

Dear Committee Members,

I want to thank you for your work on SB 144. I have prepared preservice and inservice mathematics teachers for over 23 years at Miami University, and **I strongly support this bill.**

As someone who prepares future mathematics teachers, I witness firsthand the challenges that arise when teachers are expected to develop expertise across the entire K-8 span. The mathematical content knowledge and pedagogical approaches required to teach kindergarten are fundamentally different from those needed to teach eighth grade, yet our current licensing structure treats these as equivalent.

The mathematics taught in early elementary grades, such as subitizing, counting principles, place value development, and early addition and subtraction strategies, requires specialized pedagogical content knowledge. Teachers must understand how young children develop number sense, how to use manipulatives effectively for concrete learning, and how to build foundational understanding that will support later mathematical thinking.

Conversely, teaching middle grades mathematics demands deep understanding of proportional reasoning, algebraic thinking, and the transition from arithmetic to abstract mathematical concepts. Middle school teachers must help students make sense of variables, functions, and mathematical relationships while simultaneously addressing the wide range of mathematical readiness that exists in these grades.

In my teacher preparation courses, I am constantly making impossible choices about depth versus breadth. With the current K-8 license structure, I will not be able to adequately prepare teachers for the specialized demands of either early elementary OR middle school mathematics. Instead, I must provide surface-level coverage of an impossibly broad range of content and pedagogy. This does a disservice to our teacher candidates and, ultimately, to the Ohio students they will teach.

The mathematics education research is clear: teacher content knowledge and pedagogical content knowledge are strongly linked to student achievement. When we ask teachers to be generalists across nine grade levels of mathematics, we dilute their expertise and compromise their effectiveness. A teacher who deeply understands the progression of mathematical concepts within a more focused grade band will be far more effective than one who has superficial knowledge across K-8.

SB 144 would allow teacher preparation programs like ours to design focused, coherent sequences of coursework that build genuine expertise. I could develop courses specifically addressing early numeracy and foundational concepts for early elementary candidates, while creating entirely different courses focused on algebraic reasoning and proportional relationships for middle grades candidates.

This specialization would produce teachers who are truly prepared for the mathematical and developmental realities of their specific grade levels.

Furthermore, this bill recognizes what we in teacher education know to be true: effective teaching requires both content expertise AND understanding of student development. The pedagogical approaches that work with five-year-olds are not the same as those that work with thirteen-year-olds, and expecting one license to cover both ignores these critical differences.

By passing SB 144, you would enable teacher preparation programs to do our work more effectively. We could produce mathematics teachers with deep, specialized knowledge rather than shallow, generalized preparation. This will ultimately benefit students across all grade levels by ensuring their teachers have the focused expertise necessary to support their mathematical learning.

I respectfully urge you to vote in favor of this bill for the benefit of both teachers and students.

Sincerely,

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