

Research and Inquiry

Revisiting the National Review of Middle Level Teacher Preparation Programs: Certification and Licensure Across the Country

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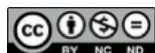
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Revisiting the National Review of Middle Level Teacher Preparation Programs: Certification and Licensure Across the Country

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Abstract

There have been renewed calls and attention on middle level certification/licensure since 2021 (see Bishop & Harrison, 2021; Dever et al., 2024; Hurd, 2022). Specifically, those calls and the attention have focused on specialized teacher development for young adolescents and middle level teacher preparation programs. Unquestionably, middle level education, and education in general, have been under intense scrutiny and attack (Berkemeyer & Campbell, 2025). This has only added to the vital importance of having current and useful data on the status of programs across the United States. It has been nearly 10 years since the last national review of middle level teacher preparation programs. Since that time, much has changed in education and society, necessitating another investigation into the status of middle level programs that offer specialized teacher preparation. This study reinvestigates the current status of public and private undergraduate middle level teacher preparation programs in the United States. This work is part of a national review of middle level specific and middle level endorsement teacher preparation programs.

It is important to understand the status of specialized certification/licensure as it concerns middle level teacher preparation programs. Knowing the number of available and viable middle level education programs that prepare teacher candidates to enter middle school classrooms is vital, as it directly impacts the recruitment and retention of middle level teachers. Since the advent of the middle level movement in the 1960s, major studies on middle level certification/licensure have been conducted, including studies by George et al. in 1975, McEwin in 1992, Gaskill in 2002, and Howell et al. in 2016 (Dever et al., 2024), notwithstanding current efforts. No studies related to the status or the nature of middle level certification/licensure have been published since 2018 (Dever et al.). However, certification/licensure requirements, including testing requirements, have shifted since that time, given various changes in the teaching landscape (Kraft & Lyon, 2024). Moreover, certification/licensure greatly influences educator preparation and development with teaching young adolescents in the middle level. Unquestionably, middle level education, and education in general, have been under intense scrutiny and attack (Berkemeyer & Campbell, 2025). This has increased the importance of having current and useful data on the status of middle level specific certification/licensure programs across the United States.

Statement of the Problem

This study reinvestigates the current status of undergraduate middle level teacher preparation programs in the United States as part of a national review of middle level specific and middle level endorsement teacher preparation programs. The researchers in this study were primarily interested in determining if the overall number of middle level specific teacher preparation programs had increased or decreased in the last 10 years and the status of endorsement programs for middle level education (MLE).

Given that certification/licensure often has an impact on teacher preparation (Dever et al., 2024) and thus impacts recruitment and retention of middle level educators from the evidence in the literature, specialized middle level preparation matters (McEwin et al., 2000; Mertens et al., 2005; Scales & McEwin, 1996). The availability of specialized teacher preparation programs is equally important. Based on these factors and extant literature, avenues need to be considered for advocating for specialized middle level teacher preparation and better preparation for those educators entering middle level classrooms through endorsements, or in states with overlapping licensure.

It has now been a decade since Howell et al. (2016) conducted a national review of middle level programs in the United States. In their review, the findings showed that despite the growth of 1,324 education programs within 45 states, a meager 25.4% of those had a “fully implemented specialized middle level program” (p. 6). The authors of that study concluded that the disparity between programming and credentialing was likely tied to generic curricular offerings to meet licensure requirements and/or a lack of certification/licensure in respective states. The findings were inconclusive regarding the reasons for the disparity, as that went beyond the scope of their study.

Much has changed since data were collected between 2013 and 2014 for that particular study, perhaps the first of its kind for middle level education. According to research by Kraft and Lyon (2024), besides the Global Pandemic of 2019 and teacher shortages at critical levels since then, funding has changed dramatically, with decreased amounts of money allocated to schools from states. Feelings regarding public education have also been challenged in the media, among caregivers, and from within local schools and classrooms (Kraft & Lyon). These events have led some states to make drastic decisions about licensure and programming, including the rise of alternative pathways to teacher licensure by many states (Povich, 2023). These decisions in turn have impacts on the teacher vacancy numbers and the quality of teacher preparation programs. These changes may also exacerbate challenges facing teacher recruitment and retention and the continued focus on quality teacher preparation programs (Povich).

Therefore, the purpose of this study was to examine the current status of middle level teacher preparation programs. All public and private teacher preparation programs in the United States and Washington, DC, were investigated to determine the extent to which undergraduate middle level education programs are still offered. More than 1,000 East Coast, West Coast, Midwest, and Southern middle level education programs were investigated.

