

Proponent Testimony for S.B. No. 144
Senate Education Committee
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Chair Brenner, Vice Chair Blessing, Ranking Member Ingram, and members of the Senate Education Committee, thank you for the opportunity to provide proponent testimony on S.B. No. 144, which, with the proposed amendments, aims to replace the approaching Pre-Kindergarten to Grade 8 (PreK-8) license with two separate generalist licenses for Pre-Kindergarten to Grade 5 (PreK-5) and Grades 4-8.

I write as a mathematics teacher educator, in the mathematics department at The Ohio State University since 2012, teaching mostly mathematics content courses for teachers. The courses focus on understanding and explaining (in multiple ways) the concepts and procedures used in arithmetic, algebra, geometry, and statistics. For example,

- For multi-digit arithmetic, what are carrying and borrowing about?
- When we divide by a fraction, why does it work to multiply by its reciprocal?
- Why is the area of any triangle half its base times its height?
- Why is a negative times a negative positive?

Teachers need this kind of knowledge so that their students may learn with conceptual understanding, because learning without understanding is fragile, inflexible, and often short-lived. Thus, this obligation is a fundamental commitment behind my work and also behind my evaluation of educator licenses and preparation programs.

S.B. 144, as amended, solves many of the challenges created by a PreK-8 license, some of which I described in previous testimony. Today I wish to emphasize that a teacher preparation program for a PreK-8 license would require combining features and courses from existing PreK-5 programs with those from existing Grade 4-9 programs. Even after much deletion and dilution, the result would be an overburdened program that addresses the career aspirations of few of its students, most of whom arrive with strong inclinations toward teaching particular grades and subjects. Here are some reasons that separate PreK-5 and Grade 4-9 programs would serve aspiring teachers better than a PreK-8 program:

- For a prospective elementary teacher, a PreK–5 preparation program can provide deeper expertise in early childhood development alongside stronger grounding in literacy and numeracy foundations.
- Likewise, for a prospective middle grades teachers, a Grade 4–8 preparation program can provide specialized study of early adolescent development, stronger content-area expertise in the subjects taught in middle school, and preparation for the “middle school model,” with features such as interdisciplinary teams, flexible scheduling, and disciplinary literacy (reading, writing, and reasoning within each subject area).

- Moreover, both PreK-5 and Grade 4-8 programs can provide more relevant field experiences in the actual grade levels to be taught, as well as a clearer professional identity as an educator at the students' desired grade levels.

I do appreciate school administrators' need for flexibility in the assignment of teachers in the middle grades. But because most schools are departmentalized in grade 6 or earlier, most middle grades teachers in Ohio teach one subject. To prepare for this reality, I hope that the Grade 4-8 generalist license can encourage or at least allow specialized preparation in one subject area, either as part of initial certification or as an add-on endorsement.

In mathematics, there is significant need for specialized preparation, as Ohio's mathematics learning standards in grades 6, 7, and 8 are challenging and nuanced, focusing on ratios and proportional relationships, and establishing foundational understandings and skills for algebra, geometry, and statistics in high school.

As I'm sure you are aware, the pandemic hit middle grades mathematics achievement especially hard. During the past three years in grades 6 through 8, the percent of students proficient or above has averaged about 9% lower than it was the three years before the pandemic. Ohio needs improved preparation and professional development for mathematics teachers at all levels, and *Ohio's Plan for K-12 Mathematics*, released by the Ohio Department of Education & Workforce earlier this year, provides many of the guiding principles and strategies. Middle grades mathematics is the place to start.

In closing, please support S.B. No. 144 to replace the PreK-8 licenses with licenses for PreK-5 and Grades 4-8. Thank you for your consideration.