program enhancement recommendations for all students grades 7-9 and ongoing professional development planning for teachers in spring 2020 with a goal of roll-out implementation 2021-22.

Research and Data Collection 2018-19 School Year

During the 2018-19 school year, we engaged in research and gathered data. In the course of this work, we met with “like” districts, attended a METCO meeting to discuss math PK-12 (with our elementary counterpart) and facilitated 6-12 math teacher professional development around Culturally Responsive Teaching Practices.

Visits to Like Districts 2018-19

Between October 2018 and March 2019, the Middle and High School Mathematics leaders visited “like” districts, met with math leadership, teachers, and observed classes to learn what is working well and to determine obstacles other districts and leaders face. We coordinated visits and met with leaders from Newton Middle Schools, Newton South High School, Wellesley Middle and High School, Westwood Middle and High School, and Lexington High School. Throughout these visits, we were both pleasantly surprised and dismayed by the common trends identified around placement, overrides, intervention, our growing ELL populations, professional development.

Student placement is an issue for all districts visited. Some districts (Wellesley, for example) offer one test for students to place into advanced math in grades 6, 7, and 8. Newton Public Schools are phasing out their middle school levels and will be completely unlevelled grades 6-8 starting September, 2021. High School placement across all districts remains as teacher recommendation. Newton South is the only school that levels *only math* in grade 9. All districts offer some sort of support for students who struggle--intervention classes, open math lab hours, upper-classmen student TA's assigned to the class, for example. Lexington High School offers an interesting hybrid course option for students where they can choose to take certain math courses at either the Honors or Accelerated level--the expectations around assignments is the delineating factor.

All of the districts we visited are faced with parent overrides requests at the high school level for course placement. Like Needham, three of the four districts offer either leveled or accelerated

⁴ See endnote for definition from the Needham Equity Report.

math options in grades 6-8; yet, two of these do not allow overrides and one placement test with the department chair's stamp of approval determines placement. In both Wellesley and Westwood, overrides are not permitted for middle school math placement changes. Students take one placement test, and the middle school department chair makes placement determinations from this assessment. In Wellesley, in a middle school building where all students 6-8 run on the same schedule, advanced 6th grade students take math with 7th grade students, and advanced 7th grade students take math with advanced 8th grade students. Like Needham, in districts offering levels at the middle school, flexible grouping is not feasible given the complexity of schedules in a large school environment (one shift in the schedule creates a ripple effect across the student schedule and in all other departments).

Leaders in these districts share our concerns around marginalized populations, growth and achievement both in the classroom and on MCAS. We are collectively considering ways to create more access for students while also facing the opposing challenges of rising ELL and special education populations, and families who opt for supplemental/after school mathematics programming and expect the public schools to differentiate the learning for students who have already seen grade-level content.

Of all of the districts we visited, Needham is best equipped with access to up-to-date and online texts for students and teachers, projectors in every classroom, access to software and online supports for students and teachers. We are fortunate to have the ability to incorporate technology readily. However, it is not clear that access to technology improves the experience, achievement and growth of our students.

Culturally Responsive Teaching Professional Development

In November, 2018, the Middle and High School Mathematics leaders launched our work around equity in mathematics as a 6-12 team. We introduced Culturally Responsive Teaching practices by asking teachers to reflect upon their own mathematical experiences and consider what it means to “Know Yourself, Know your Students, Know your Practice, Know your Pedagogy.” Teachers sat in cross-grade/building groups where they discussed how our students and colleagues may have similar and dissimilar experiences and cultures than our own. They shared stories and about their personal journeys. As we continue this work, we will continue to support teachers as they shift classroom environments and pedagogy to reflect our understanding of diverse learners. Further, by continuing to work closely, the middle and high school math leaders have been able to foster strong collaboration between 8th and 9th grade math teachers while emphasizing common goals 6-12. Our professional development with 6-12 teachers is ongoing and will continue through this school year and beyond.

METCO Meeting

In February 2019, and in collaboration with the K-12 Metco Director, the PK-12 Mathematics leaders visited a METCO parent meeting with a goal of providing information around mathematics programming PK-12. As we shared an overview of the program, each director conveyed information specific to elementary, middle and high school mathematics. We showed how a common theme, fractions, builds from PK-12. Further, we asked families to do some math with us to provide an experience similar to what children encounter in school. As we left this

meeting, we reflected on the importance of our METCO outreach. We hope to be invited back to a METCO meeting in the near future.

Middle School SWOT

In March 2019, middle school math teachers met with Needham's Director of Planning, Communication and Community Education to complete a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis as part of our intention to gain teacher voice in our study. (NHS teachers completed a similar activity in 2015.) As teachers discussed their experiences and those of their students, special educators, and families, they recorded their thinking in vertical teams. Areas identified include:

- a. Strengths: Constant collaboration (parents, grade to grade, within grade level); consistent content/assessment experience for students across each grade; differentiation and student choice;
- b. Weaknesses: Separate buildings make it difficult for collaboration between grade 6 and grades 7 and 8; limited math support for our students with IEPs; math can be perceived as "un-fun" due to demands to complete curriculum prior to MCAS; excessive testing for placement purposes.
- c. Threats: packed middle school curriculum; iPads (games/distractions); students who can't stay for after school help; guardian expectations.
- d. Opportunities: Implementation of more investigative and student-driven activities; smaller math support classes and more sections; online district-wide program where students can continue practicing number sense.

This analysis is an excellent lens into the teacher perspective and will be used as we continue to involve teachers in conversations around program enhancements.

Math Recess

In May, 2019, the Middle and High School Mathematics leaders outlined a plan for summer collaboration and professional development with 6-12 teachers. We purchased a book, *Math Recess*, by Sunil Singh, for all teachers and will use it as the focus of professional development this year. We are currently in the planning stages for the use of this time and have earmarked three early release days to come together as a 6-12 learning community. We have invited the author to our March joint department meeting as a culmination of this work; we have submitted a grant to NEF to fund this workshop for our joint staff of 44 math specialists (including our elementary coaches and K-5 Math Director).

Research and Data Collection: 2019-2020 School Year

In the spring and summer months of 2019, the middle and high school math leaders reflected on our goals by assessing accomplishments and further work required to meet the collaborative goal set forth in the fall of 2018.

NCTM Conference

The 2019 NCTM Regional Conference was held at the Hynes Convention Center in Boston. The conference offered attendees the following categories of learning: Empowering students through equitable teaching and learning; revolutionizing mathematics curriculum, advancing students' thinking through thoughtful and intentional integration of technology; utilizing assessment through capturing student thinking to gauge progress and adjust instruction to adjust instruction

to support and extend learning; self, structural, and systemic change for access and equity; connecting learning beyond the classroom walls; and educators as learners and agents of change. The opening session, *Leading for Equity and Access*, addressed the following:

The word equity is becoming a frequent term in education, but what is equity? What is an equitable education? How do we, as educators, fight for equity and ensure access for all children in our classrooms, schools, and communities?

Nine middle school teachers, including the department chair, attended from High Rock and Pollard. Eleven high school teachers, including the department chair, attended from NHS. The middle and high school leaders attended the pre-conference workshop, “*Catalyzing Change in HS Mathematics*” where we were charged with considering students’ mathematical identities (dispositional and deeply held beliefs that students develop about their abilities to participate and perform effectively in mathematical context and use math in powerful ways across the contexts of their lives) and how we might make high school math work for more students. We considered and discussed:

- Conditions or systemic structures that are currently barriers to creating positive math experiences for students.
- Stakeholders who need to be part of the ongoing conversation to address the barriers.
- Which (of the aforementioned stakeholders) are positioned to break down these structural barriers.

We left feeling well positioned to continue the conversation in our district as we continue to involve more stakeholders in this work.

Throughout the three day conference, teachers and administrators attended such workshops as: Our Algebra Gradebooks Hold the Key to Equity and Access; Infusing Social Justice into Algebra; Exploring Functions through Card Sorting; Secondary Math Pathways that Promote Access and Equity; Chasing Rabbits: Building a Lifetime Curiosity and Fascination for Mathematics through Adventures; What Does it Mean to be Quadratic?; Creating Collaborative Classrooms; Diving into Desmos; Emphasizing the Group in Group Work; Formative Grading; Becoming a Connected Teacher.

During our October 23 early release programming 6-12 math teachers met at NHS to attend a mini-conference based on the NCTM Conference. Teachers had the opportunity to choose topics of interest, learn and gain resources from colleagues who attended the conference workshops. Department meeting time at both the middle and high schools will continue to emphasize learning around equity, culturally responsive teaching practices, and *Math Recess*. “*Mathematics and children need time and space. Time for wondering and space for wandering. Mathematics education needs to start again with a new premise and a new promise: Mathematics is a joyful adventure of shared stories and experiences.*” (*Math Recess*, Singh and Brownell, p.xxiii) After the final session on Wednesday, the middle and high school mathematics leaders met Sunil Singh, author of *Math Recess*, who is excited to visit Needham to work with our K-12 math teachers in the spring. The K-12 district math leadership team submitted an NEF grant on October 22, 2019 for this professional development learning opportunity which reflects and supports the competencies outlined in Portrait of a Needham Graduate.

Demographics for Our Current Middle School Math Students

Since 2015, we have been keeping track of and studying data from our middle school math classes. In addition to student performance and achievement of placed and override students, we've also carefully considered the demographics of students enrolled in each of our middle school math courses at Pollard.

At Pollard the current student population breakdown by race for the math courses over the past two years is indicated in the tables below. We have been working deliberately to ensure that our courses are representative of the students enrolled at Pollard. This work includes, but is not limited to: inviting all of our METCO, ELL, and low-income students to join our Launching Scholars program at Pollard and working in partnership with our METCO leadership to ensure that all students have access to supports required to be successful in mathematics at Pollard. In addition to the information listed in the tables below, we've also taken note of the number of ELL students and low-income students enrolled in the middle school accelerated courses and as a result, this year, both ELL and low-income students are enrolled in the middle school accelerated courses.

Course Enrollment	White Students	Black Students	Asian Students	Hispanic Students	Other/Multi-Racial Students
2019-20 District:	77%	2.9%	8.8%	5.8%	5.2%
Math 7 Acc (50 students)	54% (27)	0% (2*)	34% (17)	0% (0)	12% (6*)
Math 8 Acc (56 students)	66% (37)	0% (1*)	26.8% (15)	3.6% (2*)	3.6% (2)
Math 7 (398 students)	82.4% (328)	2.1% (7/6*)	4.5% (18)	7.3% (29*)	4% (16*)
Math 8 (372 students)	76.1% (283)	3% (11/11*)	6.7% (25)	8.3% (31*)	5.9% (22*)

*includes students who identify as Black.

Course Enrollment	White Students	Black Students	Asian Students	Hispanic Students	Other/Multi-Racial Students
2018-19 District:	77.5%	2.9%	8.9%	5.6%	5.0%
Math 8 Acc (84 students)	72.6% (61)	0% (1*)	17.9% (15)	2.4% (2)	7.1% (6*)
Math 7 Acc (55 students)	63.6% (35)	0% (0)	27.3% (15)	0% (0)	0% (0)
Math 8 (303 students)	82.8% (251)	1.3% (4/ 5*)	4.3% (13)	7.9% (24*)	3.6% (11*)
Math 7 (375 students)	77.6% (291)	2.7% (10/11*)	6.9% (26)	7.5% (28*)	5.3% (20*)

*includes students who identify as Black.

Student/Parent/Teacher Survey

In September, 2019, with the assistance of Needham’s Director of Planning, Communication and Community Education, the middle and high school math leaders crafted a survey for students, guardians, and teachers in grades 7-11 in order to gather data around student mathematical experiences in Needham Public Schools. We focused on this grade span because these students are enrolled in our programming, as incorporated September 2015. Students, guardians, and teachers completed the surveys between September 26 and October 3, 2019.

We gathered a great deal of data that we will analyze in the coming months and use to inform our decision-making around program enhancements. Some highlights of the data are captured in the following table:

	Students	Guardians	Teachers
Total # of respondents	1814	771*	25
Students enjoy learning math	69%	81%	84%
Students confident in math skills	82%	80%	92%

* Parents were asked to respond separately for each child.

The 12 question, 5-minute survey, was administered during math classes allowing us to capture data from the majority of the students grades 7-12. 771 guardian and twenty five teacher responses were recorded; the parent survey was shared via the Pollard and High School listservs. Preliminary results suggest that the majority of students enjoy learning math while parents and teacher perceptions of math enjoyment are higher. Additionally, overall, each stakeholder group surveyed reported high confidence in math skills.

Another positive observation was the difference between the percent of students who would choose a lower level class (relatively small numbers) versus those who aspire to a higher level math class. It is important to note that this survey was administered early in the school year (after 22 days) and it may be too early for students to reflect on whether their current math level best meets their needs. As we dig deeply, the survey may help us better understand some of the drivers of students’ positive perceptions. In most cases, students who think “Math is useful to their future” rate enjoyment and confidence higher. Confidence is low in the College Prep Math classes with the exception of grade 11 where they ranked that math is “useful to future” higher.

One area of discrepancy is around enrollment in outside math tutoring (Russian Math, Mathnasium, Kumon, private tutors). Thirty-six percent of students reported they have been or are currently enrolled in outside Math tutoring while twenty six percent of guardians indicated that their students have been or are currently enrolled in outside math opportunities. By digging more deeply into the data collected, it is clear that students at all levels (College Prep, Honors, Accelerated) receive outside supports. At the younger grades, a higher percentage of students enrolled in Accelerated programming have/had outside tutors. In grades 9 and 10, those numbers flip to reflect that higher percentages of students enrolled in Honors and College Prep classes have/had outside tutors. This could be a reflection of the need to pass the grade 10 Mathematics MCAS as a High School diploma requirement. This is also in contrast to the perception voiced in student and parent comments that the majority of students in Accelerated classes have outside tutors. The eleventh grade numbers reverse again to indicate that higher percentages of students enrolled in Honors and Accelerated have/had outside math tutoring.

Math Level and Percentage of Students Who Have/Had Outside Tutoring

Math Level	Math 8	Math 8 Acc	Math 9 College Prep	Math 9 Honors	Math 9 Acc	Geom College Prep	Geom Honors	Geom Acc	Grade 11 College Prep	Grade 11 Honors	Grade 11 Acc
% Students Outside Tutoring	33%	44%	68%	30%	29%	61%	39%	31%	27%	41%	33%

6-12 Recommendations and Next Steps

As we continue our data study and work to make recommendations around enhancements to the 6-12 mathematics programming, we acknowledge that there are conflicting expectations and desires around the math program in grades 6-12. Below, we’ve shared a sampling of student and guardian responses to the last question on the survey, “What is one suggestion you have for supporting our students in feeling prepared and excited for learning opportunities in Needham Public Schools’ Math Program?”

“Math interventionist full time at lower level was very helpful. Not sure if it’s as intense or stressed as reading interventionist...loved having it through middle school.” Parent

“I think there should be more levels in middle school math.” Parent

“The school needs to do something to even the playing field, especially at the HS level. The accelerated high school classes are filled almost entirely with students from Russian Math School.” Parent

“Get more students to participate in Launching Scholars/advocate for Launching Scholars more because it is very helpful.” Student

“I think that some people are labeled as super-smart if they are in accelerated, which a lot of people don’t like. So, if there was a way to fix that, it would be helpful.” Student

“There’s a big jump between honors and accelerated math at the high school, so finding math easier than most honors students doesn’t necessarily mean you’re ready for accelerated.” Student

We are excited to look more closely and to triangulate responses to better understand and improve the student experience, teaching and learning. Our research was substantive and there is more analysis to come. As the school year progresses, we plan to engage teachers in further dialogue by sharing the additional data we’ve collected, examining our existing program to make sure we have courses (core and elective) for all students, and in joint decision-making regarding program enhancements and potential additions to the Pollard and High School Program of Studies. As we consider program enhancements at each level, we continue to keep equity, the Portrait of a Needham Graduate, the MA mathematics frameworks and NCTM’s recommendations⁵ at the center of these discussions.

Our next steps include:

November 2019-February 2020: Engaging Teachers in Focus Group Discussions

February 2020: NCTM Mini-Conference Continued from October 23 Early Release

March 2020: Recommendations for Program Enhancements Finalized and Early Release Math Recess Author Visit

Summer 2020: Curriculum Projects Middle and High School Mathematics Teachers

School Year 2020-2021: Ongoing Professional Development and Middle/High School Collaboration and Curriculum Enhancements

Finally, we’re considering many enhancement options at both the middle and high school levels. As we work collaboratively to develop our final recommendations, it is important to note that any changes to the course offerings in grade 7 will require reconfiguration and subsequent changes to the grade 8 and 9 mathematics course offerings. Some of our ideas include:

- Maintaining the accelerated program in its current state, and moving the classes off cluster. This would require hiring an additional math teacher at Pollard.
- Removing the accelerated course at grade 7, thus making all 7th grade math classes heterogeneous. Coupled with this change would be an elective math class for interested students in discrete mathematics topics (for example, logic, graphing theory, set theory,

⁵ See Endnotes for NCTM’s Position Statement (2016): *Providing Opportunities for Students with Exceptional Mathematical Promise*

number theory) offered during the essential blocks. This would require hiring an additional math teacher at Pollard.

- Renaming the Advanced Algebra and Trigonometry course to reflect its contemporary applied curriculum content.
- Rename the Advanced Math 9 course.
- Adding Multivariable Calculus as a math elective course for students who have completed the 7-11 Accelerated sequence successfully. This will require hiring additional math FTE at NHS.

We, the NPS middle and high school mathematics leaders, look forward to returning to a School Committee meeting in the spring in order to share our final recommendations publicly.

Endnotes

¹ **II. Offering the Compacted Pathway in middle school to grade 8 students for whom it is appropriate**

The Mathematics Standards in grades 6–8 are coherent, rigorous, and non-redundant, so the offering of high school coursework in middle school to students for whom it is appropriate requires careful planning to ensure that all content and practice standards are fully addressed. For those students ready to move at a more accelerated pace, one option is to compress the standards for any three consecutive grades and/or courses into an accelerated two-year pathway. Compressing the standards from grade 7, grade 8, and the Model Algebra I course into an accelerated pathway for students in grades 7 and 8 could allow students to enter the Model Geometry course in grade 9.

Selecting and placing students into accelerated opportunities must be done carefully in order to ensure success. Students who follow a compacted pathway will be undertaking advanced work at an accelerated pace. This creates a challenge for these students as well as their teachers, who will be teaching the grade 8 standards and Model Algebra I standards within a compressed time frame without compromising any of the rigor. Placement decisions should be made based upon a common assessment to be reviewed by a team of stakeholders that includes teachers and administrators. (2017 Massachusetts Frameworks for Mathematics, p. 169)

² The Launching Scholars program targets marginalized students who have been challenged by the traditional approach to math instruction. This system-wide collaboration is the culmination of a diverse group of administrators from High Rock, Pollard Middle School, Needham High School, and Needham’s METCO program. The program’s mission is to narrow the opportunity gap by increasing the participation of the number of students of color, LSES, ELL and other marginalized students in advanced math classes from grades 7 through grade 12.

⁴ From the Needham Equity Report, pages 8 and 9: *The Department of Public Instruction in Wisconsin defines educational equity as: The educational policies, practices, and programs necessary to a) eliminate educational barriers based on gender, race/ethnicity, national origin, color, disability, age or other protected group status; and b) provide equal educational opportunities to ensure that historically underserved or underrepresented populations meet the same rigorous standards for academic performance expected of all children and youth.*

Inequities in education systematically put groups of people who have been traditionally socially disadvantaged (for example, students with disabilities, low-income, and/or members of a historically marginalized racial, ethnic, or religious group) at a further disadvantage with respect to their opportunity trajectory.

⁵ “Regarding acceleration, there are distinctions between tracking and acceleration. NCTM’s position statement, *Providing Opportunities for Students with Exceptional Mathematical Promise* (NCTM 2016) makes clear that acceleration is appropriate if a student has demonstrated deep understanding of grade-level or course-level mathematics. The statement emphasizes that “care must be taken to ensure that opportunities are available to each and every prepared student and no critical concepts are rushed or skipped.” If the demographics of students accelerated in mathematics in a school or district are not reflective of the school’s district’s racial, linguistic, cultural, and economic diversities, then analysis and evaluation are necessary to determine why not, and actions should be taken to remove whatever bias and barriers leading to this inequitable outcome.” (Robert Berry, NCTM President 6/22/2018)



Needham
Public Schools

Mathematics in Needham

6-12 Program Update



November 5, 2019

6-12 Math Program Update



- 6-12 Program Report Summary (2015-Present)
- Some Recent Survey Results
- Our shared two-year goal 2018-2020
- Work for SY 2019-20
- Next Steps and Possible Considerations





6-12 Program Report Goal- “The Why”

6-12 Math Program Update

- Old pathways limited the opportunity for some learners to advance to higher-level math courses.
- The opportunity for some students to enroll in Calculus at NHS was unavailable.
- 2011 MA frameworks encouraged rethinking programming.
- Enhanced Math programming for **ALL** students by:
 - Providing challenge for the students who are ready.
 - Addressing the needs of learners clustered in lower-level classes.

6-12 Program Report Goals



6-12 Math Program Update

- The 6-12 program report will:
 - Provide a comprehensive summary of MS and HS curriculum changes 2015-Present
 - Share outcomes
 - Outline placement process and override trends
 - Share Student learning and performance data
 - Describe NPS 6-12 collaboration
 - Share 6-12 work for 2018-19
 - Share the 6-12 plan for 2019-20



NPS Mathematics-The Core Program for Grades 6-12

Grade 6

Math 6

Grade 7

Math 7 Math 7 Acc

Grade 8

Math 8 Math 8 Acc

Grade 9

Integrated Math 9 Math 9 Math 9 Honors Math 9 Accelerated Advanced Math 9 Accelerated **Or** Geometry Accelerated

Grade 10

Integrated Math 10 Geometry Geometry Honors Geometry Accelerated **Or** Precalculus Accelerated AB or BC

Grade 11

Algebra 2 (H or CP) Advanced Algebra and Trig or Precalculus Precalculus Honors Precalculus Accelerated AB or BC **Or** AP Calculus AB or BC and/or AP Statistics

Grade 12

Advanced Algebra and Trig or Precalculus Precalculus or Fund. of Calculus and Statistics Calculus Honors and/or Statistics Honors AP Calculus AB and/or AP Statistics AP Calculus BC and/or AP Statistics



Our Shared Two-Year Goal



6-12 Math Program Update

We will collaborate to study and make recommendations regarding the current math program 6-12 through an equity lens.

Year 1: Engage in research and gather data. In the course of our work we will meet with our Boston-resident families, visit “like” districts, survey teachers/families/students..

Year 2: Continue our research and data-gathering with a focus on collecting student data. By the end of year 2, we will make recommendations to address equity gaps in the mathematical opportunities for students in grades 6-12.

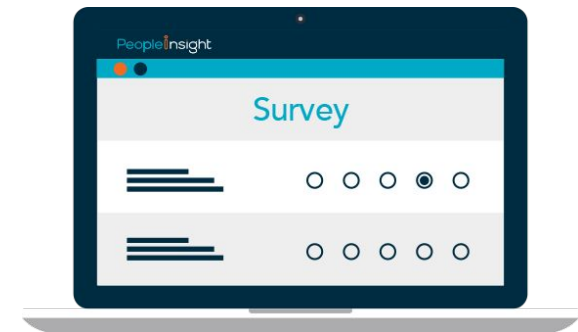


Survey Results

6-12 Math Program Update



- 3 Surveys Administered
 - Students (1814 responses)
 - Families (771 responses)
 - Teachers (25 responses)



Survey Results, cont.

6-12 Math Program Update

Students in Grades 6-12

enjoy learning

Mathematics

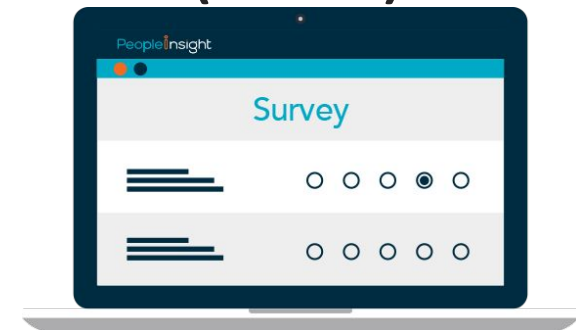
- Students (69%)
- Families (81%)
- Teachers (84%)

Students in Grades 6-12

are confident

in Mathematics

- Students (82%)
- Families (80%)
- Teachers (92%)



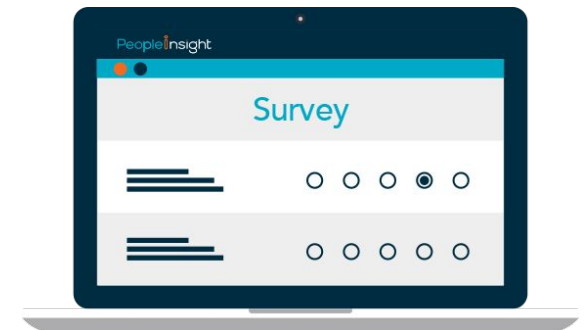
Survey Results, cont.

6-12 Math Program Update

The students receiving outside tutoring in mathematics:

Math level and Percentage of Students Enrolled in Outside Tutoring

Math Level	Math 8	Math 8 Acc	Math 9 CP	Math 9 H	Math 9 Acc	Geo CP	Geo H	Geo Acc	Gr 11 CP	Grade 11 H	Grade 11 Acc
% Students Outside Tutoring	33%	44%	68%	30%	29%	61%	39%	31%	27%	41%	33%



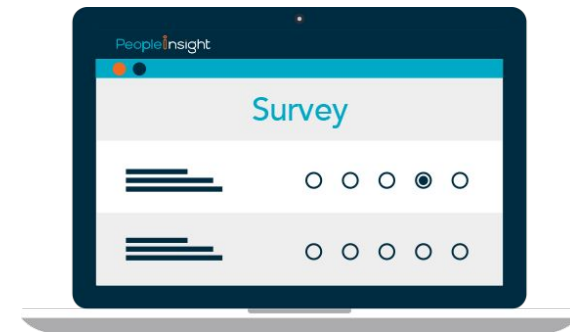
Survey Results



6-12 Math Program Update

What is one suggestion you have for supporting our students in feeling prepared and excited for learning opportunities in our Math program?

- “Math interventionist full time at lower level was very helpful...loved having it through middle school”
- “...more levels in middle school math”
- “...even the playing field”
- “...super-smart if they are in accelerated...”
- “...a big jump between honors and accelerated math at the high school”



Meeting our Goal 2018-19



6-12 Math Program Update

- Visits to “Like” Districts (October 2018-March 2019)
- 6-12 Meeting (November 2018)
- METCO Parent Meeting (February 2019)
- Middle School SWOT Exercise (March 2019)
- Work for 2019-2020



Visits to “like” districts

6-12 Math Program Update

Districts Visited

- **Newton**
 - Middle
 - South
- **Wellesley**
 - Middle & High School
- **Westwood**
 - Middle & High School
- **Lexington**
 - High School

Trends

- **Placement**
- **Supports for Students**
- **Resources, PD & Technology**
- **Overrides, & Student Performance**
- **Key Takeaways**



6-12 Program Report -Overrides

6-12 Math Program Update



Middle School

Total Overrides 2015-2019	White or Asian	Hispanic	Black/African American	Free/Reduced Lunch	ELL
126	95.8%	4.2%	0%	0.8%	0%

High School (8th to 9th)

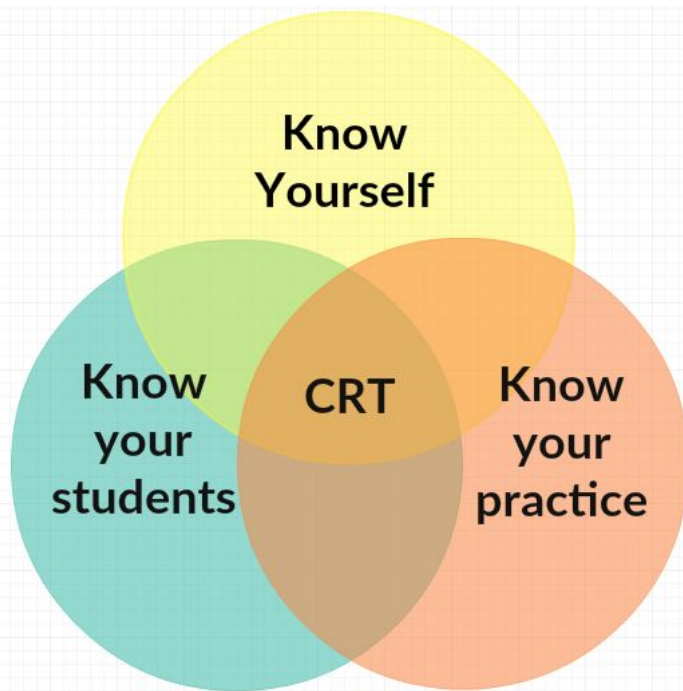
Year	Total Overrides for rising Grade 9	White or Asian	Hispanic	Black/African American
2017-2018	27	85%	0%	15%
2018-2019	19	94.7%	0%	5.2%
2019-2020	26	96.2%	0%	3.8%

92% of the students who overrode into the compacted curriculum wound up in the same place they would have been had they taken the original, recommended placement. 15 of these override students are now enrolled their grade level honors math course at NHS.

6-12 Department Meeting

6-12 Math Program Update

November 26, 2018



Meeting Goals

1. Better understand the role that deep culture plays in all aspects of our identity and our interactions with students/colleagues.
2. Consider how our students and colleagues may have similar and dissimilar experiences and cultures than our own.
3. Explain the role shallow and deep culture can have on the teaching and learning in your classroom.
4. Introduce Individualism and Collectivism and how they represent different approaches to our classroom and learning.

METCO Parent Meeting

6-12 Math Program Update

- Overview of our Agenda
 - K-12 Programming
 - Mathematical Content Curriculum strand
 - Questions and Answers





Middle School SWOT Exercise

6-12 Math Program Update

- **SWOT Analysis**
 - March 2019
 - Facilitated by NPS Director of Planning, Communication and Community Education
 - Thinking in vertical teams
 - Analysis will be used as part of program evaluation process





Work for SY 2019-2020

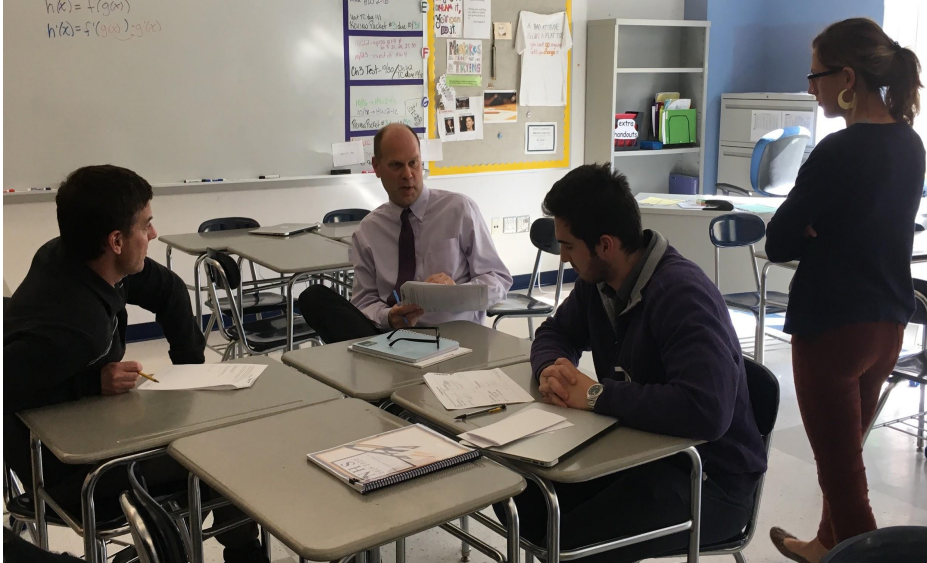
6-12 Program Update

- PD Planning throughout Summer 2019
- NCTM Regional Conference September 2019
 - NCTM/NPS mini-conference October 2019
- Equity and PONG
 - “Math Recess”
 - January and February 2020 (6-12)
 - March 2020 (submitted NEF grant for author, Sunil Singh to come in March for K-12 PD)
 - Passion and Priority Practice Projects at NHS
- Ongoing collaboration between MS and HS
- Recommendations for Program Enhancements



6-12 Department Meeting October 2019

6-12 Math Program Update



- **6-12 NCTM/NPS Miniconference**
 - Teacher led workshops
 - Technology
 - Mindfulness
 - Grading
 - Number sense
 - Social Justice
 - Student Collaboration
- **Preview of School Committee Presentation**



Next Steps

6-12 Math Program Update

Next Steps

With a focus on Equity and The Portrait of a Needham Graduate we will:

- Engage 6-12 math team in programming discussions;
- Continue 6-12 PD;
- Propose Summer 2020 Curriculum work;
- Continue 6-12 PD partnership in SY2020-21.

Possible Considerations...

- Maintain MS accelerated courses and move off-cluster;
- Remove accelerated from Grade 7 and add a mathematics elective;
- Add Multivariable Calculus elective;
- Rename Advanced Algebra and Trigonometry, and Advanced Math 9.



Questions?

6-12 Program Update





Needham School Committee

November 5, 2019

Agenda Item: **Action**

Approve 2019-2020 Superintendent's Goals

Action recommended:

Upon recommendation of the Chair, that the Needham School Committee approves the Superintendent's goals for 2019-2020 as submitted.

Superintendent's Performance Goals Needham Public Schools 2019-2020



Superintendent: Daniel E. Gutekanst
School Committee Chair: Michael Greis

Professional Practice	
1	<p>In a minimum of eight administrative meetings, I will implement effective school leadership development and training in the areas of leadership strategies, data use, and equitable practices to ensure an innovative and inclusive learning experience for all children; In a minimum of 150 classroom visits with principals and building leaders, I will observe instruction as it relates to equitable and inclusive practices; In a minimum of three professional learning opportunities, I will deepen my understanding of school and district leadership, especially as it relates to ensuring an equitable learning environment.</p> <p>Evidence of Progress:</p> <ul style="list-style-type: none"> • <i>SLT, DLT, and District meeting agendas show evidence of the use of data, evaluation, and leadership strategies to inform student learning, staff supervision, and ensure cultural proficiency, equity, achievement, and inclusion.</i> • <i>Administrative classroom walk-throughs and observations with principals to observe and assess teaching and learning as it relates to equitable and inclusive practices.</i> • <i>Participation in professional learning opportunities focused on innovation in learning and leadership development as these areas relate to equity, inclusion, and student growth and achievement.</i>

Student Learning	
<p>2</p> <p>3</p> <p>4</p>	<p>I will ensure principals align their School Improvement Plans and school-based professional development plans to support the implementation of the District's 5 Year Strategic Plan: Portrait of a Needham Graduate and contribute toward District efforts to support equitable and inclusive practices for all students.</p> <p>I will participate in a minimum of three meetings of the Race, Equity, Access & Leadership (REAL) Coalition to strengthen a framework for equity that will support inclusion, access, and achievement for all students, particularly students of color.</p> <p>I will ensure the implementation of student-centered and interdisciplinary learning through the use of the budget process, School Improvement Plans, and the development of the Portrait of a Needham Graduate process.</p> <p>Evidence of Progress:</p> <ul style="list-style-type: none"> • <i>High needs, special education, ELL, and students of color increase levels of participation in higher-level and challenging middle/high school courses and increase performance on local and state assessments.</i> • <i>Race Equity Access & Leadership (REAL) agendas show evidence of work and plans to enhance District efforts around communication, policy, curriculum, school culture, and professional development.</i> • <i>School Improvement Plans show evidence of innovative and/or interdisciplinary learning experiences for all students.</i> • <i>District documents, including the FY21 budget plan, School Improvement Plans, and newsletters reflect increased priority for innovative, student-centered, and equitable and inclusive learning for all students.</i>

District Improvement	
5	I will encourage and facilitate the development of increased teacher and student voice, participation, and agency in the work of the Needham Public Schools.
6	I will support proactive communication, cooperation, collaboration, planning, and the development of key relationships between and among District leaders and the Town's Building Maintenance Department in support of excellent maintenance of our schools.
7	I will participate in and lead discussions around the School Facilities Master Plan as well as the Emery Grover school Administration Building Study.
8	<p>I will support District staff in the implementation of each of the 19 action steps included in year one of the District's 5 Year Strategic Plan: Portrait of a Needham Graduate.</p> <p>Evidence of Progress:</p> <ul style="list-style-type: none"> • <i>Staff and students included in planning efforts and in key decision-making opportunities at the school and district level; Superintendent communication efforts include teacher and student voice and stories of engagement and learning.</i> • <i>Survey results indicate principal and staff satisfaction with building maintenance.</i> • <i>School Facilities Master Plan completed.</i> • <i>Year One of the 5 Year Strategic Plan implemented with at least 75% of action steps completed.</i>



Needham School Committee

November 5, 2019

Agenda Item: **Action**

Adopt Fuel Efficient Vehicle Policy

Action recommended:

Upon recommendation of the Superintendent, that the Needham School Committee adopts the Fuel Efficient Vehicle Policy as submitted.