The research questions that guided this investigation are as follows:

1. How many undergraduate middle level education licensure programs exist in the US?
2. How has the landscape for middle level education licensure changed since 2016?
3. How has the landscape for middle level education licensure changed in different regions since 2016?

Due to the varying nature of programmatic words and definitions, as well as state-level licensure language related to teacher education and preparation, such as certification/licensure, collegiate major and/or minor degree programs, and endorsements, we have provided a coding appendix with definitions of terms used in this study (see Appendix A).

Literature Review

According to Darling-Hammond et al. (2022), at the core, an effective teacher needs to have knowledge of learners and learning, teaching, and subject matter and curriculum. However, young adolescents are unique in their development, characteristics and subject matter, at minimum, resulting in the need to specially prepare middle level educators to best understand and educate them. Therefore, specialized middle level preparation begins with the need for middle level teachers to be prepared to understand all aspects of young adolescents and various developmental needs, including “physically, intellectually, morally, psychologically, and socio-emotionally” so that they are engaging in developmentally appropriate instructional practices (Bishop & Harrison, 2021, p. 8).

According to the Association for Middle Level Education (AMLE, 2024), specialized preparation includes the following:

- “A command of the characteristics essential to middle level philosophy and school organization;
- Comprehensive knowledge of young adolescent development for creating responsive and affirming learning environments for all young adolescent learners;

- Comprehensive knowledge of the distinct nature and identities of young adolescents for planning and implementing curriculum;
- A depth and breadth of content knowledge in the subjects taught;
- A thorough grasp of the content standards and major concepts in order to assist all young adolescent learners in understanding the interdisciplinary nature of knowledge and skills;
- Guidance in applying knowledge and skills to real-world problems across diverse settings;
- Emphasis on communication, collaboration, critical thinking, creativity, cultural competence, problem solving, resiliency, digital literacy, informational literacy, and citizenship;
- A wide variety of effective, responsive, equitable, and anti-racist teaching, learning, and fair and unbiased assessment strategies;
- Authentic field experiences and student teaching in schools that exemplify middle level characteristics;
- Opportunities to critically reflect on and demonstrate professional roles, positive dispositions, and ethical behaviors.”

Calls for Specialized Middle Level Teacher Preparation

The groundwork for changes to the structure of schooling, which was a significant factor among many in the ultimate development of the middle school, can be traced to 1888 when Dr. Charles Elliott called for the reorganization of secondary schooling (Lounsbury & Vars, 1960). This shift eventually led to what we know today as the middle school. Early in the middle school movement, calls were made for specialized preparation to help junior highs and ultimately middle schools to meet their full potential (Van Til et al., 1967).

From the late 1960s, and continuing until today, these calls for specialized preparation of middle level educators have continued (e.g., Bishop & Nagle, 2016; Faulkner et al., 2017; Howell et al.,

2016; Hurd et al., 2023; Jackson & Davis, 2000; McEwin et al., 2000; McEwin & Greene, 2010; National Middle School Association (NMSA), 1995, 2003, 2010; Van Til et al., 1967). Despite the failure or inability of many teacher preparation programs or states to heed the call for specialized middle level programming, researchers and professional associations continue to advocate for this (Bishop & Harrison, 2021; Hurd et al.).

History of Specialized Preparation

Despite clear preparation standards existing in 1998 and later in 2012, by 2016 most teacher preparation programs were not creating middle level programs that mirror state licensure; instead integrating middle level preparation into either elementary or secondary education (Faulkner et al., 2017). Upon commencement of the middle school movement, there was consistent growth in middle level state licensure options through 2002 (Gaskill, 2002). However, as of 2014, the number of standalone middle level teacher preparation programs was fewer than the early 2000's (Howell et al., 2016). In 1990, 28 states had some form of middle level teacher licensure (Valentine & Mogar, 1992). This grew to 33 states by 1992 and 44 states by 2002 (Gaskill). Similarly, the requirement of specific certification/licensure to teach middle level also grew from 12 of 33 in 1992 to 21 of 44 in 2002 (Gaskill). However, by 2016, in 40 of the 50 states with middle level licensure, only eight had licensure bands (e.g., 4-8, 5-8, 5-9) that were not overlapping with elementary or secondary education (Faulkner et al.; Howell et al.). By 2016, less than 50% of teacher preparation programs had specialized middle level programming (Faulkner et al.; Howell et al.). This shift to overlapping grade bands (e.g., K-8, 4-8, 7-12) may be attributed to the current national teacher shortage (Hurd et al., 2023), which leads states to look for ways to recruit and prepare educators quicker and more broadly (Povich, 2023).

