Addressing the Achievement Gap in Special Education
How is an Achievement Gap determined?

- Students with disabilities who receive special education services are viewed as a ‘sub-group’ when State assessment data is collected.

- When their achievement results are compared to that of their general education peers, the difference between their scores is referred to as an **Achievement Gap**.
Addressing the Achievement Gap in Special Education

2014 MCAS data shows the percentage of Milton students who scored at the Proficient or Advanced levels.

<table>
<thead>
<tr>
<th>2014 MCAS Subject</th>
<th>MPS SpEd Prof/Ad</th>
<th>MPS GenEd Prof/Ad</th>
<th>Achievement Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA</td>
<td>40%</td>
<td>88%</td>
<td>48 % pts</td>
</tr>
<tr>
<td>Math</td>
<td>33%</td>
<td>83%</td>
<td>50 % pts</td>
</tr>
<tr>
<td>Science</td>
<td>37%</td>
<td>70%</td>
<td>33 % pts</td>
</tr>
</tbody>
</table>

Compared to general education students, there is an Achievement Gap.
Addressing the Achievement Gap in Special Education

The following questions were posed to Administration:

1. What is the district doing to close this Achievement Gap in Special Education?
2. What Research is available to address this issue?
3. What is the district’s plan moving forward?
4. What are the expected outcomes?
5. What resources are needed?
To fully address these questions, we first need to understand:

- What defines this subgroup?
- What kinds of disabilities do Milton students have?
- What level of support and specially designed instruction are needed to enable these students to better access the curriculum?
What defines the subgroup ‘Students with Disabilities’?

Only students who have IEPs are counted in this sub group

- Students have Individual Education Programs (IEPs) specifically because they have a disability that impacts their ability to access the curriculum.
- Students with disabilities that do not interfere with their access to the curriculum are not on IEPs.
- When students with disabilities demonstrate that they CAN access the curriculum without specially designed instruction, they no longer require IEPs.
- A very small number of students with the most significant disabilities, about 1% statewide, take the MCAS Alternate Assessment.
## Addressing the Achievement Gap in Special Education

### What kinds of disabilities do Milton students have?

<table>
<thead>
<tr>
<th>Disability</th>
<th>MPS</th>
<th>Disability</th>
<th>MPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>105</td>
<td>Neurological</td>
<td>40*</td>
</tr>
<tr>
<td>Specific Learning Disability</td>
<td>96*</td>
<td>Developmental Delay (3-9 years)</td>
<td>46</td>
</tr>
<tr>
<td>Health</td>
<td>76</td>
<td>Intellectual</td>
<td>34*</td>
</tr>
<tr>
<td>Autism</td>
<td>65*</td>
<td>Physical</td>
<td>4</td>
</tr>
<tr>
<td>Emotional</td>
<td>41*</td>
<td>Sensory-Hearing</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sensory- Vision</td>
<td>4</td>
</tr>
</tbody>
</table>

*additional students in Out of District placements
Addressing the Achievement Gap in Special Education

What kinds of disabilities do Milton students have?

“The disabled population is clearly not monolithic. Across virtually any dimension that can be examined, we find significant differences in outcomes and experiences. Nonetheless, students with disabilities are often discussed by the public and treated by policy as if they were a homogenous group with a common set of capabilities and needs.

The next generation of educational policy and practice should be guided by a more enlightened understanding of diversity within the population of individuals with disabilities.”

(Educational Research Center- 2008)
What level of support and specially designed instruction is needed to enable these students to better access the curriculum?

- This is a very broad question due to the differences between disabilities and the unique nature of each student.
- Different disabilities vary widely in their needs for specific interventions.
- Within each disability, there is a range of severity which influences the level of supports each individual student requires.

Thus the need for Individual Education Programs (IEPs)
Addressing the Achievement Gap in Special Education

1. What has the district been doing to close the Achievement Gap in Special Education?

Six strategies were identified by the National Education Association (NEA) to address the Achievement Gap,

1. Engage Students' Families
2. Intervene Early
3. Target Current Resources, and Seek Adequate Funding
4. Provide Comprehensive Support to Students
5. Build a School Environment that Supports Learning
6. Build Classroom Environments that Support Learning
1. What has the district been doing to close the Achievement Gap in Special Education?