Select Board of Needham

Policy Number:	SB – ADMIN.006
Policy:	Fuel Efficient Vehicle Policy
Date Approved/Select Board:	November 12, 2019
Date Approved/School Committee:	November 5, 2019

1. INTRODUCTION

The Select Board of Needham and the Needham School Committee have approved the following fuel-efficient vehicle policy to govern the replacement of all non-exempt municipal vehicles with fuel-efficient vehicles, as defined below.

2. POLICY STATEMENT

To reduce the Town of Needham’s fuel consumption and energy costs, the Select Board and the School Committee adopt a policy to purchase only fuel-efficient vehicles to meet this goal, except as expressly set forth below.

3. APPLICABILITY

This policy applies to all divisions and departments of the Town of Needham.

4. DEFINITIONS

Combined City and Highway MPG (EPA Combined fuel economy) – Combined Fuel Economy means the fuel economy from driving a combination of 43 percent city and 57 percent highway miles and is calculated as follows:

$$\text{Combined City and highway MPG} = \frac{1}{\left(\frac{0.43}{\text{CityMPG}}\right) + \left(\frac{0.57}{\text{HighwayMPG}}\right)}$$

Drive System – The manner in which mechanical power is directly transmitted from the drive shaft to the wheels. The following codes are used in the drive field:

- AWD: All Wheel Drive: four-wheel drive automatically controlled by the vehicle power train system
- 4WD: 4 Wheel Drive: driver selectable four-wheel drive with 2-wheel drive option
- 2WD: 2-wheel Drive.

Heavy-Duty Vehicle – A heavy-duty vehicle is defined as a vehicle with a manufacturer’s gross vehicle weight rating (GVWR) of more than 8,500 pounds.

5. GUIDELINES

- 5.1 All departments/divisions will purchase the most fuel-efficient vehicles for municipal use (including police, fire and highway) whenever such vehicles are commercially available and practicable.
- 5.2 The Town of Needham will maintain an annual vehicle inventory for all vehicles and a plan for replacing any non-exempt vehicles that meet, at a minimum, the fuel efficiency ratings contained in the most recent guidance for Criterion 4 published by the MA Department of Energy Resources' Green Communities Division. The fuel efficiency ratings contained therein are based on the most recently published US Environmental Protection Agency combined city and highway MPG ratings for vehicles.
- 5.3 It is the responsibility of the Town of Needham to check the Green Communities Division's Guidance for Criterion 4 for updates prior to ordering replacement vehicles.
- 5.4 Exemptions
- Heavy-duty vehicles such as school busses, fire trucks, ambulances, and heavy-duty trucks
 - Motorcycles
 - Passenger and cargo vans
 - Police cruisers

The Town of Needham commits to purchasing fuel-efficient cruisers, passenger vans and cargo vans when they become commercially available and practicable. Police and Fire Department administrative vehicles must meet fuel-efficient requirements.

- 5.5 Inventory An inventory of all Town vehicles is contained in Attachment A and shall be updated on an annual basis.

6. FUEL EFFICIENT VEHICLE REPLACEMENT PLAN

- 6.1 All non-exempt vehicles shall be replaced with fuel-efficient vehicles that meet the fuel efficiency ratings outlined in the Policy.
- 6.2 Vehicles shall be replaced when they are no longer operable and will not be recycled from one municipal department to another unless the recycled replacement vehicle meets the fuel efficiency ratings outlined in the Policy.
- 6.3 When an exempt vehicle is replaced, the function of the vehicle will be reviewed for potential replacement with a more fuel-efficient vehicle, including a fuel-efficient non-exempt vehicle.
- 6.4 The Town of Needham will review the Vehicle Inventory and the Green Communities Criterion 4 Guidance on an annual basis to review new acquisitions during the capital planning process.

7. QUESTIONS AND ENFORCEMENT

All inquiries should be directed to the department/division responsible for fleet management and/or fleet procurement. This Fuel-efficient Vehicle Policy will be enforced by the Town Manager/designee.



Needham School Committee

November 5, 2019

Agenda Item: **Action**

Adopt Energy Reduction Plan

Action recommended:

Upon recommendation of the Superintendent, that the Needham School Committee adopts the Energy Reduction Plan as submitted.

TOWN OF NEEDHAM

APPLICATION FOR GREEN COMMUNITIES DESIGNATION



Prepared by the Green Communities Working Group:

Kate Fitzpatrick, Town Manager
Carys Lustig, Director of Finance and Administration for Public Services
Cecilia Simchak, Acting Director of Finance and Administration for Public Services
Barry Dulong, Director of Building Maintenance
Nick Hill, Hill Energy Services
Beth Greenblatt, Beacon Integrated Solutions

with support from the:

Select Board and School Committee

**Town of Needham
1471 Highland Avenue
Needham, MA 02492**

November 12, 2019

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SECTION 1. EXECUTIVE SUMMARY

1.1 About the Town of Needham

The Town of Needham is located on rocky uplands within a loop of the Charles River in Eastern Massachusetts. The Town is bordered by Wellesley on the west and northwest, Newton on the north and northeast, the West Roxbury section of Boston on the east, Dedham on the southeast and south, and Westwood and Dover on the south. Needham is ten miles southwest of Boston, twenty-nine miles east of Worcester, and about 208 miles from New York City. Needham is situated in the greater Boston area, which has excellent rail, air, and highway facilities. Principal highways are State Routes 128 (the inner belt around Boston) and 135, and Interstate Route 95, which shares the same roadway as State Route 128. Commuter rail service is available via four stations to Back Bay Station and South Station in Boston. Needham is a member of the Massachusetts Bay Transportation Authority (MBTA), which provides fixed bus route service between Needham Junction and Watertown Square.

The Town provides full-service police, fire and emergency medical services. It operates its own water treatment and distribution system and provides sewer services through the Massachusetts Water Resources Authority. Other services include a Free Public Library, aging services located at the Center at the Heights, Youth and Family Services, Public Health, Public Works including Building Maintenance, Highway, Parks and Forestry, Engineering, Recycling and Solid Waste (including the recycling and transfer station), Administration, Fleet and Park and Recreation programming and pools at the Rosemary Recreation Complex. The School Department operates five elementary schools, two middle schools, and a high school educating approximately 5,800 students.

Needham at a Glance

Name:	Town of Needham
Incorporated:	1711
Total Area:	12.61
Elevation:	The low elevation is 68 feet above sea level and the high is 298 feet above sea level.
Road Miles:	138
County:	Norfolk
Population:	28,886 (2010 census)
Form of Government:	Representative Town Meeting
School Structure:	K-12
FY2019 Tax Rate:	\$12.39 Residential \$24.42 Commercial
FY2019 Avg. Single Family Home Value:	\$920,256
FY2019 Avg. Single Family Home Tax Bill:	\$11,402
Coordinates:	42° 16' 52" N 71° 14' 11" W

The Town is home to a St. Joseph Elementary School, Monsignor Haddad Middle School, St. Sebastian's Day School, and Olin College of Engineering. The Beth Israel Deaconess Hospital Needham has a strong presence in Needham Center. The Town has a thriving commercial sector along Route 128 including TripAdvisor, Shark Ninja, NBC Universal, WCVB Channel 5, and many others.

1.2 Commitment to Energy Savings and Management and Renewable Energy

The Town takes a comprehensive approach to energy management. A few examples include:

- Energy Audit of 10 municipal buildings leading to \$467,370 investment in energy reduction over the past 7 years.
- Geo-thermal heating system at the Public Services Administration Building
- LEED certified Library and Sunita Williams Elementary School
- Pilot program of electric vehicles
- Installation of electric vehicle charging stations
- Inclusion of hybrid vehicles in the fleet
- Installation of 155.1 kW DC photovoltaic array on Sunita Williams School installed behind-the-meter
- Construction of 3,593 kW DC Photovoltaic array at the closed landfill generating approximately 4,771,000 kilowatt-hours per year
- Conversion of streetlights from mercury vapor to high pressure sodium (Note: LED conversions substantially complete)
- Participant in the Bike Share program

1.3 Community Supported Energy Savings and Renewable Energy Programs

In 2014, the Town sponsored Solarize Needham, resulting in ninety-nine residential solar installations. There are currently over 400 residential solar arrays in Needham. During the Fall of 2019, Needham launched Solarize Needham Plus which encourages and facilitates with homeowners the opportunities and benefits of solar photovoltaic installations, promotes the adoption of electric vehicles purchases and offers cost-effective air-source heat pump technologies for home heating and cooling solutions. The Town is currently partnering with Eversource on a residential weatherization and insulation program.

1.4 Authorization and Support by Select Board

At its meeting on **DATE** the Select Board of Needham voted to approve and submit the Application for Green Communities designation, including the energy reduction plan and the Fuel-Efficient Vehicle Policy.

1.5 Authorization and Support by School Committee

At its meeting on **DATE** the School Committee of Needham voted to adopt the energy reduction plan and Fuel-Efficient Vehicle Policy.

SECTION 2. CRITERION 1: AS-OF-RIGHT SITING-VIA GENERATION, R&D OR MANUFACTURING

2.1 DOER Requirement

As-of-Right Siting provides for the allowed use without unreasonable regulation. More specifically, as-of-right siting means that development may proceed without the need for a special permit, variance, amendment, or other discretionary approval. As-of-right development may be subject to non-discretionary site plan review to determine conformance with local zoning bylaws as well as state and federal law. As-of-right development projects that are consistent with zoning bylaws and with state and federal law cannot be prohibited.

A municipality must provide zoning in designated locations for the as-of-right siting for one of the following:

- renewable or alternative energy generating facilities,
- renewable or alternative energy research and development (R&D) facilities,
- renewable or alternative energy manufacturing facilities

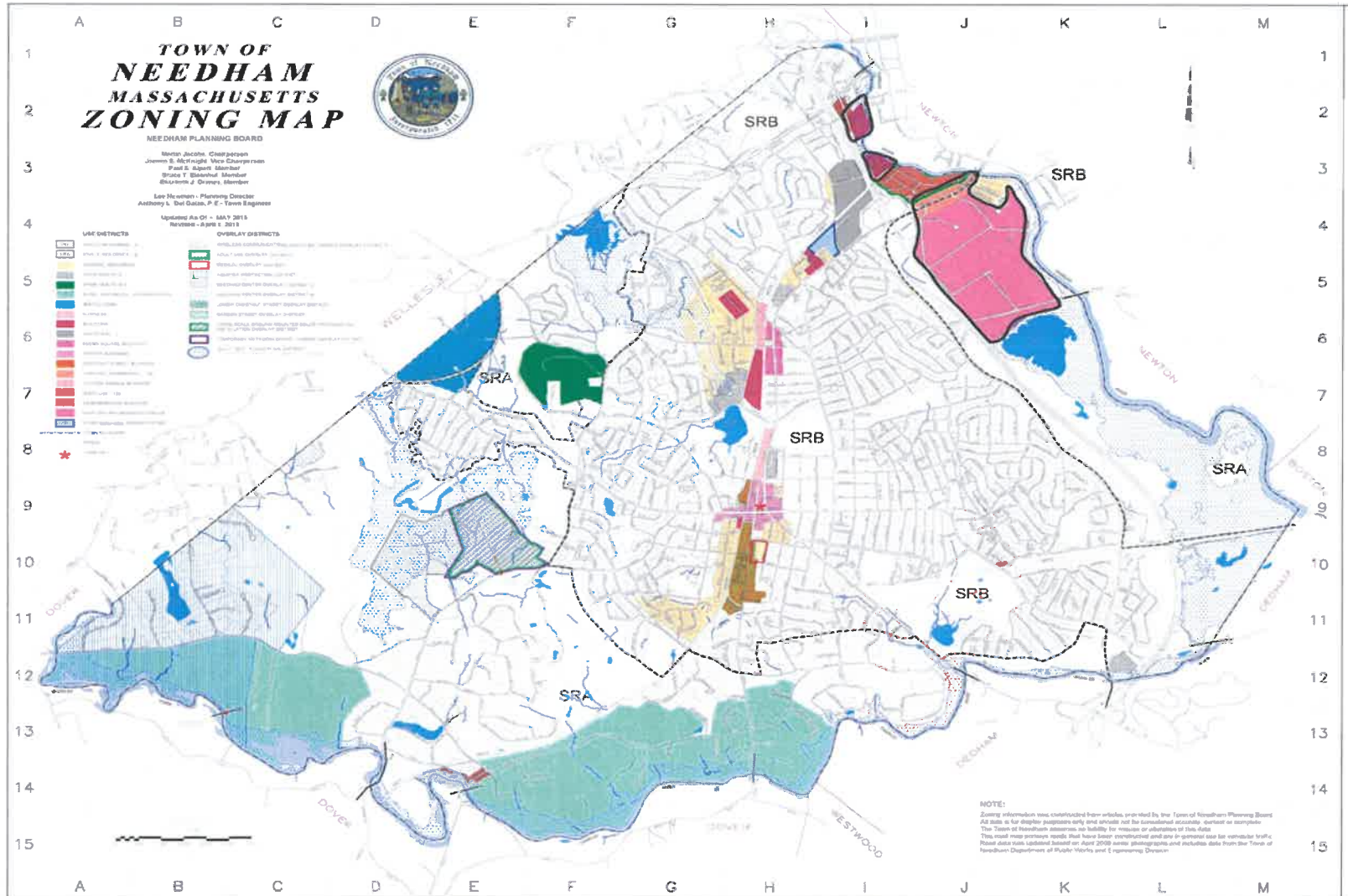
2.2 Town Compliance

The Town of Needham Zoning Bylaws provide As-of-Right Siting in several zoning districts for renewable or alternative energy research and development (R&D) facilities and renewable or alternative energy manufacturing facilities as follows:

USE	Green Community Type	Industrial	Industrial 1	New England Business Center District	Mixed Use 128 District
Zoning Bylaw Reference		3.2.1	3.2.1	3.2.4	3.2.6
Laboratory or place where scientific experimental research is conducted not including genetic or biological research laboratory.	Research & Development	✓ □	✓ □		
Medical laboratory or laboratory engaged in scientific research and development, and experimental and testing activities including, but not limited to, the fields of biology, genetics, chemistry, electronics, engineering, geology, medicine and physics, which may include the development of mock-ups and prototypes.	Research & Development			✓ □	✓ □
Light non-nuisance manufacturing providing that all resulting cinders, dust, flashing, fumes, gases, odors, smoke, noise, vibration, refuse matter, vapor, and heat are effectively confined in a building or are disposed in a manner so as not to create a nuisance or hazard to safety or health	Manufacturing	✓ □	✓ □	✓ □	✓ □

The Town acknowledges that among the four (4) categories noted above, there exists a minimum of 50,000 square feet of available space to site renewable or alternative energy research and development (R&D) facilities and/or renewable or alternative energy manufacturing facilities.

Provided below is the Town's zoning map with the applicable zones highlighted.



Please refer to Exhibit 7.1 for written certification by Town Counsel of compliance.

SECTION 3. CRITERION 2: EXPEDITED PERMITTING

3.1 DOER Requirement

Criterion 2 requires communities to adopt an expedited application and permitting process under which as-of-right energy facilities (criterion #1) may be sited within the municipality and which shall not exceed one (1) year from the date of initial application to the date of final approval. Such an expedited application and permitting process applies only to the proposed facilities which are subject to the as-of-right siting provisions, and documentation that all permits necessary to site proposed facilities can be issued within the one (1) year deadline is required.

3.2 Town Compliance

Site Plan Review is provided for in Section 7.4 of the Town's Zoning Bylaw.

- New Construction Projects sized up to 10,000 square feet of allowable permitted use are allowed by right and must apply for a Minor Project Site Plan Review, which is similar to a typical Site Plan Review in other municipalities. Such projects require comments from the Planning Board to the Building Inspector prior to the issuance of the building permit.
- New Construction Projects of allowable permitted use sized 10,000 or more square feet or involve an increase in gross floor area of 5,000 square feet, or the creation of 25 or more new off-street parking spaces, must apply for a Major Project Site Plan Special Permit. Such projects require approval by the Planning Board.
- Needham complies with the statutory requirements of MGL Chapter 40A which rarely extends established timeframe of action on the Special Permit beyond five (5) months.

Please refer to Exhibit 7.2 for written certification by Town Counsel of compliance.

SECTION 4. CRITERION 3: ENERGY REDUCTION PLAN ('ERP')

4.1 DOER Requirement

Criterion 3 requires municipality (including both the general government and school district) to accomplish the following:

- I. Establish an Energy Use Baseline
- II. Develop and implement a comprehensive program designed to reduce this baseline by 20% within the 5-year period following the Baseline Year

4.2 Town Compliance

a) Purpose and Acknowledgements

- I. Letters from both General Government and School District Verifying Adoption of the ERP.
 - i. Please refer to Exhibit 7.3.1 Letters from both General Government and School District Verifying Adoption of the ERP.
- II. List of Contributors that Participated in the Baseline and ERP Process

The Town acknowledges the following individuals that participated in the development of the Energy Use Baseline and the ERP Process:

- i. Kate Fitzpatrick, Town Manager
- ii. Carys Lustig, Director of Finance and Administration for Public Services
- iii. Cecilia Simchak, Acting Director of Finance and Administration for Public Services
- iv. Barry Dulong, Director of Building Maintenance
- v. Nick Hill, Hill Energy Services
- vi. Beth Greenblatt, Beacon Integrated Solutions

b) Executive Summary

- I. Narrative Summary of the Town
 - i. Please refer to Section 1.1.
- II. Summary of Municipal Energy Uses
 - i. The Town is served by Eversource Energy for both electricity and natural gas delivery. While the Town mainly relies on natural gas for space heating, the Hillside Elementary School also uses heating oil for space heating. The Town further uses both gasoline and ultra-low sulfur diesel for vehicle use.
 - ii. Two solar photovoltaic arrays have been installed in the Town. The largest is at the capped landfill, which serves as a fully net metered facility. The second solar photovoltaic array is owned by the Town and directly provides solar generated electricity in a behind-the-meter installation.

The following table presents the Summary of Needham’s Energy Uses:

Table 1: Summary of Municipal Energy Users

CATEGORY	TYPE	QUANTITY	OWNERSHIP
Buildings	Natural Gas Heat	5	Town
	Natural Gas Heat	7	Schools
	Fuel Oil Heat	2	Schools
	Electric Heat	1	Town
	Geothermal	1	Town
Vehicles	Exempt	101	Town
	Non-Exempt	126	Town
	Exempt	11	Schools
	Non-Exempt	4	Schools
Streetlights		0	Utility-Owned
		2908	Town
Traffic Signals	Traffic/Hawk/Flashing	25	Town
Water/Sewer	Drinking Water	1	Town
	Pump Stations	11	Town

III. Summary of Energy Use Baseline and Plans for Reductions

Table 2: Summary of Municipal Energy Use Baseline

BASELINE FISCAL YEAR 2018	MMBTU Used in Baseline Year	% of Total MMBTU Baseline Energy Consumption	Projected Planned MMBTU Savings	Savings as % of Total MMBTU Baseline Energy Consumption
Buildings	86,963	76.08%	17,991	21%
Vehicles	16,100	14.08%	2,462	3%
Street/Traffic Lights	17	0.01%	1,825	2%
Water/Sewer	11,137	9.74%	504	1%
Open Space	92	0.08%	0	0%
TOTAL BASELINE	114,309	100.00%	22,782	20%

c) Energy Use Baseline Inventory

I. Identification of the Inventory Tool Used

- i. The Town of Needham inventory tool is MassEnergy Insight (MEI).

II. Identification of the Baseline Year and ERP Timeframe

- i. The Town of Needham’s Energy Use Baseline Year is fiscal year 2018 (July 2017-June 2018).

III. Municipal Energy Consumption for the Baseline Year

Table 3: Annual Municipal Energy Use in Native Units and MMBTU - Fiscal Year 2018																	
Please enter "0" for any fuels not used																	
	Electricity		Natural Gas		#2 Distillate Fuel Oil		Propane		Gasoline		Diesel		Electric Renewable Energy		Thermal Renewable Energy		Total MMBtu
	kWh	MMBtu	Therms	MMBtu	Gallons	MMBtu	Gallons	MMBtu	Gallons	MMBtu	Gallons	MMBtu	kWh	MMBtu	Therms	MMBtu	
<i>Town Buildings</i>	1,942,730	6,629	74,677	7,468	3,959	550	0	0	0	0	0	0	0	0	0	0	14,647
<i>School Buildings</i>	6,771,645	23,105	410,534	41,053	22,450	3,121	0	0	0	0	0	0	0	0	0	0	67,279
<i>Transfer Station</i>	147,613		0		0		0		0		0		0		0		
SUBTOTAL FOR BUILDINGS	8,861,988	29,733	485,211	48,521	26,409	3,671	0	0	0	0	0	0	0	0	0	0	81,925
<i>Drinking Water/Wastewater Treatment Plant</i>	1,909,932	6,517	12,654	1,265	0	0	0	0	0	0	0	0	0	0	0	0	7,782
<i>Pumping in Aggregate</i>	677,639	2,312	10,423	1,042	0	0	0	0	0	0	0	0	0	0	0	0	3,354
<i>Open Space*</i>	123,038	420	7,719	772	0	0	0	0	0	0	0	0	0	0	0	0	1,192
<i>Vehicles in Aggregate</i>	0	0	0	0	0	0	0	0	73,194	9,076	50,535	7,024	0	0	0	0	16,100
<i>Street and Traffic Lights in Aggregate</i>	1,011,532	3,451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,451
TOTAL ENERGY CONSUMPTION	12,584,129	42,937	516,007	51,601	26,409	3,671	0	0	73,194	9,076	50,535	7,024	0	0	0	0	114,309

d) Energy Reduction Plan

I. Narrative

i. Overview of Goals for Years 1-3

With Fiscal Year 2018 as the Town's Baseline Year, the Goals for Years 1-3 are as follows:

Year 1: Fiscal Year 2019:

- Lighting upgrades to LED fixtures in corridors, performance center, auditoriums and media centers.
- Replacing domestic hot water heating system at Broadmeadow Elementary School.
- Replacing the boiler at the Library with a high efficiency boiler.
- Comprehensive street lighting conversion to LEDs (Substantially complete).
- Retro-commissioning.
- Energy efficient motor replacements.
- Variable frequency drive upgrades.
- Utilization of Fleetio, a software program to track vehicle and fuel usage by vehicle and target those higher-use vehicles for reduction.

Year 2-3: Fiscal Years 2020 and 2021:

- Upgrading existing Building Management Software to Struxureware to enable consistent and more comprehensive building and systems control and management. This new software is open architecture, provides a common interface to all users and allows remote monitoring and control of facilities. Additionally, the new software provides alarming features alerting Town staff to system operational problems. The software further supports exception reporting which will allow building maintenance staff to properly maintain required building temperatures and settings designed to increase performance and reduce energy usage.
- Retro-commissioning buildings include studying the existing conditions of the mechanical systems, making a comparison to original design specifications, calculating the difference in performance, and making necessary corrections to return the systems to its original design specifications.
- Comprehensive energy audit on the Charles River Water Treatment Plant to identify energy specific improvements to be made in a building with constant use.
- Replacing the boiler at the DPW garage with high efficiency boiler.
- Conducting a facility assessment for sustainable building management at various Schools will focus on the entire building structure and will recommend additional energy efficiency improvements.

- Replacing diesel mid-size trucks with gasoline trucks.
- LED Streetlighting optimization. The Town has the ability to automatically dim the lights throughout Town. The dimming schedule can be based on time, season, events, or can be a manual change. This allows more control over the amount of energy being used during non-peak hours.
- In addition to the project listed above, the Town will continue to monitor energy consumption and work on behavioral changes to decrease usage. Space temperatures are closely monitored for optimal conditions. Setbacks are designed to decrease cooling and heating needs when buildings are unoccupied by increasing or decreasing temperature setpoints.
- Preventative maintenance will be re-evaluated to improve the efficiency of the mechanical equipment.

ii. Overview of Goals for Years 4-5

- As presented in Table 4: Energy Conservation Measures (ECMs), the Town has many anticipated projects focused on energy efficiency upgrades, including but not limited to: upgrading classroom lighting to LED, retro-commissioning High Rock Elementary School and Needham High School, conducting a study on potential energy upgrades in buildings throughout Town, replacing the roof and windows at the Emery Grover, replacing the boiler at the Hillside Elementary School, installing anti-idling technology on vehicles, replacing police cruisers with hybrid vehicles, and removing inflow from the sewer system.
- Conducting a study on energy upgrades for buildings town wide will help plan for additional projects the Town may undertake in the upcoming years to continue its commitment to energy reduction. Continuing to retro-commission additional buildings ensures that the mechanical systems perform more efficiently. Installing anti-idling technology will help decrease fuel usage on vehicles that are used daily.

iii. Identify Areas of Least Efficient/Greatest Waste (MEI-Buildings to Target)

- As shown in the following MEI Chart, the Town's buildings and facilities presenting the greatest opportunity for energy savings are:
 - Needham High School
 - Newman Elementary School
 - Pollard Middle School
 - Mitchell Elementary School
 - Hillside Elementary School
 - Town Hall

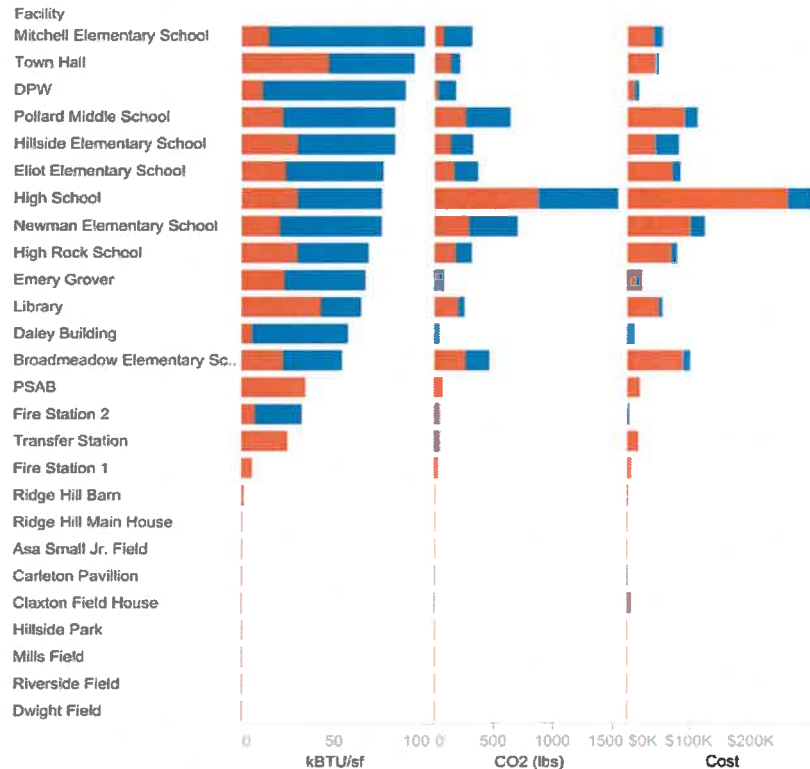
Buildings to Target

This dashboard compares buildings to one other on an energy use per area metric, measured as kBTU/square foot. In the quadrant chart on the right, buildings with the highest energy use and worst efficiency (as compared to other buildings in your portfolio) are in the upper right hand quadrant. Facilities of the types Open Space, Water/Sewer, Street/Traffic Lights, and Vehicles are not displayed. Diesel and Gasoline records attached to a building are not included in the kBTU/SF calculation.

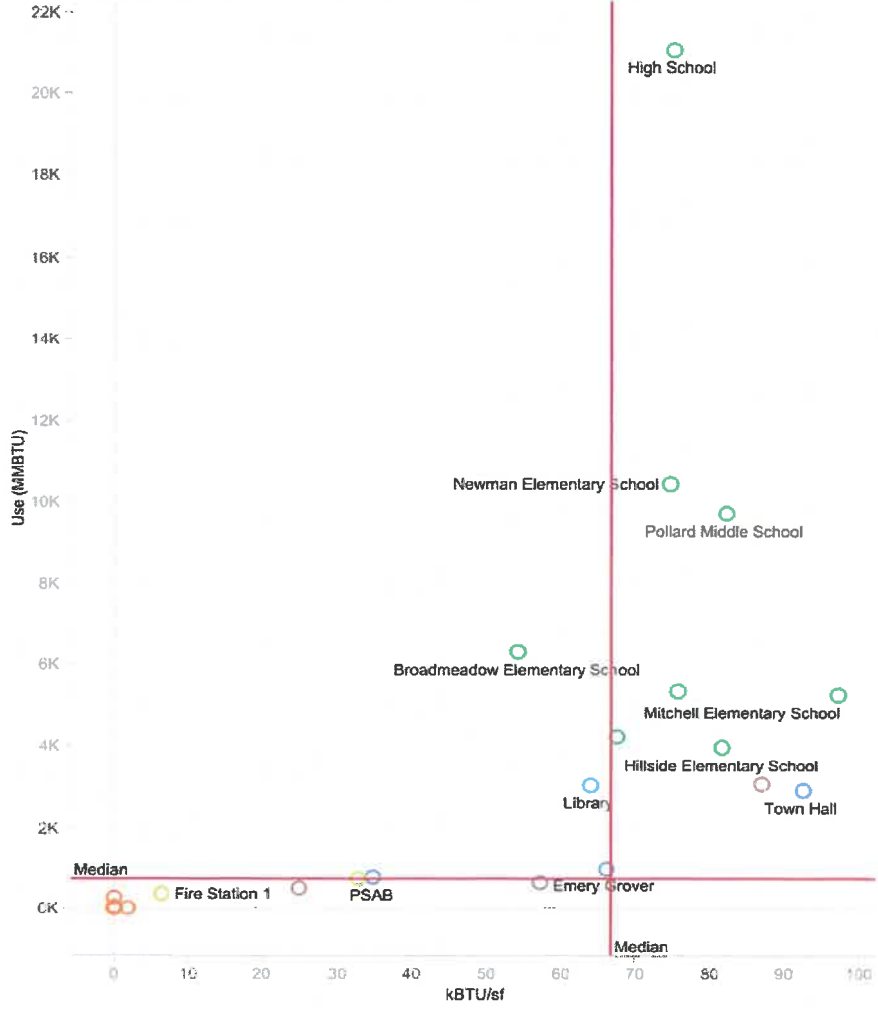
Building Efficiency, Emissions and Cost

■ Heating ■ Electric

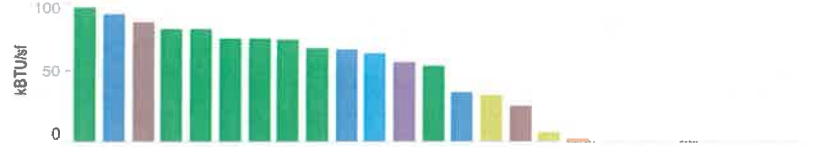
Emissions factors updated 1/4/2012 using Massachusetts-specific greenhouse gas emissions factors.



Efficiency and Use



Select a building name above to see how efficient it is compared to your other buildings. Lower numbers indicate greater efficiency.



II. 20 Percent Energy Reductions:

i. ERP Energy Savings Goals Summary:

CALCULATED ERP SAVINGS					
ENERGY MEASURES	CALCULATED MMBTU SAVINGS	CALCULATED COST SAVINGS	ESTIMATED NET INSTALLED COST	SIMPLE PAYBACK	PERCENT CONTRIBUTION OF BASELINE CONSUMPTION
Building Control	4,119	\$125,205	\$468,126	3.7	
Exterior Lighting	1,851	\$122,061	\$371,548	3.0	
Hot Water	56	\$990	\$75,049	75.8	
HVAC	1,988	\$68,873	\$875,333	12.7	
Interior Lighting	1,143	\$75,336	\$607,382	8.1	
Retrocommission	7,252	\$258,550	\$627,572	2.4	
Vehicles	683	\$18,996	\$15,000	0.8	
Weatherization	110	\$2,854	\$633,000	221.8	
Comprehensive Audits	2,949	\$123,675	\$9,268	0.1	
SUB-TOTAL	20,149	\$796,540	\$3,682,278	4.6	
ADDITIONAL ESTIMATED ERP SAVINGS					
ENERGY MEASURES	ADDITIONAL MMBTU SAVINGS	ADDITIONAL ESTIMATED COST SAVINGS	ESTIMATED NET INSTALLED COST	SIMPLE PAYBACK	PERCENT CONTRIBUTION OF BASELINE CONSUMPTION
Vehicles	1,780	\$44,880	\$70,000	1.6	
Comprehensive Audits	74	\$4,904	\$0	0.0	
Behavior & Training	779	\$27,786	\$100,000	3.6	
SUB-TOTAL	2,633	\$77,570	\$170,000	2.2	
GRAND TOTAL	22,782	\$874,110	\$3,852,278	4.4	20%

ii. As shown in the table above, the Town has identified 18 percent calculated energy savings plus an additional estimated 2 percent energy savings. For additional detail, please refer to Table 4: Energy Conservation Measures which has been provided as an attachment.

iii. To achieve the projected 2 percent additional estimated energy savings, the Town will undertake three key efforts:

- Installation of anti-idling technology in its fleet vehicles. These systems are designed to allow vehicles to be parked with equipment operating continuously – radios, warning lights, etc., while minimizing engine idle time and decreasing fuel consumption. The anti-idling technology senses battery condition and turns vehicles on to idle only when necessary. While idling at an emergency or construction scene, a typical police cruiser uses about 0.9 gallons of gasoline per hour. Fuel savings from anti-idling systems vary by vehicle type and usage, though they tend to be greatest for diesel and police vehicles.
- Conduct comprehensive audits to reduce stormwater Infiltration and Inflow (“SWI/I”) in the existing sewer systems. Infiltration is defined as groundwater or storm water runoff that enters the system through deteriorated pipe or manhole structures that need to be repaired. When sewer flow is reduced, wastewater pumping requirements will also be

reduced, thereby reducing energy consumption associated with wastewater pumping.

