



The Education Trust–Midwest

Good morning. I am Brian Gutman, the director of external relations with the Education Trust-Midwest. We are a nonpartisan research, policy and advocacy organization based in Royal Oak, focused on ensuring that every Michigan student has meaningful access to the quality education and educational opportunities that they need to succeed in school and in life.

I appreciate the opportunity to join you today to testify in opposition to House Bill 4271, which would change the math requirement for high school graduation. While current law provides substantial flexibility for satisfying the algebra II requirement, including by permitting equivalent CTE coursework and extended coursework that covers the relevant content, this bill would effectively end algebra II as a required course.

Instead, students could complete a statistics course or financial literacy, in place of algebra II. While these courses teach important skills and concepts, they are not adequate algebra II replacements.

Although the intent of this bill may be to expand opportunities for students and encourage a wider range of postsecondary pathways, research on the subject actually suggests the exact opposite impact.

First, regardless of changes made to the merit curriculum, Michigan students are held accountable for knowing algebra II content. That is because our 11th grade state math assessment, the SAT, includes concepts from algebra I, geometry and algebra II.ⁱ How can we hold students, educators and schools accountable for learning content, when we do not actually require it to be taught?

More importantly, however, the proposed change will limit options for Michigan students. Just as we should not limit postsecondary options only to a four-year degree path, we should also not eliminate that path as a possibility for any student.

And while much of the debate on this topic centers on preparedness to succeed in college, the conversation itself should be much broader. Research conducted by Achieve with employers and the postsecondary community makes it clear that to be career- and college-ready, all high school graduates should take four years of high school math, including at least the knowledge and skills typically acquired in algebra II.ⁱⁱ

If the goal of high school is to prepare students to succeed after graduation, then we must do all that we can to set students up for success, regardless of their individual pathway. In an April 2016 report on postsecondary readiness, Education Trust researchers found that algebra II was one of the greatest preparedness barriers to students completing a college-ready curriculum.ⁱⁱⁱ

This research found that the barrier to algebra II was not how many math courses students were taking – the real issue was at what level students enter high school. According to the report, “only 41 percent of students who took pre-algebra or lower as ninth-grade students eventually took an

algebra II credit. By contrast, 70 percent of students who started out in algebra I...eventually reached at least algebra II.”

What this exposes is that, unless algebra II is required for all students, a student’s middle school math preparation can play a major role in whether a student eventually takes an algebra II credit and is therefore on a college-ready path by the end of high school. By requiring algebra II for every student, Michigan has taken an important step toward erasing gaps in opportunity between low-income students and their more affluent peers, and has focused schools on providing the support needed to help students reach this important goal.

Similarly, research from the U.S. Department of Education from 2006 found that low-income students were far more likely to attend high schools that did not offer math above algebra II than schools attended by higher-income peers. This research found that student who took algebra II earned bachelor’s degrees at about twice the rate of students who took just through geometry.^{iv}

It is understandable why providing multiple pathways to satisfying the high school math requirement would be attractive and could be seen as expanding the range of available postsecondary opportunities. Yet what the research shows is that in an effort to open this door, Michigan would inadvertently close another door for underserved students, who are likely to return to a time where they lacked access to the educational opportunities afforded to higher-income peers.

For these reasons, we hope that you will not eliminate the algebra II requirement.

ⁱ College Board, “SAT Suite of Assessments: Mathematics Level 2 Subject Test.”

<https://collegereadiness.collegeboard.org/sat-subject-tests/subjects/mathematics/mathematics-2>.

ⁱⁱ Achieve, Inc. “Building Blocks of Success: Higher Level Math for All Students,” (Washington, DC: Achieve, Inc., May 2008). <https://www.achieve.org/publications/building-blocks-success-higher-level-math-all-students>

ⁱⁱⁱ Marni Bromberg and Christina Theokas, “Meandering Toward Graduation: Transcript Outcomes of High School Graduates,” (Washington, DC: The Education Trust, April 2016). https://edtrust.org/wp-content/uploads/2014/09/MeanderingTowardGraduation_EdTrust_April2016.pdf

^{iv} Clifford Adelman, “The Toolbox Revisited: Paths to Degree Completion from High School Through College,” (Washington, DC: U.S. Department of Education, February 2006). <https://www2.ed.gov/rschstat/research/pubs/toolboxrevisit/toolbox.pdf>