The Importance of Specialized Middle Level Preparation

Middle level education for young adolescents plays a significant role in their long-term success, especially high school graduation, and overall healthier affective characteristics (Balfanz, 2009; Kansky et al., 2016). Balfanz reported that middle level is a time where graduation rates can be predicted and gaps in off-track behavior, such as

low attendance, disengagement in the classroom, and not getting along with teachers, can possibly be mitigated. In middle school, young adolescents may have one or two off-track behaviors. These can predict 60% of high school dropouts. If not mitigated in middle school, these behaviors tend to increase in high school. Therefore, middle school is a time when it is possible to address these issues and support better long-term outcomes. Kansky et al. (2016) found:

Positive affect predicted less relationship problems (less self-reported and partner-reported conflict, greater friendship attachment as rated by close peers), healthy adjustment to adulthood (lower levels of depression, anxiety, and loneliness). It also predicted positive work functioning (higher levels of career satisfaction and job competence) and increased self-worth. Negative affect did not significantly predict any of these important life outcomes. (p. 1)

Both studies indicated that middle school is a time when interventions may be particularly beneficial to long-term academic and personal outcomes.

While the previously mentioned studies do not address academic achievement during middle school, and additional research is needed to strengthen the argument for specialized middle level preparation with regard to student achievement, there is some evidence to support this need. Mertens et al. (2005) found a “direct link between teacher certification and the levels of research-based practices occurring in middle level schools, as well as an indirect link to student achievement outcomes” (p. 60). Similarly, Darling-Hammond (2009) found that the effect of fully prepared teachers on student achievement was greater than the effects of race and parent education combined. Likewise, Ludlow (2011) found that “certification status does affect student achievement” (p. 453). These studies indicate that preparation matters.

In a review of national surveys of randomly selected and highly successful middle schools (HSMS), additional support for specialized preparation may be found (McEwin & Greene, 2010). Highly successful middle schools were “defined as those schools that had been

recognized as Schools to Watch by the National Forum to Accelerate Middle Grades Reform or as Breakthrough Middle Schools by the National Association of Secondary School Principals” (p. 50). Only one-third of schools in both samples had more than 90% of core teachers with some form of specialized middle level professional preparation. However, higher percentages of specialized certifications/licensure for core content area teachers were found in the HSMS (51%) than in the random sample (29%).

Additionally, what overlapping teacher certification/licensure bands do for recruitment may be undone by decreased retention rates because those teaching middle school may be less well prepared to teach this unique age group (Hurd et al., 2023). For example, Scales and McEwin (1996) reported that job satisfaction in middle level teaching increased as the number of specialized middle level courses increased. Thus, educators trained as elementary or secondary may experience lower job satisfaction when placed in a middle school and leave the profession at higher rates than those specially prepared to do so. While this data may be skewed by the states from which the random sample of schools came and their available certifications/licensure opportunities, it still indicated that high-performing schools are served by teachers who are more likely to have participated in more specialized teacher preparation.

Changes in the Educational Landscape Since 2016

Since 2016, much has changed in the educational landscape as a result of changing political, social, and economic circumstances within the United States. During this time period, the United States and the world were subject to the global COVID-19 Pandemic, which accounts for some of the issues teacher preparation is facing today. In a 2022 study (Nguyen et al.), it was found that “there are at least 36,000 vacant positions along with at least 163,000 positions being held by underqualified teachers” (p. 1), with this being a conservative estimate. Kraft and Lyon (2024) reported that teacher prestige, interest in becoming a teacher, the number of students being licensed in teacher preparation programs, and teacher job satisfaction have all dropped precipitously in the last decade or two. During and beyond the COVID pandemic,

states used various tactics to address teacher shortages, including waiving certain testing requirements, providing alternate pipelines such as allowing military veterans to teach, and providing intensive preparation programs to speed up the process of preparing new teachers (Shelton, 2023). Therefore, the idea that states and teacher education programs have shifted or will shift toward more narrow preparation programs to specially prepare middle level educators is unlikely. Given these changes in the educational landscape, and our anecdotal knowledge from being teacher preparation educators, we determined it was time to reexamine the current status of middle level teacher preparation programs.