- Conduct facility assessments for sustainable building management. It is expected that the assessments will generate recommendations to improve operations and maintenance practices designed to reduce energy consumption and promote best practices for operations.

iv. Program Management Plan for Implementation, Monitoring and Oversight

Responsibility Matrix:

REQUIREMENT	RESPONSIBILITY MATRIX	
	PRIMARY	SECONDARY
Oversight of ERP Implementation	Carys Lustig	Cecilia Simchak
Implementation of ECMs - Town	Barry Dulong	Shift Supervisors
Implementation of ECMs - Schools	Barry Dulong	Shift Supervisors
Implementation of ECMs - WTP	Sean Harrington	Steve Cusick
Annual Green Communities Reporting	Carys Lustig	Cecilia Simchak

v. Identify for each Energy Conservation Measures (ECM”):

Please refer to Table 4: Energy Conservation Measures Data Excel Spreadsheet included by reference in Exhibit 7.3.2 which includes:

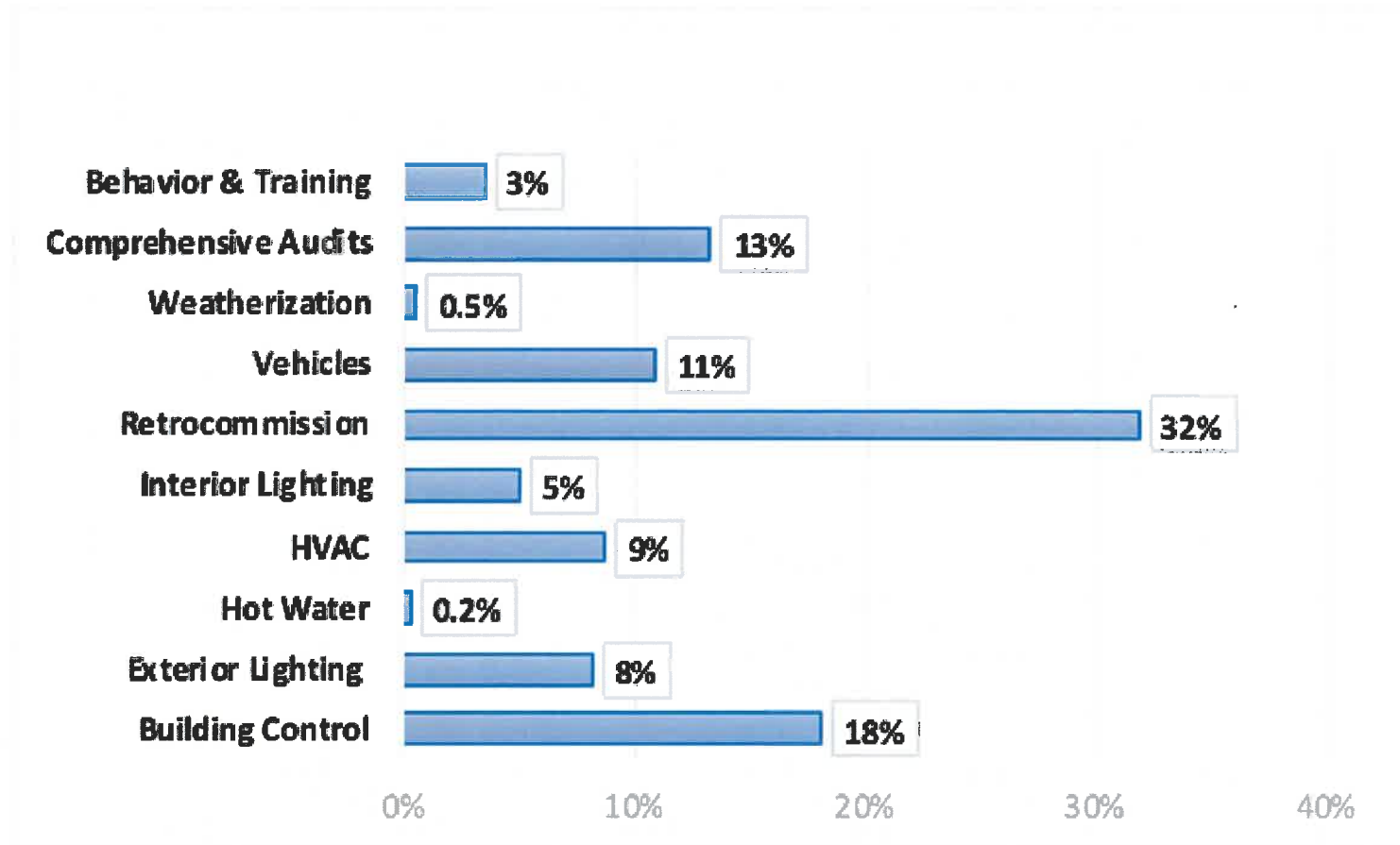
- Status and projected timeline
- Projected energy savings in native units
- Projected cost savings
- Total cost
- Any utility incentives projected or received
- Any planned use of Green Communities grant funds (if designated)
- Funding source (capital budget, operating budget, debt and type or other grants)
- Source of the calculated energy and cost savings in the reference column

Summaries of the ERP Goals by ECM and Location are presented below. With respect to the summary of the ERP Goals by ECM, the Town has segmented the data into two categories:

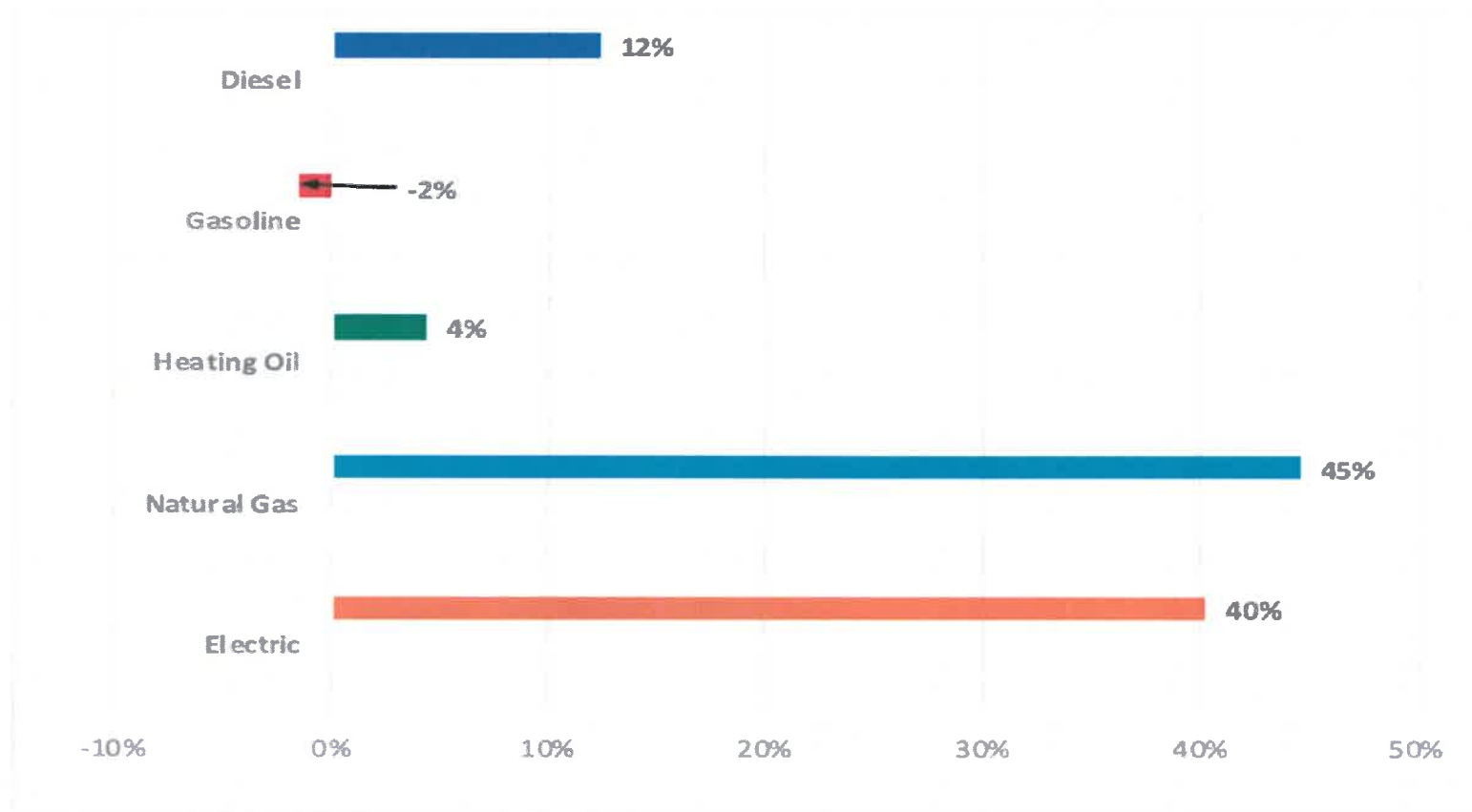
- Calculated energy savings by ECM based on energy audit data, reliable industry data or engineering calculations, and

- Estimated additional savings based on reliable industry data. The Town notes that these estimates are conservative and will be refined at the conclusion of the additional due diligence through the planned audits and studies.

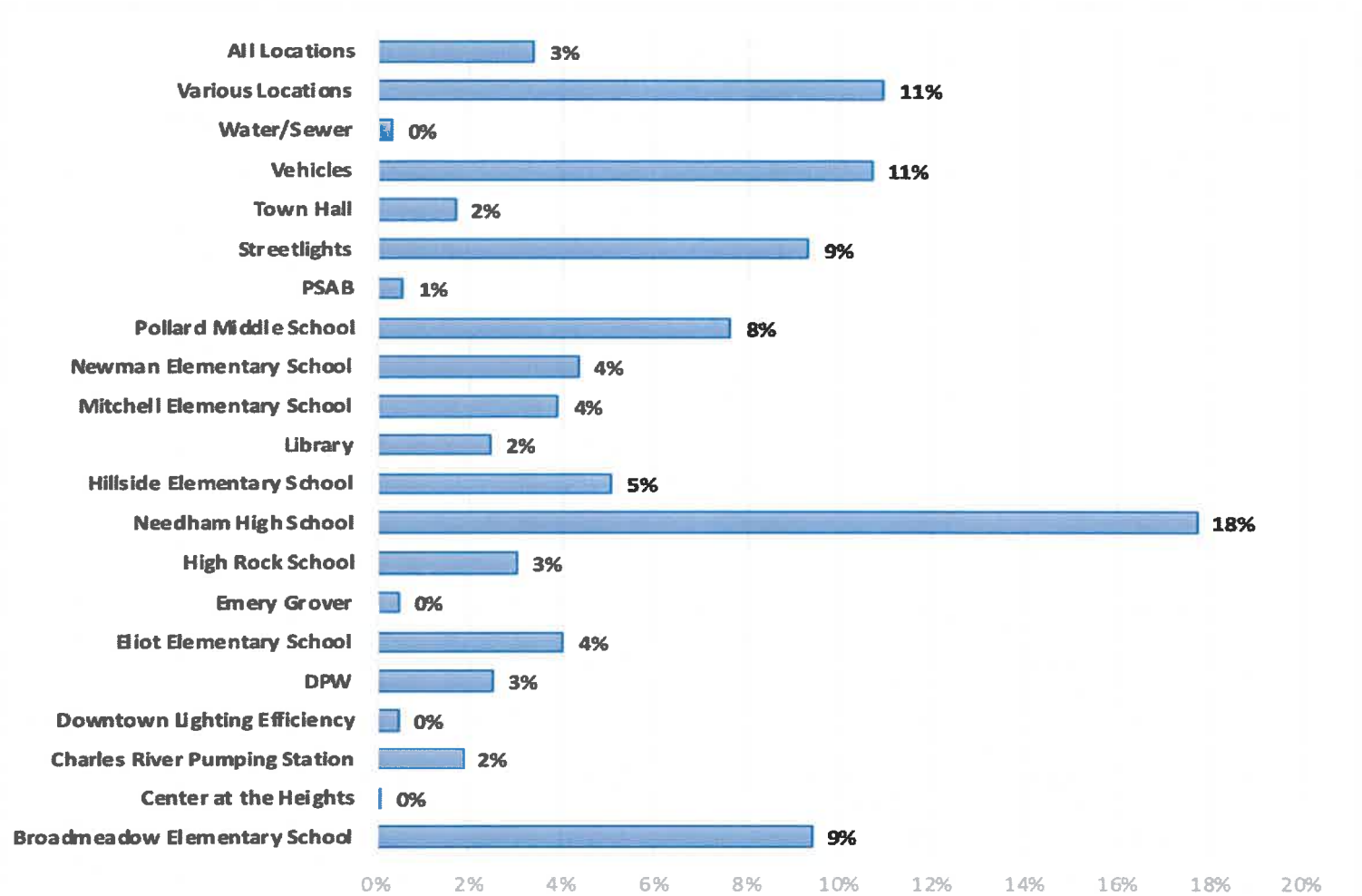
The following table presents the Town's Energy Reduction Plan Goals by ECM Category:



The following table presents the Town's Energy Reduction Plan Goals by Energy Type:



The following table presents the Town's Energy Reduction Plan Goals by Location:



III. ECMs Occurring Before Green Communities Designation

- i. As noted in Table 4: Energy Conservation Measures, the Town has completed a portion of the energy efficiency and capital upgrade projects presented in its ERP.

Of the total 20 percent MMBTU savings of Baseline consumption, the Town expects to realize 2,981 MMBTU savings from energy conservation measures undertaken in fiscal year 2019. These estimated savings represent approximately 13 percent of the overall ERP projected savings.

- ii. The Town is also currently pursuing additional energy conservation measures during this current fiscal year 2020. The Town anticipates an additional 7,367 MMBTU of energy savings resulting from projects in progress. These estimated savings represent approximately 32 percent of the overall ERP projected savings.

The table below provides a summary of completed (in FY 2019), active (in FY 2020) and planned energy conservation/capital improvement projects included in the ERP.

	MMBTU Savings	% Contribution of Total 20% ERP Savings	\$ Contribution of Total ERP Cost Savings	% Contribution of Total ERP Cost Savings	Net Installation Cost	% Contribution of Net Installation Cost
Completed	2,981	13%	\$180,001	21%	\$631,510	16%
Active	7,367	32%	\$244,638	28%	\$646,006	17%
Planned	12,435	55%	\$449,471	51%	\$2,574,761	67%
TOTAL	22,782	100%	\$874,110	100%	\$3,852,278	100%

IV. Summary of Long-Term Energy Reduction Goals – Beyond 5 Years

- i. Municipal and School Buildings
 - The Town will have funded multiple studies during the five-year period post the Fiscal Year 2018 baseline that will help the Building Maintenance Division continue with energy reduction upgrades. These studies will include recommendations for updated technologies and equipment that are more energy efficient.
 - The Town has a system in place to continue making energy reduction upgrades for the foreseeable future as noted below. Each year the Town seeks appropriations to fund not only projects to reduce energy consumption, but also to fund studies as needed to evaluate older buildings and systems and replace or repair them to increase their efficiencies.
 - Additionally, the Building Maintenance Division plans to request an overall facility assessment on every building as it approaches its 20-year life cycle to determine whether structural and overall improvements can be made to

keep the building in use. This process will help maintain healthy buildings longer, reducing the need to major emergency repairs and decrease energy consumption in the process.

- The Town is not only looking to commit to major repairs. Simple behavioral changes can also decrease energy consumption. During the summers, the Town consolidated summer programming into the same buildings to reduce unnecessary use of energy and more efficiently operate fewer buildings. As Needham becomes a Green Community, additional education will be provided to Town employees on simple energy reduction strategies they can use in their offices.

ii. Vehicles

- The Town replaces vehicles on a life cycle basis, as determined by the type of vehicle. Typically, this occurs every seven to twelve years. Energy reduction strategies implemented in the Town's ERP will be continued into the future in order to capture all vehicles in the fleet. As technologies and efficiencies improve, older vehicles will be retired and replaced with newer, more energy efficient vehicles. The Fleet Division has initiated an investigation of available hybrid and electric vehicles for the various types of vehicles used by the Town.

iii. Street and Traffic Lighting

- The Town will continue to analyze energy consumption of street and traffic lighting and adjust based on needs. Upon completion of the effort to systematically and strategically dim streetlights, the Town will support continuous reasonable adjustments to reduce energy consumption while maintaining appropriate streetlighting levels and safety. The Town will evaluate the benefits of replacing traffic signals with more energy efficient models.

iv. Perpetuation Energy Efficiency

- On an annual basis, the Town submits two warrant articles for approval at Town Meeting. Specifically, each year the Town includes an Energy Efficiency Capital Article ("EECA") and a Facility Maintenance Article ("FMA"). These funding sources have enabled the Town to implement comprehensive energy efficiency and infrastructure upgrade improvements since 2006 under the FMA and 2013 under the EECA.

SECTION 5. CRITERION 4: FUEL-EFFICIENT VEHICLES

5.1 DOER Requirement

Criterion 4 requires communities to purchase only fuel-efficient vehicles for municipal use whenever such vehicles are commercially available and practicable. The purpose behind this criterion is to reduce carbon dioxide emissions by municipal vehicles, which has a positive impact on the environment and saves municipalities money.

5.2 Town Compliance

The Town of Needham, inclusive of its school department and all municipal departments, has adopted a fuel-efficient vehicle policy. Please refer to Exhibit 7.4 for written certification by the Town Manager stating that the Town of Needham has adopted the fuel-efficient vehicle policy and for a similar certification from the Superintendent of Needham Public Schools.

SECTION 6. CRITERION 5: STRETCH CODE ADOPTION

6.1 DOER Requirement

In accordance with M.G.L. c 25A Section 10, a municipality must require all new residential construction over 3,000 square feet and all new commercial and industrial real estate construction to minimize, to the extent feasible, the life-cycle cost of the facility by utilizing energy efficiency, water conservation and other renewable or alternative energy technologies.

Municipalities that have adopted the stretch energy code shall use the energy efficiency requirements of appendix 780 CMR 115.AA, which stipulates higher energy efficiency requirements for most new construction.

6.2 Town Compliance

On May 13, 2019, at its Annual Town Meeting, under Article 49, the Town of Needham voted to amend its General By-Laws by adding the Stretch Energy Code for the purpose of regulating the design and construction of buildings for the effective use of energy, pursuant to Appendix 115.AAA of the Massachusetts Building Code, 780 CMR, the "Energy Stretch Code", including future additions, amendments, or modifications thereto.

Please refer to Exhibit 7.5 for a copy of the Town Meeting vote as recorded with the Town Clerk.

SECTION 7. APPENDIX

- 7.1 Criterion 1: As-of-Right Siting: Town Counsel Compliance Certification**
- 7.2 Criterion 2: Expedited Permitting: Town Counsel Compliance Certification**
- 7.3 Criterion 3: ERP**
 - 7.3.1 Letters from both General Government and School District Verifying Adoption of the ERP.**
 - 7.3.2 Table 4: Energy Conservation Measures Data Excel Spreadsheet**
 - 7.3.3 MMBtu Unit Conversion Chart**
 - 7.3.4 Energy Savings Reductions: Methodologies and Sources**
- 7.4 Criterion 4: Fuel Efficient Vehicles Policy**
- 7.5 Criterion 5: Town Meeting Adoption of the Stretch Energy Code as recorded with the Town Clerk**

ECMs			Status		Energy Data (Projected Annual Savings)						Financial Data					Reference Data	
Building/Site Name	Energy Conservation Measure Name	ECM Type (select one from drop-down)	Status (select one from drop-down)	Status Date (month/yr completed or planned)	Electricity Savings (kWh)	Natural Gas (therms)	Oil (gallons)	Projected Annual Propane Savings (gallons)	Gasoline (gallons)	Diesel (gallons)	Projected Annual Cost Savings (\$)	Total Installed Cost (\$)	Green Community Grant (\$)	Utility Incentives (\$)	Net Cost (\$)	Funding Source(s) for Net Costs	Source for Projected Savings
Broadmeadow Elementary Sc..	BMS Upgrade to Struxeware	Building Control	Active	Sep-21	29,098	4,600					\$14,689	\$19,515			\$19,515	Capital Plan	See Appendix
Broadmeadow Elementary Sc..	Demand Control Ventilation	HVAC	Planned	Jun-22	16,586	4,753					\$12,145	\$48,000	\$21,000	\$4,147	\$22,853	Future	2014 EMA Audit
Broadmeadow Elementary Sc..	Corridor Lighting (staff)	Interior Lighting	Complete		42,409						\$9,542	\$6,447			\$6,447	Operating	2014 EMA Audit
Broadmeadow Elementary Sc..	Gym Lighting	Interior Lighting	Planned		14,371						\$3,233	\$11,040		\$4,000	\$7,040	Capital Plan	2014 EMA Audit
Broadmeadow Elementary Sc..	Domestic Hot Water Replacement	Hot Water	Complete			559					\$990	\$75,049			\$75,049	Capital Plan	Calculation by N. Hill. CEM, LEED-AP
Broadmeadow Elementary Sc..	VFD & Motor	HVAC	Complete		10,227						\$2,301	\$1,000			\$1,000	Operating	Calculation by N. Hill. CEM, LEED-AP
Broadmeadow Elementary Sc..	Upgrade Classroom lighting	Interior Lighting	Planned		21,758						\$4,896	\$93,625		\$32,100	\$61,525	Future	Based on EMG Audit
Broadmeadow Elementary Sc..	Performance Ctr Lighting	Interior Lighting	Complete		20,149						\$4,534	\$16,920			\$16,920	Capital Plan	Based on EMG Audit
Broadmeadow Elementary Sc..	Retrocommission	Retrocommission	Active		77,454	3,926					\$24,376	\$23,472			\$23,472	Capital Plan	Based on USEPA and others, see Appendix
Center at the Heights	BMS Upgrade to Struxeware	Building Control	Active		6,420	9					\$1,460	\$10,793			\$10,793	Capital Plan	See Appendix
Center at the Heights	Demand Control Ventilation	Building Control	Planned		1,209	7					\$285	\$7,200			\$7,200	Future	See Appendix
Charles River Pumping Station	Energy Audit	Comprehensive	Active		89,202	1,248					\$22,279	\$9,268			\$9,268	Capital Plan	AECOM audit to be completed Fall 2019
Downtown Lighting Efficiency	Upgrade lighting from HPS to LED	Exterior Lighting	Planned	Dec-19	30,502						\$6,863	\$20,062			\$20,062	Capital Plan	Calculation by N. Hill. CEM, LEED-AP
DPW	Boiler Replacement	HVAC	Planned	Jun-20		4,112					\$7,278	\$460,000			\$460,000	Capital Plan	17.5% est savings based on similar projects
DPW	Retrocommission	Retrocommission	Planned		11,815	1,316					\$4,987	\$28,300			\$28,300	Future	Based on USEPA and others, see Appendix
Eliot Elementary School	BMS Upgrade to Struxeware	Building Control	Active	Jun-20	16,002	1,133					\$5,606	\$19,201			\$19,201	Capital Plan	See Appendix
Eliot Elementary School	Retrocommission	Retrocommission	Active	Jun-19	53,340	3,778					\$18,688	\$57,000			\$57,000	Capital Plan	Based on USEPA and others, see Appendix
Eliot Elementary School	Upgrade Classroom lighting	Interior Lighting	Planned		17,197						\$3,869	\$86,875		\$30,000	\$56,875	Future	Based on EMG Audit
Eliot Elementary School	Demand Control Ventilation	Building Control	Planned		3,215	949					\$2,402	\$9,000			\$9,000	Future	See Appendix
Eliot Elementary School	VFD & Motor	HVAC	Complete	Jun-19	23,862						\$5,369	\$2,000			\$2,000	Operating	Calculation by N. Hill. CEM, LEED-AP
Emery Grover	Roof Replacement	Weatherization	Planned	Jun-21			451				\$1,631	\$235,000			\$235,000	Capital Plan	Calculation by N. Hill. CEM, LEED-AP
Emery Grover	Window Replacement	Weatherization	Planned	Jun-20			338				\$1,223	\$398,000			\$398,000	Capital Plan	Calculation by N. Hill. CEM, LEED-AP
High Rock School	BMS Upgrade to Struxeware	Building Control	Active		15,161	605					\$4,481	\$26,515			\$26,515	Capital Plan	See Appendix
High Rock School	Corridor Lighting	Interior Lighting	Planned		5,010						\$1,127	\$71,205		\$23,580	\$47,625	Capital Plan	Based on EMG Audit
High Rock School	Retrocommission	Retrocommission	Planned		57,838	2,453					\$17,355	\$50,000			\$50,000	Capital Plan	Based on USEPA and others, see Appendix
High Rock School	Upgrade Classroom lighting	Interior Lighting	Planned		17,273						\$3,886	\$71,205		\$23,490	\$47,715	Future	Based on EMG Audit
High Rock School	Demand Control Ventilation	Building Control	Planned		3,486	616					\$1,874	\$16,000			\$16,000	Future	See Appendix
High School	Upgrade Classroom lighting	Interior Lighting	Planned		95,550						\$21,499	\$319,200		\$112,670	\$206,530	Future	Based on EMG Audit
High School	BMS Upgrade to Struxeware	Building Control	Active		76,136	4,134					\$24,447	\$121,993			\$121,993	Capital Plan	See Appendix

High School	Retrocommission	Retrocommission	Planned		259,456	13,074					\$81,518	\$100,000			\$100,000	Capital Plan	Based on USEPA and others, see Appendix
High School	Demand Control Ventilation	Building Control	Planned		10,901	6,155					\$13,347	\$16,000	\$16,000		\$0	Future	See Appendix
High School	VFD & Motor	HVAC	Complete		68,178						\$15,340	\$5,000			\$5,000	Operating	Calculation by N. Hill. CEM, LEED-AP
Hillside Elementary School	BMS Upgrade to Struxureware	Building Control	Active		21,573		768				\$7,633	\$14,372			\$14,372	Capital Plan	See Appendix
Hillside Elementary School	Boiler Replacement	HVAC	Planned				2,593				\$9,388	\$232,000			\$232,000	Capital Plan	Calculation by N. Hill. CEM, LEED-AP
Hillside Elementary School	Retrocommission	Retrocommission	Planned		43,136		2,282				\$17,967	\$38,900			\$38,900	Future	Based on USEPA and others, see Appendix
Hillside Elementary School	Demand Control Ventilation	Building Control	Planned		2,600		573				\$2,659	\$9,400			\$9,400	Future	See Appendix
Hillside Elementary School	Modular Classrooms	Building Control	Planned		8,450						\$1,901	\$1,200			\$1,200	Future	Calculation by N. Hill. CEM, LEED-AP
Hillside Elementary School	Lighting Upgrades	Interior Lighting	Planned		14,306						\$3,219	\$57,025	\$21,000		\$36,025	Future	Based on EMG Audit
Library	BMS Upgrade to Struxureware	Building Control	Active		20,379	374					\$5,247	\$17,388			\$17,388	Capital Plan	See Appendix
Library	Boiler Replacement	HVAC	Complete	Oct-18			1,047				\$1,853	\$150,480			\$150,480	Capital Plan	Calculation by N. Hill. CEM, LEED-AP
Library	Retrocommission	Retrocommission	Planned		58,025	1,187					\$15,156	\$38,000			\$38,000	Capital Plan	Based on USEPA and others, see Appendix
Library	Demand Control Ventilation	Building Control	Planned		3,497	298					\$1,314	\$12,420			\$12,420	Future	See Appendix
Mitchell Elementary School	BMS Upgrade to Struxureware	Building Control	Active		8,258	1,462					\$4,445	\$14,273			\$14,273	Capital Plan	See Appendix
Mitchell Elementary School	Corridor Lighting	Interior Lighting	Complete		3,607						\$812	\$21,129			\$21,129	Capital Plan	Based on EMG Audit
Mitchell Elementary School	Lighting Upgrades	Interior Lighting	Planned		16,139						\$3,631	\$39,200	\$13,440		\$25,760	Capital Plan	Based on EMG Audit
Mitchell Elementary School	Retrocommission	Retrocommission	Planned		23,577	4,623					\$13,487	\$43,000			\$43,000	Future	Based on USEPA and others, see Appendix
Mitchell Elementary School	Demand Control Ventilation	Building Control	Planned		1,421	1,161					\$2,374	\$9,240			\$9,240	Future	See Appendix
Newman Elementary School	BMS Upgrade to Struxureware	Building Control	Active		23,446	1,579					\$8,070	\$26,993			\$26,993	Capital Plan	See Appendix
Newman Elementary School	Demand Control Ventilation	Building Control	Planned		1,421	1,161					\$2,374	\$9,000			\$9,000	Future	See Appendix
Newman Elementary School	Retrocommission	Retrocommission	Planned		63,368	4,267					\$21,810	\$111,800			\$111,800	Capital Plan	Based on USEPA and others, see Appendix
Pollard Middle School	BMS Upgrade to Struxureware	Building Control	Active		27,843	2,333					\$10,393	\$44,292			\$44,292	Capital Plan	See Appendix
Pollard Middle School	Corridor Lighting	Interior Lighting	Planned		44,962						\$10,116	\$21,811			\$21,811	Operating	Based on EMG Audit
Pollard Middle School	Exterior wallpack lighting (staff)	Exterior Lighting	Complete	Jun-19	7,495						\$1,686	\$5,400			\$5,400	Operating	Based on EMG Audit
Pollard Middle School	Upgrade Classroom lighting	Interior Lighting	Planned		22,097						\$4,972	\$79,100	\$27,120		\$51,980	Capital Plan	Based on EMG Audit
Pollard Middle School	Retrocommission	Retrocommission	Planned		60,379	7,147					\$26,236	\$94,500			\$94,500	Capital Plan	Based on USEPA and others, see Appendix
Pollard Middle School	Demand Control Ventilation	Building Control	Planned		4,432	1,512					\$3,673	\$10,000	\$10,000		\$0	Future	See Appendix
Pollard Middle School	VFD & Motor	HVAC	Complete	Jun-19	60,700						\$13,658	\$1,000			\$1,000	Operating	Calculation by N. Hill. CEM, LEED-AP
PSAB	BMS Upgrade to Struxureware	Building Control	Active		7,546						\$1,698	\$19,104			\$19,104	Capital Plan	See Appendix
PSAB	Demand Control Ventilation	Building Control	Planned		1,345						\$303	\$7,200			\$7,200	Future	See Appendix
PSAB	VFD & Motor	HVAC	Complete		6,855						\$1,542	\$1,000			\$1,000	Operating	Calculation by N. Hill. CEM, LEED-AP
PSAB	Retrocommission	Retrocommission	Planned		22,324						\$5,023	\$17,400			\$17,400	Capital Plan	Based on USEPA and others, see Appendix
Streetlights	Streetlight Conversion to LED	Exterior Lighting	Complete		504,497						\$113,512	\$472,210	\$126,124		\$346,086	Capital Plan	Level 3 estimate by AECOM
Town Hall	BMS Upgrade to Struxureware	Building Control	Active		11,745	441					\$3,423	\$36,827			\$36,827	Capital Plan	See Appendix
Town Hall	Demand Control Ventilation	Building Control	Planned		2,661	285					\$1,104	\$16,200			\$16,200	Future	See Appendix

Town Hall	Retrocommission	Retrocommission	Planned		44,157	1,137				\$11,948	\$25,200			\$25,200	Capital Plan	Based on USEPA and others, see Appendix	
Vehicles	Replace diesel midsize trucks with gasoline (FY 2019)	Vehicles	Complete							-12,002	12,634	\$8,863	\$0	\$0	Capital Plan	Replace 25% of diesel fleet. MPG increases by 5%	
Vehicles	Hybrid Police Cars	Vehicles	Active							3,344		\$10,133	\$15,000	\$15,000	Capital Plan	Calculator from Ford	
												\$0		\$0			
Vehicles	Install Idle Limiting technology on vehicles	Vehicles	Active							5,856	7,580	\$44,880	\$70,000	\$70,000	Capital Plan	Per USDOE: Assume 15% diesel savings, 8% gasoline	
Water/Sewer	Sewer System Infiltration & Inflow Removal	Comprehensive	Active		21,794							\$4,904	\$0	\$0	Capital Plan	3% Pumping reduction - see Appendix	
Various - Town Hall, PSAB, Newman School, Center at the Heights, Library	Energy Audits	Comprehensive	Planned	Jun-22	345,081	13,419						\$101,396	\$100,000	\$100,000	\$0	Capital Plan	Assume 15% savings identified & implemented
All	Facility Assessment for Sustainable Building Management	Behav & Training	Active		83,466	4,640	219					\$27,786	\$100,000		\$100,000	Capital Plan	Assume 1% savings
															\$0		
															\$0		
															\$0		
															\$0		
TOTAL Projected Savings					2,686,387	101,497	7,223	0	-2,802	20,214	874,110	4,416,949	147,000	417,671	3,852,278		
TOTAL MMBtu SAVINGS				22,782	9166.0	10149.7	1004.0375	0	-347.488756	2809.746	114309 total FY18		20%				



Needham School Committee

November 5, 2019

Agenda Item: **School Committee Comments**

Background Information:

- Members of the School Committee will have an opportunity to report on events, information, and matters of interest not on the agenda.

Members of the School Committee available for comment:

Michael Greis, Chair
Andrea Longo Carter, Vice-Chair
Connie Barr
Heidi Black
Susan Neckes
Aaron Pressman
Matthew Spengler



Needham School Committee

November 5, 2019

Agenda Item: **Information Items**

- Student Opportunity Act Bills
- FY2020/21 - 2024/2025 Five-Year Financial Forecast
- FY2018-19 End of Year Financial Report
- FY21-35 Preliminary Projected Enrollment Update
- Disposal of Surplus Items



NEEDHAM PUBLIC SCHOOLS

OFFICE OF FINANCIAL OPERATIONS

ANNE L. GULATI, DIRECTOR

1330 HIGHLAND AVENUE * NEEDHAM, MA 02492
781-455-0400 EXT. 206 * 781-455-0417 (FAX)

October 30, 2019 (Updated)

To: Dan Gutekanst, Superintendent
From: Anne Gulati, Assistant Superintendent for Finance & Operations
RE: Analysis of Student Opportunity Act Bills

As you know, on September 19, 2019, the Joint Committee on Education released the Student Opportunity Act (Act), a proposal intended to advance Chapter 70 education reform and implement a number of other education improvements during this legislative session. Last year, the Governor, House and Senate all proposed bills to implement the funding recommendations of the Foundation Budget Review Commission (FBRC), which stalled when legislators failed to reach agreement on a proposal in conference committee.

This memo is intended to describe the content of the Act and subsequent legislative versions, within the context of the FBRC's recommendations.

Background: Chapter 70 Formula Explained

The Education Reform Act of 1993 established the framework for providing public education in Massachusetts. The corresponding education funding formula was laid out in M.G.L. Chapter 70 and contains several key components. The most important of these components is the **Foundation Budget**, which represents the minimum spending level needed to provide an “adequate education” under the law. The goal of the Chapter 70 formula is to ensure that every district has sufficient resources to meet its Foundation Budget spending level, through an equitable combination of local property taxes and state aid. The Foundation Budget is the most important factor used in calculating a district's Chapter 70 education aid amount.

A district's foundation budget is updated each year and is influenced by three factors: foundation enrollment, inflation, and the wage adjustment factor (WAF).

The most influential factor in determining a school district's foundation budget and state aid amount is **Foundation Enrollment**. Foundation enrollment is the count of the students for whom a district is financially responsible as of October 1st of any given year. It consists of resident students who attend the local K-12 public school, as well as students for whom a district pays tuition (such as students attending charter schools, students attending another public school through inter-district school choice, special education students attending a special education out-of-district placement, or vocational students attending a school where their town is not a member.) Foundation enrollment does not include students tuitioned-in from other districts, because their home districts are paying for those students' costs, with the exception of METCO students, children of non-resident teachers and economically disadvantaged students. (METCO students and children of non-resident teachers are included in the foundation enrollment. Economically disadvantaged headcounts are assigned to the district where the pupils are actually enrolled - and where the extra costs occur - even if they are tuitioned-in from another district.) Because of the timing involved in the state budget process, foundation enrollment lags by one

year. For example, the FY20 Chapter 70 aid calculation relies upon October 1st 2018 (FY19) pupil data. Full-time students receive a 1.0 headcount in the foundation enrollment formula; preschool and half-day Kindergarten students are counted as only 0.5 FTE for state aid purposes.

The **Foundation Budget** is derived by multiplying the number of students in seventeen foundation enrollment categories by cost rates in eleven functional areas. In computing the foundation budget, pupils are assigned to one of the following seven "base" enrollment categories, which appear in columns 1 through 7 of the Foundation Budget:

Table 1: Foundation budget enrollment categories

Column	Description
1	Regular or special education pre-kindergarten
2	Regular or special education half-day kindergarten
3	Regular or special education full-day kindergarten
4	Regular or special education elementary (grades 1-5)
5	Regular or special education junior high/middle (grades 6-8)
6	Regular or special education senior high (grades 9-13)
7	Vocational education (grades 9-12)

These headcounts are applied to specific cost rates in eleven major categories of school spending: administration, instructional leadership, classroom and specialist teachers, other teaching services, professional development, instructional equipment and technology, guidance and psychological, pupil services, operations and maintenance, employee benefits/ fixed charges and special education. The rates reflect differences in the cost of educating different types of students. Each pupil generates a specific cost in each functional category.

The cost of providing services to special education, English Language Learners (ELLs), and economically disadvantaged students are treated as cost increments above the base. There are four cost increment categories that are intended to reflect the additional resources needed to educate these populations. These categories are described below and are reflected in columns 8 through 17 of the foundation budget. Since these students have already been counted in columns 1 through 7, they are not added to total enrollment.

- Assumed in-district special education enrollment (column 8), which is set at 3.75 percent of foundation enrollment (not including pre-kindergarten and vocational pupils) and 4.75 percent of vocational enrollment.
- Assumed out-of-district special education enrollment (column 9), which is set at one percent of total foundation enrollment (again, not including pre-kindergarten and vocational pupils).
- ELL status (columns 10–16), which depends on a student’s home language and English language proficiency.
- Economically disadvantaged status (column 17), which is based on a student’s participation in one or more of the following state-administered programs: Supplemental Nutrition Assistance Program (SNAP); Transitional Assistance for Families with Dependent Children (TAFDC); Department of Children and Families' (DCF) foster care program; or MassHealth (Medicaid) up to 133 percent of the federal poverty level (FPL).

