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# The Potential Impact of the Removal of a Middle Grades Licensure Band on Ohio’s Teacher Education Majors

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***Abstract:** In 1998 Ohio replaced a comprehensive Grades 1–8 teacher license with separate licenses for grades PreK–3 (comprehensive) and 4–9 (dual subject). This change allowed teacher candidates to develop a deeper understanding of the content, curriculum, instructional strategies, and assessment techniques specific to the grade levels and contents included in their licensures. Recent legislation (Ohio House Bill 33) contained a provision to replace the early and middle grade bands with a comprehensive PreK–8 license. In this article, we examine the potential impact of this legislative change through a detailed survey of preservice teachers, highlighting their concerns and the broader implications for teacher preparation in Ohio.*

***Keywords:** Teacher preparation, licensure, grade bands, HB33*

## Introduction

Mark Twain once said, ‘History never repeats itself, but it does often rhyme.’ As Ohio educators face the implementation of a new law reshaping the teacher licensure bands from PreK–5 and 4–9 to PreK–8 (Prekindergarten through grade 8), echoes of history’s rhyme are evident in the evolving landscape of teacher content certification. In the summer of 2023, the Ohio legislature passed House Bill 33 (HB33). This legislation, reflecting past shifts in educational standards and practice, includes a provision that eliminates the specialized middle childhood license in place since 1998, which required teachers to concentrate on two content areas during their preparation program. As a result, with the introduction of the PreK–8 license, educators may now be tasked with teaching a broader range of core content areas—mathematics, science, social studies, and English language arts—to students across a wider range of ages.

Following the introduction of HB33, it is crucial to recognize the historical foundations of Ohio’s middle grades licensure, developed in the 1990s as part of a nationwide effort to address the distinctive needs of middle-grade students. This initiative led to the establishment of dedicated middle schools, which were designed to foster a supportive learning environment through team-teaching, interdisciplinary curricula, and additional advisory time—features that the older junior high model lacked (Schaefer et al., 2016). By 2020, this approach had gained widespread acceptance, with 44 of the 50 states, along with the District of Columbia, adopting a specialized middle-grades teaching license, illustrating the importance of targeted educational strategies at this level (Roberts & Pachnowski, 2020). Moreover,

several content-specific organizations have endorsed these specialized licensure bands, noting that they enable teachers to gain a deeper understanding of their content areas, thereby enhancing educational quality (USDOE et al., 2002; CBMS, 2002).

With compelling arguments in favor of specialized licensure, why would Ohio opt for more expansive licensure bands that potentially dilute teachers' content knowledge and degrade educational quality? This shift appears to be a response to the slow and steady decrease in the number of new teachers in Ohio since 2013. Superintendents across the state have lobbied for greater flexibility to assign and reassign teachers across buildings and classrooms within their districts, aiming to meet staffing needs more effectively. This flexibility is theorized to increase the pool of teachers available for different grade levels. In the following paragraphs, we delve into the unintended consequences of this legislation. Will the passage of the bill truly result in a more flexible teaching staff, or might it lead to unforeseen outcomes? This paper presents the results of a statewide survey of future teachers, examining their perspectives on the licensure changes and the potential impacts on those entering the profession.

## A Review of Supporting Literature

The debate surrounding the legislation focuses on two critical issues. The first is the need for greater staffing flexibility, which has become crucial as the number of licensed teachers declines, thereby allowing schools to more effectively address staffing shortages. The second issue highlights the importance of specialized content knowledge, especially in fields like mathematics, where the effectiveness of teaching is heavily dependent on the instructor's deep understanding of the subject and confidence in teaching advanced concepts at specific grade levels. In the following section, we explore both data and research that illuminate these issues within the broader debate.

### Evidence of an Increasing Teacher Shortage

Over the past decade, Ohio has experienced a concerning decline in its teacher workforce. Many experienced teachers have retired, and the state has struggled to replace them. This trend is starkly illustrated in Table 1, which shows a steady decrease in the number of newly licensed teachers since 2013, with those leaving the profession consistently outnumbering new entrants (ODEW, 2023). The growing gap between exiting and newly licensed teachers poses significant challenges, undermining student academic progress and efforts to enhance school operations (Podolsky et al., 2016).