**NEA’s recommendations**

A number of focused initiatives were able to be implemented funded by the school’s budget, the supplementary Advancement Budget and the generosity of the Milton Foundation for Education.

Milton families are actively engaged through their PTO’s, Parents Councils and Special Education Parent Advisory Council.
1. **What has the district been doing to close the Achievement Gap in Special Education?**

**Increased Inclusion**

We have shifted our practice to increase Special Education students’ exposure/access to grade level curriculum, which is aligned to State Standards.

We have expanded our understanding of the differences between **Accommodations** and **Modifications**.
Addressing the Achievement Gap in Special Education

1. **What has the district been doing to close the Achievement Gap in Special Education?**

**Accommodations** provide different ways for students to take in information or communicate their knowledge. The changes basically don't alter or lower the standards or expectations for a subject or test.

- Variations of presentation
  - Books on tape, enlarged print, scribe, materials, directions or test read aloud,
- Pre-teaching skills
  - Vocabulary words, Math formulas, Understanding directions & Organizational support
- Necessary tools
  - Calculator, Graphic organizer, Checklist, Math reference sheet, use of Assistive technology, such as: lap top/word processor, voice activated software, noise buffers
1. What has the district been doing to close the Achievement Gap in Special Education?

**Modifications** are actual changes to the delivery, content, or instructional level.

When modifications are made, students with disabilities are not expected to master the same academic content as others in the classroom.
1. What has the district been doing to close the Achievement Gap in Special Education?

MCAS and PARRC assessments measure Achievement based on the State Standards established by grade level. If students have been taught using modified curriculum or materials, during MCAS or PARRC they may find themselves being evaluated on content, material, with examples, or concepts that they have not been exposed to.
1. What has the district been doing to close the Achievement Gap in Special Education?

With this understanding, what has been done within our schools to increase and reinforce special education students’ access to and success with the general education curriculum?
Addressing the Achievement Gap in Special Education

1. What has the district been doing to close the Achievement Gap in Special Education?

In Elementary Schools, Special Education providers have:

- Steadily shifted mindset of INCLUSION as default
- **Pull out** services only as necessary to **SUPPLEMENT** classroom needs with pre-teaching and remediation
- Speech and Occupational therapists increasingly are integrating classroom curriculum as the vehicle for their work with students
- Rather than using separate, unrelated curriculum when reinforcing language or writing exercises
1. **What has the district been doing to close the Achievement Gap in Special Education?**

**Pierce Middle School**

- In 2013-14 PMS revamped their special education offerings, providing increased support for Special Education students to access the curriculum
- Transitions classes with modified curriculum were eliminated
- Team Teaching/Co-teaching ELA & Math; paraprofessional support available in Social Studies/Science
- A second class for additional instruction/remediation is available in Academic Support classes with special educator
1. **What has the district been doing to close the Achievement Gap in Special Education?**

**Milton High School**

- In 2013-14 MHS increased the number of co-taught courses offered providing increased support for Special education students to access the curriculum
- Transitions classes with modified curriculum eliminated
- Co-Taught ELA, Math & Biology added in grades 9 & 10
- A second class for additional instruction/remediation is available in Academic Support classes with special educator
1. What has the district been doing to close the Achievement Gap in Special Education?

**Increased use of Assistive Technology**

- Ipads, Laptops & Chromebooks are now in every school
- Students who previously required scribes, are instead being acclimated to keyboards, allowing more independence
- Communication software, such as Pro Lo Quo was made available for non-verbal students
- “Camera Mouse” program for a multi-handicapped, non-verbal student, allowed him to use his eyes to move the cursor on a computer and take the first steps to being able to communicate with others and indicate “choice”
1. What has the district been doing to close the Achievement Gap in Special Education?

**Increased use of Assistive Technology**

- Use of Books on Tape (and downloaded) provided through Learning Ally
- FM systems, Soundfield towers, headsets/microphones for Hearing Impaired students
- Special Education Assistive Technology consultant
2. What research is available to address this issue?