The foundation budget is adjusted each year by a statutorily defined **inflationary factor**, affecting all districts in the same way, as well as a wage adjustment factor. The **wage adjustment factor (WAF)** gives a district credit for having higher school costs if it is located in a geographic area where average wages are higher than in

other areas of the state. (In theory, it is more expensive for these districts to attract teachers and other staff because the cost of living is higher.)

Once the foundation budget is established, the state calculates each district's state aid amount in the following manner. First, the state calculates each district's **Required Local Contribution**, or the amount of local revenue each community must contribute towards the operation of its schools. The required local contribution is based on the municipality's wealth, as measured by aggregated property values and aggregate personal income, with each given equal weight, and is recalculated annually. The **Chapter 70 Aid Calculation** is simply the difference between a district's required local contribution and its foundation budget. In this way, the formula is designed to have an equalizing effect by distributing less state aid to wealthy districts, and more state aid to less wealthy districts.

A district's **Net School Spending Requirement** is the sum of its required local contribution and its Chapter 70 aid amount.

Districts may opt to contribute more local funds toward school operations than the required local contribution amount. The required local contribution is only a minimum amount that cities and towns must contribute toward their school districts, and many wealthier communities opt to contribute significantly more. Needham, for instance, contributed \$90,906,778 toward school operations in FY18 (including expenditures made by the Town of Needham on the School Department's behalf), which exceeded the \$54,000,177 required net school spending amount by \$36,906,601.

In addition, since FY07, local contribution requirements have been based on progress toward a 'target' local contribution amount. The target local contribution amount establishes an 'ideal' goal for how much each city and town should contribute toward its foundation budget, based on the municipality's wealth, with a maximum local share of 82.5% and a minimum state aid share of 17.5%, thus ensuring that all communities will receive some minimum amount of state funding. The state has been phasing in the target shares for more than a decade, finally reaching its full funding goal in FY19. Needham, as a wealthy community, has a target local share of 82.5% and a state aide share of 17.5%.

Foundation Budget Review Commission

The FY15 state budget established the **Foundation Budget Review Commission** to "determine the educational programs and services necessary to achieve the commonwealth's educational goals" and to "review the way foundation budgets are calculated and to make recommendations for potential changes in those calculations as the commission deems appropriate." In conducting such review, the Commission was charged with determining "the educational programs and services necessary to achieve the commonwealth's educational goals and to prepare students to achieve passing scores on the Massachusetts Comprehensive Assessment System examinations." The statute also directed the Commission to "determine and recommend measures to promote the adoption of ways in which resources can be most effectively utilized and consider various models of efficient and effective resource allocation."

At the conclusion of its work, the Commission made broad recommendations in two areas: foundation budget changes and data reporting. Many of these recommendations have already been partially implemented by the state and are reflected in the current year foundation budget. Other recommendations are addressed by the Act.

Recommendations for Foundation Budget Changes:

The Commission noted that several aspects of the Chapter 70 funding formula have become outdated. In particular, the Commission noted that the actual costs of health insurance and special education have far surpassed the assumptions built into the formula for calculating the foundation budget, thereby reducing the resources available to support other categories of school spending. In addition, the Commission noted that the amounts intended to provide services to ELL and low-income students are less than needed to fully provide the level of intervention and support needed to ensure the academic and social-emotional success of these populations, or to allow the school districts serving them to fund the best practices that have been found successful. The specific recommendations in this area were:

- *Health Insurance*
 - Adjust the employee health insurance rate captured in the “Employee Benefits/Fixed Charges” component of the formula to reflect the average Group Insurance Commission (GIC) rate.
 - Add a new category for “Retired Employee Health Insurance” to the foundation budget; and
 - Establish a separate health care cost inflation adjustor for the employee health insurance portion of the “Employee Benefits/Fixed Charges” component of the formula, based on the change in the GIC rates.

- *Special Education*
 - Increase the assumed in-district special education enrollment rate from 3.75% to 4.00% (for non-vocational students) and 4.75% to 5.00% (for vocational students,) to more accurately reflect statewide enrollment in this category. The Commission determined that the current out-of-district special education enrollment rate (of 1% of foundation enrollment) was consistent with statewide placement rates and required no change.
 - Increase the out-of-district special education cost rate to capture the total costs that districts bear before circuit breaker reimbursement is triggered. The Commission proposed the following benchmark rate calculation in this area: $[4 \times \text{statewide foundation budget per-pupil amount}] - [\text{statewide foundation budget per-pupil amount} + \text{out-of-district special education cost rate.}]$

- *English Language Learners*
 - Convert the ELL rate from a base rate to an increment on the base rate. (The state converted ELL rates from base rates to increments in FY19.)
 - Apply the increment to vocational school ELL students as well. (Vocational schools did not receive incremental funding for ELLs prior to FY19, because the ELL student amount was calculated as a base rate, rather than as an added increment.)
 - Increase the increment for all grade levels, particularly at the high school, to the current effective middle school increment of \$2,361. This recommendation reflects the additional challenges of learning a new language at an older age. (In FY19, the ELL rates were increased and converted to an increment for each grade level.)

- *Low Income Students*
 - Ensure that any new definition of economically disadvantaged (necessitated by districts’ shift away from collection of free and reduced school lunch eligibility data) properly and accurately count all economically needful students. (The statutory Chapter 70 formula calls for low income enrollment to be calculated using free and reduced lunch counts. Since FY17, however, free and reduced-price lunch data has not been available to districts, as a result of districts’ participation in the USDA’s Community Eligibility Program. As a result, the foundation budget is now calculated using the economically disadvantaged enrollment available through the so-called “direct certification” process. However, new methodology results in fewer students being identified as economically needy than in

previous years, resulting in smaller foundation budgets for districts. (The new economically disadvantaged student measure replaced the old low-income student measure as of October 1, 2014, and was first reflected in the FY16 foundation budget.) Obviously, the lower student counts had nothing to do with any real changes in family income; they were simply a shift from one valid measure to another valid measure.

- Increase the increment for districts with high concentrations of low income students, to offset the lower number of students in the economically disadvantaged category.
- Leave the exact calculation of each increment to legislative action.

Recommendations for Efficient and Effective Resource Allocation:

The Commission also made several recommendations related to data collection and reporting, in order to ensure that Chapter 70 funding was being used effectively and accountably to meet the educational needs of our most vulnerable children and high needs students. These recommendations included:

Data Collection

- Establish a data collection and reporting system that tracks funding allocated for ELL and Low-Income students to ensure that spending is targeted to the intended populations, and to provide a better data source to future Foundation Budget Review Commissions about the accuracy and adequacy of the low income and ELL increments.
- Establish a data collection and reporting system that allows for greater access to school-level expenditures and data across all districts to increase the understanding of state level policy makes about effective school-level interventions and investments, and which connects that data to student achievement data so more informed decisions can be made about the productivity, efficiency, and effectiveness of state expenditures.

Stakeholder Data Advisory Group

- Establish a Stakeholder Data Advisory Committee that would assist DESE to identify, implement and assess cost-effective ways to achieve three goals:
 - Streamline financial reporting, eliminate duplicate reporting requirements, and improve data quality.
 - Strengthen DESE capacity to analyze and report staffing, scheduling and financial data in ways that support strategic resource allocation decisions at the district and school levels.
 - Strengthen district capacity to use data to make strategic resource allocation decisions.

The Committee would be a collaborative effort of the Department of Elementary and Secondary Education (DESE) and the Executive Office of Education (EOE,) and would report to the Board of Elementary and Secondary Education Co-chairs of the Joint Committee on Education.

Prior Year Chapter 70 Reform Proposals

Last session, the Governor, House and Senate all proposed legislation during the FY20 budget cycle to reform the Chapter 70 funding formula and address the concerns of the Foundation Budget Review Commission. Although these reform bills stalled in Conference Committee, the final FY20 budget included some interim adjustments to the Chapter 70 formula that were intended to partially implement many of the FBRC's recommendations.

Current Year Chapter 70 Reform Proposals

During the current legislative session, the Joint Committee on Education on September 19, 2019 released the Student Opportunity Act (S. 2348), a new bill to overhaul the Chapter 70 formula and address other educational improvements. This bill represents a new and concerted effort to implement Chapter 70 reform, intended for 'fast track' approval in the House and Senate. Amended versions of the bill (S3250) were passed unanimously in the Senate as well as the House (H. 4137.) The bill is presently in Conference Committee. The education bill negotiators appointed to Conference Committee are: Sen. Lewis (Winchester), Rep. Peisch (Wellesley), Rep. Tucker (Salem), Rep. Ferguson (Holden), Sen. Rodrigues (Westport), and Sen. O'Connor (Weymouth.)

The provisions of the Act and subsequent legislative proposals are summarized in the next section.

Student Opportunity Act Focus on Low Income

Although the Student Opportunity Act implements the various recommendations of the Foundation Budget Review Commission, the changes to the method by which low-income students are nuanced and complicated to implement. These changes are discussed in further detail below.

As noted above, the Commission recommended that the Chapter 70 formula properly and accurately count all economically needful students. In addition, the Commission recommended incremental rate increases for those districts with the highest concentrations of low income students.

As background, the current statutory Chapter 70 formula calls for low income enrollment to be calculated using free and reduced lunch counts. However, free and reduced-price student counts are no longer available from all schools and districts, as a result of some districts' participation in the USDA's Community Eligibility Program (CEP). The CEP was implemented in 2014 to increase the number of students who receive free school meals in needy districts by providing free meals to all students. To determine whether a school or district can participate in the Community Eligibility Program, federal law requires that schools use an automated eligibility matching process known as **direct certification**. This process links school enrollment records with the state's enrollment database for the TAFDC (public assistance) and SNAP (formerly known as Food Stamps) programs, as well as the state's Medicaid (MassHealth) membership. (Students whose families have incomes up to 133 percent of the federal poverty level can be directly certified for free school meals if they are covered by any of the MassHealth insurance programs.) Once a school implements CEP, it no longer collects paper applications to identify low-income students.¹¹ Since the CEP schools and districts are no longer collecting paper applications, DESE can no longer rely on free and reduced lunch counts to uniformly identify low-income student populations across the Commonwealth. A detailed explanation of how CEP works is provided in the end note to this section.¹²

Since free and reduced lunch data is no longer available for all districts, since 2014, the foundation budget has been calculated using the economically disadvantaged ("EcoDis") enrollment available through the direct certification process for free school meals. However, the EcoDis measure fails to identify a large number of low-income students. The main reason for the undercounting is that the direct certification process only matches students up to 133% of the federal poverty level, compared to the previous method of determining eligibility, which qualified students for free meals at 130% FPL and reduced-price meals at 130%-185% of FPL. In addition, technical issues with the matching process can result in students being omitted from the direct certification count. For instance, if a child is not enrolled in SNAP, TAFDC or MassHealth, they would not be

included in direct certification counts. Additionally, even if a child does participate in one or more of these programs, misalignments in the data (such as misspelled or multiple last names) can result in 'no match' results.

Since the Chapter 70 funding formula allocates additional dollars to low-income districts, the undercounting of low-income students results in underfunding. The Foundation Budget Review Commission attempted to address this issue by recommending that the formula be adjusted to properly and accurately count students and that the formula increment be increased for districts with high concentrations of low income students, to offset the lower number of students in the economically disadvantaged category.

The Student Opportunity Act seeks to implement the Commission's recommendations by replacing the statutory definition of low-income students (determined from free and reduced lunch data) with a new term that is defined as those students whose families' incomes are not more than 185% of federal poverty guidelines. It also continues the current practice of assigning Districts to incremental low-income categories, based on the share of low-income students in the district, although it replaces DESE's current use of EcoDis deciles (1-10, based on the percentage of their foundation enrollment identified as economically disadvantaged) with 12 incremental low-income categories ranging from 0-5.99% to 80%+ low income. Districts with the highest poverty concentrations will receive an increment equal to 100% of the base foundation rate. S. 2348 also charged DESE with developing a method to estimate the share of low-income students in a district by November 1, 2020 for use in FY22. In the interim, the bill stipulated that the number of low-income students in each district would be the greater of: a) the current direct certification count, b) or the share of low-income students based on such measure used in the FY16 general appropriations act applied to current projected enrollment.

The challenge for DESE in developing an estimation method is that income data does not currently exist at the state or district level for all students at the 185% FPL, and that the existing, direct certification process results in a flawed EcoDis measure. MassBudget recently published a paper which recommended potential measures to 'fix' the low-income counting issue. One recommendation is to improve the EcoDis count by: a) providing additional supports to ensure that all students are enrolled in the direct certification programs for which they are eligible, b) expanding the number of programs in the direct certification match to include other categories of students such as migrant and homeless students, c) developing a common application process for needs-based programs to eliminate multiple cumbersome applications for participants and data matching errors, and d) strengthen the direct certification system with additional income forms collected by districts. Potential issues to overcome with the EcoDis method include: working with families who are resistant to enrolling due to outside factors (fear, political climate, personal preferences, etc.); developing clear eligibility guidelines, data agreements and technical coordination for the new programs added to the direct certification process to ensure consistency across districts; the potential for school districts who collect additional income forms to implement inconsistent practices, create confusion among parents, and fail to independently verify income data. Another MassBudget recommendation is to use the US Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program data to determine low-income student counts. Every year, the Census Bureau estimates the number of children ages 5-17 who live in poverty in each school district. Although this data is used to identify low-income students for federal programs such as Title I, it would need alteration to estimate the number of students at 185% of the federal poverty level, as directed by the Student Opportunity Act. (SAIPE estimates are only for children in the school district under 100% of the federal poverty level.)

At a recent meeting, DESE offered some insight into its potential approach toward counting low-income students. Rob O'Donnell, Director of School Finance, indicated that the disadvantaged match is likely to remain in place, but some additional counting would be needed using either district data or Executive Office of Health and Human Services (EHHS) data. In the interim, DESE may develop a '% of foundation enrollment' measure using FY16 data to augment the count in FY21 and other interim years. In districts that do not participate in CEP (e.g., where there is no EcoDis match, DESE would look back to October 2014 data (the last year that free

and reduced lunch counts were collected by EHHS) and compare the number of free and reduced lunch students to the % of foundation headcount in FY16. This would then become the basis of a percentage to adjust the total headcount in FY21 and interim years, until the new counting method is developed

As an additional note, the House bill contained a significant redefinition of the share of low income students in a district. S 2348 and S. 2350 both defined this share to be the quotient of the number of low income students (defined per above) the foundation enrollment. Foundation enrollment includes all students as of October 1 of the prior year, for whom the district is fiscally responsible, including resident students attending public school, as well as students for whom the district pays tuition (including students tuitioned-out to other schools, charter school students, school choice students, and METCO students.) The House bill (H. 4137) redefined this share to be the quotient of the number of low income students and the sum of the number of students attending school in a district regardless of residence and tuition-paying status and the number of students that the district is sending to charter schools. Presumably, the change is designed to capture low income students as of October 1 of the current year, (rather than prior year), but it expands the potential 'catchment area' of students to also include students tuitioned-in to a district (creating the potential for double counting by a sending and receiving district.)

H. 4137 also stipulates that the incremental foundation budget rates for low income and ELL students that are attending a district other than the district that is financially responsible for said student shall be added to the foundation budget of the receiving district. This provision means that ELL and low-income students who are tuitioned-in to a district will be added to the foundation budget of the receiving district. Two implications are that:

- The foundation budget increments for these students 'travel' to a receiving district, opening up a lucrative opportunity for districts to create 'tuitioned-in' programs, particularly ELL students, and
- The bill does not specifically address the potential issue of double counting tuitioned ELL and low-income students by a receiving and sending district, nor the potential confusion around whether prior year or current year student counts are being utilized. Although the foundation enrollment (upon which the foundation budget is based *excludes* tuitioned-in students, the number of low-income and ELL students reflected in the incremental rate table *includes* tuitioned-in students. In addition, while the foundation enrollment reflects the prior year October 1 count of students, the incremental rate table appears to include a current year count of both ELL and low-income students. The double counting and fiscal year issues may in fact be intentional, to maximize the incremental rate calculation for needy districts.

Commission Commendation/ Comparison Category	Student Opportunity Act Joint Education Committee (S. 2348)	Student Opportunity Act Senate Approved (S. 2350)	Student Opportunity Act House Approved (H. 4137)	Student Opportunity Act Conference Committee (XXX)
<p>Health Insurance</p> <p><u>Summary:</u> Implements the Commission's recommendations to base the "employee benefits and fixed charges" foundation budget rates on GIC premium data for active employees and retirees, and to annually adjust those rates based on changes in GIC premiums using a separate health care inflation index.</p>	<ul style="list-style-type: none"> The active employee health insurance rate will be the average for the employer share of the average premium of all GIC plans for 3 previous fiscal years, updated annually. There shall be a separate inflation index for health care. The inflation index is the annual rate of growth for the employer share of the average premium of all group insurance plans over the three prior fiscal years, as calculated by the Commission. Note: The FY20 budget increased the benefit and fixed charges rate to align with the most current GIS premium rates for active and retiree municipal employees; S. 2348 differs in that it uses an average of three years GIS premium data to set the goal rates and inflation factor. 	<ul style="list-style-type: none"> Same as S. 2348 	<ul style="list-style-type: none"> Same as S. 2348 and S. 2350 	<ul style="list-style-type: none">
<p>Special Education</p> <p><u>Summary:</u> Implemented the Commission recommendation to</p>	<ul style="list-style-type: none"> Increases the <i>assumed in-district special education enrollment</i> from 3.75% to 4% of foundation enrollment, not counting 	<ul style="list-style-type: none"> Same as S. 2348 	<ul style="list-style-type: none"> Same as S. 2348 and S. 2350 	<ul style="list-style-type: none">

<p>increase the assumed in-district sped enrollment participation rates to 4%/5% and increase the out-of-district sped tuition rate to close the gap between the current foundation budget (or 1x statewide average foundation budget per pupil) and the circuit breaker threshold of 4x statewide average foundation budget per pupil.</p>	<p>vocational or Pre-K students, plus 5% of vocational enrollment. (S. 2348 maintains the current out-of-district special education enrollment rate of 1% of foundation enrollment, not counting vocational or Pre-K students.)</p> <ul style="list-style-type: none"> Increases the OOD tuition rate to close the gap between the foundation budget and Circuit Breaker eligibility threshold by making a one-time adjustment to the rate. The new 'annual eligibility threshold' will be based on the current amount of \$45,793, updated by the foundation inflation index annually. Note: S. 2348 differs from the FY20 budget, which had made an incremental adjustment only toward the 4%/5% in-district goal rates, by raising the rates to 3.79% and 4.79%, respectively. S. 2348 also changed how the OOD tuition rate would be derived, by making a one-time adjustment to close the gap with Circuit Breaker, whereas the FY20 budget rate closed one-seventh of the gap toward a new goal rate of three times the FY19 			
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	statewide average foundation budget per pupil or \$34,345.			
<p>English Language Learners</p> <p><i>Summary:</i> Implements the Commission recommendations to convert the ELL rate to an increment and to apply the increment to vocational students. Also, differentiates the rates by grade levels, as recommended by Commission.</p>	<ul style="list-style-type: none"> Replaces old definition of bilingual learners with English Learners (ELs), per MGL Ch71A s2. Removes ELs (old bilingual) as a category of base enrollment converts EL rates from base rates to increments for each grade level. The incremental rates are higher for older students: \$2,537.49 (PreK-5), \$2,721.46 (6-8), and \$3,265.74 (9-12.) Note: s 2348 differs from the FY20 budget, which had increased the increments for <i>English learners (ELs)</i>, including vocational students, toward a new, uniform goal rate of \$2,537 per student across all grade categories. The FY20 rates had closed one-seventh of the gap toward the goal over FY19 rates plus inflation. 	<ul style="list-style-type: none"> Same as S. 2348 	<ul style="list-style-type: none"> Same as S. 2348 and S.2350, except that provides that the incremental rates for low income and ELL students attending a district other than the district that is financially responsible for said student shall be added to the foundation budget of the receiving district. 	<ul style="list-style-type: none">
<p>Low Income Students</p> <p><i>Summary:</i> Implements the Commission's recommendation to shift the definition of low-income away from the free and</p>	<ul style="list-style-type: none"> Replaces the statutory definition of low-income students (determined from free and reduced lunch data) with a definition of low income, defined as those students whose families' 	<ul style="list-style-type: none"> Same as S. 2348 	<ul style="list-style-type: none"> Same as S. 2348 and S. 2350, with exception that: <ul style="list-style-type: none"> re-defines share of low income students in a district (reflected in the incremental rate table) 	<ul style="list-style-type: none">

<p>reduced lunch count toward a more accurate measure, to assign higher rates to districts with higher concentrations of low-income students and to leave the exact calculation of each increment to legislative action.</p>	<p>incomes are not more than 185% of federal poverty guidelines (as opposed to 133%).</p> <ul style="list-style-type: none"> Continues the current practice of converting low income rates from base rates to increments and assigning Districts to incremental low-income categories, based on the share of low-income students in the district (as a % of foundation enrollment.) Replaces the current use of EcoDis deciles (1-10, based on the percentage of their foundation enrollment identified as economically disadvantaged) with 12 incremental low-income categories ranging from 0-5.99% to 80%+ low income. Districts with the highest poverty concentrations will receive an increment equal to 100% of the base foundation rate. Charges the Department with developing a method to estimate the share of low-income students in a district if a consistent and accurate method for determining low-income eligibility is not available for all districts. Report due by 11/1/20 for use in FY22. In FY21, the number of low-income students in each district 		<p>to be # low income students/ sum of # students attending school in a district regardless of residence and tuition-paying status and the number of students that the district is sending to charter schools.</p> <ul style="list-style-type: none"> provides that the incremental rates for low income and ELL students attending a district other than the district that is financially responsible for said student shall be added to the foundation budget of the receiving district. 	
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shall be the greater of: a) current direct certification count, b) or the share of low-income students based on such measure used in the FY16 general appropriations act applied to current projected enrollment.

- Note: Since free and reduced lunch data has not been available for all districts since 2014, the FY20 budget reflected the continued use of the progressive decile rate structure for *economically disadvantaged (EcoDis) students*, setting the goal rate for decile 10 at 100 percent of the average base rate. The FY20 budget rates narrowed one-seventh of the gap toward the goal over FY19 rates plus inflation.
- S. 2348 differs by eliminating the decile rate structure, to implement 12 flexible low income categories and to shift the definition of low-income away from the EcoDis count of students who match under the Community Eligibility with a new, income-based measure based on 185% of the federal poverty level.

<p>Chapter 70 Formula Logistics</p> <p><u>Summary:</u> 'Cleans up' the outdated statutory language of Ch. 70 to incorporate formula changes that have been implemented through various provisions of the state budget over the past decade.</p>	<p>Updates Chapter 70 definitions to codify formula changes that have previously been implemented through annual provisions in the state budget. These include:</p> <ul style="list-style-type: none"> • Re-defining SpEd in-district and OOD tuition rates per above. • Removing ELs (old bilingual) as a category of base enrollment, and converting EL rates from base rates to increments for each grade level. • Replacing the statutory definition of low-income students (determined from free and reduced lunch data) with a new income-based definition. Also, continues the practice of converting low income rates from base rates to increments. Districts are assigned to incremental low-income categories, based the share of low income population in a district, where the share is calculated as the # low income students/ foundation enrollment. S. 2348 replaces the current use of incremental income deciles with 12 incremental low income categories: 0-5.99%, 6-11.99%, 12-17.99%, 18-23.99%, 24-29.99%, 30-35.99%, 36-41.99%, 42-47.99%, 48-53.99%, 54- 	<ul style="list-style-type: none"> • Same as S. 2348, with exception that increases Special Ed tuitioned-out foundation rate from \$35,632.95 to \$36,264.51/student. 	<ul style="list-style-type: none"> • Same as S. 2350, with exception that: <ul style="list-style-type: none"> ○ re-defines share of low income students in a district to be # low income students/ sum of # students attending school in a district regardless of residence and tuition-paying status and the number of students that the district is sending to charter schools. ○ provides that the incremental rates for low income and ELL students attending a district other than the district that is financially responsible for said student shall be added to the foundation budget of the receiving district. ○ (AMD 70) In each fiscal year between FY21-27, DESE to calculate a "transitional hold harmless aid amount" using the current foundation budget rates in effect for FY20, to ensure that no districts 	<ul style="list-style-type: none"> •
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	<p>69.99%, 70-79.99%, and 0+%</p> <ul style="list-style-type: none"> Continues the current practice of setting foundation budget rates by enrollment category and providing foundation increments for low-income students and ELs. Increases foundation rates for guidance and psychological services that will support expanded social emotional supports and mental health services. Incorporates the current formula concepts of target local contribution, target local share, combined effort yield, and excess effort reduction to the target amount into the statute. Incorporates the current concept of guaranteed minimum aid into the statute (set at the current \$30/student amount), and defines Chapter 70 school aid as the greater of foundation aid, or the sum of base aid and minimum aid. Updates the definitions of base aid, equalized property valuation, foundation aid, foundation budget, foundation inflation index, general revenue sharing aid, net school spending, preliminary local contribution, required net school spending to 		<p>receive less than the traditional hold harmless aid amount during the implementation period. In each fiscal year during the transition period, a district will receive the greater of its: a) Ch70 aid, b) base (prior year) aid plus the hold harmless increment, and c) the minimum aid amount (of the prior year's aid plus the foundation budget enrollment multiplied by \$30/student.)</p> <ul style="list-style-type: none"> AMD 70 clarifies that the total state target local contribution (capped at 59% of the state-wide foundation budget) is 50% determined by statewide municipal income (multiplied by a uniform income percentage) and 50% total state equalized property valuation (multiplied by the uniform property percentage.) 	
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	<p>reflect current practice and remove outdated language.</p> <ul style="list-style-type: none"> • Updates the formula to reflect new Uniform Income Percentage, Uniform Property Percentage, and Municipal Income concepts. • Requires each municipality to appropriate at least the net school spending requirement, and not less than its minimum required local contribution for each regional school district to which the municipality belongs. Also requires the Commissioner to report these amounts to school districts by March 1 for the following fiscal year, and to revise these estimates within 30 days of the enactment of the general appropriations act. Codifies that regional school districts not be required to submit budgets to its members before receiving the Commissioner's annual estimates. • Amends statute to stipulate that if, in a fiscal year, the amount appropriated for Ch 70 school aid is less than prescribed by formula, then foundation aid shall be prioritized. • Note: A description of the 			
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	proposed foundation rate tables is attached, including a comparison with the current year tables in effect (Attachment A.)			
<p>Ch 70 Data Collection Recommendations</p> <p><i>Summary:</i> Addresses the Commission recommendations for periodic review of foundation budget.</p>	<ul style="list-style-type: none"> Replaces current language requiring there to periodically be a foundation budget review, with language that convenes a Foundation Budget Review Commission not less than every ten years. Requires districts to report district and school-level expenditure and staffing data for each foundation budget category and aligns district spending requirements with current practices. 	<ul style="list-style-type: none"> Same as S. 2348 	<ul style="list-style-type: none"> Same as S. 2348 and S. 2350 	<ul style="list-style-type: none">
<p>Special Commissions/ Reports</p> <p><i>Summary:</i> Establishes commissions to address key policy initiatives:</p> <ul style="list-style-type: none"> Establishes a Data Advisory Commission to help improve the use of data at the state, district, and school levels to inform strategies that strengthen teaching, learning and resource allocation Directs DOR and DESE to 	<ul style="list-style-type: none"> Convenes a Data Advisory Commission to: <ul style="list-style-type: none"> Establishing a data collection and reporting system to track funding allocate for ELs and low-income students; and allow for access to school-level expenditure data. Strengthen DESEs capacity to analyze and report data in ways that support strategic resource allocation decisions at the district 	<ul style="list-style-type: none"> Same as S. 2348, except as follows: (AMD 1) Directs DESE to conduct an additional analysis of funding levels that reimburse municipalities and school districts for education services including: regional transportation, homeless transportation, Circuit Breaker special education costs, costs related to smart growth programs under MGL Ch 40S. The analysis is to estimate the shortfall between statutory 	<ul style="list-style-type: none"> Same as S. 2348, except as follows: (AMD 3 - similar to Senate AMD 64) Amends the rural district study to add recommendations for a) improving and expanding the rural school aid grant program to mitigate enrollment decline; b) the feasibility of including low and declining student enrollment factor in the existing rural school aid formula and foundation budget; c) expanding the use of technology 	<ul style="list-style-type: none">

<p>analyze the method of determining required local contributions to improve equity, predictability and accuracy</p> <ul style="list-style-type: none"> ○ Establishes a Rural Schools Commission to investigate the unique challenges facing rural and regional school districts with low and declining enrollment ○ Directs DESE to study funding levels to reimburse municipalities and school districts for education services ○ Directs MSBA to report on eligible expenses and reimbursement rates in the school building assistance program 	<p>and school levels and review best practices around fiscal transparency;</p> <ul style="list-style-type: none"> • strengthen district capacity to use benchmarking tools to inform strategic resource allocation decisions; • and streamline financial reporting and improve data quality. <ul style="list-style-type: none"> • The Data Advisory Commission to include the Commissioner; representatives of MASC, MASS, MASAA, MASBO, MAVVA, MARS, MBAE, and four Commissioner appointees representing teachers, parents, data analysis professionals. • The Data Advisory Commission to report to DESE Board on or before Dec 1, annually. • Charges DLS and DESE to jointly report to the legislature on the equity and accuracy of the current method for determining a municipality's ability to contribute toward education funding and the calculation of its required local contribution. The report to: summarize changes originally implemented by Acts of 	<p>obligations and current funding levels, to project required additional funding needed to meet statute, and to recommend measures for ensuring the statutory funding is obligated.</p> <ul style="list-style-type: none"> • Report due to legislature by April 15, 2020. • (AMD 21) Adds an additional requirement for the MSBA to report on eligible expenses and reimbursement rates in the school building assistance program by March 1, 2020. • MSBA is to assess the eligible expenses and the efficacy of granting priority reimbursement to de-leading projects, school safety and security updates, and asbestos removal. Additionally, MSBA is to make recommendations on a) improving the adoption of best practices in communities that have reached max reimb %, b) increasing reimb rates/sf relative to construction costs, c) providing reimbursement for aforementioned school safety expenses. • (AMD 27) Amends the study of the required local contribution 	<p>to deliver instruction; d) creating operating efficiencies; and e) exploring use of shared services, schools and districts; and e) encouraging improvement of fiscal health and educational outcomes. DESE also to consider the findings of the 2018 "Fiscal Condition in Rural School Districts" report.</p> <ul style="list-style-type: none"> • (AMD 41) - creates a house and senate joint educational mandate task force to review existing state mandates placed on public schools and districts in the Commonwealth. The task force will a) review existing laws, regulations and directives, including those that require districts to report data to DESE, b) develop recommendations to streamline, consolidate or eliminate unfunded mandates, and c) determine total cost of unfunded mandates. The task force is to convene within 60 days of the effective date of the act and file a report within 12 months. 	
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	<p>2006; assess the equity, predictability and accuracy of current method for determining required local contribution (RLC) and target state share (TSS); track changes to RLC and TSS between 2006-2020, including number of communities now at max; assess impact of declining enrollment on calculation; analyze accuracy of municipal revenue growth factor in determining a municipality's ability to contribute; assess impact of statewide increases in foundation budget on RLC and TSS; assess the impact of 82.5% max local contribution on the equity of RLC and distribution of Ch70 aid; recommend changes to formula to improve equity, predictability and accuracy.</p> <ul style="list-style-type: none"> Establishes a 9-member special commission to study and make recommendations on the long-term fiscal health of rural school districts that are facing, or may be facing, declining enrollment. Report to be made to the Legislature by 6/30/20. The Commission shall report on economic and enrollment trends and projections in rural 	<p>to also including an assessment of the impact of Prop 2 1/2 on the ability of municipalities to make RLCs, as well as the impact of labor market placement on calculating the wage adjustment factor (WAF) and the advisability of other methods to calculate WAF.</p> <ul style="list-style-type: none"> (AMD 32) Removes the requirement to assess the impact of 82.5% max local contribution on the equity of RLC and distribution of Ch70 aid, and replaces it with an assessment of the efficacy of the aggregate wealth model in determining the appropriate target local contribution for communities with populations of fewer than 6,500 and with high wealth residents. (AMD 64) Amends the rural district study to add recommendations for a) improving and expanding the rural school aid grant program to mitigate enrollment decline; b) the feasibility of including low and declining student enrollment factor in the existing rural school aid formula and foundation budget; c) expanding the use of 		
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	<p>communities and an analysis of the fiscal health of regional school districts, including recommendations for reorganizing schools and districts and consolidating functions.</p> <ul style="list-style-type: none"> • Commission to include 4 legislative appointees, Deputy Commissioner of DLS or appointee, representatives of: MARS, MASC, MASBO, MASS. DESE to provide staff. 	<p>technology to deliver instruction; d) creating operating efficiencies; and e) exploring use of shared services, schools and districts; and e) encouraging improvement of fiscal health and educational outcomes. DESE also to consider the findings of the 2018 "Fiscal Condition in Rural School Districts" report.</p>		
Other Proposals: Ch70 Funding	<ul style="list-style-type: none"> ○ Requires foundation and increment amounts to be fully appropriated by 2027 (7 years) • The goal rates (attached) are expressed in FY20 dollars and are scheduled to be fully phased in by FY27, plus inflation. 	<ul style="list-style-type: none"> ○ (AMD 53) Requires appropriation phase-in to make consistent increases relative to full incorporation, and equitably over the prior year. • (AMD 59) Requires DESE to report on status of phase in by Dec 15 of each year. 	<ul style="list-style-type: none"> • Same as S. 2348 	
Overall \$ Allocated to Chapter 70 (Statewide)	<ul style="list-style-type: none"> • Estimated funding increase of \$427 million in FY21 over FY20, or \$2.1 billion (plus inflation) by FY27. (DESE Estimate) 			
Overall \$ Allocated to Chapter 70 (Statewide)	<ul style="list-style-type: none"> • Estimated funding increase of \$542,013 million in FY21 over FY20, or \$2.987 million (plus inflation) by FY27. (DESE Estimate) 			

<p>Other Proposals: Twenty First Century Education Program</p>	<ul style="list-style-type: none"> • Creates a Twenty-First Century Education Trust Fund to be administered by DESE in consultation with the Twenty-First Century Education Advisory Council. • Establishes a Twenty-First Century Education program to address disparities in student subgroups, share best practices for student learning, and increase efficiency within school districts. The program shall be administered by a 6-member advisory council. • Establishes a competitive grant program (supported by monies in the Trust Fund) for districts aimed at addressing disparities in student subgroups, and increasing efficiency within school districts. • Allows grant recipient districts to request a waiver of one or more state ed regulations so that they can implement programs. • Requires the Commissioner to report to the legislature on Trust Fund expenditures by Dec 1 of each year. 	<ul style="list-style-type: none"> • Same as S. 2348 	<ul style="list-style-type: none"> • Same as S. 2348 and S. 2350. AMD 70 	
<p>Other Proposals: Achievement Gap Targets and Benchmarks</p>	<ul style="list-style-type: none"> • Directs DESE Commissioner to establish statewide targets for addressing persistent disparities 	<ul style="list-style-type: none"> • (AMD 17) Same as S. 2348 except, amends language to require subgroup categories to 	<ul style="list-style-type: none"> • Same as S. 2348, except (AMD 59) requires Charter Schools to also prepare annual reports and 	

	<p>in achievement among student subgroups (in the aggregate and by category, including but not limited to subject matter and grade level.) The targets are to include annual benchmarks on the progress expected to be achieved.</p> <ul style="list-style-type: none"> • Districts are required to establish targets for eliminating achievement gaps by subgroup, consistent with the state targets. • Districts must develop a 3-year plan for meeting their targets, to include: <ul style="list-style-type: none"> ○ A description of how Chapter 70 \$ will be allocated in support of the plan, by school, to ELL and low income. ○ A description of evidence-based programs, supports and interventions to close the achievement gap. ○ Identification of outcome metrics that will be used to measure success. ○ A description of how the district will effectuate and measure increased parent engagement ○ Plan submission to DESE (and made publicly 	<p>be consistent with ESSA 2015.</p> <ul style="list-style-type: none"> • Directs Superintendent in each district to develop the plan, and requires it to be approved by the School Committee with more expansive input by PACs, school improvement councils and educators. • Added "h) increasing college and career readiness" as a description of evidence based programs the district can implement to address achievement gaps. • Required districts to report on opportunities for parent engagement. 	<p>accountability plans in this area.</p>	
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	<p>available) by 4/1/20 and every three years thereafter.</p> <ul style="list-style-type: none"> ○ Commissioner to report on statewide progress to House, Senate and Joint Committee on Education, annually, by 12/31 of each year. 			
<p>Other Proposals: Student Preparedness for Workforce and Post-Graduate Success</p>	<ul style="list-style-type: none"> ● Requires the Secretary of Education to collect and publish district and high school level data on student preparedness for workforce and post-graduate success, in consultation with the Data Advisory Commission (established above), school districts, DESE, DHE and other state agencies. ● Requires the Secretary to report on statewide progress to Joint Committee on Education and Joint Committee on Labor and Workforce Development, annually, by 12/31 of each year. Report to include: student access to high quality instruction and coursework, participation in college/career readiness programs, post-secondary application and acceptance rates 	<ul style="list-style-type: none"> ○ (AMD 31) Requires DESE to also report data on the % of students in internships and earning industry-recognized credentials, as well as the % of students who, 16 months after graduation, are attending an institution of higher education, or a training program, or are employed at a sustainable wage. 	<ul style="list-style-type: none"> ○ Same as S. 2348, except that clarifies that data collected and reported on post-secondary application and acceptance rates shall be at Massachusetts public higher education institutions only. 	