**Table 1:** *Difference between Ohio New and Exiting Teachers 2013-2022*

License Year	Total Newly Licensed Teachers	Exiting Teachers	Net Difference in Teachers
2013	7,634	9,805	-2,171
2014	7,706	13,317	-5,611
2015	6,949	10,034	-3,085
2016	6,628	7,355	-727
2017	5,872	7,988	-2,116
2018	5,500	7,382	-1,882
2019	5,334	8,224	-2,890
2020	5,457	6,864	-1,407
2021	5,388	9,148	-3,760
2022	5,000	Not yet available	Not yet available
<b>Total</b>	<b>61,468</b>	<b>80,117</b>	<b>-23,649</b>

### Content Knowledge Preparation

The need for greater content preparation has been emphasized since the early 2000s. Advocates of the No Child Left Behind Act highlighted research identifying teachers' content knowledge as a

crucial factor in student achievement (USDOE et al., 2002). This call for a greater focus on content knowledge in the preparation of middle grades teachers is further supported by data from the National Center for Education Statistics (NCES), which indicated that, particularly in middle school grades, a significant portion of students—15 to 22 percent in 1999-2000—were taught by educators lacking adequate qualifications in key subjects like English, math, and science (USDOE et al., 2002, p. 8).

These implications led many states, including Ohio, to establish a middle grades licensure band aimed at better preparing teachers for the content they would ultimately teach. It was considered essential for a professional teacher instructing middle school mathematics to be familiar with the mathematics curriculum that high school students encountered. Consequently, middle-level licensure in Ohio significantly broadened the scope of content that teachers in grades 4-9 were expected to master. Unlike early grades teachers, who were prepared as generalists, those pursuing middle-level licensure focused intensively on two content areas. The American Mathematical Society and the Mathematical Association of America recommended that preservice middle grades math teachers complete at least 24 semester hours of mathematics coursework (CBMS, 2010).

### **The Importance of Specialized Content Knowledge for Teaching**

The current PreK-5 certification enables educators to specialize in early childhood or elementary education. This specialization allows teachers to address the developmental needs and preferred teaching methodologies for younger students, leading to more effective instruction and improved outcomes. Focusing on a specific grade range helps teachers gain a deep understanding of the relevant curriculum, instructional strategies, and assessment techniques, thereby enhancing their capacity to meet diverse student needs and support academic growth. Maintaining specialized certifications for PreK-5 teachers is crucial, as quality teaching is a significant determinant of student achievement and can contribute to improved academic results and overall student success.

Research indicates that many elementary teachers feel inadequately prepared to teach mathematics, which is often accompanied by a negative attitude towards the subject (Sharp et al., 2011; Borko & Whitcomb, 2008). This lack of confidence can lead teachers to spend less time on math, potentially neglecting it in favor of subjects they find less challenging (Lumpe et al., 2000). Additionally, many carry math anxiety into the classroom, which can hinder their ability to teach math effectively (Bursal & Paznokas, 2006; Gill & Dykeman, 2019; Hacımeroglu, 2014; McAnallen, 2010; Swars et al., 2006). Teachers who are confident in their math skills are better equipped to elevate the cognitive demands of math problems, enhancing student learning (Son & Kim, 2016). The studies mentioned here represent just a few of the many research articles that highlight a common issue: many elementary teachers have limited knowledge of mathematics and its teaching methods.

If a school administrator can place a teacher in any grade through the eighth grade, the likelihood that the teacher will have deep mathematical understanding as well as the confidence to teach mathematics will likely be significantly reduced. Currently, the preparation for a PreK-8 teacher includes roughly six credit hours of university mathematics, significantly less than the approximately 24 credit hours required in a Middle Grades program (Garner et al., in press; CBMS, 2010). This reduction in specialized math preparation for middle grades teachers could decrease student understanding of mathematics, potentially reflected in state test scores.

The possibility of teachers learning less about the subjects they teach, as shown by the expected reduction in their course requirements, makes it important to study the effects of these new laws. In the following sections, we explore the views of preservice teachers who are directly affected by these changes. Specifically, we conducted a detailed survey involving preservice teachers from 26 different colleges and universities throughout Ohio. This study aims to uncover how legislative changes in HB33 might influence the career choices and opinions of those preparing to enter the teaching field. By examining the responses from these future teachers, we seek to understand the real-life impacts of the new teaching requirements and what they could mean for the quality of education in Ohio.