The Individuals with Disabilities Education Act (IDEA), reauthorized in 2004 mandates:

- to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are non-disabled

- special classes, separate schooling or other removal of children with disabilities from the regular educational environment occur only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily
2. **What research is available to address this issue?**

Dr. Thomas Hehir, author of *New Directions in Special Education*’ was commissioned by DESE to complete a study of Special Education in Massachusetts in 2012. An important theme emerged:

“students with disabilities who spend more time being educated with their typically developing peers, on average, earn higher scores on the MCAS than students who spend much of their time in substantially-separate, non-mainstream classes”
2. What research is available to address this issue?

Response to Intervention (RTI) uses a three tier system to diagnose students with disabilities based on their response to increasingly intensive interventions:

- regular classroom instruction,
- intensified small group instruction
- individual instruction.

Students still struggling at the third tier may be considered candidates for special education services.
2. What research is available to address this issue?

Massachusetts has developed their own blueprint outlining a single system of supports that is responsive to both the academic and non-academic needs of all students. This blueprint, the Massachusetts Tiered System of Supports (MTSS), provides a framework for school improvement that focuses on system level change across the classroom, school, and district to meet the academic and non-academic needs of all students, including students with disabilities, English language learners, and students who are academically advanced.
2. What research is available to address this issue?

Schools and districts are encouraged to work toward an integrated approach to support students' academic and social-emotional competencies. All students receive academic instruction and behavioral supports that include differentiation and extension activities and are guided by the three Universal Design for Learning principles (multiple means of representation, multiple means of action and expressions, and multiple means of engagement).
2. What research is available to address this issue?

*Universal Design for Learning (UDL)* is an educational framework based on research in the learning sciences, including cognitive neuroscience, that guides the development of flexible learning environments that can accommodate individual learning differences.

This is accomplished by simultaneously providing rich supports for learning and reducing barriers to the curriculum, while maintaining high achievement standards for all students.
2. What research is available to address this issue?

A universally designed curriculum is designed from the outset to meet the needs of the greatest number of users, making costly, time-consuming, and after-the-fact changes to curriculum unnecessary.

It is intended to increase access to learning by reducing physical, cognitive, intellectual, and organizational barriers to learning, as well as other obstacles.
2. What research is available to address this issue?

It does this by providing options for:

- *Multiple means of representation* to give learners various ways of acquiring information and knowledge
- *Multiple means of expression* to provide learners alternatives for demonstrating what they know
- *Multiple means of engagement* to tap into learners' interests, challenge them appropriately, and motivate them to learn
3. What is the district’s plan moving forward?

A. Evaluate the efficacy of our special education services and models of instruction

- Full Special Education Program Evaluation
  - Last completed in 2009-10
- Assess various models of co-teaching in place and research potential of others
- Assess efficacy of special education staff deployment & other options
3. What is the district’s plan moving forward?

B. Assess the need for additional special education teachers in readiness for 2015-16 budget development.

- With six grades (and 2-4 classrooms of each) in every elementary school, increasing inclusion (‘push in’ services) requires more Special Education teachers
- Determine need for additional co-teaching sections at PMS
- Increase co-teaching sections at MHS
3. What is the district’s plan moving forward?

C. Determine Professional development needs, including:
   - Understanding Universal Design for Learning
   - Use of data to determine focused interventions
   - Development of District RTI or MTSS model
   - Models and methods of co-teaching
   - Consistent understanding and application of accommodations vs. modifications in IEPs
   - Understanding, efficacy and use of assistive technology
4. What are the Expected Outcomes?

- An increased number of special education students will have the special education support they need to access and succeed in general education settings.
- Increased exposure to grade level curriculum will result in increased performance on MCAS/PARCC.
- The Achievement Gap in Special Education will steadily decrease as more special education students demonstrate Proficiency on State Assessments.
Addressing the Achievement Gap in Special Education

5. What Resources are needed?

- Funding needed for:
  - Special Education Program review
  - Additional special education teaching positions at Elementary, Middle and High School levels
  - Professional Development for BOTH special education and general education teachers in:
    - Universal Design for Learning – UDL
    - Response to Intervention – RTI
    - MA Tiered System of Supports – MTSS
    - Co-teaching strategies
Addressing the Achievement Gap in Special Education