<p>Other Proposals: MSBA</p>	<ul style="list-style-type: none"> Lifts the annual cap on MSBA spending for construction and renovation projects by \$150 million (from \$600 million to \$750 million) and stipulates the cap will be annually updated for inflation in the future. 	<ul style="list-style-type: none"> (AMD 44) Same as S. 2348, except raised spending cap to \$800 million. 	<ul style="list-style-type: none"> (AMD 37) Same as S. 2348, except raised spending cap to \$800 million. Amended version now identical to S. 2350 	
<p>Other Proposals: SpEd Circuit Breaker Program</p>	<ul style="list-style-type: none"> Expands the SpEd Circuit Breaker program to: <ul style="list-style-type: none"> include out of district transportation as expenditures, in addition to instructional costs. prioritize reimbursement of instructional costs if, in a fiscal year, the amount appropriated is less than that required to also reimburse OOD transportation costs. Changes Circuit Breaker cost threshold from four-times-the-foundation-budget-per-pupil to \$45,793/year, adjusted by the foundation inflation index. Repeals outdated section of Ch71B s14 requiring reimbursement of sped transportation expenses. 	<ul style="list-style-type: none"> (AMD 62) Same as S. 2348, except starting in FY23 and any year thereafter, authorizes the Comptroller to transfer the necessary funds to meet this obligation 	<ul style="list-style-type: none"> Same as S. 2348 and S. 2350 	
<p>Other Proposals: Charter School Tuition Reimbursement</p>	<ul style="list-style-type: none"> Establishes a three-year full funding schedule for the 	<ul style="list-style-type: none"> (AMD 62) Same as S. 2348, except starting in FY23 and any 	<ul style="list-style-type: none"> (AMD 70) Same as S. 2348, except starting in FY23 and any 	

	appropriation of charter school tuition reimbursements, as follows: <ul style="list-style-type: none"> ○ FY21: not less than 75% ○ FY22: not less than 90% ○ FY23: not less than 100% 	year thereafter, authorizes the Comptroller to transfer the necessary funds to meet this obligation	year thereafter, authorizes the Comptroller to transfer the necessary funds to meet this obligation. Amended version now identical to S. 2350	
Other Proposals: SPED OOD Transportation Reimbursement	<ul style="list-style-type: none"> ● Establishes a funding schedule for the appropriation of OOD transportation reimbursements, as follows: <ul style="list-style-type: none"> ○ FY21: 25% ○ FY22: 50% ○ FY23: 75% ○ FY24: 100% 	<ul style="list-style-type: none"> ● Same as S. 2348 	<ul style="list-style-type: none"> ● Same as S. 2348 	
Other Proposals: Recovery High Schools	<ul style="list-style-type: none"> ○ N/A 	<ul style="list-style-type: none"> ○ (AMD 40) Adds ability under MGL Ch 40 s13E to create local option reserve fund for the unanticipated or unbudgeted costs of recovery high school programs. ○ (AMD 42) DESE to analyze the cost of sending students to recovery high schools and develop an average per pupil cost at recovery high schools in the Commonwealth, with a report due to the legislature by Mar 1, 2020. 	<ul style="list-style-type: none"> ○ N/A 	
Other Proposals: Financial Literacy Curriculum Standards	<ul style="list-style-type: none"> ○ N/A 	<ul style="list-style-type: none"> ○ Amends current statutory language of MGL Ch. 69 1Q on financial literacy standards to remove reference to the 	<ul style="list-style-type: none"> ○ Same as S. 2350. 	

		Receiver General, with regard to periodic review of the implementation of standards.		
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The National School Lunch Program (NSLP) provides free meals to students in families with incomes under 133 percent of the federal poverty level (FPL) and reduced-price meals to students in families under 185 percent of the FPL. Participating families complete applications to receive free or reduced lunch NSLP benefits. If a school or district could identify that 40 percent or more of its students were eligible for free school meals as of April 1, 2014 (as measured by its Identified Student Percentage, or ISP), that school or district could opt to provide free meals to all its students under Community Eligibility (CEP.)

The CEP uses a "direct certification" process to automatically qualify students for free school meals if they participate in one or more of the following state-administered programs: Supplemental Nutrition Assistance Program (SNAP, or "food stamps"); Transitional Assistance for Families with Dependent Children (TAFDC); Department of Children and Families' (DCF) foster care program; or MassHealth (Medicaid) for members under 133% of the federal poverty level (FPL). In addition, schools may certify other categorically eligible students who participate in Head Start or Early Head Start, are foster children under custody of the Dept. of Children and Families (DCF), are on a list of homeless children as identified by the district homeless liaison, are migrants, or are runaway children. Combined, these are the **"Identified Students"** that can be counted towards eligibility for CEP.

Under CEP, districts are required to upload their student roster into the state's human services online data system known as the Virtual Gateway at least three times per year. School districts have regular access to this matched database, and get a list that will identify each student as either a direct match, a partial match, a household match (for TAFDC and SNAP only) or no match. The system also matches families against the DCF foster care caseload. It is up to the each school district to then determine whether errors in student data could be re-submitted into a student roster to turn 'partial matches' or 'no matches' into exact matches. It is also up to each district to identify whether there are students not identified as household matches that could be directly certified due to extended eligibility (when there is another child in the household who receives SNAP or TAFDC benefits.)

Schools participating in CEP no longer collect individual free and reduced lunch program applications and no longer collect meal fees at the point of sale. The federal government reimburses schools participating in CEP on a formula at a rate of 1.6 times the ISP for free meals and at the lower 'paid rate' for all other meals.

When a school reaches 40 percent ISP it could choose to participate in the Community Eligibility Program, but it would cost the school to do so. At a 40 percent ISP, a school would be providing free meals to 100 percent of its students, but would be getting reimbursed by the federal government for 64 percent of its meals at the free meal rate, and 36 percent of its meals at the lower paid meal reimbursement rate. Under this scenario, a school meal program would lose money.

However, once a school reaches an ISP of 62.5 percent, under CEP all meals would be reimbursed at the higher “free meal” reimbursement rate ($62.5\% \times 1.6 = 100\%$). At an ISP of 62.5 percent, CEP provides free meals to all students at no additional cost to the school, and even at an ISP of approximately 50-55 percent, expanding to CEP may not cost a school anything because of CEP’s reduced administrative costs.

Massachusetts Department of Elementary and Secondary Education
Office of School Finance

1/23/19

Foundation Budget Rates Per Pupil FY20 - Final FY20 Budget

Incremental Rate Table	Administration	Instructional Leadership	Teachers	Other Teaching Services	Professional Development	Instructional Materials, Equipment & Technology	Guidance & Psychological Services	Pupil Services	Operations & Maintenance	Employee Benefits & Fixed Charges	Special Education Tuition	Total, All Categories
1 Pre-school	195.97	353.93	1,622.88	416.22	64.18	234.89	118.08	46.96	450.66	519.38	-	4,023.15
2 Kindergarten-half	195.97	353.93	1,622.88	416.22	64.18	234.89	118.08	46.96	450.66	519.38	-	4,023.15
3 Kindergarten-full	391.93	707.86	3,245.76	832.47	128.42	469.78	236.19	93.97	901.30	1,038.75	-	8,046.43
4 Elementary	391.93	707.86	3,245.72	832.47	128.44	469.78	236.19	140.93	901.30	1,038.78	-	8,093.40
5 Junior/Middle	391.93	707.86	2,856.25	599.25	139.24	469.78	314.38	230.21	977.13	1,069.79	-	7,755.82
6 High school	391.93	707.86	4,200.34	498.88	135.01	751.65	394.09	530.85	947.43	967.85	-	9,525.89
7 Early college or innovation pathways	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8 Vocational	391.93	707.86	7,140.62	498.88	223.21	1,315.37	394.09	530.85	1,773.15	1,395.84	-	14,371.80
9 Special Ed-in school	2,704.98	-	8,925.75	8,333.85	430.57	375.82	-	-	3,021.59	3,374.83	-	27,167.39
10 Special Ed-tuitioned out	2,802.91	-	-	42.82	-	-	-	-	-	-	26,612.12	29,457.85
11 English learners PK-5	90.14	157.74	1,104.11	157.74	45.06	112.66	67.60	22.54	270.40	247.86	-	2,275.85
12 English learners 6-8	94.28	164.99	1,154.90	164.99	47.13	117.84	70.71	23.57	282.83	259.26	-	2,380.50
13 English learners high school	73.59	128.79	901.48	128.79	36.79	91.98	55.19	18.40	220.77	202.37	-	1,858.15
14 Economically disadvantaged 1	50.98	241.54	2,357.86	-	114.39	17.54	95.48	496.13	-	381.40	-	3,755.32
15 Economically disadvantaged 2	51.54	244.20	2,383.92	-	115.66	17.73	96.53	501.61	-	385.62	-	3,796.81
16 Economically disadvantaged 3	52.10	246.87	2,409.97	-	116.92	17.92	97.59	507.09	-	389.83	-	3,838.29
17 Economically disadvantaged 4	52.67	249.54	2,436.03	-	118.18	18.12	98.64	512.57	-	394.05	-	3,879.80
18 Economically disadvantaged 5	53.23	252.21	2,462.09	-	119.45	18.31	99.70	518.06	-	398.26	-	3,921.31
19 Economically disadvantaged 6	56.89	269.52	2,631.09	-	127.65	19.57	106.54	553.62	-	425.60	-	4,190.48
20 Economically disadvantaged 7	58.24	275.94	2,693.72	-	130.69	20.03	109.08	566.80	-	435.73	-	4,290.23
21 Economically disadvantaged 8	59.59	282.36	2,756.36	-	133.72	20.50	111.61	579.97	-	445.86	-	4,389.97
22 Economically disadvantaged 9	60.95	288.77	2,818.99	-	136.76	20.96	114.15	593.15	-	455.99	-	4,489.72
23 Economically disadvantaged 10	62.30	295.19	2,881.62	-	139.80	21.43	116.69	606.33	-	466.13	-	4,589.49
24 High needs concentration increment	-	-	-	-	-	-	-	-	-	-	-	-

Foundation Budget Rates Per Pupil FY21 - Student Opportunity Act (S2348)

Incremental Rate Table	Administration	Instructional Leadership	Teachers	Other Teaching Services	Professional Development	Instructional Materials, Equipment & Technology	Guidance & Psychological Services	Pupil Services	Operations & Maintenance	Employee Benefits & Fixed Charges	Special Education Tuition	Total, All Categories
1 Pre-school	195.97	353.93	1,622.88	416.22	64.18	234.89	188.97	46.96	450.66	745.55	-	4,320.21
2 Kindergarten-half	195.97	353.93	1,622.88	416.22	64.18	234.89	188.97	46.96	450.66	745.55	-	4,320.21
3 Kindergarten-full	391.93	707.86	3,245.76	832.47	128.42	469.78	377.95	93.97	901.30	1,491.09	-	8,640.53
4 Elementary	391.93	707.86	3,245.72	832.47	128.44	469.78	377.95	140.93	901.30	1,491.09	-	8,687.47
5 Junior/Middle	391.93	707.86	2,856.25	599.25	139.24	469.78	377.95	230.21	977.13	1,610.72	-	8,360.32
6 High school	391.93	707.86	4,200.34	498.88	135.01	751.65	394.09	530.85	947.43	1,422.01	-	9,980.05
7 Early college or innovation pathways	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
8 Vocational	391.93	707.86	7,140.62	498.88	223.21	1,315.37	394.09	530.85	1,773.15	1,789.60	-	14,765.56
9 Special Ed-in school	2,704.98	-	8,925.75	8,333.85	430.57	375.82	-	-	3,021.59	3,392.84	-	27,185.40
10 Special Ed-tuitioned out	3,390.47	-	-	51.80	-	-	-	-	-	-	32,190.68	35,632.95
11 English learners PK-5	100.50	175.87	1,231.05	175.87	50.24	125.61	75.37	25.13	301.48	276.36	-	2,537.48

Incremental Rate Table	Administration	Instructional Leadership	Teachers	Other Teaching Services	Professional Development	Instructional Materials, Equipment & Technology	Guidance & Psychological Services	Pupil Services	Operations & Maintenance	Employee Benefits & Fixed Charges	Special Education Tuition	Total, All Categories
12 English learners 6-8	107.79	188.62	1,320.30	188.62	53.89	134.72	80.84	26.95	323.34	296.39	-	2,721.46
13 English learners high school	129.34	226.35	1,584.36	226.35	64.66	161.66	97.00	32.34	388.01	355.67	-	3,265.74
14 0-5.99% Low Income	47.77	226.34	2,209.55	-	107.20	16.43	89.47	464.92	-	357.41	-	3,519.09
15 6-11.99% Low Income	50.76	240.49	2,347.65	-	113.90	17.46	95.06	493.98	-	379.75	-	3,739.05
16 12-17.99% Low Income	53.74	254.64	2,485.75	-	120.60	18.49	100.66	523.04	-	402.09	-	3,959.01
17 18-23.99% Low Income	56.73	268.78	2,623.85	-	127.30	19.51	106.25	552.09	-	424.43	-	4,178.94
18 24-29.99% Low Income	59.71	282.93	2,761.94	-	134.00	20.54	111.84	581.15	-	446.77	-	4,398.88
19 30-35.99% Low Income	66.88	316.88	3,093.38	-	150.07	23.01	125.26	650.89	-	500.38	-	4,926.75
20 36-41.99% Low Income	74.05	350.83	3,424.81	-	166.15	25.47	138.68	720.63	-	553.99	-	5,454.61
21 42-47.99% Low Income	81.21	384.78	3,756.24	-	182.23	27.94	152.10	790.36	-	607.60	-	5,982.46
22 48-53.99% Low Income	88.38	418.74	4,087.68	-	198.31	30.40	165.52	860.10	-	661.21	-	6,510.34
23 54-69.99% Low Income	95.54	452.69	4,419.11	-	214.39	32.87	178.94	929.84	-	714.83	-	7,038.21
23 70-79.99% Low Income	107.49	509.27	4,971.50	-	241.19	36.97	201.31	1,046.07	-	804.18	-	7,917.98
23 80%+ Low Income	119.43	565.86	5,523.89	-	267.99	41.08	223.68	1,162.30	-	893.53	-	8,797.76

Foundation Budget Rates Per Pupil FY21 - Student Opportunity Act - S 2348 (Increase Over FY20)

Incremental Rate Table	Administration	Instructional Leadership	Teachers	Other Teaching Services	Professional Development	Instructional Materials, Equipment & Technology	Guidance & Psychological Services	Pupil Services	Operations & Maintenance	Employee Benefits & Fixed Charges	Special Education Tuition	Total, All Categories
1 Pre-school	-	-	-	-	-	-	70.89	-	-	226.17	-	297.06
2 Kindergarten-half	-	-	-	-	-	-	70.89	-	-	226.17	-	297.06
3 Kindergarten-full	-	-	-	-	-	-	141.76	-	-	452.34	-	594.10
4 Elementary	-	-	-	-	-	-	141.76	-	-	452.31	-	594.07
5 Junior/Middle	-	-	-	-	-	-	63.57	-	-	540.93	-	604.50
6 High school	-	-	-	-	-	-	-	-	-	454.16	-	454.16
7 Early college or innovation pathways	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8 Vocational	-	-	-	-	-	-	-	-	-	393.76	-	393.76
9 Special Ed-in school	-	-	-	-	-	-	-	-	-	18.01	-	18.01
10 Special Ed-tuitioned out	587.56	-	-	8.98	-	-	-	-	-	-	5,578.56	6,175.10
11 English learners PK-5	10.36	18.13	126.94	18.13	5.18	12.95	7.77	2.59	31.08	28.50	-	261.63
12 English learners 6-8	13.51	23.63	165.40	23.63	6.76	16.88	10.13	3.38	40.51	37.13	-	340.96
13 English learners high school	55.75	97.56	682.88	97.56	27.87	69.68	41.81	13.94	167.24	153.30	-	1,407.59
14 0-5.99% Low Income	(3.21)	(15.20)	(148.31)	-	(7.19)	(1.11)	(6.01)	(31.21)	-	(23.99)	-	(236.23)
15 6-11.99% Low Income	(0.78)	(3.71)	(36.27)	-	(1.76)	(0.27)	(1.47)	(7.63)	-	(5.87)	-	(57.76)
16 12-17.99% Low Income	1.64	7.77	75.78	-	3.68	0.57	3.07	15.95	-	12.26	-	120.72
17 18-23.99% Low Income	4.06	19.24	187.82	-	9.12	1.39	7.61	39.52	-	30.38	-	299.14
18 24-29.99% Low Income	6.48	30.72	299.85	-	14.55	2.23	12.14	63.09	-	48.51	-	477.57
19 30-35.99% Low Income	9.99	47.36	462.29	-	22.42	3.44	18.72	97.27	-	74.78	-	736.27
20 36-41.99% Low Income	15.81	74.89	731.09	-	35.46	5.44	29.60	153.83	-	118.26	-	1,164.38
21 42-47.99% Low Income	21.62	102.42	999.88	-	48.51	7.44	40.49	210.39	-	161.74	-	1,592.49
22 48-53.99% Low Income	27.43	129.97	1,268.69	-	61.55	9.44	51.37	266.95	-	205.22	-	2,020.62
23 54-69.99% Low Income	33.24	157.50	1,537.49	-	74.59	11.44	62.25	323.51	-	248.70	-	2,448.72
23 70-79.99% Low Income	107.49	509.27	4,971.50	-	241.19	36.97	201.31	1,046.07	-	804.18	-	7,917.98
23 80%+ Low Income	119.43	565.86	5,523.89	-	267.99	41.08	223.68	1,162.30	-	893.53	-	8,797.76



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><i>Classroom Teachers</i></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><i>Other Staff</i></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

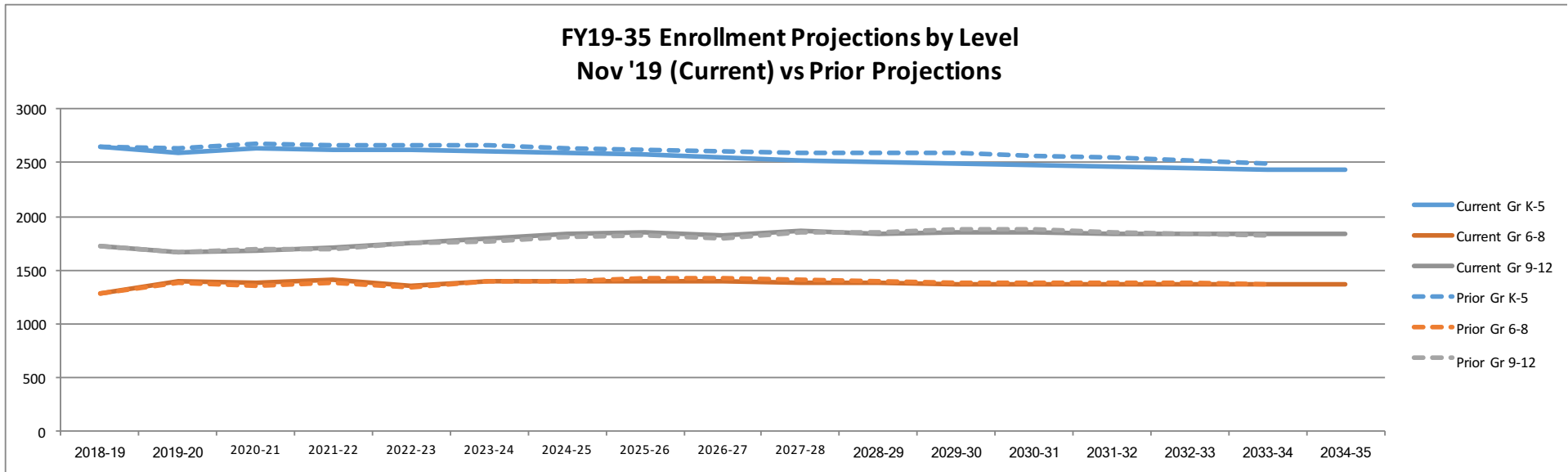
Assumptions

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
Enrollment																												
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)
Annual Inc/(Dec)																												
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	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)

Massachusetts Department of Elementary and Secondary Education FY19 END OF YEAR FINANCIAL REPORT

199 Needham

For all related information go to: <http://www.doe.mass.edu/finance/accounting/eoy/?fy=19>

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

			1	2	3	4	5	6
			REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
I. REVENUES								
A. REVENUE FROM LOCAL SOURCES								
ow	Line							
15	10	Assessments Received by Regional Schools						0
16	20	E & D Fund Appropriations FY19: Revenues to Regional District						-
17	30	Tuition From Individuals						-
18	40	Tuition From Other Districts in Comm.						-
19	50	Tuition From Districts in Other States						-
20	60	Previous Yr Unexpended Encumbrances (Carry Forward)					234,857	234,857
21	75	Transportation Fees						-
22	80	Earnings on Investments						-
23	90	Rental of School Facilities						-
24	100	Other Revenue		15,212				15,212
25	101	Medical Care and Assistance		193,151				193,151
26	105	Non Revenue Receipts					340,262	340,262
27	110	TOTAL REVENUE FROM LOCAL SOURCES	-	208,363	-	-	575,119	783,482
B. REVENUE FROM STATE AID								
-----State aid is not reported by program-----								
29	125	School Aid (Chapter 70)					9,876,152	9,876,152
30	130	Mass. School Building Authority Construction Aid	Contract	695,148		Other	7,252,591	7,947,739
31	140	Pupil Transportation (Ch. 71,71A,71B,74)					2,746	2,746
32	170	Charter Tuition Reimbursements and Facilities Aid	Charter Reimb	20,645		Facilities	3,572	24,217
33	180	Circuit Breaker					1,540,049	1,540,049
34	190	Foundation Reserve, State Impact Aid, and Regional Bonus Aid					-	-
35	200	TOTAL REVENUE FROM STATE AID						19,390,903
C. REVENUE FROM FEDERAL GRANTS								
38	300	ESE Administered Grants	103,573	1,338,042	-		87,667	1,529,282
39	481	Other Federal Grants						-
40	490	TOTAL REVENUE FEDERAL GRANTS	103,573	1,338,042	-	-	87,667	1,529,282
D. REVENUE FROM STATE GRANTS								
42	510	ESE Administered Grants	-	-	-		1,088,335	1,088,335
43	590	Other State Grants					115,899	115,899
44	600	TOTAL REVENUE STATE GRANTS	-	-	-	-	1,204,234	1,204,234
E. REVENUE- REVOLVING & SPECIAL FUNDS								
46	610	School Lunch Receipts					2,530,903	2,530,903
47	620	Athletic Receipts					743,937	743,937
48	630	Tuition Receipts-School Choice	-	-	-			-
49	640	Tuition Receipts-Other				736,644	17,136	753,780
50	650	Other Local Receipts				648,902	2,644,915	3,293,817
51	660	Private Grants	69,269	2,000	-		206,885	278,154
52	670	TOTAL REVENUE REVOLVING & SPECIAL FUNDS	69,269	2,000	-	1,385,546	6,143,776	7,600,591

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

**II. EXPENDITURES
A. BY SCHOOL COMMITTEE**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
School Committee (1110)							
61	702	Clerical Salaries (02)					-
62	703	Other Salaries (03)					-
63	704	Contracted Services (04)					-
64	705	Supplies and Materials (05)					-
65	706	Other Expenses (06)				10,980	10,980
66	709	Sub-total				10,980	10,980
Superintendent (1210)							
68	721	Professional Salaries (01)				243,509	243,509
69	722	Clerical Salaries (02)				106,810	106,810
70	723	Other Salaries (03)					-
71	724	Contracted Services (04)				18,392	18,392
72	725	Supplies and Materials (05)				1,078	1,078
73	726	Other Expenses (06)				14,418	14,418
74	729	Sub-total				384,207	384,207
Assistant Superintendents (1220)							
76	741	Professional Salaries (01)				564,419	564,419
77	742	Clerical Salaries (02)				470,838	470,838
78	743	Other Salaries (03)					-
79	744	Contracted Services (04)				2,882	2,882
80	745	Supplies and Materials (05)				9,664	9,664
81	746	Other Expenses (06)				19,693	19,693
82	749	Sub-total				1,067,496	1,067,496
Other District-Wide Administration (1230)							
84	761	Professional Salaries (01)				41,020	41,020
85	762	Clerical Salaries (02)				64,820	64,820
86	763	Other Salaries (03)					-
87	764	Contracted Services (04)				32,503	32,503
88	765	Supplies and Materials (05)				16,123	16,123
89	766	Other Expenses (06)				745	745
90	769	Sub-total				155,211	155,211
Business and Finance (1410)							
92	781	Professional Salaries (01)				179,466	179,466
93	782	Clerical Salaries (02)				427,601	427,601
94	783	Other Salaries (03)					-
95	784	Contracted Services (04)				24,475	24,475
96	785	Supplies and Materials (05)				11,692	11,692
97	786	Other Expenses (06)				9,207	9,207
98	789	Sub-total				652,441	652,441
Human Resources and Benefits (1420)							
100	801	Professional Salaries (01)					-
101	802	Clerical Salaries (02)				134,286	134,286
102	803	Other Salaries (03)					-
103	804	Contracted Services (04)				57,965	57,965
104	805	Supplies and Materials (05)				319	319
105	806	Other Expenses (06)					-
106	809	Sub-total				192,570	192,570
Legal Service for School Committee (1430)							

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
108	821	Professional Salaries (01)					-
109	822	Clerical Salaries (02)					-
110	823	Other Salaries (03)					-
111	824	Contracted Services (04)				86,721	86,721
112	825	Supplies and Materials (05)					-
113	826	Other Expenses (06)					-
114	829	Sub-total				86,721	86,721
Legal Settlements (1435)							
116	844	Contracted Services (04)		204,496			204,496
117	845	Supplies and Materials (05)					-
118	846	Other Expenses (06)					-
119	849	Sub-total	-	204,496	-	-	204,496
Administrative Technology-Districtwide (1450)							
121	864	Contracted Services (04)				140,007	140,007
122	865	Supplies and Materials (05)				95,757	95,757
123	866	Other Expenses (06)				6,062	6,062
124	869	Sub-total				241,826	241,826
Curriculum Directors and Department Heads (Supervisory) (2110)							
126	881	Professional Salaries (01)	1,486,843	1,150,657	-	-	2,637,500
127	882	Clerical Salaries (02)	185,742	76,488	-	-	262,230
128	883	Other Salaries (03)	-	-	-	-	-
129	884	Contracted Services (04)	456	21,351	-	-	21,807
130	885	Supplies and Materials (05)	6,361	1,140	-	-	7,501
131	886	Other Expenses (06)	1,610	4,509	-	-	6,119
132	889	Sub-total	1,681,012	1,254,145	-	-	2,935,157
Curriculum Directors and Department Heads (Non-Supervisory) (2120)							
134	901	Professional Salaries (01)	-	238,390	-	-	238,390
135	902	Clerical Salaries (02)	-	-	-	-	-
136	903	Other Salaries (03)	-	-	-	-	-
137	904	Contracted Services (04)	-	-	-	-	-
138	905	Supplies and Materials (05)	-	-	-	-	-
139	906	Other Expenses (06)	-	-	-	-	-
140	909	Sub-total	-	238,390	-	-	238,390
Instructional Technology Leadership and Training (2130)							
142	911	Professional Salaries (01)	-	-	-	-	-
143	912	Clerical Salaries (02)	-	-	-	-	-
144	913	Other Salaries (03)	-	-	-	-	-
145	914	Contracted Services (04)	-	-	-	-	-
146	915	Supplies and Materials (05)	-	-	-	-	-
147	916	Other Expenses (06)	-	-	-	-	-
148	917	Sub-total	-	-	-	-	-
School Leadership-Building (2210)							
150	921	Professional Salaries (01)				2,316,320	2,316,320
151	922	Clerical Salaries (02)				1,499,134	1,499,134
152	923	Other Salaries (03)				-	-
153	924	Contracted Services (04)				2,418	2,418
154	925	Supplies and Materials (05)				23,792	23,792

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
155	926	Other Expenses (06)				16,522	16,522
156	929	Sub-total				3,858,186	3,858,186
Administrative Technology and Support – Schools (2250)							
158	964	Contracted Services (04)	-	-	-	-	-
159	965	Supplies and Materials (05)	-	-	-	-	-
160	966	Other Expenses (06)	-	-	-	-	-
161	969	Sub-total	-	-	-	-	-
Teachers (2305)							
163	981	Professional Salaries (01)	30,796,172	6,631,959	-	-	37,428,131
Medical/ Therapeutic Services (2320)							
165	1041	Professional Salaries (01)	-	528,551	-	-	528,551
166	1042	Clerical Salaries (02)	-	-	-	-	-
167	1043	Other Salaries (03)	-	-	-	-	-
168	1044	Contracted Services (04)	-	639,979	-	-	639,979
169	1049	Sub-total	-	1,168,530	-	-	1,168,530
Substitutes, Long Term (2324)							
171	1051	Professional Salaries (01)	1,064,433	140,981	-	-	1,205,414
172	1053	Other Salaries (03)	43,279	188,780	-	-	232,059
173	1054	Contracted Services (04)	-	-	-	-	-
174	1059	Sub-total	1,107,712	329,761	-	-	1,437,473
Substitutes, Short Term (2325)							
176	1063	Other Salaries (03)	407,673	-	-	-	407,673
177	1064	Contracted Services (04)	-	-	-	-	-
178	1069	Sub-total	407,673	-	-	-	407,673
All Non-Clerical Paraprofessionals/Instructional Assistants (2330)							
180	1083	Other Salaries (03)	179,501	3,060,166	-	-	3,239,667
181	1084	Contracted Services (04)	16,016	63,677	-	-	79,693
182	1089	Sub-total	195,517	3,123,843	-	-	3,319,360
Librarians and Media Center Directors (2340)							
184	1101	Professional Salaries (01)				860,970	860,970
185	1102	Clerical Salaries (02)				63,712	63,712
186	1103	Other Salaries (03)				159,690	159,690
187	1109	Sub-total				1,084,372	1,084,372
Distance Learning and Online Coursework (2345) (Including Tuition for Dual Enrollment and SPED Transition Programs)							
189	1111	Contracted Services (04)	-	-	-	-	-
190	1112	Supplies and Materials (05)	-	-	-	-	-
191	1113	Other Expenses (06)	-	-	-	-	-
192	1115	Sub-total	-	-	-	-	-
Professional Development Leadership (2351)							
194	1121	Professional Salaries (01)				165,240	165,240
195	1122	Clerical Salaries (02)				-	-
35a	1123	Other Salaries (03)				-	-
35b	1124	Contracted Services (04)				-	-
196	1125	Supplies and Materials (05)				-	-
197	1126	Other Expenses (06)				-	-
198	1129	Sub-total				165,240	165,240
Instructional Coaches (2352)							
200	1131	Professional Salaries (01)	827,384	-	-	-	827,384

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
201	1134	Contracted Services (04)	-	-	-	-	-
202	1135	Supplies and Materials (05)	-	-	-	-	-
203	1136	Other Expenses (06)	-	-	-	-	-
204	1139	Sub-total	827,384	-	-	-	827,384
Stipends for Teachers Providing Instructional Coaching (2354)							
206	1151	Other Salaries (03)	67,831	-	-	-	67,831
Costs for Instructional Staff to Attend Professional Development (2356)							
208	1171	Professional Salaries (01)	45,835	11,214	-	-	57,049
209	1173	Other Salaries (03)	-	9,079	-	-	9,079
210	1175	Supplies and Materials (05)	-	-	-	-	-
211	1176	Other Expenses (06)	23,643	300	-	-	23,943
212	1179	Sub-total	69,478	20,593	-	-	90,071
Outside Professional Development for Instructional Staff (2358)							
214	1194	Contracted Services (04)	188,701	5,177	-	-	193,878
215	1195	Supplies and Materials (05)	5,106	-	-	-	5,106
216	1196	Other Expenses (06)	16,192	-	-	-	16,192
217	1199	Sub-total	209,999	5,177	-	-	215,176
Textbooks (2410)							
219	1205	Supplies and Materials (05)	32,614	-	-	-	32,614
Other Instructional Materials (2415)							
222	1224	Contracted Services (04)	-	-	-	-	-
223	1225	Supplies and Materials (05)	165,644	2,985	-	-	168,629
224	1226	Other Expenses (06)	-	-	-	-	-
225	1229	Sub-total	165,644	2,985	-	-	168,629
Instructional Equipment (2420)							
227	1244	Contracted Services (04)	63,303	-	-	-	63,303
228	1245	Supplies and Materials (05)	121,313	17,259	-	-	138,572
229	1246	Other Expenses (06)	298	-	-	-	298
230	1249	Sub-total	184,914	17,259	-	-	202,173
General Supplies (2430)							
232	1265	Supplies and Materials (05)	407,511	11,681	-	-	419,192
Other Instructional Services (2440)							
234	1283	Other Salaries (03)	-	-	-	-	-
235	1284	Contracted Services (04)	168,272	111,841	-	-	280,113
236	1285	Supplies and Materials (05)	7,693	-	-	-	7,693
237	1286	Other Expenses (06)	89,538	5,818	-	-	95,356
238	1289	Sub-total	265,503	117,659	-	-	383,162
Instructional Hardware – Student and Staff Devices (computers) (2451)							
240	1304	Contracted Services (04)	12,902	-	-	-	12,902
241	1305	Supplies and Materials (05)	819,839	4,014	-	-	823,853
242	1306	Other Expenses (06)	-	-	-	-	-
243	1309	Sub-total	832,741	4,014	-	-	836,755
Instructional Hardware—All Other (2453)							
245	1324	Contracted Services (04)				330	330
246	1325	Supplies and Materials (05)				177,892	177,892
247	1326	Other Expenses (06)				-	-
248	1329	Sub-total				178,222	178,222
Instructional Software and Other Instructional Materials (2455)							
250	1344	Contracted Services (04)				138,959	138,959

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
251	1345	Supplies and Materials (05)				3,370	3,370
252	1346	Other Expenses (06)				-	-
253	1349	Sub-total				142,329	142,329
Guidance Including Guidance Counselors and Adjustment Counselors (2710)							
255	1361	Professional Salaries (01)	1,409,601	1,093,170	-	-	2,502,771
256	1362	Clerical Salaries (02)	32,834	16,799	-	-	49,633
257	1363	Other Salaries (03)	-	-	-	-	-
258	1364	Contracted Services (04)	9,930	-	-	-	9,930
259	1365	Supplies and Materials (05)	1,058	-	-	-	1,058
260	1366	Other Expenses (06)	964	-	-	-	964
261	1369	Sub-total	1,454,387	1,109,969	-	-	2,564,356
Testing and Assessment (2720)							
263	1381	Professional Salaries (01)	-	222,028	-	-	222,028
264	1382	Clerical Salaries (02)	-	2,291	-	-	2,291
265	1383	Other Salaries (03)	-	-	-	-	-
266	1384	Contracted Services (04)	-	-	-	-	-
267	1385	Supplies and Materials (05)	-	15,373	-	-	15,373
268	1386	Other Expenses (06)	-	-	-	-	-
269	1389	Sub-total	-	239,692	-	-	239,692
Psychological Services (2800)							
271	1401	Professional Salaries (01)	-	436,541	-	-	436,541
272	1402	Clerical Salaries (02)	-	-	-	-	-
273	1403	Other Salaries (03)	-	-	-	-	-
274	1404	Contracted Services (04)	-	340	-	-	340
275	1405	Supplies and Materials (05)	-	13,275	-	-	13,275
276	1406	Other Expenses (06)	-	-	-	-	-
277	1409	Sub-total	-	450,156	-	-	450,156
Attendance and Parent Liaison Services (3100)							
279	1421	Professional Salaries (01)					-
280	1422	Clerical Salaries (02)					-
281	1423	Other Salaries (03)				1,697	1,697
282	1424	Contracted Services (04)				1,018	1,018
283	1425	Supplies and Materials (05)					-
284	1426	Other Expenses (06)				2,000	2,000
285	1429	Sub-total				4,715	4,715
Medical/Health Services (3200)							
287	1441	Professional Salaries (01)				909,497	909,497
288	1442	Clerical Salaries (02)					-
289	1443	Other Salaries (03)				8,285	8,285
290	1444	Contracted Services (04)				24,350	24,350
291	1445	Supplies and Materials (05)				10,714	10,714
292	1446	Other Expenses (06)				321	321
293	1449	Sub-total				953,167	953,167
Transportation Services (3300)							
294	1461	Professional Salaries (01)					-
295	1463	Clerical Salaries (02)	61,621	161,187			222,808
296	1462	Other Salaries (03)		16,610			16,610
297	1464	Contracted Services (04)	598,076	1,345,496			1,943,572
298	1465	Supplies and Materials (05)					-

