

Robert Wedl Testimony Re: S.F. 360
Mn Senate Education Finance Committee
February 19, 2025

Madam Chair and Members of the Committee. Thank you for this opportunity to testify in support of S.F. 360. I have long advocated for this policy as evidenced by articles published in 2013 and 2020 which you have in your packet.

I served as commissioner of the Mn Department of Education (then called Children, Families and Learning) from 1996-99 in the administration of Governor Arne Carlson and also deputy commissioner from 1987-91 in the administration of Governor Rudy Perpich. Currently, at age 81, I dabble in education but do little real work.

My testimony states:

1. The current mandatory minimum mathematics graduation standard of algebra II (plus) was written for a different era when the goal was to prepare all students for entry to a four-year liberal arts education. That is no longer where we are and therefore that requirement should be removed; and,
2. Only those students who are ready to learn the algebra I competencies at grade 8 or earlier should do so.

A few reasons why I support S.F. 360 include that as more of our schools are personalizing student learning, we ought to let that personalization process be up to local boards, administrators, teachers and parents/students. The role of the state is to identify required minimum competencies to be learned and also ensure students have access to a range of ways to attain those competencies. The state should not dictate when those competencies must be learned (8th grade algebra I) unless there is a science-research based reason for that and there isn't for 8th grade algebra I. That kind of personalization can only come with individual students along with the instructional team at their place of learning and with local boards deciding what defines learning and how that is provided.

Two key notions: we need to do more to personalize instruction and learning and second (perhaps more important) we must personalize what is to be learned for each student in our high schools. We need to personalize standards beyond minimums (different for each student) and permit real instructional innovation. *Sunday's Minnesota Star-Tribune* showed how Spring Lake Park and St. Anthony-New Brighton are doing so. By doing this, we are making learning more student-directed which motivates students to want to learn; to excel.

A few specifics about SF 360:

1. The current math standard requiring all students to take algebra 1 in 8th grade is inconsistent with the concept of personalization of learning. Some students simply are not ready for algebra I in 8th grade. Keep in mind that there is a whole year of age difference in each grade. Some students are 13 and others are 14 in grade 8. A huge difference. The notion that if we force students to take algebra I in 8th grade we will get more engineers in the end is simply not born out. Students

do not somehow magically begin to like math if required to take courses when they are not ready. Actually just the reverse happens.

2. I do support that all students must be proficient in a baseline of studies of academics and literature and the arts, and also that all students must be proficient in a rigorous course of personalized study. However, that does not mean “rigorous” in the same areas of study. That was the “one size fits all school.”

It is my understanding that requiring all students to be proficient in algebra II (plus more) as a graduation requirement is the highest math minimum high school graduation standard in the world with perhaps the exception of Singapore. The algebra II minimum standard fits no one. It is too low for the aspiring engineer or mathematician and too high for most everyone else. And of course only about 55% of Minnesota high school students are attaining that level of proficiency based on the high school MCA and we’ve been trying to improve that for 20 years with very limited success. Granted the MCA is but one measure and I do believe we need multiple measures but even then I cannot imagine we’d see anywhere close to all students meeting the algebra II standard.

3. This math requirement was adopted 20 years ago when we had “one size fits all schools.” It was adopted because four-year liberal arts colleges had (perhaps still do have) an entrance standard that requires students be proficient in algebra II competencies. The goal at that time in the “one-size fits all school” was to design high school so that all students would have the competencies to attend a four-year liberal arts college. That is no longer the goal today in that most students today are garnering career certifications from technical colleges or via apprenticeships right out of high school and the algebra II minimum standard for all requirement is not useful. In fact holds them back from relevant learning. As part of mathematics we do need students to have algebraic thinking skills and these are emphasized in middle schools. Those should be retained; it’s the “content knowledge” that needs to be reduced.
4. If we were actually implementing the current math standard we would have a state average graduation rate of about 55% based on the high school MCA math test. Can you imagine the headlines? So students are receiving grades of D- based on multiple indicators such as “effort” so they can graduate. Clearly a grade of D- does not represent proficiency which is what the state math standard requires.