Methodology

The examination of the status of current undergraduate middle level teacher preparation programs was done as a qualitative content analysis. Qualitative content analysis is “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p. 1278). In this case, the keyword searches including specialized middle level teacher preparation programs, middle level teacher preparation, teacher certification/licensure, and teacher education programs guided the selection of certain collegiate programs offered for teacher candidates seeking middle level licensure and/or endorsement to teach in middle schools. This process was also followed by a content interpretation of the context of said programs.

Sample and Procedures

This study investigates the current state of middle level teacher education preparation programs across the United States, as part of a national review. Using a qualitative approach similar to that of Hsieh and Shannon (2005) in content analysis, Ellis Hurd initially gathered data over the course of two years (2022-2024) on available middle level specific programs at institutions of higher education. Ellis gathered data from available and embedded information on university websites and entered them into an Excel Spreadsheet with separate sheets for each of the 50 states. Initial numbers included private and public middle level

education programs in each state and territory, calculated against the total number of private and public programs in each geographical region (East Coast, West Coast, Midwest, and the South), along with corresponding websites, program names, and grade configurations. Regions and states therein were based on a four-region model used by the U.S. Census Bureau (U.S. Census Bureau, 2023). The number of programs investigated from 2022 to 2024 were 651, with 176 middle level programs in the East Coast, 29 in the West Coast, 241 in the Midwest, and 205 in the South.

In the fall of 2024, Nicole Miller, Robin Mis, and Nicole Whitaker became part of the research, incorporating the use of state boards of education licensure data, additional websites for accreditation, and regional information. The number of private and public institutions with middle level specific programs was also re-investigated for seven months, between January to July of 2025, to include grade band configurations (e.g., 5-9 vs. K-8). We specifically checked if programs were major middle level education programs with plans of study versus endorsement and/or add-on or minor programs that do not lead to a change in one's licensure grade band (see Appendix A). Data concerning Master of Arts in Teaching (MAT), post-baccalaureate, advanced and/or alternate pathway, and 100% online programs were noted but not included for this particular study. We focused attention on undergraduate programs that were in person (on campus) or a hybrid of in person and online. This approach aligns with that of the national study data from 2016 by Howell et al. However, this is not a replication study, seeking to validate or examine the data and claims of the 2016 and/or earlier studies.

All public and private middle level education teacher preparation programs in each U.S. state and territory were reviewed to determine the extent to which undergraduate middle level education programs are still offered. Initially, several East and West Coast states were coded by all four researchers to ensure inter-rater reliability. From there, each state in each region was coded by individual researchers with an additional 10% of the programs being reviewed by a second rater to further support reliability. Data collection and design, along with coding and analyses, are further explained in subsequent sections. The

total number of programs re-investigated and also added to the data set from the fall of 2024 to July 2025 were 1,124 programs, representing an increase of 473 middle level programs not initially investigated. Represented in that total were 193 middle level programs in the East Coast, 167 in West Coast, 328 in the Midwest, and 436 in the South. We also took on an added layer of investigation of the geographical regions, where we compared the same four regions from 2016 to 2025 to evaluate changes.

Data Collection and Design

Data tables and metrics were created in Excel to represent the distribution of those 1,124 middle level education programs for each of the 50 states by regions plus the District of Columbia (East Coast, West Coast, Midwest, and the South). In addition, the data show representations by regions and whether programs are housed in public or private schools. The names of these programs were also collected to distinguish between those that were elementary education, secondary education, mixed or hybrid grade configurations, specialty K-12 education (e.g., physical education with middle level), and middle level specific education. Regions were color-coded within and across tables to differentiate between them and the individual states therein. Moreover, frequencies were calculated for the total number of schools in each state, middle level specific grade band configurations (e.g., 5-8), and multiple grade band configurations (e.g., K-8). We also calculated the total number of private and public schools.

After three separate rounds of data collection, that is, the initial round and the added two rounds of data collection and reanalysis by the entire team of authors, we returned to the data to re-examine the number of programs within the four geographical regions between 2016 and 2025. The number of the programs previously studied varied widely by states (e.g., in 2016, earlier studies reported 94 overall programs in New York, whereas we show 63. Furthermore, in 2016, earlier studies report 44 overall programs in Massachusetts, whereas we show only 28). These differences are reflected in our data tables and will be explained in the Discussion section.

Another point pertaining to data collection and design concerns counting middle level education programs from earlier 2016 studies for comparison.