## Survey Findings and Implications

### Participant Profile

This study involved 646 preservice teachers from 26 different higher education institutions across Ohio, including both public and private universities such as Ohio State University, University of Cincinnati, and Miami University among others<sup>1</sup>. The demographics of the participants were predominantly female (81.9%) and white (89.9%). Other ethnicities included Hispanic (2.9%), Black (1.9%), Asian (0.5%), Middle Eastern (0.3%), Jewish (0.2%), Native American (0.2%), Biracial/Multiracial (1.2%), with 2.9% choosing not to report their ethnicity.

In terms of educational background, the vast majority of the participants were pursuing a Bachelor's degree (97.1%), with a smaller number enrolled in Associate (1.7%) and Master's degree (1.2%) programs. As for licensure preparation, 94.9% were training to become classroom teachers. The distribution across different grade bands was as follows: PreK-5 (41.2%), middle grades 4-9 (26.6%), and secondary grades 7-12 (27.1%), with these participants focusing on specific content areas such as mathematics, science, language arts, and social studies. Additionally, 5.1% of the participants were either preparing to teach special education across PreK-12 grades (2.8%) or were specializing in other subjects like art, music, or physical education (2.3%).

### Study Methodology

Participants were presented with basic background information regarding the licensure change, including the following passage:

Ohio recently passed a bill with a provision that will change Grade Bands so that future students who wish to be teachers will have different options than the current licensures. The Middle Childhood Program is being eliminated and the new grade bands will be preK-8 (all four core subjects) or 6-12 (single subject). This survey is intended to gauge students' opinions of this change.

After participants were informed that their own degree and licensure would not be affected, we administered a short two-question survey. The survey aimed to gather opinions on these changes and explore how they might influence participants' career choices. Two key questions were posed: one gauging their support for the licensure changes, and another probing how these changes might have affected their decisions if they were already in effect when they chose their college programs.

### Question 1: Survey Results

Participants were asked about their general opinion regarding the recent licensure change. The response options ranged from strong support to strong opposition:

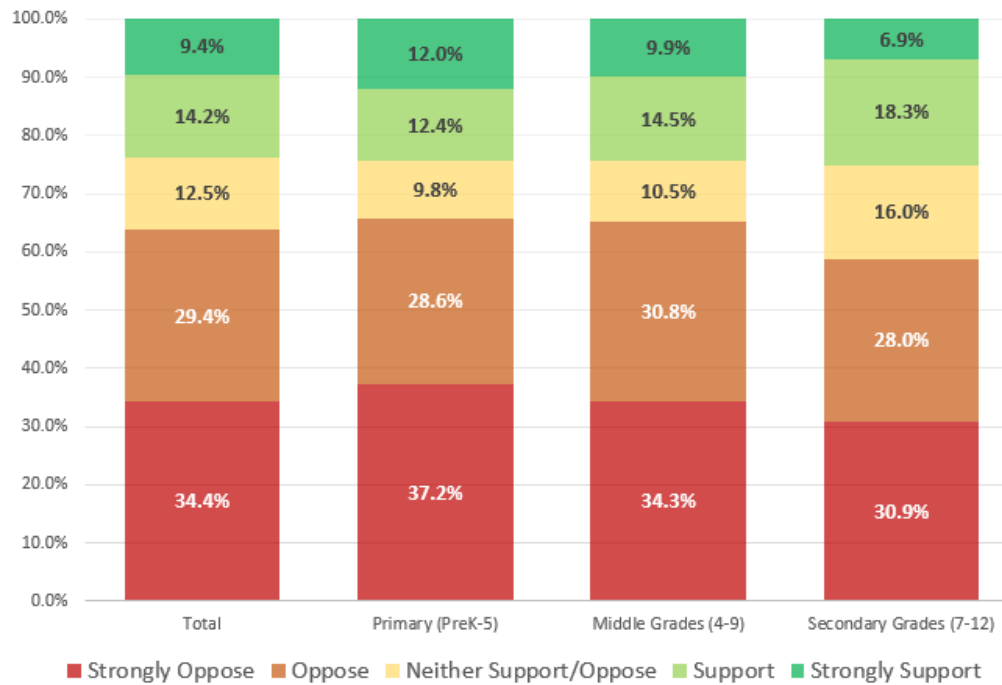
- 1 I strongly support the licensure change
- 2 I support the licensure change
- 3 I neither support nor oppose the licensure change
- 4 I oppose the licensure change
- 5 I strongly oppose the licensure change

Student responses are summarized in Figure 1.