### Percentage of Special Education students scoring Proficient & Advanced

<table>
<thead>
<tr>
<th>ELA</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 3</td>
<td>37% of 62</td>
<td>24% of 46</td>
<td>23% of 60</td>
</tr>
<tr>
<td>Grade 4</td>
<td>39% of 44</td>
<td>36% of 56</td>
<td>29% of 56</td>
</tr>
<tr>
<td>Grade 5</td>
<td>51% of 63</td>
<td>42% of 33</td>
<td>46% of 53</td>
</tr>
<tr>
<td>Grade 6</td>
<td>50% of 50</td>
<td>39% of 49</td>
<td>32% of 35</td>
</tr>
<tr>
<td>Grade 7</td>
<td>36% of 44</td>
<td>30% of 53</td>
<td>50% of 40</td>
</tr>
<tr>
<td>Grade 8</td>
<td>51% of 35</td>
<td>40% of 48</td>
<td>46% of 48</td>
</tr>
<tr>
<td>Grade 10</td>
<td>63% of 19</td>
<td>80% of 25</td>
<td>74% of 31</td>
</tr>
</tbody>
</table>
Addressing the Achievement Gap in Special Education

Percentage of Special Education students scoring Proficient & Advanced

<table>
<thead>
<tr>
<th>Grade</th>
<th>MATH</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 3</td>
<td>40% of 62</td>
<td>41% of 46</td>
<td>43% of 60</td>
<td></td>
</tr>
<tr>
<td>Grade 4</td>
<td>40% of 45</td>
<td>27% of 55</td>
<td>25% of 56</td>
<td></td>
</tr>
<tr>
<td>Grade 5</td>
<td>50% of 64</td>
<td>34% of 32</td>
<td>42% of 52</td>
<td></td>
</tr>
<tr>
<td>Grade 6</td>
<td>46% of 50</td>
<td>33% of 48</td>
<td>26% of 35</td>
<td></td>
</tr>
<tr>
<td>Grade 7</td>
<td>11% of 44</td>
<td>17% of 54</td>
<td>13% of 40</td>
<td></td>
</tr>
<tr>
<td>Grade 8</td>
<td>24% of 34</td>
<td>12% of 48</td>
<td>21% of 48</td>
<td></td>
</tr>
<tr>
<td>Grade 10</td>
<td>40% of 20</td>
<td>46% of 26</td>
<td>59% of 27</td>
<td></td>
</tr>
</tbody>
</table>
Addressing the Achievement Gap in Special Education

Growth Model

- For K-12 education, the phrase “growth model” describes method of measuring individual student progress on statewide assessments (tests) by tracking the scores of the same students from one year to the next.
- Each student’s growth is measured relative to other students who performed similarly in previous years on MCAS.
- The growth model allows districts and schools to more easily identify promising, or potentially struggling, programs and practices—and therefore to look deeper into what may or may not be working.
Addressing the Achievement Gap in Special Education

Spring 2014 MCAS District Achievement and Growth Mathematics by Disability Status

District: Milton
Grade: All Grades

<table>
<thead>
<tr>
<th>% Proficient or Higher</th>
<th>Median SGP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Growth</td>
<td>0-20</td>
</tr>
<tr>
<td>Higher Achievement</td>
<td></td>
</tr>
<tr>
<td>Higher Growth</td>
<td>60-100</td>
</tr>
<tr>
<td>Higher Achievement</td>
<td></td>
</tr>
</tbody>
</table>

X State (50, 60%)
Addressing the Achievement Gap in Special Education

Spring 2014 MCAS District Achievement and Growth
English Language Arts
by Disability Status

District: Milton
Grade: All Grades

X State (50, 60%)

<table>
<thead>
<tr>
<th>Median SGP</th>
<th>N Students (SOP)</th>
<th>% Proficient or Higher</th>
<th>N Students (Adv. Level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Disabled</td>
<td>52</td>
<td>1,477</td>
<td>55</td>
</tr>
<tr>
<td>Students w/ Disabilities</td>
<td>45</td>
<td>222</td>
<td>40</td>
</tr>
</tbody>
</table>

Median student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.