Earlier studies did not define how they used ranking of programs; whereas we include both those ranked as 1: full-standalone program; and 2: some courses taken in middle level education. Since earlier studies did not define their programs, as we have in that programs can lead to changes in licensure, the counts may not be exactly parallel. Furthermore, several states, including Massachusetts, Pennsylvania, New York, and Wisconsin, had separate institutions within a larger university system that were not disaggregated for coding purposes.

Coding and Analysis

Each geographical region represented in the study included states from that particular area. These states then included individual programs listed and calculated by private and public institutions. Individual Excel sheets included a calculated formula for the sum of private and public programs, various grade band configurations (e.g., 5-8 vs. K-12), and the number of courses taught in a given middle level education program. Excel sheets also included a description of the grade band configurations. After the first round of reviews by individual researchers, we determined to exclude data pertaining to the number of courses offered at institutions and specific nuances between program titles found on collegiate websites versus exact program titles found in course catalogs, program websites, or program documents. Although interesting, those data were outside the scope of the study, and inconsistencies between said areas made it impossible to determine the correct titling without contacting the total number of programs studied.

After initial reviews by individual authors concluded, we developed a precise coding metric when entering numeric data related to programs. This helped the authors avoid pitfalls in data calculations, such as the number of programs that reported multi grade band versus middle level specific grade band configurations, and multiple programs within a single program provider, and duplicate programs with minor or endorsement programs that were counted by the program as a major. This coding system included entering metrics as one of two designations: (0) no; and (1) yes.

An example of this coding would be an institution in the state of Mississippi. This institution has an

elementary education program for grades K-6 and was therefore initially coded with a “o” for not having a specific middle level program. However, Mississippi offers a middle endorsement that changes the grade band on one’s license to include either 7-8 or 7-12 with a single content area. This then changed the coding to a “1” for these institutions and counted towards the total of UG MLE programs.

Although interrater reliability is a well-known approach and aspect of ensuring quality and consistency with data collection, we avoided “random ratings” and “chance agreements” in the data by returning to our own codings and that of each other after the additional programs were reviewed by a second rater (Zhao et al., 2022). This allowed us to ensure the coding was consistent. When coding programs that offered a pathway to teaching in the middle level through a middle level specific program, the program received a (1) yes in the Excel sheet. The same was true for programs who offered a pathway through an elementary or secondary education program. If programs offered both or multiple pathways into teaching middle school, we coded those with a (1) yes in each respective category, allowing each of the pathways to be calculated.

Findings

Findings show that the overall number of middle level specific teacher preparation programs has decreased overall. The data from this research sought to answer the following questions:

1. How many undergraduate middle level education licensure programs exist in the US?
2. How has the landscape for middle level education licensure changed since 2016?
3. How has the landscape for middle level education licensure changed in different regions since 2016?

To begin answering these questions, data were first collected to examine how many teacher preparation programs existed in the United States that offered teacher preparation programs leading to any certification/licensure. The total number of programs examined was 1,124, of which 43% (N=489) were public institutions, while 56% (n=635) were private. Based on U.S. Census Bureau models, programs were then assigned to a region of the country (see Table 1) to look for trends in states and regions.

To further answer research question one, each region and state was examined to identify teacher education programs that offered some variation of a middle level specific preparation program. This could either be a major or certification. For the purpose of this study, programs were only considered to be “specialized” and counted if they led to a designation on a teaching license that indicated a middle level grade band. For example, if an institution offers an elementary education program that led to a K-6 license while also having an optional concentration in middle level mathematics, it was only counted as being

Table 1
Number of teacher education programs examined by region/state

Region	States Included	Total Number of Institutions in Region	Number of Public	Number of Private
Midwest	IA, IN, IL, KS, MI, MO, NE, ND, OH, SD, WI	328	115	213
South	AL, AR, DC, DE, FL, GA, KY, LA, MD, NC, OK, SC, TN, TX, WV, VA	436	207	229
East	CT, MA, ME, NH, NJ, NY, PA, RI, VT	193	75	118
West	AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY	167	92	75

Table 2*Total number of programs vs. middle level education (MLE) programs by region*

Region	Number of Programs 2025	Number of MLE (% of programs in state that are MLE) 2025	Number of Programs 2016	Number of MLE (% of programs in state that are MLE) 2016
Midwest	328	139 (42%)	368	211 (57%)
South	436	203 (47%)	473	234 (49%)
East	193	60 (31%)	288	149 (52%)
West	167	19 (11%)	195	51 (26%)

middle level if the graduates' license reflected the concentration or changed their initial grade band. With this as a guiding principle, 421 out of 1124 (37%) institutions offer a program that leads to specific middle level licensure (see Table 2).