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<sup>1</sup>Ashland University, Bowling Green State University, Cedarville University, Central State University, Cleveland State University, John Carroll University, Kent State University, Malone University, Marietta College, Miami University, Mount Vernon Nazarene University, Muskingum University, Notre Dame College, Ohio Dominican University, Ohio State University, Ohio University, Shawnee State University, University of Akron, University of Cincinnati, University of Dayton, University of Mount Union, University of Rio Grande, University of Toledo, Wittenberg University, Wright State University, Youngstown State University.

**Figure 1:** Support for Licensure Change by Current Grade-Band Licensure of Future Teachers.



The results show a significant tilt towards opposition. Overall, 63.8% of participants opposed the change, with 34.4% expressing strong opposition and 29.4% opposed. Analysis by current grade-band licensure revealed that opposition was notably high across all groups: 66% of primary preservice teachers, 65.1% of middle grades candidates, and 58.9% of secondary level candidates were opposed or strongly opposed.

## Question 2: Impact on Career Choices if Licensure Changes Were Pre-Existing

The second question explored how the licensure change might have influenced participants' decisions had it been in effect when they applied to college. They were asked to choose among the following options:

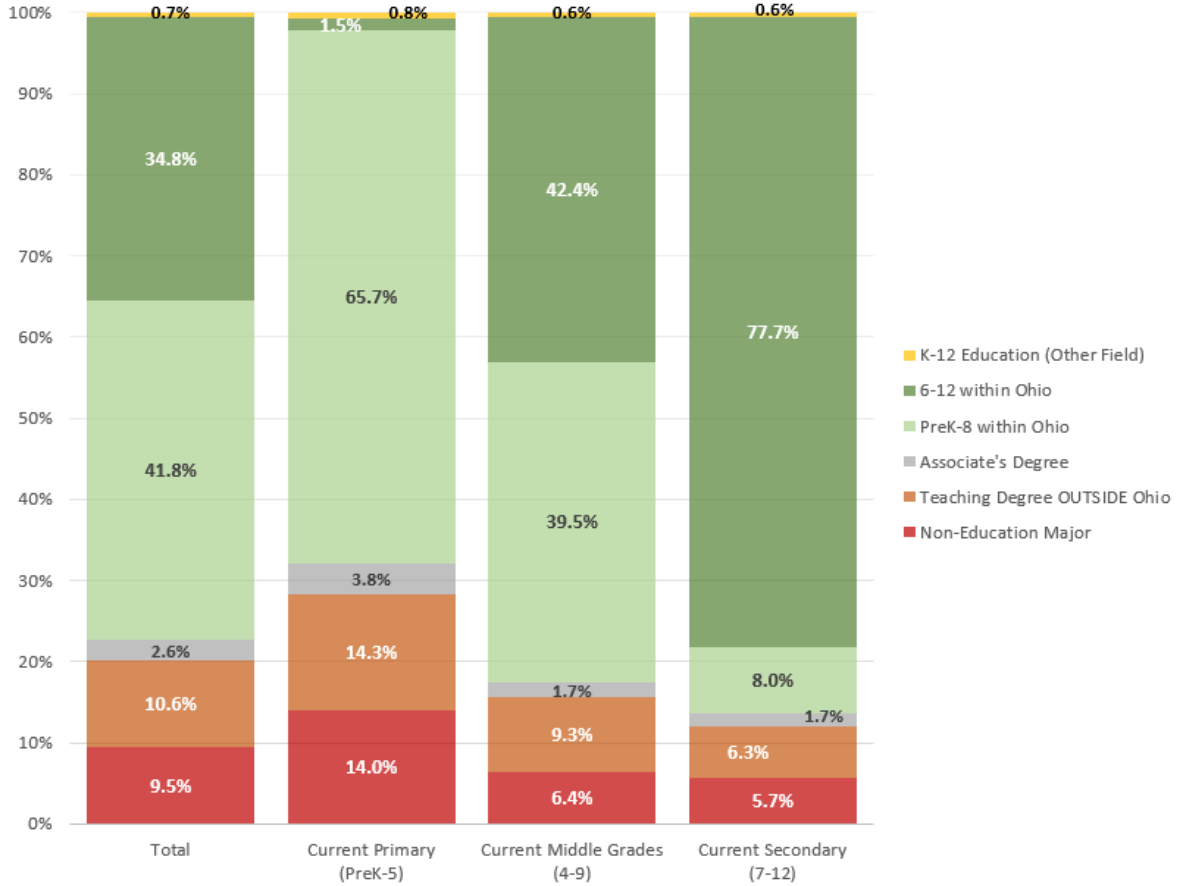
- Enroll in one of the new licensure bands within Ohio
- Attend an education program outside of Ohio
- Pursue a major outside of education altogether