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
299	1466 Other Expenses (06)	3,885	9,903				13,788
300	1489 Sub-total	663,582	1,533,196	-	-		2,196,778
Food Services (3400)							
302	1481 Professional Salaries (01)						-
303	1482 Clerical Salaries (02)						-
304	1483 Other Salaries (03)						-
305	1484 Contracted Services (04)						-
306	1485 Supplies and Materials (05)						-
307	1486 Other Expenses (06)						-
308	1489 Total					-	-
Athletics (3510)							
310	1501 Professional Salaries (01)					144,281	144,281
311	1502 Clerical Salaries (02)					52,642	52,642
312	1503 Other Salaries (03)					278,510	278,510
313	1504 Contracted Services (04)					27,951	27,951
314	1505 Supplies and Materials (05)					1,320	1,320
315	1506 Other Expenses (06)					1,050	1,050
316	1509 Sub-total					505,754	505,754
Other Student Activities (3520)							
318	1521 Professional Salaries (01)					270,358	270,358
319	1522 Clerical Salaries (02)						-
320	1523 Other Salaries (03)						-
321	1524 Contracted Services (04)						-
322	1525 Supplies and Materials (05)						-
323	1526 Other Expenses (06)					3,915	3,915
324	1529 Sub-total					274,273	274,273
School Security (3600)							
326	1541 Professional Salaries (01)						-
327	1542 Clerical Salaries (02)						-
328	1543 Other Salaries (03)						-
329	1544 Contracted Services (04)						-
330	1545 Supplies and Materials (05)						-
331	1546 Other Expenses (06)						-
332	1549 Sub-total					-	-
Custodial Services (4110)							
334	1561 Professional Salaries (01)						-
335	1562 Clerical Salaries (02)						-
336	1563 Other Salaries (03)						-
337	1564 Contracted Services (04)						-
338	1565 Supplies and Materials (05)						-
339	1566 Other Expenses (06)						-
340	1569 Sub-total					-	-
Heating of Buildings (4120)							
342	1574 Contracted Services (04)						-
343	1575 Supplies and Materials (05)						-
344	1576 Other Expenses (06)						-
345	1579 Sub-total					-	-
Utility Services (4130)							
347	1584 Contracted Services (04)						-

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
348	1585	Supplies and Materials (05)					-
349	1586	Other Expenses (06)					-
350	1589	Sub-total				-	-
Maintenance of Grounds (4210)							
352	1591	Professional Salaries (01)					-
353	1592	Clerical Salaries (02)					-
354	1593	Other Salaries (03)					-
355	1594	Contracted Services (04)					-
356	1595	Supplies and Materials (05)					-
357	1596	Other Expenses (06)					-
358	1599	Sub-total				-	-
Maintenance of Buildings (4220)							
360	1601	Professional Salaries (01)					-
361	1602	Clerical Salaries (02)					-
362	1603	Other Salaries (03)					-
363	1604	Contracted Services (04)					-
364	1605	Supplies and Materials (05)					-
365	1606	Other Expenses (06)					-
366	1609	Sub-total				-	-
Building Security System (4225)							
368	1614	Contracted Services (04)					-
369	1615	Supplies and Materials (05)					-
370	1616	Other Expenses (06)					-
371	1619	Sub-total				-	-
Maintenance of Equipment (4230)							
373	1621	Professional Salaries (01)					-
374	1622	Clerical Salaries (02)					-
375	1623	Other Salaries (03)					-
376	1624	Contracted Services (04)					-
377	1625	Supplies and Materials (05)					-
378	1626	Other Expenses (06)					-
379	1629	Sub-total				-	-
Extraordinary Maintenance (4300)							
381	1634	Contracted Services (04)					-
382	1635	Supplies and Materials (05)					-
383	1636	Other Expenses (06)					-
384	1639	Sub-total				-	-
Technology Infrastructure, Maintenance, and Support—Salaries (4400)							
386	1641	Professional Salaries (01)					-
387	1642	Clerical Salaries (02)					-
388	1643	Other Salaries (03)				984,914	984,914
389	1649	Sub-total				984,914	984,914
Technology Infrastructure, Maintenance, and Support—All Other (4450)							
391	1654	Contracted Services (04)				355,662	355,662
31a	1655	Supplies and Materials (05)				21,950	21,950
392	1656	Other Expenses (06)				41,855	41,855
393	1659	Sub-total				419,467	419,467
Employer Retirement Contributions (5100)							
395	1661	Employer Retirement Contributions (5100)				14,500	14,500

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

**II. EXPENDITURES
A. BY SCHOOL COMMITTEE**

1	2	3	4	5	6
REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL

Employee Separation Costs (5150)

397	1664	Professional Salaries (01)				25,432	25,432
398	1665	Clerical Salaries (02)				3,958	3,958
399	1666	Other Salaries (03)					-
400	1667	Contracted Services (04)					-
401	1669	Sub-total				29,390	29,390

Insurance (5200)

403	1672	Insurance for Active Employees (5200)				2,000	2,000
404	1673	Insurance for Retired School Employees (5250)					-
405	1674	Other Non Employee Insurance (5260)					-
406	1679	Sub-total				2,000	2,000

Rental Lease, Interest & Other Fixed Charges (5300, 5400, 5500, 5550)

408	1681	Rental-Lease Equipment (5300)					-
409	1682	Rental-Lease Buildings (5350)					-
410	1683	Short-Term Interest RAN's (5400)					-
411	1684	Short-Term Interest RAN's (5450)					-
412	1685	Other Fixed Charges (5500)					-
413	1686	School Crossing Guards (5550)					-
414	1689	Sub-total				-	-

Civic Activities and Community Services (6200)

416	1701	Professional Salaries (01)					-
417	1702	Clerical Salaries (02)					-
418	1703	Other Salaries (03)					-
419	1704	Contracted Services (04)					-
420	1705	Supplies and Materials (05)					-
421	1706	Other Expenses (06)					-
422	1709	Sub-total	-	-	-	-	-

Recreation (6300)

424	1711	Professional Salaries (01)					-
425	1712	Clerical Salaries (02)					-
426	1713	Other Salaries (03)					-
427	1714	Contracted Services (04)					-
428	1715	Supplies and Materials (05)					-
429	1716	Other Expenses (06)					-
430	1719	Sub-total				-	-

Health Non-Public Schools (6800)

432	1721	Professional Salaries (01)					-
433	1722	Clerical Salaries (02)					-
434	1723	Other Salaries (03)					-
435	1724	Contracted Services (04)					-
436	1725	Supplies and Materials (05)					-
437	1726	Other Expenses (06)					-
438	1729	Sub-total	-	-	-	-	-

Transportation Non-Public (6900)

440	1721	Professional Salaries (01)					-
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**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
141	1733 Clerical Salaries (02)	1,979					1,979
142	1734 Other Salaries (03)						-
143	1734 Contracted Services (04)	17,006					17,006
144	1735 Supplies and Materials (05)						-
145	1736 Other Expenses (06)	125					125
146	1739 Sub-total	19,110	-	-	-		19,110
Asset Acquisition & Improvement (7000)							
148	1741 Purchase of Land & Buildings (7100, 7200)						-
149	1742 Equipment (7300, 7400)					7,817	7,817
150	1743 Capital Technology (7350)					34,213	34,213
151	1744 Motor Vehicles (7500, 7600)						-
152	1749 Sub-total					42,030	42,030
Long Term Debt (8000)							
154	1751 Debt Retirement/Sch. Construction (8100)						-
155	1752 Debt Service/Sch. Construction (8200)						-
156	1753 Debt Service (Equip. & Other) (8400, 8600)						-
157	1759 Sub-total					-	-
Payments to Other Districts (9000)							
159	1770 Tuition to Mass. Public Schools (9100)	25,079	6,255				31,334
160	1780 School Choice Tuition (9110)	-	-	-			-
161	1790 Tuition to Commonwealth Charter Schools (9120)	-	-				-
162	1795 Tuition to Horace Mann Charter Schools (9125)						-
163	1800 Tuition to Out-of-State Schools (9200)		122,160				122,160
164	1810 Tuition to Non-Public Schools (9300)		3,103,222				3,103,222
165	1820 Tuition to Collaboratives (9400)		954,653				954,653
166	1840 Sub-total	25,079	4,186,290	-	-		4,211,369
167	1850 TOTAL EXPENDITURES BY SCHOOL COMMITTEE	39,413,863	20,649,795	-	-	11,450,011	71,513,669

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
175	1900 School Committee (1110)						-
176	1910 Business and Finance (1410)					925,295	925,295
177	1912 Human Resources and Benefits (1420)					762,867	762,867
178	1914 Legal Services for School Committee (1430)					17,030	17,030
179	1916 Legal Settlements (1435)						-
180	1920 Administrative Technology-Districtwide (1450)						-
181	1930 Librarians and Media Center Directors (2340)					-	-
182	1935 Other Instructional Materials (2415)					-	-
183	1940 Health Services (3200)						-
184	1950 Pupil Transportation (3300)						-
185	1960 School Security (3600)						-
186	1970 School Custodial Services (4110)					3,225,134	3,225,134
187	1972 Heating of School Buildings (4120)					474,453	474,453

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY**

		1	2	3	4	5	6
		REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC- ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB- UTED	TOTAL
188	1974	School Utility Services (4130)				1,709,044	1,709,044
189	1975	Maintenance of School Grounds (4210)				231,856	231,856
190	1976	Maintenance of School Buildings (4220)				1,661,475	1,661,475
191	1978	School Building Security System (4225)					-
192	1979	Maintenance of School Equipment (4230)				81,195	81,195
193	1990	Extraordinary Maintenance (4300)					-
194	1995	Technology Infrastructure, Maintenance, and Support-Salaries (4400)					-
195	1996	Technology Infrastructure, Maintenance, and Support-All Other (4450)					-
196	2000	Employer Retirement Contributions (5100)				4,639,662	4,639,662
Employee Separation Costs (5150)							
198	2003	Professional Salaries (01)					-
199	2004	Clerical Salaries (02)					-
500	2005	Other Salaries (03)					-
501	2006	Contracted Services (04)					-
502	2007	<i>Sub-total</i>				-	-
503	2010	Insurance For Active Employees (5200)				10,344,191	10,344,191
504	2020	Insurance For Retired School Employees (5250)				1,912,230	1,912,230
505	2030	Other Non-Employee Insurance (5260)				152,852	152,852
506	2040	Rental-Lease Equipment (5300)					-
507	2050	Rental-Lease Buildings (5350)					-
508	2060	Short-Term Interest RAN's (5400)					-
509	2065	Short-Term Interest - BAN's (5450)				91,395	91,395
510	2070	Other Fixed Charges (5500)				12,204	12,204
511	2075	School Crossing Guards (5550)				168,981	168,981
512	2080	Health Non-Public Schools (6800)					-
513	2085	Transportation Non-Public Schools (6900)					-
514	2100	Purchase of Land & Buildings (7100, 7200)				18,288,989	18,288,989
515	2110	Equipment (7300, 7400)				126,967	126,967
516	2115	Capital Technology (7350)				285,188	285,188
517	2120	Motor Vehicles (7500, 7600)				35,099	35,099
518	2130	Long-Term Debt Retire Sch Construction (8100)				4,412,000	4,412,000
519	2140	Long-Term Debt Service Sch Construction (8200)				1,313,839	1,313,839
520	2200	Long-Term Debt Service/Educ & Other (8400, 8500)				274,250	274,250
Payments to Other Districts (9000)							
522	2210	Tuition to Mass. Public Schools (9100)					-
523	2220	School Choice Tuition (9110)	41,325	-	-		41,325
524	2230	Tuition to Commonwealth Charter Schools (9120)	72,049	5,423			77,472
525	2235	Tuition to Horace Mann Charter Schools (9125)					-
526	2240	Tuition to Out-of-State Schools (9200)					-
527	2250	Tuition to Non-Public Schools (9300)					-
528	2260	Tuition to Collaboratives (9400)					-
529	2270	Regional School Assessment (9500)				914,236	914,236
530	2280	<i>Sub-total</i>	113,374	5,423	-	-	914,236
531	2290	TOTAL EXPENDITURES BY CITY OR TOWN	113,374	5,423	-	-	52,060,432

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY
C.2. EXPENDITURES FROM FEDERAL
GRANTS, STATE GRANTS AND
SPECIAL FUNDS**

	1	2	3	4	5	6	7	8	9	10	11	12	13
	Federal Grants				State Grants		Revolving and Special Funds						
	Title I FC 305	IDEA FC 240	Other ESE Admin- istered	Other	ESE Admin- istered	Other	Circuit Breaker	Private Grants & Gifts	Sch Choice & Other Day Tuition	Athletic Fund	School Lunch	Other Local Receipts	Total
540	2801	School Committee (1110)											-
541	2802	Superintendent (1210)											-
542	2803	Assistant Superintendents (1220)											-
543	2804	Other District-Wide Administration (1230)						3,884	38,412			63,936	106,232
544	2805	Business and Finance (1410)											-
545	2806	Human Resources and Benefits (1420)											-
546	2807	Legal Service For School Committee (1430)											-
547	2808	Legal Settlements (1435)											-
548	2809	Administrative Technology-Districtwide (1450)						9,032					9,032
		Instruction											
550	2810	Curriculum Directors and Dept. Heads	-	73,779	-	-	-	185,578	-	56,434		317,240	633,031
551	2811	Curriculum Directors and Dept. Heads	-	-	-	-	-	142,693	-	10,000	10,352	1,828	164,873
552	2812	Instructional Technology Leadership	-	-	-	-	-	-	-	-	-	-	-
553	2814	School Leadership-Building (2210)	-	-	-	-	-	247	-	-	-	57,380	57,627
554	2815	Administrative Technology and Support	-	-	-	-	-	-	-	-	-	-	-
555	2816	Teachers, Classroom (2305)	56,609	312,507	54,026	-	9,138	-	12,255	169,400	-	643,970	1,257,903
556	2817	Medical/Therapeutic Services (2320)	-	7,939	-	-	-	-	-	-	-	-	7,939
557	2818	Substitutes, Long Term (2324)	-	31,139	-	-	1,487	-	-	-	-	18,337	50,963
558	2819	Substitutes, Short Term (2325)	-	-	-	-	-	-	-	-	-	3,678	3,678
559	2820	Non-Clerical Paraprofs./Instructional	-	652,950	34,954	-	180,819	-	194	27,707	-	403,444	1,300,068
560	2821	Librarians and Media Center Directors	-	-	-	-	-	-	-	-	-	-	-
561	2822	Distance Learning and Online Course	-	-	-	-	-	-	-	-	-	-	-
562	2823	Professional Development Leadership	-	-	-	-	-	-	-	-	-	-	-
563	2824	Instructional Coaches (2352)	-	-	-	-	-	-	-	-	-	-	-
564	2825	Stipends for Teachers Providing Instr	-	-	-	-	-	15,000	-	-	-	-	15,000
565	2826	Costs for Instructional Staff to Attend	-	-	-	-	-	10,064	1,200	-	325	-	11,589
566	2827	Outside Professional Development for	2,750	9,043	24,442	-	45,574	500	-	18,246	2,795	5,100	108,450
567	2828	Textbooks (2410)	-	-	-	-	-	-	-	-	-	7,807	7,807
568	2829	Other Instructional Materials (2415)	-	-	-	-	-	12,000	-	-	-	28,269	40,269
569	2830	Instructional Equipment (2420)	-	-	-	-	-	6,838	6,017	-	-	40,542	53,397
570	2831	General Supplies (2430)	-	2,427	744	-	1,405	-	30,032	15,647	-	72,935	123,190
571	2832	Other Instructional Services (2440)	31,238	2,198	2,440	-	11,922	-	322,781	45,771	-	607,485	1,023,835
572	2833	Instructional Hardware -Student and	-	-	-	-	-	-	2,183	-	-	-	2,183
573	2834	Instructional Hardware-All Other (24	-	475	-	-	-	-	16,815	-	-	-	17,290
574	2835	Instructional Software and Other Instr	9,815	310	2,333	-	-	-	3,558	-	-	1,091	17,107
575	2836	Guidance Counselors and Adjustmen	-	83,733	-	-	82,091	-	-	-	-	-	165,824
576	2900	Testing and Assessment (2720)	-	-	-	-	-	-	-	-	-	-	-
577	2901	Psychological Services (2800)	-	63,423	-	-	-	-	-	-	-	-	63,423
578	2902	TOTAL INSTRUCTION (2000)	100,412	1,239,923	118,939	-	660,705	500	-	480,213	335,323	2,209,431	5,125,446
580	2910	Attendance and Parent Liaison Services (3100)											-
581	2920	Medical/Health Services (3200)		34,200			115,389		3,147	2,725		104,857	260,328
582	2930	Transportation Services (3300)				409,654						597,043	1,006,697
583	2940	Food Services (3400)									2,493,353		2,493,353
584	2950	Athletics (3510)						64,006	300	766,154		32,383	862,823
585	2960	Other Student Body Activities (3520)											-
586	2965	School Security (3600)											-
587	2971	Custodial Services (4110)										87,222	87,222
588	2972	Heating of Buildings (4120)											-
589	2973	Utility Services (4130)											-
590	2974	Maintenance of Grounds (4210)										15,603	15,603
591	2975	Maintenance of Buildings (4220)										2,000	2,000
592	2976	Building Security System (4225)											-
593	2977	Maintenance of Equipment (4230)										1,000	1,000
594	2980	Extraordinary Maintenance (4300)											-
595	2882	Technology Infrastructure, Maintenance, and Support-Salaries (4400)											-
596	2884	Technology Infrastructure, Maintenance, and Support-All Other (4450)											-
597	2991	Employer Retirement Contributions (5	5,169	44,251	4,466								53,886

**SCHEDULE 1
REVENUE AND EXPENDITURE SUMMARY
C.2. EXPENDITURES FROM FEDERAL
GRANTS, STATE GRANTS AND
SPECIAL FUNDS**

	1	2	3	4	5	6	7	8	9	10	11	12	13	
	Federal Grants				State Grants		Revolving and Special Funds							
	Title I FC 305	IDEA FC 240	Other ESE Admin- istered	Other	ESE Admin- istered	Other	Circuit Breaker	Private Grants & Gifts	Sch Choice & Other Day Tuition	Athletic Fund	School Lunch	Other Local Receipts	Total	
2992	Employee Separation Costs (5150)												-	
2993	Insurance for Active Employees (5200)											298,426	298,426	
2994	Insurance for Retired School Employees (5250)												-	
2995	Other Non-Employee Insurance (5260)												-	
3012	Rental Lease of Equipment (5300)												-	
3014	Rental Lease of Buildings (5350)				4,095							47,350	51,445	
3022	Short Term Interest RAN's (5400)												-	
3024	Short Term Interest BAN'S (5450)												-	
3026	Other Fixed Charges (5500)												-	
3028	School Crossing Guards (5550)												-	
3030	Indirect Cost Transfers				13,936								13,936	
3042	Civic Activities And Community Services (6200)											2,341	2,341	
3044	Recreation Services (6300)												-	
3046	Health Services to Non-Public Schools (6800)												-	
3048	Transportation To Non-Public Schools (6900)											18,892	18,892	
3052	Purchase of Land & Buildings (7100, 7200)												-	
3054	Equipment (7300, 7400)										33,258	96,200	129,458	
3056	Capital Technology (7350)												-	
3058	Motor Vehicles (7500, 7600)												-	
3062	Debt Retirement/Sch Construction (8100)												-	
3064	Debt Service/Sch Construction (8200)												-	
3066	Debt Service/Educ. & Other (8400, 8600)												-	
3072	Tuition to Mass. Public Schools (9100)		3,500										3,500	
3075	Tuition to Horace Mann Charter Schools (9125)												-	
3076	Tuition to Out-of-State Schools (9200)												-	
3077	Tuition to Non-Public Schools (9300)						1,462,511		16,390				1,478,901	
3078	Tuition to Collaboratives (9400)						54,889						54,889	
3080	TOTAL GRANT & SPECIAL FUND EXPENDITURES	105,581	1,318,374	126,905	-	1,088,390	115,889	1,517,400	540,282	393,150	766,154	2,526,611	3,576,664	12,075,410

**SCHEDULE 4
SPECIAL EDUCATION EXPENDITURES
BY PLACEMENT**

**EXPENDITURES BY SCHOOL COMMITTEE,
CITY OR TOWN, AND CIRCUIT BREAKER
Instructional Services(2000)**

	1	2	3	4	5	6	7	8	9
	3-5 Yr. Olds all placements (doe032-- 30 - 48)	Age 6-21 Public School Programs (doe034-10, 20, & 40)	Age 6-21 Public Separate Day School (doe034-41)	Age 6-21 Private Separate Day School (doe034-50)	Age 6-21 Private Residential School (doe034-60)	Age 6-21 Homebound/ Hospital (doe034-70)	Age 6-21 Public Residential Institution (doe034-90)	Screening and Team Evaluation	TOTAL
994	3810	Supervisory (2100)	8,418	516,692				967,424	1,492,534
995	3815	School Building Leadership (2200)							-
996	3820	Teaching (2300)	1,008,986	9,230,056		162,346		878,473	11,279,861
997	3830	Textbooks & Instructional Equipment (2400)	15,675	137,920					153,595
998	3840	Guidance (2700)		1,109,966				239,691	1,349,657
999	3850	Psychological (2800)		13,617				436,540	450,157
1000	3860	TOTAL INSTRUCTIONAL SERVICES	1,033,079	11,008,251	-	-	162,346	-	2,522,128
1001	3870	Non-Public Health Services (6800)							-
		Payments to Other Districts (9000)							
1003	3880	Tuition to Mass. Public Schools (9100)			6,255			-	6,255
1004	3885	School Choice Tuition (9110)	-	-	-	-	-	-	-
1005	3887	Tuition to Commonwealth Charter Schools (9120)		5,423					5,423
1006	3888	Tuition to Horace Mann Charter Schools (9120)							-
1007	3890	Tuition to Out-of-State Schools (9200)			60,080	62,080			122,160
1008	3900	Tuition to Private Schools (9300)			3,846,900	718,833			4,565,733
1009	3910	Tuition to Collaboratives (9400)		1,009,543					1,009,543
1010	3920	TOTAL TUITION	-	5,423	1,015,798	3,906,980	780,913	-	5,709,114
1011	3930	EXP FROM GRANTS, REVOLVING FUNDS (NO	225,975	824,248		20,449	1,136	220,934	1,292,742
1012	3950	TOTAL EXPENDITURES	1,259,054	11,837,922	1,015,798	3,927,429	780,913	163,482	21,727,660

SCHEDULE 7

EXPENDITURES (Report Whole Dollars)					RIDERS			
1	2	3	4	5	6	7	8	9

PUPIL TRANSPORTATION REIMBURSEMENT FUNCTIONS 3300, 6900

REGULAR EDUCATION

		REIMBURSABLE		NON-REIM-BURSABLE	DEPRE-CIATION	TOTAL	REIMBURSABLE		NON-REIM-BURSABLE	TOTAL
		EXPENDITURES FOR PUPILS TRANSPORTED AT LEAST 1 1/2 MILES TO AND FROM SCHOOL					REGULAR DAY RIDERS TRANSPORTED AT LEAST 1 1/2 MILES TO AND FROM SCHOOL			
		SCHOOL TRANS VEHICLE	BY PUBLIC UTILITIES	EXPENDITURES FOR PUPILS TRANSPORTED LESS THAN 1 1/2 MILES FROM SCH	(See instructions)	(Sum of 1 thru 4)	SCHOOL TRANS VEHICLE	BY PUBLIC UTILITIES	REGULAR DAY RIDERS TRANSPORTED LESS THAN 1 1/2 MILES FROM SCHOOL	(Sum of 6 thru 8)
1024	4000	Within the District	541,750	90,089	19,038	650,877	933		120	1,053
1025	4010	Outside the District	23,665			23,665	1			1
1026	4020	To and from Regular Pre-School				-				-
1027	4040	TOTAL REGULAR EDUCATION	565,415	-	90,089	19,038	674,542	934	-	1,054

SPECIAL EDUCATION		EXPENDITURES FOR SPECIAL EDUCATION PUPILS TRANSPORTED WITHIN THE DISTRICT	EXPENDITURES FOR SPECIAL EDUCATION PUPILS TRANSPORTED OUTSIDE THE DISTRICT	DEPRECIATION (See instructions)	TOTAL EXPENDITURES (Sum of columns 1 thru 4)	SPECIAL EDUCATION RIDERS TRANSPORTED WITHIN THE DISTRICT	SPECIAL EDUCATION RIDERS TRANSPORTED OUTSIDE THE DISTRICT	TOTAL SPECIAL EDUCATION RIDERS (Sum of cols 6 and 7)	
1031	4070	3-5 yr olds, all placements (doe032)	59,179		59,179	21		21	
1032	4080	age 6-21, public school programs (doe034-10, 20, & 40)	143,721	2,349	183,902	51	5	56	
1033	4110	age 6-21, public separate day school (doe034-41)		5,706	341,647		22	22	
1034	4120	age 6-21, ages, private separate day school (doe034-50)			954,662		53	53	
1035	4130	age 6-21, private residential school (doe034-60)		1,861	1,861		1	1	
1036	4140	age 6-21, homebound/hospital (doe034-70)			-			-	
1037	4150	age 6-21, public residential institutions (doe034-90)			-			-	
1038	4160	TOTAL SPECIAL EDUCATION	202,900	1,330,296	8,055	1,541,251	72	81	153

CH 74 VOCATIONAL/TECHNICAL PROGRAMS		REIMBURSABLE		NON-REIM-BURSABLE	DEPRE-CIATION	TOTAL	REIMBURSABLE		NON-REIM-BURSABLE	TOTAL
EXPENDITURES FOR VOCATIONAL PUPILS TRANSPORTED AT LEAST 1 1/2 MILES TO & FROM SCHOOL		VOCATIONAL RIDERS TRANSPORTED AT LEAST 1 1/2 MILES TO AND FROM SCHOOL								
		SCHOOL TRANS VEHICLE	BY PUBLIC UTILITIES	EXPENDITURES FOR VOCATIONAL PUPILS TRANSPORTED < 1.5 MILES FROM SCH	(See instructions)	(Sum of 1 thru 4)	SCHOOL TRANS VEHICLE	BY PUBLIC UTILITIES	VOCATIONAL RIDERS TRANSPORTED LESS THAN 1 1/2 MILES FROM SCHOOL	(Sum of 6 thru 8)
1046	4190	Within the District				0				0
1047	4200	Outside the District				0				0

NON-PUBLIC TRANSPORTATION		REIMBURSABLE		NON-REIM-BURSABLE	DEPRE-CIATION	TOTAL	REIMBURSABLE		NON-REIM-BURSABLE	TOTAL
EXPENDITURES FOR NON-PUBLIC PUPILS TRANSPORTED AT LEAST 1 1/2 MILES TO & FROM SCHOOL		NON-PUBLIC RIDERS TRANSPORTED AT LEAST 1 1/2 MILES TO AND FROM SCHOOL								
		SCHOOL TRANS VEHICLE	BY PUBLIC UTILITIES	EXPENDITURES FOR NON-PUBLIC PUPILS TRANSPORTED < 1 1/2 MILES FRM SCH	(See instructions)	(Sum of 1 thru 4)	SCHOOL TRANS VEHICLE	BY PUBLIC UTILITIES	NON-PUBLIC RIDERS TRANSPORTED LESS THAN 1 1/2 MILES FROM SCHOOL	(Sum of 6 thru 8)
1055	4220	Within the District	16,258	2,853	612	19,723	28		4	32
1056	4230	Outside the District				-				-

SCHEDULE 7 (CONTINUED)

PUPIL TRANSPORTATION REIMBURSEMENT FUNCTIONS 3300, 6900		EXPENDITURES FOR PUPILS TRANSPORTED AT LEAST 1 1/2 MILES TO & FROM SCHOOL		EXPENDITURES FOR PUPILS TRANSPORTED LESS THAN 1 1/2 MILES FRM SCH	DEPRE- CIATION (See Instructions)	TOTAL (Sum of 1 thru 4)	RIDERS TRANSPORTED AT LEAST 1 1/2 MILES TO AND FROM SCHOOL		RIDERS TRANS- PORTED LESS THAN 1 1/2 MILES FROM SCHOOL	TOTAL (Sum of 6 thru 8)		
		SCHOOL TRANS	BY PUBLIC				SCHOOL TRANS	BY PUBLIC				
		OTHER PROGRAMS		VEHICLE	UTILITIES				VEHICLE	UTILITIES		
1065	4250	Racial Imbalance (NOT METCO)				-				-		
1066	4260	To and From Day Care Centers				-				-		
1067	4270	Other School Programs				-				-		
1068	4280	School Choice / Commonwealth Charter Schools				-				-		
1069	4283	Homeless Transportation To Outside the District				-				-		
1070	4285	Homeless Transportation From Outside the District		8,078		8,078	2			2		
1071	4286	Foster Care Transportation from Outside the District				-				-		
1073	4290	TOTALS FOR ALL PROGRAMS		792,651	1,330,296	92,942	27,705	2,243,594	1,036	81	124	1,241
		PUBLIC TRANSPORTATION AND PAYMENTS FROM REVOLVING/SPECIAL				EXPENDTURES			RIDERS			
1075	4310	PUBLIC TRANSPORTATION ASSESSMENT				-						
1076	4320	PAYMENTS FROM REVOLVING AND SPECIAL FUNDS				1,025,589		1,025,589			912	912

Schedule 18 Survey

Please answer questions 1-13 as they pertain to your district's current teacher's contract. If your contract has expired, please answer based on the scale being used this year through a memorandum of agreement or evergreen clause. **Enter NA** for any items that do not apply to

				Response
1.	What are the effective dates (start and end dates) of your current teacher's contract?	Start (m/d/yy)		9/1/16
		End (m/d/yy)		6/30/19
2.	What are the annual negotiated salary increases (% COLA) provided for in your current teacher contract? Provide all relevant years.	FY17		1.5%
		FY18		2.0%
		FY19		2.3%
		FY20		n/a
3.	Please provide the number of lanes in your current teacher salary schedule.	N lanes		8
4.	What are the lowest step, step 5, and top step salary amounts (\$/year) for the bachelors, masters, and highest lane in your FY19 teacher salary schedule? Do not include longevity or other credits.	Lowest step	Bachelors	\$50,089.00
			Masters	\$53,844.00
			Highest	\$61,870.00
		Step 5	Bachelors	\$60,184.00
			Masters	\$64,730.00
			Highest	\$73,370.00
		Highest step	Bachelors	\$74,714.00
			Masters	\$94,347.00
			Highest	\$105,704.00
5.	What is your teacher's contractual hourly rate (\$/hour) for work beyond the school day?			n/a
6.	What is your district's pay rate for daily, long-term, and retired teacher substitutes (\$/day)?	Daily		\$117.30
		Long-term		\$161.57 (21-92 days), \$247.11(93-172days), placed on scale at 180days
		Retirees		\$161.57 (21-92 days), \$247.11(93-172days), placed on scale at 180days
7.	Please provide the number of days specified in your teacher contract or otherwise in the following categories:	Teacher work year		183.0
		Instructional year		180.0
		Early release		16.0
8.	Please provide the number of early release days for professional development:			16.0
9.	Please provide the number of sick days, personal days, and max accumulation of sick days provided in your current teacher's contract:	N sick days		14
		N personal days		2
		Max accumulation		225

Schedule 18 Survey

Please answer questions 1-13 as they pertain to your district's current teacher's contract. If your contract has expired, please answer based on the scale being used this year through a memorandum of agreement or evergreen clause. Enter **NA** for any items that do not apply to

				Response
10.	Based on the health insurance plans that are available in your district, what are your district's highest and lowest <u>employer</u> shares for health insurance for active and retired employees?	Employer share:	Highest %	76.5% Indiv, 69.0% Family
		Active employees	Lowest %	50% Indiv, 50% Family
		Employer share:	Highest %	76.5% Indiv, 69.0% Family
		Retired employees	Lowest %	50% Indiv, 50% Family
11.	Did you change accounting system software in the past year			No
12.	If yes, what accounting system does your district now use (please indicate what software version)?			Infinite Visions
13.	For municipal districts, is this the same accounting software package used by the city or town?			Yes

Excess Cost Calculator 34 CFR §300.16

Introduction

Local educational agencies (districts) receiving a federal grant under the Individuals with Disabilities Education Act (IDEA) Part B sections 611 (Fund Code 240) and 619 (Fund Code 262) funds are required to follow certain requirements when accepting the federal IDEA funds: one requirement is the calculation and use of IDEA Part B section 611 and 619 funds for excess costs.

Definition

Excess costs are those costs for the education of elementary school or secondary school students with disabilities that are in excess of the aggregated average annual per-pupil expenditure in a district during the preceding school year. A district must spend at least a minimum average amount on the education of elementary school or secondary school children with disabilities, calculated separately, before (or concurrently with, see note below) IDEA Part B section 611 and 619 funds can be used to pay for the excess costs of providing special education and related services.

Compliance

Excess cost must be calculated by the beginning of each school year to determine the minimum amount an LEA must spend for the education of students with disabilities before they use IDEA Part B section 611 and 619 funds. The district must maintain accurate records and meet the excess cost requirements by: calculating average cost per student for elementary and secondary school students separately (see note below re: distinguishing elementary and secondary expenses), spending at least the minimum average amount per student with a disability before (or concurrently with, see note below) using IDEA Part B section 611 and 619 funds, and ensure that the excess costs are specific to special education needs and allowable under IDEA Part B section 611 and 619 grant requirements. If a district determines that they will not or have not met the excess cost requirements, they must notify the Massachusetts Department Elementary and Secondary Education (DESE) and will be subject to repayment of IDEA Part B section 611 and 619 federal funds. The district should maintain all supporting documentation for its calculation of excess cost for future follow up by the Audit and Compliance unit.

Links

[Conedy](#)

[Neubauer](#)

Note: The United States Department of Education, Office of Special Education Programs (OSEP) has determined that the LEA does not need to expend the aggregated average per pupil expenditure prior to expending its IDEA Part B section 611 and 619 funds; as long as the LEA expends at least the required amount by the end of the school year, it can expend IDEA Part B section 611 and 619 funds concurrently with its general educational funds.
See OSEP: Letter to Kennedy and OSEP: Letter to Plagata-Neubauer.

Exceptions

If no local or state funds are available for non-disabled children ages 3-5 and 18-21, then the excess cost requirement does not apply to students with disabilities in those age ranges. The district must however comply with the non-supplanting and other requirements for providing the education and services to those students with disabilities.

Links

[00.16](#)

[00.202\(a\)\(b\)](#)

[Appendix A to Part 3](#)

Calculating Excess Cost

DESE has created the Excess Cost Calculator (below) for district to use to calculate the minimum amount of funds to be spent in FY20 for elementary and secondary school students before (or concurrently with) using IDEA Part B section 611 and 619 funds.

Federal Guidance: Excess Cost Requirements: 34 CFR 300.16; Use of Amounts: 34 CFR 300.202(a)(b); Excess Costs Calculation: 34 CFR Appendix A to Part 300; Office of Special Education Programs (OSEP): Letter to Kennedy and Letter to Plagata-Neubauer.