This data reflects that the Midwest and South have almost half of their institutions that include a middle level undergraduate program. However, the West only has 11% of their institutions having a middle level undergraduate program.

In looking at all institutions that offer a MLE program (N=421), 48% (N=203) are located in the South, followed by 33% (N=139) in the Midwest, 14% (N=60) in the East and only 5% (N=19) are located in the West region. These results show that over 80% of all MLE programs are found in just two regions of the United States, the South and Midwest.

The number of institutions offering an undergraduate MLE program in a particular state was also analyzed (see Table 3).

Table 3*Number of undergraduate (UG) middle level education (MLE) preparation programs by state*

State	# of UG Teacher Preparation Programs	# of UG MLE Teacher Preparation Programs	State	# of UG Teacher Preparation Programs	# of UG MLE Teacher Preparation Programs
Alabama	24	0	Montana	10	3
Alaska	4	1	Nebraska	16	7
Arizona	11	1	Nevada	3	0
Arkansas	18	9	New Hampshire	8	1
California	65	7	New Jersey	21	0
Colorado	11	1	New Mexico	7	0
Connecticut	14	1	New York	63	2
Delaware	3	3	North Carolina	41	22
District of Columbia	2	1	North Dakota	9	1
Florida	51	18	Ohio	45	38
Georgia	40	29	Oklahoma	23	0
Hawaii	4	0	Oregon	13	1
Idaho	7	0	Pennsylvania	33	25
Illinois	43	35	Rhode Island	5	0
Indiana	35	0	South Carolina	22	18
Iowa	22	1	South Dakota	11	0
Kansas	24	7	Tennessee	31	11
Kentucky	24	23	Texas	55	47
Louisiana	17	5	Utah	8	0
Maine	15	2	Vermont	6	4
Maryland	16	3	Virginia	36	9
Massachusetts	28	25	Washington	22	5
Michigan	32	1	West Virginia	18	5
Minnesota	25	18	Wisconsin	30	0
Mississippi	15	0	Wyoming	2	0
Missouri	36	31			

Table 4
Comparison of studies

Components of 2016	Components of 2025
1,324 programs examined	1,124 programs examined
Included programs with 5th year options	Did not include programs with 5th year options
Excluded graduate programs, minors and programs requiring courses at other institutions	Excluded graduate programs, minors and programs requiring courses at other institutions
Examined number of ML specific courses in a program	Did not examine number of ML specific courses in a program
36% of programs were public institutions	43% of programs are public institutions
61% of programs were private institutions	56% of programs are private institutions
2% of programs were for-profit institutions	Did not include for-profit institutions
49% of institutions examined had MLE UG programs	37% of institutions examined have MLE UG programs
50% of institutions examined had no MLE UG programs	63% of institutions examined have no MLE UG programs

The data broken down by state reflects how many undergraduate teacher preparation programs exist in each state and how many of those programs offer a middle level education program, which leads to a specific middle level grade band or adds a middle level grade to an existing licensure band. Out of 50 states and the District of Columbia, 11 states comprised 74% of all MLE UG programs. These states (GA, IL, KY, MA, MN, MO, NC, OH, PA, SC, TX) combined have a total of 311 MLE UG programs out of the 421 in the entire country. A total of 14 states (AL, HI, ID, IN, MS, NV, NJ, NM, OK, RI, SD, UT, WI, WY) have no MLE UG programs.

To answer the second research question: “How has the landscape for middle level education licensure changed since 2016?”, a previous study (Howell et al., 2016) was examined. This previous study identified the number of teacher preparation programs offering MLE specific content in 2016. While the current study did not seek to fully replicate the 2016 study, some components were included so that trends can be identified. Even though the studies do not perfectly mirror each other, some similarities exist as seen in Table 4.

While these studies have several similarities, they have several differing variables, most notably the inclusion/exclusion criteria of programs that have 5th year options, the examination of the number of MLE specific courses a program offered, and ranking of programs based on the number of

courses. The current study did not examine these variables. However, the overall number of institutions examined and the percentage of MLE programs can be compared. In 2016, 1,324 institutions were examined with 49% of them having a MLE UG program. In 2025, the number of institutions included was only 1,124 with 37% having MLE programs. This indicates that the percentage of institutions offering UG MLE programs has declined by 12% over the past nine years. It can be stated that the trend in MLE programs since 2016 is on the decline and it is anticipated that this percentage of programs will continue to decrease as states discontinue offering a middle level license.