The responses, illustrated in Figure 2, reveal diverse impacts on career paths. For instance, if the new licensure structure had been in effect when participants were applying to college, only 41.8% would have chosen to major in PreK-8 education, while 34.8% would have opted for secondary education within Ohio institutions.

Alarming, a significant 23.4% of the respondents indicated they would have pursued alternatives other than becoming classroom teachers in Ohio. This includes 9.5% who would have avoided the education field altogether, 10.6% who would have sought education programs outside of Ohio, and 3.3% who would have chosen different PreK-12 licensure programs, such as special education.

This potential attrition was most pronounced among current primary grades preservice teachers (PreK-5), with 28.4% reporting they would have chosen to study outside of Ohio (14.4%) or not pursue education at all (14.0%). In the middle grades (4-9), 42.4% expressed a preference for secondary education, and 39.5% for primary education under the new system. A significant 15.7% indicated they would have sought education programs outside Ohio or pursued non-education majors.

**Figure 2:** Choice of Major if New Licensure was in Effect when Entering College.



Among secondary preservice teachers, 12.0% reported they would have pursued education or careers outside of Ohio if the licensure changes had been in effect, illustrating the potential decrease in the number of individuals entering teaching at any grade band by 23.4%.

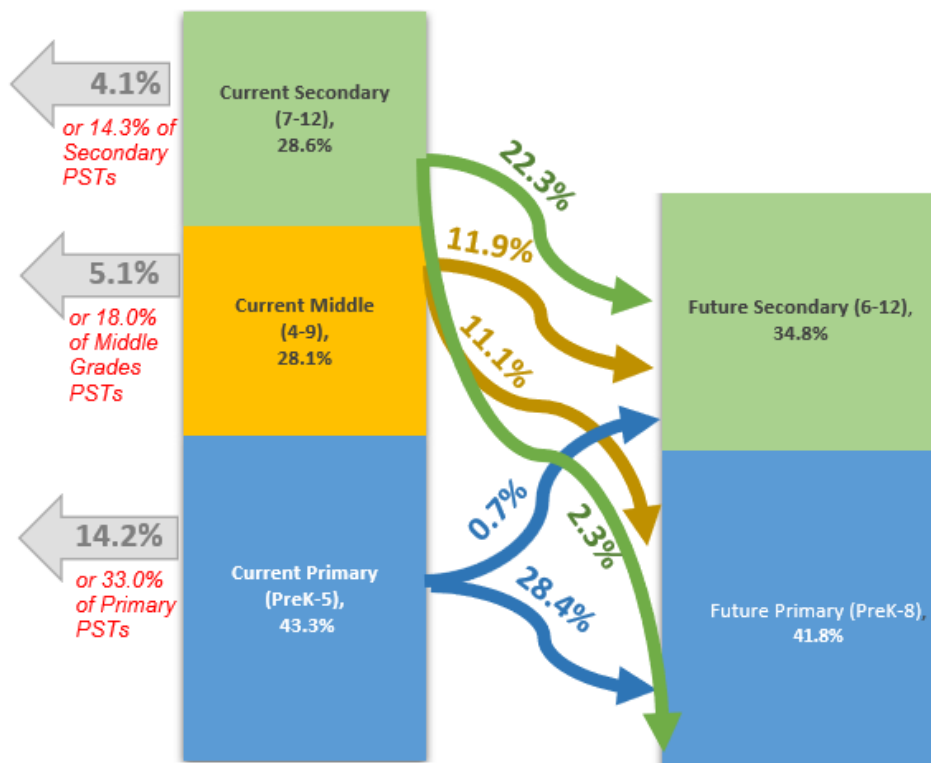
### Impact on Diversity in Teaching Pool