Distinguishing elementary and secondary students

The calculator should be completed with requested expenditure and enrollment information for all students in grades K-12 (not pre-kindergarten), divided into elementary and secondary categories.

Massachusetts student learning time regulations define an elementary school as a school providing instruction to grades 1 through 5, 6, 7, or 8, and, where so designated by a school committee prior to the commencement of a school year, may also include a middle school or other intermediate level school providing instruction to grades 5 through 8 or any combination thereof.

A secondary school is defined as a school providing instruction to grades 6 through 12, or any combination of those grades, except where a school committee, prior to the commencement of the school year, has designated a middle or other intermediate level school providing instruction to grades 5 through 8, or any combination thereof, as an elementary school.

Within these definitions (and including kindergarten as elementary), your district has some flexibility to distinguish elementary from secondary students, as long as the categories are reasonable and consistent across schools and from year to year. For example, your district may include all expenditures for students in grades K-6 in elementary and those for students in grades 7-12 in the elementary category, as long as this is consistent for all students in those grades regardless of which school they attend. Please indicate below how your district has defined each group by grade.

Allocating expenditures between elementary and secondary students

- Districts should use actual expenditure information to separate elementary from secondary expenses (most districts -- it is not permissible to lump all school system expenditures and pro-rate based solely on elementary and secondary enrollment).
- While all K-12 expenditures should be included in these calculations, a district's expenditures for purposes outside of K-12 should not be included (i.e., adult education or preschool).
- When expenditures represent staff or services to both elementary and secondary students, work assignments should be used to allocate costs as accurately as possible.
- Where separating or distinguishing an expenditure between elementary and secondary students cannot be achieved as described above, the district may determine a reasonable method of allocation, which should be memorialized and retained for audit purposes.

Links

[001. Proportionate Share, Allowable Costs, and Other IDEA Fiscal Topics](#)

[is between IDEA LEA MOE A Excess Cost Requirements](#)

Districts should contact DESE's Audit and Compliance office with questions about allocating expenditures (Caitlin Hogan, chogan@doe.mass.edu).

Elementary students (Example: Grades K to 5)	Grades ___ to ___	Secondary Students (Example: Grades 6 to 12)	Grades ___ to ___
---	-------------------	---	-------------------

Excess Cost Calculation

	Elementary Grades_K_ to _5_	Secondary Grades _6_ to _12_
A. Total Expenditures from all sources	\$59,448,468.00	\$73,148,118.00
B. Total Capital Outlay and Debt Services	\$11,493,907.00	\$13,056,905.00
C. Total IDEA, Part B Expenditures	\$713,048.00	\$380,404.00 *
D. Total Title I, Part A Expenditures	\$89,043.00	\$16,533.00 **
E. Total Title III, Parts A & B Expenditures	\$15,997.00	\$11,269.00
F. State/Local funds for students with disabilities	\$9,812,733.00	\$11,147,117.00
G. State/Local funds for Title I and Title III programs	\$262,074.00	\$297,713.00
Total Debt and Expenditures (Lines B-G)	\$22,386,802.00	\$24,909,941.00
Total Expenditures from all sources minus Total Debt and Expenditures	\$37,061,666.00	\$48,238,177.00
H. Total Enrollment Elementary or Secondary Students (October 2018 SIMS)	2640	2999
Average Annual Expenditure per Student	\$14,038.51	\$16,084.75
I. Estimated Students with an IEP in 2019-2020 school year	344	534
J. Minimum annual aggregate expenditure to be spent on the education of students with disabilities in FY20 before using IDEA Part B funds	\$4,829,247.39	\$8,589,258.59

EOYR Validation Check
Please review, does not tie to EOYR
Please review, does not tie to EOYR
Please review, does not tie to EOYR
Please review at the district level
Please review, does not tie to EOYR
Please review at the district level
Please review, does not tie to total student enrollment

(Please note, this validation is not a check of your districts Elementary / Secondary allocation methodology)

SPED Data enrollment as of 10.1.18

5,721

SCHEDULE 19

ANNUAL SCHOOL BUDGET
2019 - 2020

1	2	3	4	5	6
REGULAR DAY	SPECIAL EDUCATION	CH 74 VOC-ATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB-UTED	TOTAL

A.1 APPROPRIATION BY SCHOOL COMMITTEE

7010	Administration(1000)				3,428,882	3,428,882
7030	Instruction (2000)	41,618,614	15,136,565		5,804,437	62,559,616
7040	Student Services (3100,3200)				1,065,373	1,065,373
7050	Public Transportation (3300)	789,152	1,622,988			2,412,140
7060	Food Service (3400)					-
7070	Student Body Activities (3510,3520)				913,599	913,599
7075	School Security (3600)					-
7080	Operations and Maintenance (4000)				912,229	912,229
7090	Extraordinary Maintenance (4300)					-
7100	Employer Retirement Contributions (5100)				14,500	14,500
7105	Employee Separation Costs (5150)				60,094	60,094
7110	Insurance for Active Employees (5200)					-
7120	Insurance Retired School Employees (5250)					-
7130	Other Non Employee Insurance (5280)					-
7140	Rent (5300)					-
7150	Debt Service-Short Term Interest RAN's (5400)					-
7155	Debt Service-Short Term Interest RAN's (5460)					-
7160	Other Flood Charges (5500)					-
7165	School Crossing Guards (5600)					-
7170	Other Community Services (6000)					-
7180	Non-Public Transportation (6900)	24,020				24,020
7190	Fixed Assets (7000)				4,750	4,750
7200	Long-Term Debt Retirement/Sch Construction (8100)					-
7210	Long-Term Debt Service/Sch Construction (8200)					-
7220	Long-Term Debt Service/Educ & Other (8400,8800)					-
7280	Tuition to Mass. Public Schools (9100)	28,255	5,000			33,255
7285	School Choice Tuition (9110)	-	-			-
7290	Tuition to Commonwealth Charter Schools (9120)	-	-			-
7295	Tuition to Horace Mann Charter Schools (9125)	-	-			-
7296	Charter Transportation Tuition (9130)	-	-			-
7300	Tuition to Out-of-State Schools (9200)		61,282			61,282
7305	Tuition to Non-Public Schools (9300)		3,567,578			3,567,578
7310	Tuition to Collaboratives (9400)		948,446			948,446
7320	TOTAL APPROPRIATION BY SCHOOL COMMITTEE	42,460,041	21,341,859	-	12,203,864	76,005,764

SCHEDULE 19

ANNUAL SCHOOL BUDGET
2019 - 2020

1	2	3	4	5	6
REGULAR DAY	SPECIAL EDUCATION	CH 74 VOCATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB-UTED	TOTAL

A.2 ESTIMATED EXPENDITURES BY CITY/TOWN

7400	General Administrative Services (1000)				1,715,479	1,715,479
7420	Educational Media (2340, 2415)					-
7430	Pupil Support Services (3100,3200)					-
7440	Pupil Transportation (3300)					-
7445	School Security (3600)					-
7450	Operations and Maintenance (4000)				8,490,384	8,490,384
7460	Extraordinary Maintenance (4300)					-
7470	Employer Retirement Contributions (5100)				5,167,202	5,167,202
7475	Employee Separation Costs (5150)					-
7480	Insurance for Active Employees (5200)				11,606,654	11,606,654
7490	Insurance Retired School Employees (5250)				1,912,230	1,912,230
7500	Other Non-Employee Insurance (5260)				178,228	178,228
7510	Rent (5300)					-
7515	Debt Service-Short Term Interest RAN's (5400)					-
7620	Debt Service-Short Term Interest RAN's (6480)				76,897	76,897
7630	Other Fixed Charges (6500)					-
7638	School Crossing Guards (5550)				200,153	200,153
7640	Other Community Services (8000)					-
7650	Non-Public Transportation (8500)					-
7680	Fixed Assets (7880)				6,251,738	6,251,738
7670	Long Term Debt Retirement/ Sch Construction (8100)				8,632,000	8,632,000
7680	Long Term Debt Service/ Sch Construction (8200)				2,552,773	2,552,773
7640	Long Term Debt Service/ Educ & Oper (8400, 8500)				560,650	560,650
7645	Tuition to Mass. Public Schools (9100)					-
7650	School Choice Tuition (9110)	42,860	-	-		42,860
7655	Tuition to Commonwealth Charter Schools (9120)	101,325	7,627			108,952
7660	Tuition to Horace Mann Charter Schools (9125)					-
7661	Charter Transportation Tuition (9130)					-
7665	Tuition to Out-of-State Schools (9200)					-
7670	Tuition to Non-Public Schools (9300)					-
7675	Tuition to Collaboratives (9400)					-
7680	Regional School Assessments (9500)				1,084,783	1,084,783
7690	TOTAL EXPENDITURES BY CITY/TOWN	144,185	7,627	-	-	48,429,171
7750	TOTAL ESTIMATED EXPENDITURES	42,604,226	21,349,486	-	-	60,633,035

Did your district use the per pupil administrative cost average in determining the amount on line 7400 General Administrative Services? Please insert an "X" in either Yes or No.

YES NO

SCHEDULE 19

ANNUAL SCHOOL BUDGET
2019 - 2020

1	2	3	4	5	6
REGULAR DAY	SPECIAL EDUCATION	CH 74 VOCATIONAL/ TECHNICAL	OTHER PROGRAMS	UNDISTRIB-UTED	TOTAL

B. ESTIMATED REVENUES-GENERAL FUND
REVENUES FROM LOCAL SOURCES FY20

7800	Assessments Received by Regional Schools					-
7810	Excess & Deficiency Fund Approp					-
7820	Tuition From Individuals					-
7830	Tuition From Other Districts in Comm.					-
7840	Tuition From Districts in Other States					-
7850	Transportation Fees					-
7860	Earnings on Investments					-
7870	Rental of School Facilities					-

7880	Other General Fund Revenue		15,212				15,212
7890	Medical Card and Assistance		193,151				193,151
7900	Non Revenue Receipts					340,262	340,262
7910	TOTAL REVENUE FROM LOCAL SOURCES	-	208,363	-	-	340,262	548,625

8572	Employee Separation Costs (5150)	29,390	-	-	-	-	-	-	-	-	-	29,390
8575	Insurance for Active Employees (5200)	2,000	10,344,191	-	-	-	-	-	-	-	298,426	10,644,617
8580	Insurance for Retired School Employees (5250)	-	1,912,230	-	-	-	-	-	-	-	-	1,912,230
8585	Other Non-Employee Insurance (5260)	-	152,852	-	-	-	-	-	-	-	-	152,852
8590	Rental Lease of Equipment (5300)	-	-	-	-	-	-	-	-	-	-	-
8595	Rental Lease of Buildings (5350)	-	-	-	4,095	-	-	-	-	-	47,350	51,445
8600	Short Term Interest RAN's (5400)	-	-	-	-	-	-	-	-	-	-	-
8605	Short Term Interest BAN'S (5450)	-	91,395	-	-	-	-	-	-	-	-	91,395
8610	Other Fixed Charges (5500)	-	12,204	-	-	-	-	-	-	-	-	12,204
8612	School Crossing Guards (5550)	-	168,981	-	-	-	-	-	-	-	-	168,981
8615	Indirect Cost Transfers	-	-	-	13,936	-	-	-	-	-	-	13,936
8620	Civic Activities and Community Services (6200)	-	-	-	-	-	-	-	-	-	2,341	2,341
8625	Recreation Services (6300)	-	-	-	-	-	-	-	-	-	-	-
8630	Health Services to Non-Public Schools (6800)	-	-	-	-	-	-	-	-	-	-	-
8635	Transportation To Non-Public Schools (6900)	19,110	-	-	-	-	-	-	-	-	18,892	38,002
8640	Purchase of Land & Buildings (7100, 7200)	-	18,288,989	-	-	-	-	-	-	-	-	18,288,989
8645	Equipment (7300, 7400)	7,817	126,967	-	-	-	-	-	33,258	96,200	-	264,242
8650	Capital Technology (7350)	34,213	285,188	-	-	-	-	-	-	-	-	319,401
8655	Motor Vehicles (7500, 7600)	-	35,099	-	-	-	-	-	-	-	-	35,099
8660	Debt Retirement/Sch Construction (8100)	-	4,412,000	-	-	-	-	-	-	-	-	4,412,000
8665	Debt Service/Sch Construction (8200)	-	1,313,839	-	-	-	-	-	-	-	-	1,313,839
8670	Debt Service/Educ. & Other (8400, 8600)	-	274,250	-	-	-	-	-	-	-	-	274,250
8675	Tuition to Mass. Schools (9100)	31,334	-	3,500	-	-	-	-	-	-	-	34,834
8680	School Choice Tuition (9110)	-	41,325	-	-	-	-	-	-	-	-	41,325
8685	Tuition to Commonwealth Charter Schools (9120)	-	77,472	-	-	-	-	-	-	-	-	77,472
8690	Tuition to Horace Mann Charter Schools (9120)	-	-	-	-	-	-	-	-	-	-	-
8695	Tuition to Out-of-State Schools (9200)	122,160	-	-	-	-	-	-	-	-	-	122,160
8700	Tuition to Non-Public Schools (9300)	3,103,222	-	-	-	1,462,511	-	16,390	-	-	-	4,582,123
8705	Tuition to Collaboratives (9400)	954,653	-	-	-	54,889	-	-	-	-	-	1,009,542
8710	Regional School Assessment (9500)	-	914,236	-	-	-	-	-	-	-	-	914,236
8715	TOTAL EXPENDITURES, ALL FUNDS	71,513,669	52,179,229	1,550,860	1,204,289	1,517,400	540,282	393,150	766,154	2,528,611	3,576,664	135,768,308

	FY19 Net School Spending 199 Needham	School Committee	City or Town		Total
10	1. Administration (1000)	2,995,948	1,679,354	<FY19 Budget	4,675,302
11	2. Instruction (2000)	58,860,254	-	<FY19 Budget	58,860,254
12	3. Attendance-Health (3100, 3200)	957,882	-	<FY19 Budget	957,882
13	4. Food Services (3400)	-	-		-
14	5. Athletics/Student Activities/ Security (3500)	780,027	-		780,027
15	6. Maintenance (4000)	1,404,381	8,215,324	<FY19 Budget	9,619,705
16	7. Employee Benefits (5100)	43,890	4,639,662		4,683,552
17	8. Insurance (5200)	2,000	10,497,043		10,499,043
18	9. Retired Employee Insurance (5250)	-	1,912,230		1,912,230
19	10. Rentals (5300)	-	-	<FY19 Budget	-
20	11. Short Term Interest RAN's (5400)	-	-		-
21	12. Tuition (9000)	4,211,369	115,225		4,326,594
22	13. Total School Spending (1 through 12)	69,255,751	27,058,838		96,314,589
23	14. School Revenues				
24	14a) FY19 School Revenues	36,195		<FY19 Budget	36,195
25	14b) FY19 Charter Reimbursement		20,645		20,645
26	14c) Subtotal, School Revenues (14a+14b)	36,195	20,645		56,840
27					
28	15. Net School Spending (13 - 14c)	69,219,556	27,038,193		96,257,749
29	16. FY19 Required Net School Spending				56,435,154
30	17. FY18 Carry-Over Into FY19				-
31	18. Total FY19 Requirement (16 + 17)				56,435,154
32	19. Unexpended Net School Spending (18 - 15)				0
33	20. Percent Unexpended (19 / 16)				0.00%
34	21. FY19 Carry-Over (19 or 5% of 16 or 0 if 17 > 0)				0
35	22. Penalty (19 - 21)				0

Was Retired Employee Health Insurance
Included in Schedule 19
of the FY93 End-of-Year Report?

YES X
NO

Carryforward	234,857
Total Required NSS FY18	54,000,177
Actual NSS FY18	90,906,778
Amt Over/Under	36,906,601
New Amount Over/Under	36,671,744
Allowable Carryforward	-
SC Revenues Budgeted for FY19	36,195

	FY20 Budgeted Net School Spending 199 Needham	School Committee	City or Town	Total
40	23. Administration (1000)	3,428,882	1,715,479	5,144,361
41	24. Instruction (2000)	62,559,616	-	62,559,616
42	25. Attendance-Health (3100, 3200)	1,065,373	-	1,065,373
43	26. Food Services (3400)	-	-	-
44	27. Athletics/Student Activities/ Security (3500)	913,599	-	913,599
45	28. Maintenance (4000)	912,229	8,490,384	9,402,613
46	29. Employee Benefits (5100)	74,594	5,167,202	5,241,796
47	30. Insurance (5200)	-	11,784,882	11,784,882
48	31. Retired Employee Insurance (5250)	-	1,912,230	1,912,230
49	32. Rentals (5300)	-	-	-
50	33. Short Term Interest RAN's (5400)	-	-	-
51	34. Tuition (9000)	4,610,561	148,060	4,758,621
52	35. Total School Spending (23 through 34)	73,564,854	29,218,237	102,783,091
53	36. Revenues			
54	36a) FY20 Budgeted School Revenues	15,212		15,212
55	36b) Projected FY20 Charter Reimbursement (Local District)		17,693	17,693
56	36c) Subtotal, Net School Spending Revenues	15,212	17,693	32,905
57				
58	37. Net School Spending (35 - 36)	73,549,642	29,200,544	102,750,186
59	38. FY20 Required Net School Spending			59,699,044
60	39. Carry-Over Into FY20 (21)			-
61	40. Total FY20 Requirement (38 + 39)			59,699,044
62	41. Deficiency (40 - 37)			-

	FY17	FY18	FY19	Change FY18-FY19		
Schedule 1 - IIB City and Town Expenditures						
110 Extraordinary Maintenance (4300) (line 1990, col 6)	0	0	0	0.00%		
111 Employer Retirement Contributions (5100) (line 2000, col 6)	4,106,173	4,333,679	4,639,662	7.06%		
112 Employee Separation Costs (5150) (line 2007, col 6)	0	0	0	0.00%		
113 Insurance for Active Employees (5200) (line 2010, col 6)	9,208,785	9,923,641	10,344,191	4.24%		
114 Insurance for Retired School Employees (5250) (line 2020, col 6)	1,751,956	1,917,913	1,912,230	-0.30%		
115 Other Non-Employee Insurance (5260) (line 2030, col 6)	143,158	144,073	152,852	6.09%		
116 Short-Term Interest RAN's (5400) (line 2060, col 6)	0	0	0	0.00%		
117 Short-Term Interest - BAN's (5450) (line 2065, col 6)	96,578	27,826	91,395	228.45%		
118 Other Fixed Charges (5500) (line 2070, col 6)	14,099	11,449	12,204	6.59%		
119 Purchase of Land and Buildings (7100, 7200) (line 2100, col 6)	1,801,019	3,470,284	18,288,989	427.02%		OK
120 Long-Term Debt Retirement/Sch Construction (8100) (line 2130)	4,502,000	4,469,000	4,412,000	-1.28%		
121 Long-Term Debt Service/Sch Construction (8200) (line 2140, col 6)	1,443,780	1,465,453	1,313,839	-10.35%		
122 Long-Term Debt Service/Educ & Other (8400,8600) (line 2200)	0	756,223	274,250	-63.73%		OK
123 Tuition to Mass. Public Schools (9100) (line 2210, col 6)	35,852	17,390	0	-100.00%		
124 School Choice Tuition (9110) (line 2220, col 6)	43,673	41,749	41,325	-1.02%		
125 Tuition to Commonwealth Charter Schools (9120) (lines 2230, col 6)	26,812	51,498	77,472	50.44%		
126 Tuition to Horace Mann Charter Schools (9125) (line 2235, col 6)	0	0	0	0.00%		
127 Tuition to Out-of-State Schools (9200) (line 2240, col 6)	0	0	0	0.00%		
128 Tuition to Non-Public Schools (9300) (line 2250, col 6)	0	0	0	0.00%		
129 Tuition to Collaboratives (9400) (line 2260, col 6)	0	0	0	0.00%		
130 Regional School Assessment (9500) (line 2270, col 6)	766,061	801,331	914,236	14.09%		
131 Total Expenditures by City or Town (line 2290, col 6)	32,041,973	36,595,836	52,179,229	42.58%		OK
Schedule C2 Expenditures From Grants & Special Funds						
133 Total, ESE Administered Federal Grants (line 3080, cols 1, 2, 3)	1495980	1471576	1,550,860	5.39%		
134 Total, Other Federal Grants (line 3080, col 4)	32,833	40,418	0	-100.00%		
135 Total, ESE Administered State Grants (line 3080, col 5)	1,013,738	1,046,267	1,088,390	4.03%		
136 Total, Other State Grants (line 3080, col 6)	121,360	115,899	115,899	0.00%		
137 Total, Circuit Breaker (line 3080, col 7)	967,465	1,447,087	1,517,400	4.86%		
138 Total, Private Grants and Gifts (line 3080, col 8)	314,596	467,714	540,282	15.52%		
139 Total, School Choice and Other Day Tuition (line 3080, col 9)	654,953	377,458	393,150	4.16%		
140 Total, Athletics and Other Student Activities (line 3080, col 10)	803,931	629,362	766,154	21.74%		
141 Total, School Lunch (line 3080, col 11)	2,525,772	2,469,819	2,526,611	2.30%		
142 Total, Other Local Receipts (line 3080, col 12)	2,589,026	3,351,706	3,576,664	6.71%		
Schedule 2 Assessments Received From Members						
144 Total Assessments Received from Members (line 3370, col 6)	0	0	0	0.00%		

Comparison of Selected Data Items Reported in FY17 through FY19 (continued)

	FY17	FY18	FY19	Change FY18-FY19		
Schedule 3 Instruction Expenditures, School Committee						
149 Curriculum Directors (Supervisory) (2110) (line 3409, col 6)	1,192,505	3,264,026	2,935,157	-10.08%		
150 Department Heads (Non-Supervisory) (2120) (line 3419, col 6)	-	363,148	238,390	-34.35%		OK
151 Instructional Technology Leadership and Training (2130) (line 3427, col 6) *	-	-	-	-		
152 School Leadership-Building (2210) (line 3434, col 6)	3,479,542	3,722,223	3,858,186	3.65%		
153 Curriculum Leaders/Department Heads-Building Level (2220)	1,381,954					

205 Short Term Interest-BAN's (5450) (line 7155, col 6)	0	0	0	0.00%
206 Other Fixed Charges (5500) (line 7160, col 6)	0	0	0	0.00%
207 Fixed Assets (7000) (line 7190, col 6)	4,750	4,750	4,750	0.00%
208 Long-Term Debt Retirement/Sch Construction (8100) (line 7200, col 6)	0	0	0	0.00%
209 Long-Term Debt Service/Sch Construction (8200) (line 7210, col 6)	0	0	0	0.00%
210 Long-Term Debt Service/Educ and Other (8400, 8600) (line 7220, col 6)	0	0	0	0.00%
211 Payments to Other Districts (9100, 9200, 9300) (lines 7280, 7290)	3,368,190	3,653,003	3,662,115	0.25%
212 School Choice/Charter Schools (9110, 9120, 9125) (lines 7285, 7295)	0	0	0	0.00%
213 Charter Transportation Tuition (9130) (line 7296, col 6) *			0	
214 Payments to Collaboratives (9400) (line 7310, col 6)	569,368	464,362	948,446	104.25%
215 Total Appropriation by School Committee (line 7320, col 6)	68,350,083	71,105,943	76,005,764	6.89%

	OK

Comparison of Selected Data Items Reported in FY17 through FY19 (continued)

Schedule 19 Annual School Budget 2018, 2019 and 2020

	FY17 EOY (FY18 Sch 19)	FY18 EOY (FY19 Sch 19)	FY19 EOY (FY20 Sch 19)	Chg FY19 Sch 19- FY20 Sch 19
Estimated Expenditures by City/Town				
221 General Administrative Services (1000) (line 7400, col 6)	1,656,467	1,679,354	1,715,479	2.15%
222 Educational Media (2340, 2415) (line 7420, col 6)	0	0	0	0.00%
223 Pupil Transportation (3300) (line 7440, col 6)	0	0	0	0.00%
224 Operations and Maintenance (4000) (line 7450, col 6)	6,768,143	8,215,324	8,490,384	3.35%
225 Extraordinary Maintenance (4300) (line 7460, col 6)	0	0	0	0.00%
226 Employer Retirement Contributions (5100) (line 7470, col 6)	4,460,258	4,791,462	5,167,202	7.84%
227 Employee Separation Costs (5150) (line 7475, col 6)	0	0	0	0.00%
228 Insurance for Active Employees (5200) (line 7480, col 6)	9,971,000	11,277,620	11,606,654	2.92%
229 Insurance for Retired School Employees (5250) (line 7490, col 6)	1,751,956	1,917,913	1,912,230	-0.30%
230 Other Non-Employee Insurance (5260) (line 7500, col 6)	144,073	144,073	178,228	23.71%
231 Debt Service - Short-Term Interest RAN's (5400) (line 7515, col 6)	0	0	0	0.00%
232 Short Term Interest-BAN's (5450) (line 7520, col 6)	27,359	91,395	76,897	-15.86%
233 Fixed Assets (7000) (line 7560, col 6)	5,231,891	7,630,842	6,251,738	-18.07%
234 Long-Term Debt Retirement/Sch Construction (8100) (line 7570, col 6)	4,469,000	8,487,000	8,632,000	1.71%
235 Long-Term Debt Service/Sch Construction (8200) (line 7580, col 6)	1,756,676	1,313,839	2,552,773	94.30%
236 Long-Term Debt Service/Educ and Other (8400, 8600) (line 7590, col 6)	0	739,250	560,650	-24.16%
237 Payments to Other Districts (9100, 9200, 9300) (lines 7645, 7655)	37,286	18,086	0	-100.00%
238 School Choice/Charter Schools (9110, 9120, 9125) (lines 7650, 7660)	75,347	138,462	151,812	9.64%
239 Charter Transportation Tuition (9130) (line 7661, col 6) *			0	
240 Payments to Collaboratives (9400) (line 7675, col 6)	0	0	0	0.00%
241 Regional School Assessments (9500) (line 7680, col 6)	806,252	914,236	1,084,783	18.65%
242 Total Expenditures by City/Town (line 7690, col 6)	37,355,861	47,559,009	48,580,983	2.15%

Please review and correct any reporting errors	Select OK if the reported data is correct
	OK

B. Estimated Revenues From Local Sources

244 Total Revenue From Local Sources (line 7910, col 6)	593,173	568,679	548,625	-3.53%
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C. Regional School Districts' Approved Budgets

247 Total Assessments Received From Members (line 8270, col 6)	0	0	0	0.00%
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D. Average Teacher Salary FY17 through FY19

FY17	FY18	FY19	Change FY18-FY19

Please review and correct any reporting errors	Select OK if the reported data is correct

250 Total Teacher Salaries	34,871,960	38,854,017	38,686,034	-0.43%
251 N of FTE Teachers	389.1	408.2	407.4	-0.20%
252 Average Teacher Salary	89,627	95,184	94,958	-0.24%

E. Title I Maintenance of Effort

	FY17	FY18	FY19	FY19 % of FY18
255 Total Expenditures (If FY19 is < 90% of FY18, MOE is not met)	83,425,593	93,541,178	97,685,299	95.76%

F. IDEA Maintenance of Effort

	FY17	FY18	FY19	FY19 % of FY18
258 Total Expenditures (If FY19 is < 100% of FY18, MOE is not met)	20,050,340	21,023,343	22,172,618	94.82%



NEEDHAM PUBLIC SCHOOLS

ASSISTANT SUPERINTENDENT FOR FINANCE & OPERATIONS
ANNE GULATI
1330 HIGHLAND AVENUE * NEEDHAM, MA 02492
781-455-0400 EXT. 11206 * 781-455-0417 (FAX)

November 1, 2019

To: Needham School Committee
From: Anne Gulati Director of Financial Operations
RE: FY 21-35 *Preliminary* Projected Enrollment Update

Recently, McKibben Demographic Associates issued preliminary enrollment projections for the fifteen-year period of FY 2020/21 – 2034/35. These projections update the estimates developed in November, 2018 and were developed according to the Memorandum of Understanding between Boards, which called for prior consultation with the Board of Selectmen and Finance Committee prior to the development of the projections. These results are preliminary only, because they do not reflect official October 1, 2019 enrollment counts.

Summary of Results:

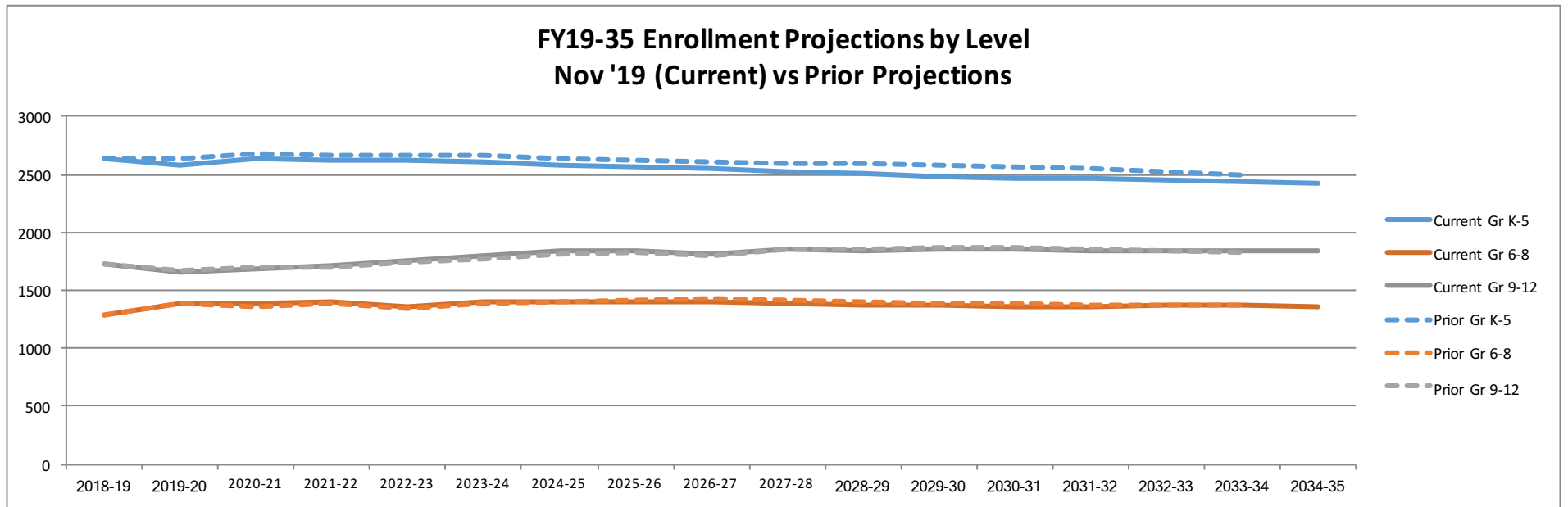
The updated results, which are depicted in the charts on the following pages, reflect the following broad observations:

- 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. This projection differs from last year, which was for slight growth overall, at a rate of about 0.06%/year (or 0.9% overall.)
- 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.

McKibben Demographics																								Cum Change	Cum Change	Cum Change
Nov-19 Best Series	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	
Enrollment																										
Gr K-5	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	1,298	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	1,582	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	5,439	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)	
Annual Inc/(Dec)																										
Gr K-5	40	(37)	20	10	41	48	(54)	47	(16)	-	(13)	(21)	(12)	(25)	(22)	(21)	(19)	(13)	(11)	(13)	(16)	(4)				
Gr 6-8	(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	20	49	41	(13)	26	37	(59)	21	27	42	47	41	5	(28)	45	(18)	4	1	(10)	3	(5)	1				
Total	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	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	Cum Change FY20-34	Cum Change FY20-25	Cum Change FY25-34	
Current (2019)																										
PreK	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	2,559	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		(155)	(3)	(152)	
Gr 6-8	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		(21)	7	(28)	
Gr 9-12	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		175	178	(3)	
PreK-Total	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		(1)	182	(183)	
Prior (2018)																										
PreK	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	2,559	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		(141)	7	(148)	
Gr 6-8	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		(7)	19	(26)	
Gr 9-12	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		158	138	20	
PreK-Total	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		10	164	(154)	
Variance																										
PreK	-	-	-	-	-	-	(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)					
Gr 6-8	-	-	-	-	-	-	11	23	16	15	10	(1)	(19)	(30)	(24)	(17)	(11)	(22)	(14)	(10)	(3)					
Gr 9-12	-	-	-	-	-	-	(7)	(9)	9	7	31	33	22	21	7	(14)	(25)	(24)	(17)	3	10					
PreK-Total	-	-	-	-	-	-	(50)	(35)	(26)	(35)	(25)	(32)	(52)	(76)	(97)	(131)	(146)	(151)	(125)	(85)	(61)					

- The 'best' enrollment projection also reflects the impact of the two newly-built residential housing complexes in Needham: the Modera (at 700 Greendale Avenue in the Broadmeadow District) and the Kendrick (at 275 2nd Avenue in the Eliot District.) According to the leasing offices at both locations, the Modera fully opened for occupancy in January 2019 and is now 87% occupied, while the Kendrick was fully opened for occupancy in July 2018, and is now 50% occupied. In addition, the 'best' projection includes a new 16-unit housing complex under Town review, at 1180 Great Plan Avenue, in the Newman district. This development would convert a retirement home to eight one-bedroom units and eight two-bedroom units. (This unit is projected to come on line and generate students in 2023.) These new developments are 'baked' into the 'best' enrollment projections. Given the fact that both the Kendrick and Modera fully opened for

occupancy later than McKibben had originally anticipated (in July 2017), the full enrollment impact of these two developments is now extended to 2024/25.

Best - Low - High Projections:

Needham Public Schools PreK-12 Total Enrollment, Nov '19: LOW - BEST - HIGH Projection																						
McKibben Demographics																						
Nov-19 Projections	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
LOW SERIES	5,523	5,547	5,586	5,588	5,664	5,728	5,717	5,778	5,809	5,807	5,879	5,894	5,886	5,827	5,836	5,791	5,770	5,749	5,731	5,727	5,711	5,704
BEST SERIES	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	5,706
Inc/(Dec) Over Low	-	-	-	-	-	-	-	-	-	-	2	5	8	11	12	13	13	11	10	8	5	2
HIGH SERIES	5,523	5,547	5,586	5,588	5,664	5,728	5,717	5,778	5,809	5,807	5,881	5,899	5,897	5,857	5,878	5,847	5,840	5,829	5,815	5,813	5,796	5,783
Inc/(Dec) Over Best	-	-	-	-	-	-	-	-	-	-	-	-	3	19	30	43	57	69	74	78	80	77
Inc/(Dec) Over Low	-	-	-	-	-	-	-	-	-	-	2	5	11	30	42	56	70	80	84	86	85	79

- Consistent with the parameters developed with the Future School Needs Committee, the aforementioned enrollment projection represents a 'best' estimate, which includes only new development that is either under construction or at the review/permitting stage. These new developments include the existing Modera and Kendrick complexes, as well as the 1180 Great Plan project that is currently under review. The low projection, by contrast, includes only existing residential units (including the Kendrick and Modera), and excludes projects not yet built (such as 1180 Great Plain.) The high projection, by contrast, includes all existing and prospective development, including development that is at the conceptual planning stage, such as the 250-unit planned Residential Overlay project in the Eliot neighborhood.
- The above table compares the best, low and high projection series.

Individual School District Projections:

- The district and individual school detail results are presented on the following pages. The school-age population in the Broadmeadow district reflects the (delayed) impact of additional students coming from the Modera development, as well as a slowdown in existing home sales, compared to last year. The Eliot School enrollment reflects the (also delayed) impact of the Kendrick development. The Williams and Mitchell Schools continue previous trends, with a slowdown in existing home sales projected at Mitchell. The Newman projection includes the potential new 1180 Great Plain development, offset by fewer existing home sales. The secondary school projections reflect the impact of existing students moving through the system.

Study Assumptions:

The preliminary projections are based the following general assumptions:

1. The provisional and final 'best' population estimates are based on existing and new development, which is either under construction or at the review/ permitting stage (permitted or about to be permitted.) The 'high' forecast includes additional prospective development in the conceptual planning stages. The 'low' forecast includes only existing housing units.
2. Method of analysis remains cohort-component method of population forecasting.
3. Assumed student generation rates from new development: 1-bdrm: 0 students/ unit; 2-bdrm: 0.1 students/unit; 3-bdrm: 0.15 students/unit.
4. Economic parameters assumed over the life of the forecast: 30-year fixed mortgage interest rate stays below 5%, the metro area unemployment rate stays below 4.5%, existing home sales held constant at a minimum of 230 per year.
5. New development:
 - a. Modera: Opened Jan 2019, Brodmeadow District. 136 Units: 19 1-bedroom, 103 2-bedroom, 14 3-bedroom. Total of 62 students projected over the six-year period FY20-25. Existing construction.
 - b. Kendrick: Opened July 2019, Eliot District. 390 Units: 202 1-bedroom, 149 2-bedroom, 39 3-bedroom. Total of 124.5 students projected over the six-year period FY20-25. Existing construction.
 - c. 1180 Great Plan: 16 Units: 8 1-bedroom, 8 2-bedroom. Total of 8 students projected FY24-FY27. Under Town review.
 - d. Residential Overlay: 250 Units: 125 1-bedroom, 100 2-bedroom, 25 3-bedroom. Total of 82.5 students projected over the six-year period FY26-31. Conceptual development.

