

Chenery Math Acceleration

Belmont Math Parents

Presented by David Palmer at Belmont School Committee meeting
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<http://belmontmathparents.org/>

BELMONT
MATH
PARENTS

What is the Chenery Math Acceleration Program?

- For 30+ years, BPS has provided options for appropriate math placement to meet the needs of all students
- 7th grade is the first option for differentiated instruction in math at BPS
 - Most students are placed into Math 7 (30-40% of students) or Math 7 Compact (60-70%), based on teacher recommendation
- Many Chenery students reach 7th grade having already mastered the full math curriculum one (or more) years ahead
- **Acceleration option:** Chenery has offered Algebra I for students who have already mastered Math 7 Compact, based on a placement test

What is the Chenery Math Acceleration Program?

- Since students develop at different paces, the program has also included placement for later grades
- “Acceleration” is not a race but simply a way to allow appropriate placement to meet the needs of all students
- No curriculum is “skipped” since accelerated students have already mastered the material

Benefits of Acceleration are Well Documented

“A strong body of research finds that acceleration is effective in meeting the needs of academically-advanced students and has the additional advantages of minimal costs and being relatively easy to implement.”

Report commissioned by DESE, Presented to the Massachusetts Legislature, June 2019

Chenery Math Acceleration Program is in Jeopardy

- In Fall 2019, the Belmont school leadership proposed eliminating the math acceleration program with no alternative for meeting the needs of students
- A working group was formed for BPS and parents to collaborate on solutions together, but it was subsequently abandoned by BPS with no resolution
- Current 7th graders were denied all acceleration opportunities coming into 2020-21, and there is no plan for next year
- For a full timeline of the Chenery Math Acceleration program and details of recent meetings, see <https://tinyurl.com/math-program-history>

Why Act Now? Can't This Wait?

- It is Q3, and we need to do something **now** for current Chenery students
- We need a thoughtful, considered, equitable program that will continue to serve Belmont students for years to come
- There are already no options for students to change placement at BHS
 - Placement tests have been eliminated at BHS
 - Taking two math classes at once is the only way for BHS students to gain any flexibility, robbing BHS students of the chance to take electives

Eliminating the Program is Not Justified

Belmont School Committee Policy 6008: “School Committee approval is required for major curriculum changes including adding or dropping programs or courses.”

- Eliminating any long-standing program should only be considered for very compelling reasons
- Data from 30 years of the math acceleration program shows many benefits but no systematic negative effects
- **There is an urgent need to prevent the elimination of this program and support it for all students going forward**

How Many Students Have Benefited from Acceleration?

- 200+ Belmont students from 2012-2019, average 23/year*
 - Includes all students who accelerated in 7th grade and later
- For example, current BHS Junior class: 28 students taking or already completed AP Calculus*
- Data from BPS shows that more students could have benefited from the program, given an improved placement process

* Data from public records requests to the town of Belmont

Chenery Math Acceleration by the Numbers

- In January 2020, Belmont Math Parents put together a thorough analysis of the Chenery Math Acceleration program from 2010-2019, which showed the consistent need for math acceleration for a large number of Chenery students
- The data shows that the previous placement process was problematic. A more inclusive, better publicized placement method would enable more students to participate.
- The full analysis is at <https://tinyurl.com/analysis-full>

Chenery Math Acceleration has Changed Lives

- “It might sound melodramatic, but it changed my child's life trajectory. He was previously bored and unengaged in his school classes. Math acceleration put him on a path of independent learning and has opened many opportunities.”
- “It is really an amazing program for girls! My daughter was a quiet, diligent student at Chenery but was usually overlooked by the teachers. Having the opportunity to place into 7th Grade Algebra gave her the self-confidence to thrive in advanced math classes at BHS.”
- Many more success stories: <https://tinyurl.com/chenery-success-stories>

Chenery Math Acceleration has Strong Support

- “Should BPS continue to offer math acceleration?”
 - 93% of families responded Yes in a May 2019 survey from BPS
 - 89% of BHS students responded Yes in a Nov. 2019 survey from BHS student Alex Fick
- 100+ community members attended SC meeting when program was last discussed in Nov. 2019
- 255 community members signed Dec. 2020 petition to preserve program
<https://tinyurl.com/chenery-petition>

Math Acceleration can be Budget Neutral

- Math acceleration does NOT require creating curriculum or additional classes, but rather places students into classes using existing curriculum
- Filling one or more classes of 7th grade Algebra I and 8th grade Geometry does not involve additional hiring and does not adversely impact class sizes
- We recognize that this is an extremely challenging time for the school system and that there are many complex needs
- Providing placement flexibility does not take resources away from other students

Chenery Math Acceleration is Needed for SEL

- Lack of appropriate placement impacts SEL

“The harms of offering no options include: isolation, behavioral disruptions, frustration, boredom, depression, anxiety, lack of development of skills such as persistence, loss of love of learning, loss of curiosity, and disengagement from school.” - Report commissioned by DESE, June 2019

- BHS students who benefited from program (survey by Alex Fick)
 - 95.9% agreed with statement “I felt bored in math class (before accelerating)”
 - 100% agreed “Math was too easy for me (before accelerating)”
- Students cannot develop growth mindset if not given opportunity to grow

Chenery Math Acceleration is Needed for Equity

“... until our public schools acknowledge, understand, and serve our most advanced students, our educational system will be elitist. Only those who can afford it will be privileged to see their children’s potential blossom.”

Report commissioned by DESE, Presented to the Massachusetts Legislature, June 2019

- Eliminating existing in-school opportunities widens equity gaps
 - Families with financial means have access to costly outside programs
 - When the curriculum does not meet student needs, families seek outside enrichment

What We Are Asking For: Right Now

- A clear commitment from school leadership to NOT eliminate the Chenery program
- Implementation of a placement option for Fall 2021 to address the urgent needs of current Chenery students
 - Belmont Math Parents have proposed many options and would like to work with the schools to make this happen as soon as possible
- We are NOT asking to change any student schedules for the 2nd half of the current school year

What We Are Asking For: Going Forward

- Keep the 7th grade Algebra 1 and 8th grade Geometry classes going forward
- Allow flexibility for appropriate placement at BHS
- Build in thoughtful communication and outreach to traditionally underrepresented populations to ensure equitable access

Final Thoughts

- **It is essential to keep opportunities, especially those that are budget neutral**
- The Chenery math acceleration program is the cornerstone of the vibrant math community in the Belmont Public Schools
- There are many things out of our control this year, but this is a concrete need that we can meet with urgent action

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