To answer research question three, “How has the landscape for middle level education licensure changed in different regions since 2016?”, a closer examination of each state and region was completed. (See Table 2 and Table 4.) First, each state from the 2016 study was placed in identical regions as were used in this study. Then, the total number of programs and the number of MLE programs were calculated. From the 2016 study, programs considered a “1” (stand-alone, MLE program) and “2” (at least one course/experience in middle level) were included in the calculations of the total number of MLE programs (Howell et al., 2016). Because the method used to identify the overall type of teacher education program varies by study, the overall percentage is most closely related to the overall trends in the region. While

all regions show a decline in the number of MLE programs being offered when compared to 2016, the difference in methodology cannot denote a trend. However, three of the four regions show a decline in the overall percentage of MLE programs when compared to the overall total number of MLE programs. These include a decline of 9% in the East, and 3% decline in the West. The South, while their number of overall MLE programs decreased, now accounts for 48% of all MLE programs which is an increase of 12%. Meanwhile, the Midwest carried the same percentage of programs it did in 2016 (33%).

Discussion

The call for specialized teacher preparation for middle level teachers has been strong, dating back to before the middle school movement. This call is grounded in the belief that young adolescents require a unique pedagogy and that teachers with specialized preparation are more likely to report job satisfaction, less likely to leave teaching, and deliver increased student achievement (e.g., Faulkner et al., 2017; Howell et al., 2016; Hurd et al., 2023; Wiseman, 2012). Despite research indicating that teacher preparation matters (Darling-Hammond, 2009; Ludlow, 2011; Mertens et al., 2005), the number of states issuing specific middle level certification/licensure and requiring specialized preparation of middle level teachers has been on the decline over the past nine years. It is concerning that there has been a decrease in the number of teacher education programs offering specialized teacher preparation programs, even in those states with specific middle level licensure.

As indicated earlier, this study is not a replication of the study by Howell et al. (2016). As such, the definitions of what constitutes specialized middle level preparation varied. In this study, we only examined programs that led to a designation specific to middle level on the state credential issued as a result of a specialized middle level undergraduate program. The result was that 200 fewer institutions (N=1124) were reviewed in this study than in the 2016 study (N=1324). Although our definition differences created a negligible change in the number of public institutions examined (2016 N=488, 2025 N=489), the number of private institutions was significantly reduced (2016 N=812, 2025 N=635). Part of the explanation for the greater reduction in private

institutions is the closure or merger of many private liberal arts colleges since 2019, largely due to declining enrollments (Moody, 2023). Definitional changes may also account for some of this variance.

Changes to state licensing appear to have impacted private institutions' specialized programming more dramatically than public institutions. For example, in Pennsylvania in 2016, Howell et al. reported 43 specialized middle level programs while we only report 25, more than half of which are private institutions (9 public, 16 private). Pennsylvania has had two major legislative changes introduced since 2016 that propose to revise licensure grade bands in that state to potentially eliminate middle level licensure (Pennsylvania General Assembly, 2024a; 2024b).

Similarly, in Wisconsin in 2018, grade bands were adjusted removing the middle level licensure, combining middle with either elementary or high school with grade bands of K-9 and 4-12 (Wisconsin Department of Public Instruction, 2025). "Nesting" the middle level license within other grade bands also seems to have impacted specialized teacher preparation programs. For example, in New York, Howell et al. (2016) reported 43 specialized middle level programs. Although it does not appear that the law has changed with regard to general education grade bands (B-2, 1-6, 5-9, 7-12), currently only 21 institutions are registered with the state as approved teacher preparation programs with middle level specialization and of those, only 2 actually offer a middle level undergraduate initial licensure program. Interestingly, in Florida, almost half (9 of 21) private institutions offer undergraduate pathways to teacher licensure in the elementary band only (K-6). This move may be a result of the amount of coursework to be completed in a four-year undergraduate program exceeding the 120 credit hours typically associated with such programs.