The changes could disproportionately affect diverse groups. For instance, 33.3% of Asian, 25.0% of Black, and 21.1% of Hispanic students reported they would not have majored in education if the new licensure bands had been in effect. Among men in the PreK-5 program, 10.0% stated they would not have pursued PreK-8 licensure in Ohio. These trends suggest that the new licensure structure could significantly reduce not only the total number of teachers licensed in Ohio but also decrease the diversity within the teaching workforce.

### Visualization of Data

Figure 3 further illustrates where future teachers would focus their studies under the new licensure regime, highlighting shifts in preferences among those aiming to become classroom teachers across primary, middle, and secondary levels.

**Figure 3:** Transition of Future Classroom Teachers if Licensure Change were in Effect.



On the left-hand side of the figure are shown the percentage points of those future teachers who would leave classroom teaching in Ohio either through studying in a different PreK-12 major (primarily Special Education), studying classroom teaching outside of Ohio, or not majoring in education altogether. This represents 33.0% of preservice teachers who would not have become a classroom teacher. The remainder of the figure helps to illustrate the significant decrease in those who would choose to major in classroom teaching. Recall that the new grade bands (i.e., preK-8 and 6-12) include overlap such that every classroom teacher (PreK-8 or 6-12) will be able to teach grades 6-8. By allowing every classroom teacher certification for middle grades, this would increase the number of available new teachers for teaching grade 6 (172.1% increase) and grades 7-8 (34.9% increase). However, other grades would see a decrease in available teachers due to the significant attrition that may result based on participants' responses. For example, available teachers certified to teach grade 9 would decrease by 38.6%. While the number of PreK-8 teachers in the new certification would only be 3.4% smaller than those currently majoring for the PreK-5 license, these teachers would be spread across a wider range of grades, thus resulting in even a larger effective decrease in available primary grades teachers.

## Discussion and Recommendations

Factors other than potential Ohio educators leaving on their own accord may further exacerbate the situation. For instance, some universities have lower prerequisite requirements for students in their PreK-5 programs compared to those in their 4-9 programs. If all education students are required to meet the higher prerequisite standards of the PreK-8 license, those who would have qualified for a PreK-5 program may not meet the criteria for the PreK-8 program. Furthermore, 42.4% of the preservice middle teachers surveyed indicated a preference for entering a secondary program, where the curriculum is more advanced; for example, Calculus 1 is often the final mathematics course in a middle school program but the first in a secondary program. This discrepancy could deter many



prospective teachers, potentially leading to a more significant decline in the teacher workforce than currently anticipated.

The researchers recognize that changing demographics in student populations, coupled with licensure programs that limit teacher preparation to only two of four major content areas, pose significant challenges to school administrators. In the coming years, many districts are expected to consolidate school buildings and services, necessitating flexible teacher placement across a broader range of grades.

Eliminating the 4-9 licensure band and expanding the PreK-8 band might seem like a viable solution; however, this approach fails to consider the perceptions, desires, and anxieties of teacher education candidates. Our data suggests that such changes could exacerbate Ohio's teacher shortage if candidates feel anxious about being placed in undesired grades or content areas, or if they opt to seek licensure in other states with more favorable conditions. Moreover, a broader licensure band with less content-specific preparation could adversely affect elementary students' academic achievement.

Various strategies could be considered to address these issues while retaining the specialized PreK-5 and 4-9 grade bands. These might include implementing grade-band or content endorsements, or offering monetary incentives to encourage entry into teaching. Ultimately, reinstating the PreK-5 and 4-9 grade bands is critical for the future of elementary education in Ohio. Failing to do so could lead to a significant reduction—potentially more than 23.4%—in the number of newly licensed teachers entering the workforce, as indicated by this study.

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