But let’s say the Legislature, in the name of “rigor,” decides to retain the current algebra II requirement and insists on having every single high school student to meet it as a condition for graduation. I suggest one of two things will happen: (1) students will be required to remain in school for 1-3 more years beyond grade 12 so they actually meet that standard which will significantly increase the cost of education with little useful learning as the result; or, (2) the dropout rate will skyrocket. I suggest it will be the latter. The current math algebra II standard serves no purpose to many students.

5. Actually back about 12-13 years ago, you did pass a bill that provided local boards some authority to sidestep this math requirement. It is called the “rigorous course study waiver” at Minn Stat Section 120 B.021 subd 1a. In support of that bill, a west-metro superintendent and I testified before this very Committee and suggested it would widely be used to address the algebra II requirement. The superintendent testified that if he was required to enforce this provision, 30% of the seniors in the district he led would not graduate and many had already been accepted into prestigious universities around the country. We need to stop having the need for waivers for thousands of students and fix the system which is what SF 360 does.

The bill adopted required that parents who wanted an out for their son/daughter to go before the local school board and identify why their son/daughter should be permitted to substitute a different rigorous course or some other learning experience for the math (or any standard). Well, no parent has been willing to do that so the provision is rarely used. Thankfully boards just delegated that authority to high school principals, counselors and teachers and many students do not even take advanced math but rather substitute other learning experiences that are relevant to them.

6. Requiring students to take algebra II (plus) takes learning time away from things that are motivating to them; from areas they deem relevant in their lives.
7. As a co-leader of the former “Minnesota Superintendents Innovation Discussion Group,” a team of about 30 innovation-minded superintendents, we long advocated for a policy like SF 360 but with no success. It was seen as “dumbing down” the standards. Rather, we suggested that by personalizing the standard, it was making it relevant to each student.
8. As MDE commissioner back in 1997 I believe, we adopted minimum math standards that required all students to meet. They were between the 8th and 9th grade and had much of algebra I and some statistics. We measured student attainment with the Minnesota Basic Skills Test (MBST). After a few years about 85% of students met those provisions by the time they graduated and others had exemptions because of IEP’s, ELL, etc. I’m not suggesting you go back to this model but I do suggest a minimum standard that is the baseline on which all students personalized learning plan can be developed with some students taking pre-calculus and others taking only the minimum. You would be personalizing the standards and also curriculum and instruction.
9. A quick story. My granddaughter, Brennan Wedl, knew from the 4th grade that she wanted to be a musical performer. That was her vision. She was focused and driven. But math was not her forte. In high school, because of the algebra II plus requirement, she had to give up music after-school so she could be tutored in algebra II. Finally, when nearing the end of her senior year, her algebra II teacher told her he intended to give her a D- so she could graduate. Brennan was then accepted into the prestigious Berklee College of Music in Boston (the Harvard of music schools) and graduated among the top of her class which numbered about 2,000 students. She is now in Nashville and performing around the country. On March 2nd she will be making her 3rd visit to First Avenue in downtown Minneapolis. Last week, while in LA, she was invited to several Grammy parties. In March she will perform at the popular South by Southwest Festival outside of Austin, Texas and later with the Willie Nelson show. Had her math teacher not given her a D-, none of this would have been possible. Senators, I believe this happens many times each year in every single Minnesota high school. You can stop putting students through this. With tongue in cheek I ask you this. Minnesota is a strong supporter of the arts so why don’t we require “advanced art” for each student? Isn’t this comparable to requiring “advanced algebra?”

To be clear. No one is suggesting that students be discouraged from learning all of the advanced mathematics possible both at high school and through PSEO. Advanced algebra serves a narrow band of students. Personalization of learning will let each student excel in a rigorous course of study; but not rigorous in the same areas.

Thank you Mr. Chair and members. I’d be delighted to respond to questions.