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State Representative Joshua E. Williams
Ohio House of Representatives

Chairwoman Fowler Arthur, Vice-Chair Odioso, Ranking Member Brennan, and members of the House Education Committee, thank you for the opportunity to testify in support of House Bill 934, the Science of Math Act, today.

Put frankly, the state of Ohio's students is untenable right now. While math proficiency in Ohio plummeted during and after the COVID-19 pandemic, there existed an air of, "well, let's wait and see" when our schools were asked to provide solutions. Those solutions hardly came, and math proficiency among our students has seen an embarrassingly slow reversal. In 2019, prior to the pandemic, our state's proficiency rate in math was 61%; today, it stands at just 55%.[1][2] A math proficiency rate of 55% essentially means than 45% of Ohio's students will be gatekept from the high-value careers that Ohio has once-more begun to attract, keeping a plurality of our students away from the security of a high-paying job which, more and more, is needed to effectively raise a family and achieve homeownership.

If we want our students to achieve reasonable standards in school, then we must hold our schools and students to those standards, something that we have refused to do for an embarrassingly long time. Holding our state to these standards doesn't mean that we

[1] https://www.the74million.org/article/ohios-pandemic-recovery-slows-as-achievement-gaps-fail-to-close/
[2] https://fordhaminstitute.org/ohio/commentary/ohios-report-card-results-show-theres-much-work-be-done-math

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cover our eyes, throw money at our schools, and hope outcomes will improve as many "advocates" have proposed before; holding our state to these standards means that we engage our students in evidence-based standards, much like Ohio has begun to with the Science of Reading.[3]

Just as Ohio has begun to re-develop their reading methods and standards with the Science of Reading, I hope to lead the charge in rebuilding our students' math competence with the Science of Math Act. Despite the length of this bill, the premise of the Science of Math Act is simple: when a school is able to demonstrate that they teach students to proficiency, their educational models should be copied, and when schools aren't able to teach their students to proficiency, they should have to borrow the learning models from schools that do teach their students well. Now this principle, that struggling schools should learn from successful schools, avails itself in a handful of new and evidence-backed ways under the Science of Math:

First, the Science of Math Act mandates that schools with under a 33% proficiency rate in third grade math use evidence-backed "high quality" curriculum, as designated by DEW, until they achieve over 51% proficiency in third grade math. These schools and

[3] https://www.brookings.edu/articles/a-state-level-perspective-on-school-spending-and-educational-outcomes/

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school districts will also be required to formulate schoolwide improvement plans including, at a minimum, an analysis of relevant student performance data, measurable student performance goals, strategies to meet specific student needs, a staffing and professional development plan, and instructional strategies for improving student performance.

Second, the Science of Math Act requires schools to formulate academic intervention plans for students who demonstrate limited proficiencies in mathematics or English language arts on their end-of-year examinations—these interventions will be deemed complete when the student is able to test at or above a proficient level. These school-directed plans will be based on evidence-based support, including tutoring, additional instruction time, extended school calendars, participation in a learning support program, or any other academically centered support service that will improve the student's academic performance. These schools will also allow parent/guardian input and involvement in the development of these intervention services, and the school will periodically recommend ways for the parents/guardians to help their child. DEW will then select cohorts of schools whose students receive these services to evaluate the material quality and effectiveness of these programs from which they will formulate reports and recommendations.

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Finally, the Science of Math Act will ensure that teachers who are not proficient in mathematics will not be allowed to teach mathematics until they are able to demonstrate math proficiency with the DEW. Similarly, the DEW will be tasked both to develop a professional development course that focuses on how foundational mathematics competency integrates into a student's life and life skills, and to develop professional development programs for teachers and regional educational leaders on evidence-based mathematics instruction.

The Science of Math Act takes a broad approach to fixing many of the deficits that we have allowed to fester in our schools, failing our taxpayers who have to fund inefficient methods of teaching, failing our communities who can no longer count on our schools being fundamental unifying aspects in their cities, and, worst of all, failing our students who are being harmed by our unwillingness to do what must be done to ensure they are taught for their futures. While we have made great strides in modernizing our curriculums and ensuring our students have access to the best-possible educational materials through the science of reading, it is time to hold all of our state's educational systems to scientific standards like those provided by the Science of Math Act.

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Thank you again Chairwoman Fowler Arthur, Vice-Chair Odioso, Ranking Member Brennan, and members of the House Education Committee. I appreciate the opportunity to testify before you today and I welcome any questions you may have.