ALG/alg

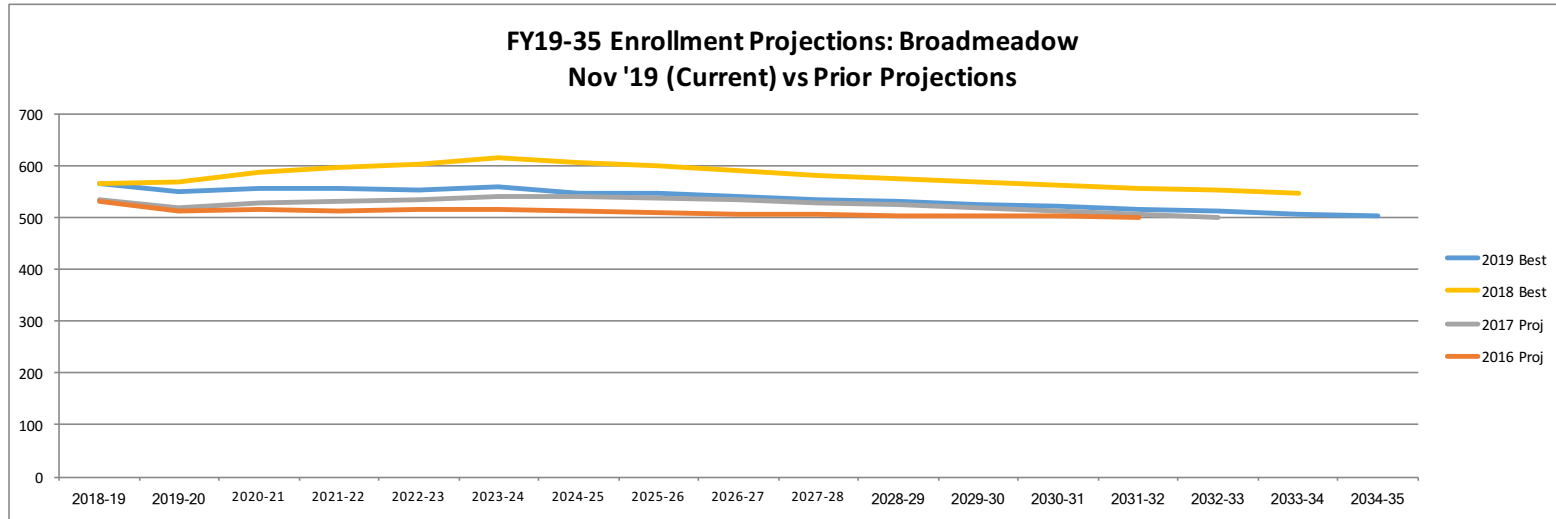
Attachment(s)

Needham Public Schools Total Summary

Needham Public Schools Total Enrollment																	
DISTRRICT McKibben "Best" Prelim Nov '19	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
PK	83	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
K	412	391	410	408	404	402	398	395	390	387	382	383	378	376	373	371	380
1	430	436	420	423	421	417	414	409	406	401	398	392	390	385	383	380	378
2	434	441	448	433	435	433	429	426	420	418	413	411	406	406	401	399	396
3	460	434	448	455	439	443	442	438	436	431	429	424	423	420	420	414	412
4	413	463	440	454	460	445	449	448	442	441	435	435	432	432	429	429	423
5	492	422	468	445	459	465	452	456	453	447	447	440	443	442	442	439	439
Total: K-5	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
6	450	499	430	477	454	470	477	463	467	464	458	458	453	456	455	455	452
7	440	460	504	434	482	459	468	475	461	465	462	456	456	455	461	457	457
8	392	433	451	494	425	472	454	463	470	456	460	460	454	454	453	459	455
Total: 7-8	832	893	955	928	907	931	922	938	931	921	922	916	910	909	914	916	912
9	450	380	437	456	499	429	479	461	470	477	461	465	465	461	461	460	466
10	428	453	376	433	451	494	425	474	456	465	472	456	463	463	459	459	458
11	404	421	448	372	429	446	489	421	469	451	460	467	454	461	461	457	457
12	436	403	417	444	368	425	442	484	417	464	446	455	462	449	456	456	452
SP	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Total: 9-12	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
Total: K-12	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
Total PreK-12	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	5,706
Change	64	-11	61	31	-2	74	18	-5	-56	10	-44	-21	-23	-19	-6	-19	-10
% Change	1.1%	-0.2%	1.1%	0.5%	0.0%	1.3%	0.3%	-0.1%	-1.0%	0.2%	-0.8%	-0.4%	-0.4%	-0.3%	-0.1%	-0.3%	-0.2%

A SCHOOL AND COMMUNITY PARTNERSHIP THAT
 CREATES EXCITED LEARNERS ~ INSPIRES EXCELLENCE ~ FOSTERS INTEGRITY

Broadmeadow Elementary



BROADMEADOW

McKibben "Best"

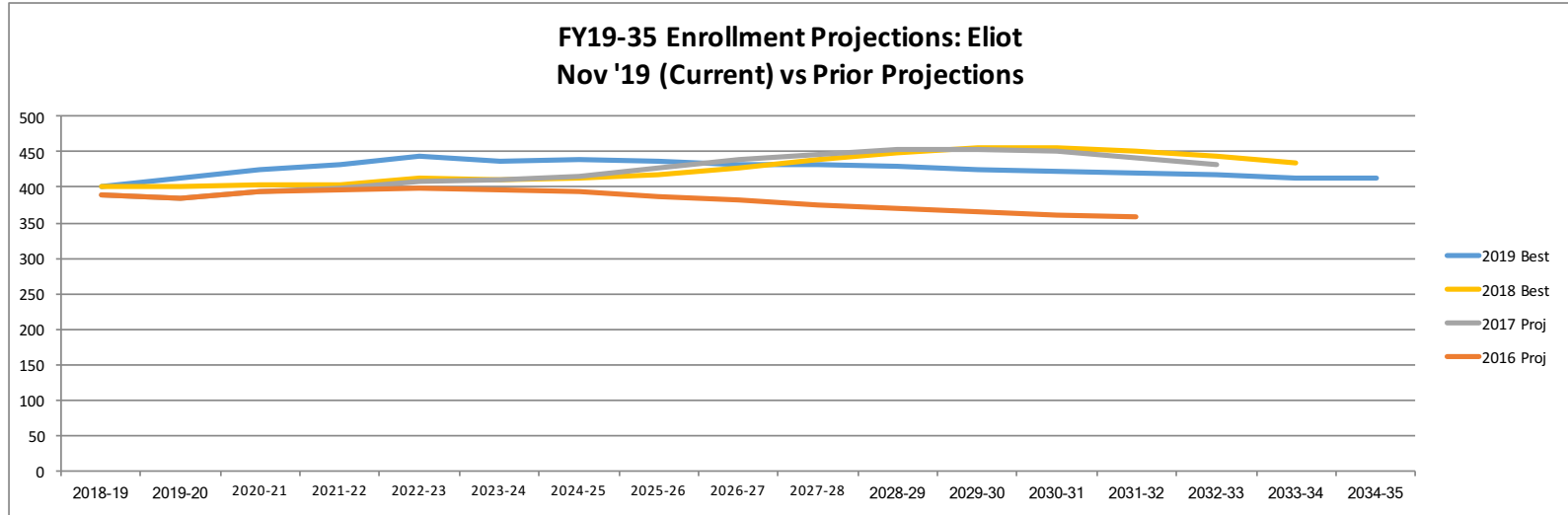
Prelim Nov '19	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
K	97	77	86	86	85	84	84	83	82	81	80	79	79	78	78	77	78
1	83	102	86	89	89	88	87	87	86	85	84	82	81	81	80	80	79
2	95	84	105	89	92	92	91	90	90	89	88	87	84	84	84	83	83
3	96	95	86	107	91	95	95	94	94	94	93	92	90	88	88	87	86
4	86	97	96	87	108	92	96	96	93	93	93	92	93	91	89	89	88
5	109	93	98	97	88	109	93	97	95	92	92	92	93	94	92	90	90
Total K-5	566	548	557	555	553	560	546	547	540	534	530	524	520	516	511	506	504
Change	23	-18	9	-2	-2	7	-14	1	-7	-6	-4	-6	-4	-4	-5	-5	-2
% Change	4.2%	-3.2%	1.6%	-0.4%	-0.4%	1.3%	-2.5%	0.2%	-1.3%	-1.1%	-0.7%	-1.1%	-0.8%	-0.8%	-1.0%	-1.0%	-0.4%

McKibben

Prelim Nov '19	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
Low	566	548	557	555	553	560	546	547	540	534	530	524	520	516	511	506	504
Best	566	548	557	555	553	560	546	547	540	534	530	524	520	516	511	506	504
Inc/(Dec) Over Low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
High	566	548	557	555	553	560	546	547	540	534	530	524	520	516	511	506	504
Inc/(Dec) Over Best	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

A SCHOOL AND COMMUNITY PARTNERSHIP THAT
 CREATES EXCITED LEARNERS ~ INSPIRES EXCELLENCE ~ FOSTERS INTEGRITY

Eliot Elementary

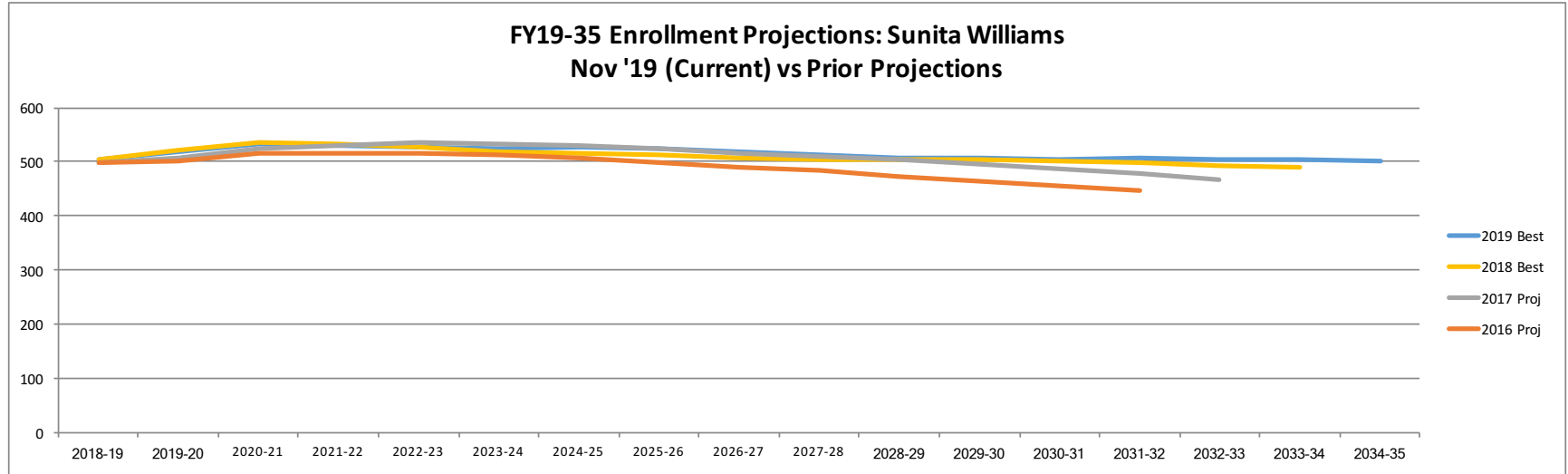


ELIOT																	
McKibben "Best"																	
Prelim Nov '19	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
K	60	64	70	70	69	69	69	69	68	67	66	65	64	64	63	63	65
1	70	67	71	72	72	71	71	70	70	69	68	67	66	65	65	64	64
2	59	75	70	74	74	73	72	72	71	72	71	70	70	69	68	68	67
3	68	61	77	72	75	75	74	73	73	73	74	73	72	72	71	70	70
4	69	73	63	79	73	76	76	75	74	75	74	75	74	74	74	73	72
5	76	72	74	64	80	74	77	77	76	75	77	75	77	76	76	76	75
Total: K-5	402	412	425	431	443	438	439	436	432	431	430	425	423	420	417	414	413
Change	9	10	13	6	12	-5	1	-3	-4	-1	-1	-5	-2	-3	-3	-3	-1
% Change	2.3%	2.5%	3.2%	1.4%	2.8%	-1.1%	0.2%	-0.7%	-0.9%	-0.2%	-0.2%	-1.2%	-0.5%	-0.7%	-0.7%	-0.7%	-0.2%

McKibben																	
Prelim Nov '19	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
Low	402	412	425	431	443	438	439	436	432	431	430	425	423	420	417	414	413
Best	402	412	425	431	443	438	439	436	432	431	430	425	423	420	417	414	413
Inc/(Dec) Over Low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
High	402	412	425	431	443	438	439	439	451	460	469	475	478	471	461	451	442
Inc/(Dec) Over Best	-	-	-	-	-	-	-	3	19	29	39	50	55	51	44	37	29

A SCHOOL AND COMMUNITY PARTNERSHIP THAT
CREATES EXCITED LEARNERS ~ INSPIRES EXCELLENCE ~ FOSTERS INTEGRITY

Williams Elementary



WILLIAMS

McKibben "Best"

Prelim Nov '19	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
K	76	83	83	82	82	82	81	80	79	79	78	78	77	77	76	76	77
1	86	80	87	86	85	85	84	83	82	81	81	80	80	79	79	78	78
2	90	92	83	90	89	88	88	87	85	84	83	84	83	83	82	82	81
3	88	93	93	84	91	90	90	90	89	87	86	85	86	86	86	85	85
4	76	92	94	94	85	92	91	91	91	90	88	89	88	89	89	89	88
5	87	78	93	95	95	86	94	93	93	93	92	90	91	92	93	93	93
Total: K-5	503	518	533	531	527	523	528	524	519	514	508	506	505	506	505	503	502
Change	16	15	15	-2	-4	-4	5	-4	-5	-5	-6	-2	-1	1	-1	-2	-1
% Change	3.3%	3.0%	2.9%	-0.4%	-0.8%	-0.8%	1.0%	-0.8%	-1.0%	-1.0%	-1.2%	-0.4%	-0.2%	0.2%	-0.2%	-0.4%	-0.2%

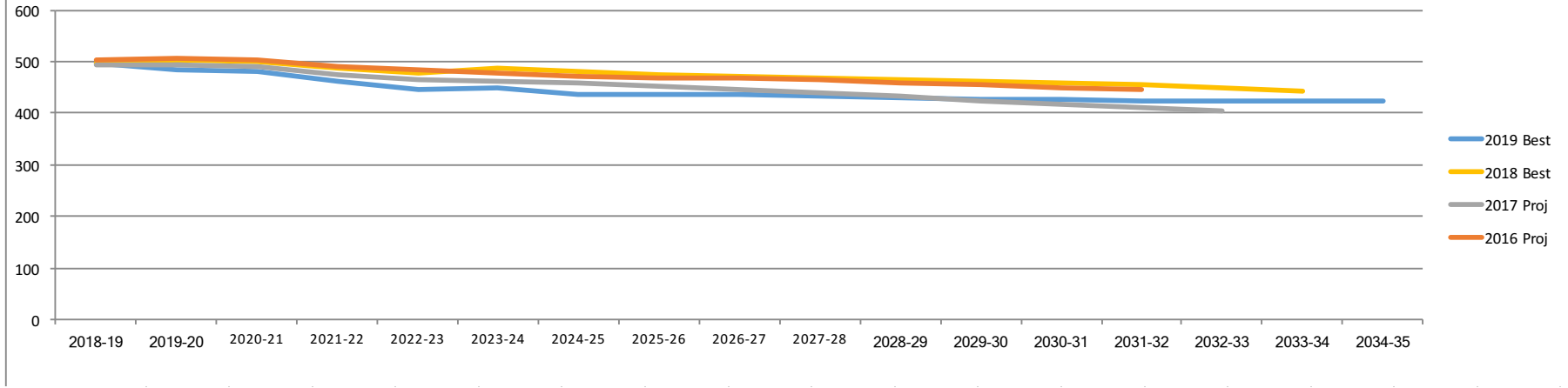
McKibben

Prelim Nov '19	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
Low	503	518	533	531	527	523	528	524	519	514	508	506	505	506	505	503	502
Best	503	518	533	531	527	523	528	524	519	514	508	506	505	506	505	503	502
Inc/(Dec) Over Low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
High	503	518	533	531	527	523	528	524	519	514	508	506	505	506	505	503	502
Inc/(Dec) Over Best	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

A SCHOOL AND COMMUNITY PARTNERSHIP THAT
CREATES EXCITED LEARNERS ~ INSPIRES EXCELLENCE ~ FOSTERS INTEGRITY

Mitchell Elementary

FY17-34 Enrollment Projections: Mitchell Nov '18 (Current) vs Prior Projections



MITCHELL

McKibben "Best"

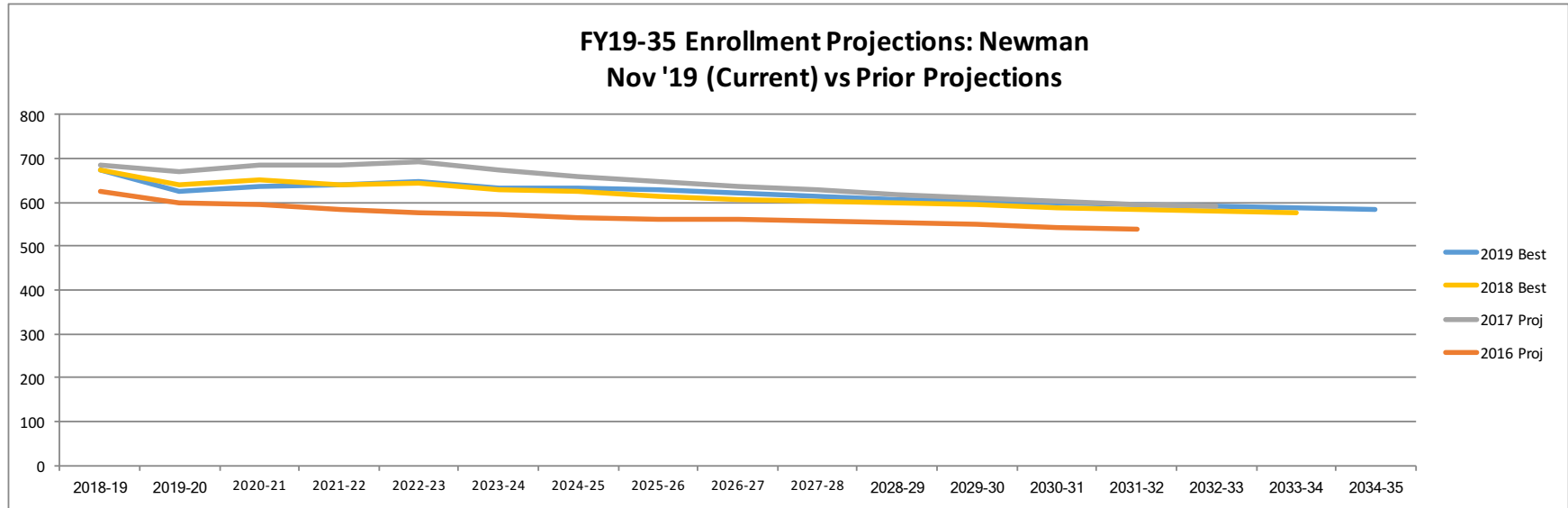
Prelim Nov '19	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
K	78	65	70	70	69	69	68	68	67	67	66	67	66	66	65	65	68
1	69	83	71	72	72	71	71	70	70	69	69	68	68	67	67	66	66
2	88	70	85	72	73	74	73	73	72	72	71	71	71	71	70	70	69
3	94	88	71	86	73	74	75	74	74	73	73	72	73	73	73	72	72
4	86	94	89	72	87	74	75	76	75	75	74	74	73	74	74	74	73
5	81	84	95	90	73	88	75	76	77	76	76	75	75	74	75	75	75
Total K-5	496	484	481	462	447	450	437	437	435	432	429	427	426	425	424	422	423
Change	-2	-12	-3	-19	-15	3	-13	0	-2	-3	-3	-2	-1	-1	-1	-2	1
% Change	-0.4%	-2.4%	-0.6%	-4.0%	-3.2%	0.7%	-2.9%	0.0%	-0.5%	-0.7%	-0.7%	-0.5%	-0.2%	-0.2%	-0.2%	-0.5%	0.2%

McKibben

Prelim Nov '19	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
Low	496	484	481	462	447	450	437	437	435	432	429	427	426	425	424	422	423
Best	496	484	481	462	447	450	437	437	435	432	429	427	426	425	424	422	423
Inc/(Dec) Over Low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
High	496	484	481	462	447	450	437	437	435	432	429	427	426	425	424	422	423
Inc/(Dec) Over Best	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

A SCHOOL AND COMMUNITY PARTNERSHIP THAT
CREATES EXCITED LEARNERS ~ INSPIRES EXCELLENCE ~ FOSTERS INTEGRITY

Newman Elementary



NEWMAN

McKibben "Best"

Prelim Nov '19	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
K	101	102	101	100	99	98	96	95	94	93	92	94	92	91	91	90	92
1	122	104	105	104	103	102	101	99	98	97	96	95	95	93	92	92	91
2	102	120	105	108	107	106	105	104	102	101	100	99	98	99	97	96	96
3	114	97	121	106	109	109	108	107	106	104	103	102	102	101	102	100	99
4	96	107	98	122	107	111	111	110	109	108	106	105	104	104	103	104	102
5	139	95	108	99	123	108	113	113	112	111	110	108	107	106	106	105	106
Total K-5	674	625	638	639	648	634	634	628	621	614	607	603	598	594	591	587	586
Change	2	-49	13	1	9	-14	0	-6	-7	-7	-7	-4	-5	-4	-3	-4	-1
% Change	0.3%	-7.3%	2.1%	0.2%	1.4%	-2.2%	0.0%	-0.9%	-1.1%	-1.1%	-1.1%	-0.7%	-0.8%	-0.7%	-0.5%	-0.7%	-0.2%

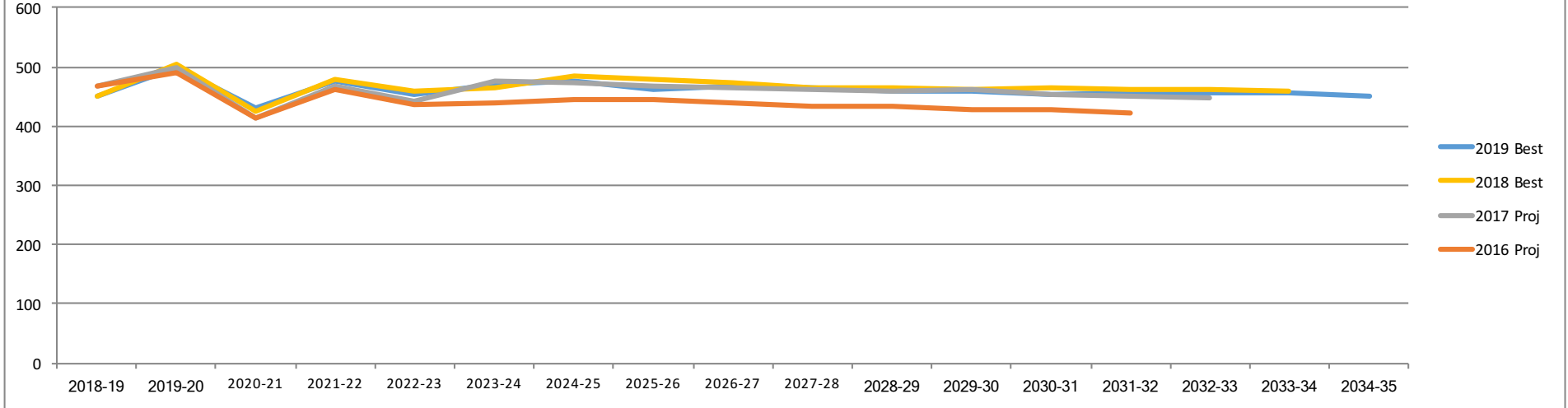
McKibben

Prelim Nov '19	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
Low	674	625	638	639	648	632	629	621	613	607	602	600	597	594	591	587	585
Best	674	625	638	639	648	634	634	628	621	614	607	603	598	594	591	587	586
Inc/(Dec) Over Low	-	-	-	-	-	2	5	7	8	7	5	3	1	-	-	-	1
High	674	625	638	639	648	634	634	628	621	614	607	603	598	594	591	587	586
Inc/(Dec) Over Best	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

A SCHOOL AND COMMUNITY PARTNERSHIP THAT
CREATES EXCITED LEARNERS ~ INSPIRES EXCELLENCE ~ FOSTERS INTEGRITY

High Rock Middle

FY19-35 Enrollment Projections: High Rock Nov '19 (Current) vs Prior Projections



HIGH ROCK

McKibben "Best"

Prelim Nov '19	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
6	450	499	430	477	454	470	477	463	467	464	458	458	453	456	455	455	452
Total: 6	450	499	430	477	454	470	477	463	467	464	458	458	453	456	455	455	452
Change	0	49	-69	47	-23	16	7	-14	4	-3	-6	0	-5	3	-1	0	-3
% Change	0.0%	10.9%	-13.8%	10.9%	-4.8%	3.5%	1.5%	-2.9%	0.9%	-0.6%	-1.3%	0.0%	-1.1%	0.7%	-0.2%	0.0%	-0.7%

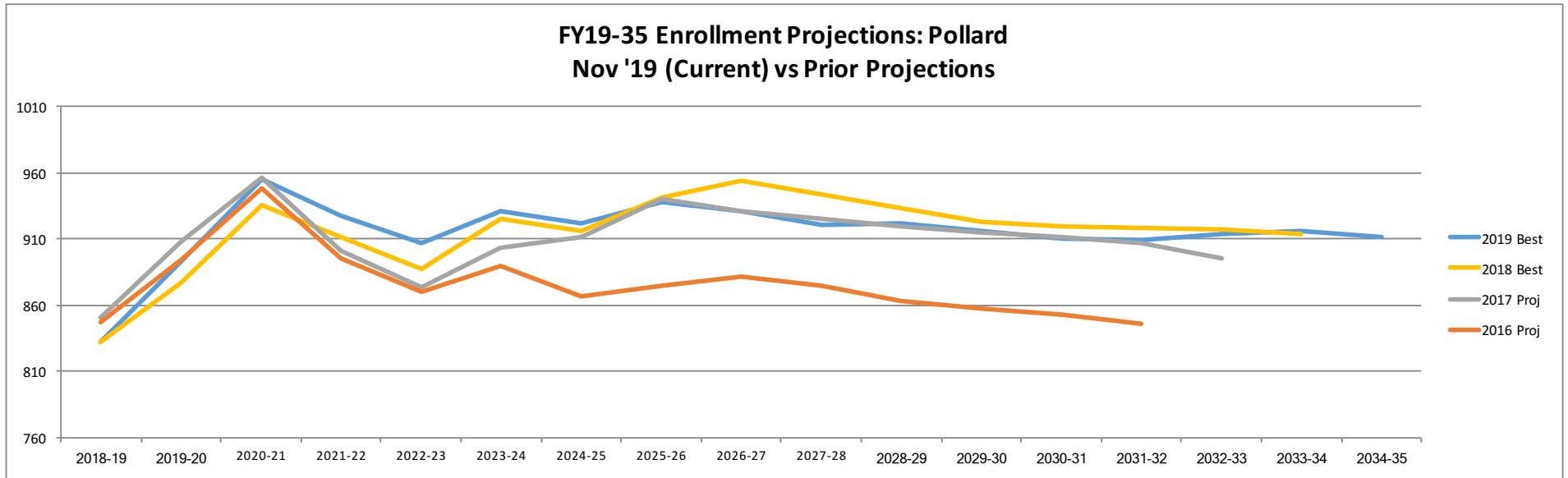
McKibben

Prelim Nov '19	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
Low	450	499	430	477	454	470	477	462	465	462	455	456	453	456	456	456	454
Best	450	499	430	477	454	470	477	463	467	464	458	458	453	456	455	455	452
Inc/(Dec) Over Low	-	-	-	-	-	-	-	1	2	2	3	2	-	-	(1)	(1)	(2)
High	450	499	430	477	454	470	477	463	467	465	461	461	460	465	466	464	458
Inc/(Dec) Over Best	-	-	-	-	-	-	-	-	-	1	3	3	7	9	11	9	6

A SCHOOL AND COMMUNITY PARTNERSHIP THAT
CREATES EXCITED LEARNERS ~ INSPIRES EXCELLENCE ~ FOSTERS INTEGRITY

Pollard Middle

FY19-35 Enrollment Projections: Pollard Nov '19 (Current) vs Prior Projections



POLLARD

McKibben "Best"

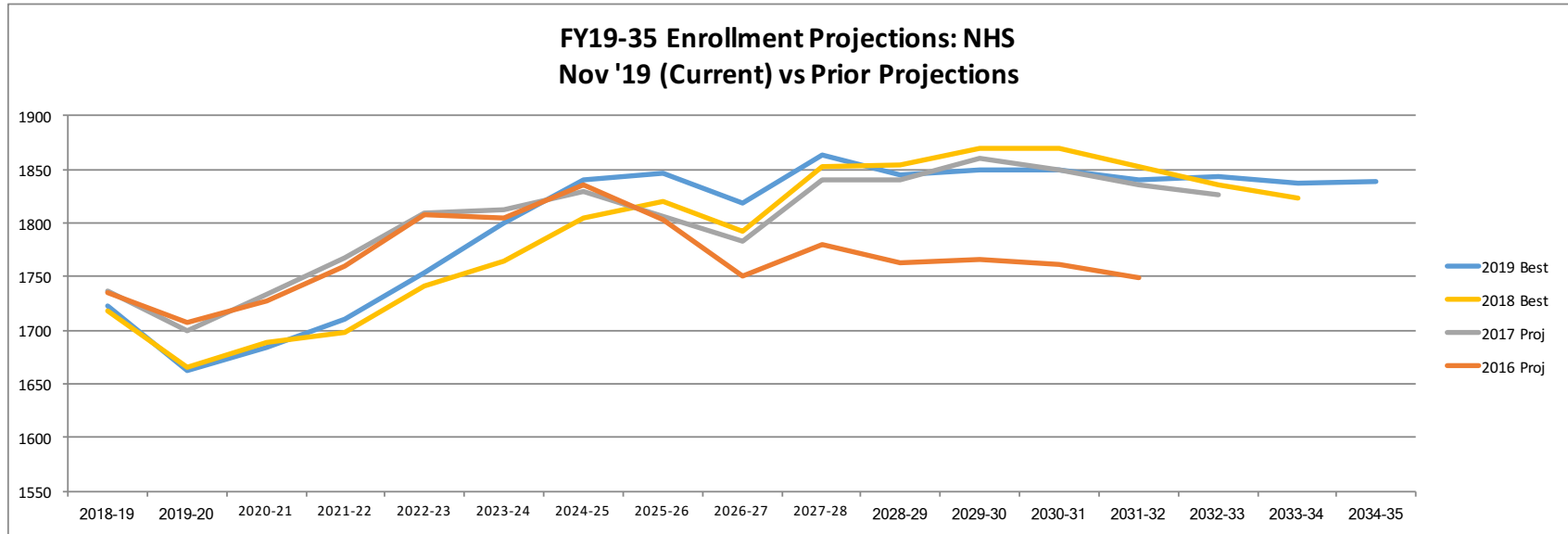
Prelim Nov '19	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
7	440	460	504	434	482	459	468	475	461	465	462	456	456	455	461	457	457
8	392	433	451	494	425	472	454	463	470	456	460	460	454	454	453	459	455
Total: 7-8	832	893	955	928	907	931	922	938	931	921	922	916	910	909	914	916	912
Change	-22	61	62	-27	-21	24	-9	16	-7	-10	1	-6	-6	-1	5	2	-4
% Change	-2.6%	7.3%	6.9%	-2.8%	-2.3%	2.6%	-1.0%	1.7%	-0.7%	-1.1%	0.1%	-0.7%	-0.7%	-0.1%	0.6%	0.2%	-0.4%

McKibben

Prelim Nov '19	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
Low	832	893	955	928	907	931	922	938	930	918	918	911	905	907	914	917	914
Best	832	893	955	928	907	931	922	938	931	921	922	916	910	909	914	916	912
Inc/(Dec) Over Low	-	-	-	-	-	-	-	-	1	3	4	5	5	2	-	(1)	(2)
High	832	893	955	928	907	931	922	938	931	921	923	920	916	919	930	936	932
Inc/(Dec) Over Best	-	-	-	-	-	-	-	-	-	-	1	4	6	10	16	20	20

A SCHOOL AND COMMUNITY PARTNERSHIP THAT
CREATES EXCITED LEARNERS ~ INSPIRES EXCELLENCE ~ FOSTERS INTEGRITY

Needham High



NHS																	
McKibben "Best"																	
Prelim Nov '19	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
9	450	380	437	456	499	429	479	461	470	477	461	465	465	461	461	460	466
10	428	453	376	433	451	494	425	474	456	465	472	456	463	463	459	459	458
11	404	421	448	372	429	446	489	421	469	451	460	467	454	461	461	457	457
12	436	403	417	444	368	425	442	484	417	464	446	455	462	449	456	456	452
Post Grad	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Total: 9-12	1722	1663	1684	1711	1753	1800	1841	1846	1818	1863	1845	1849	1850	1840	1843	1838	1839
Change	37	-59	21	27	42	47	41	5	-28	45	-18	4	1	-10	3	-5	1
% Change	2.2%	-3.4%	1.3%	1.6%	2.5%	2.7%	2.3%	0.3%	-1.5%	2.5%	-1.0%	0.2%	0.1%	-0.5%	0.2%	-0.3%	0.1%

McKibben																	
Prelim Nov '19	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
Low	1722	1663	1684	1711	1753	1800	1841	1846	1818	1863	1844	1846	1845	1832	1834	1831	1834
Best	1722	1663	1684	1711	1753	1800	1841	1846	1818	1863	1845	1849	1850	1840	1843	1838	1839
Inc/(Dec) Over Low	-	-	-	-	-	-	-	-	-	-	1	3	5	8	9	7	5
High	1722	1663	1684	1711	1753	1800	1841	1846	1818	1863	1845	1849	1851	1844	1850	1852	1861
Inc/(Dec) Over Best	-	-	-	-	-	-	-	-	-	-	-	-	1	4	7	14	22

A SCHOOL AND COMMUNITY PARTNERSHIP THAT
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NEEDHAM SCHOOL COMMITTEE

Agenda Item #: _____

Date: November 5, 2019

Item Title: **Disposal of Surplus: Newman Elementary School**

Item Description: This request is to dispose of the following equipment which are either obsolete, non-functioning, or the repair cost exceeds the value of the equipment.

From Newman Elementary School

- 1 Old Shed
- 3 Old Picnic Tables

Issues: Chapter 30B Section 16 of the Massachusetts General Laws permits a governmental body to dispose of a tangible supply no longer useful to the governmental body, but having a resale or salvage value, at less than the fair market value to a charitable organization that has received a tax exemption from the United States by reason of its charitable nature. Chapter 30B Section 15 and Needham School Policy #DN, further authorize the disposal of surplus school property, other than real estate, having a net value of less than \$10,000 through the exercise of sound business practices by the Procurement Officer.

Recommendation/Options: That the Needham School Committee be informed of the disposal to the Town Transfer Station of the aforementioned surplus equipment in accordance with MGL 30B Section 15 & 16 by the Procurement Officer.

Rationale:

Implementation Implications:

Supporting Data: None.

School Committee (circle one)

Action	Information	Discussion	Consent Calendar
Central Administrator	Town Counsel	Sub-Committee:	_____

Will report back to School Committee (date): _____

Respectfully Submitted,
Anne Gulati
Assistant Superintendent for Finance and Operations