Regional comparisons from 2016 to 2025 reveal a similar decline in the number of specialized teacher preparation programs. The Midwest (2016 = 57%, 2025 = 42%) and South (2016 = 49%, 2025 = 47%) have undergone minimal change since 2016, with just a slight decline in the South. The East has seen a more dramatic reduction from 52% of institutions offering specialized teacher

preparation in 2016 to only 31% in 2025. Teacher preparation programs with specialized middle level programming were reduced by more than half in the West (2016 = 26%, 2025 = 11%). Part of the variance in the East may be definitional because in 2016, 288 institutions were counted, whereas in 2025, only 193 institutions were counted. In the West, as of 2025, five states currently offer no middle level license (AZ, CA, CO, ID, MT) and the remaining eight states (AK, HI, NM, NV, OR, UT, WA) have a middle level license that is “nested” within elementary and secondary licensure bands (e.g., K-6, 5-9, 7-12). As stated earlier, when the middle grades are “nested” within other grade bands, there is little incentive for institutions to invest in a specialized middle level program.

In the years following the COVID pandemic, the national teacher shortage has expanded (Kraft & Lyon, 2024). We speculate that the national teacher shortage is likely the cause of the shift in many states from standalone middle level licensing (e.g., P-3, 4-8, 9-12) to middle level licensing being overlapped by other bands (e.g., P-6, 4-8, 7-12) or removed altogether (e.g., P-8, 7-12). As noted in the findings, Ohio is one of the most recent states to eliminate the middle level licensing band, shifting from P-5, 4-9, and 7-12 to P-8 and 7-12 as of 2030 (Ohio General Assembly, 2023). This shift was made in direct response to superintendents’ call for greater educator flexibility due to the teacher shortage.

It is interesting that despite shifts in licensure requirements, and a 7% decrease in the number of institutions that have MLE undergraduate programming, 7% more public institutions offer MLE programming than in 2016. It may be the case that these institutions were lagging behind in updating their programming to include specialization for MLE to better align with state licensure requirements. However, while it appears that public institutions are making up some ground, private institutions decreased the number of specialized programs by 5%. Although private institutions outnumber public institutions, private institutions have fewer specialized preparation programs. This may be due to overall lower enrollment that may lead to an institutional inability to run additional specialized programs or hire middle level specific faculty. As institutions across the nation experience

declining enrollments, it may also be that private institutions are faster to consolidate programming in response to a decreasing demand.

Limitations

This national study is limited in several ways. Through this process, the researchers did not examine the nature of the programs and coursework for alignment with the 2022 AMLE Middle Level Teacher Preparation Standards for professional integration. Thus, we could not determine the extent of coursework alignment with AMLE standards. It should also be noted that this study only included programs if they led to a designation on a teaching license for middle level education (e.g., an elementary education program for a K-6 license with an optional concentration in MLE mathematics), resulting in a change to an initial grade band. There may be middle level specific programs that led to a middle level licensure not reflected in this data because the grade band did not change as a result of the initial license. Additionally, middle level specific courses offered with identified programs were not counted. At first, this work was examined. However, after initial conversations and analyses, the researchers determined that the work was outside the scope of this study due to the varying nature of programs and insufficient data included on websites for coursework (e.g., number of courses, overlap between programmatic levels, state requirements for minor or endorsement). Moreover, this study used a qualitative content analysis approach for examinations and analyses.

Conclusion

Recommendations and conclusions are presented, based on the data analysis and current literature in the field of middle level education. The purpose of this research study was to examine the current state of specialized middle level teacher preparation. Clearly, there has been a decrease in programs especially preparing middle level educators since 2016. Despite this decrease, the increasing numbers of middle level endorsements being offered demonstrate some commitment to providing an avenue for middle level specific teacher preparation, albeit in a much more limited manner. This study provides information to researchers and practitioners. For teacher preparation programs and state departments

of education, this information does provide a snapshot of the current practices for middle level teacher preparation.

As a result of this study, we renew the call for middle level specialization in teacher preparation programs. Not only does specialization increase student academic and social-emotional outcomes, but it also improves teacher job satisfaction and retention (Darling-Hammond, 2009; Ludlow, 2011; Mertens et al., 2005). Every middle level student deserves to be taught by a teacher who has had training in young adolescent development, culturally responsive and sustaining pedagogies, and interdisciplinary content knowledge in order to create responsive and affirming learning environments. Although one aspect of this advocacy work can be to continue to advocate for specialized certification/licensure, we should consider other avenues as well. Middle level advocates can also advocate within teacher preparation programs at both the elementary and secondary levels to better incorporate practices that will serve young adolescents and better prepare the teachers who teach them.

Future research could examine the connection of policy and practice by exploring the nature of state level teacher licensure requirements and policies and how those connect to what we found in the given state teacher preparation programs. How

teacher preparation programs respond to state level policies could be explored to determine if programs are narrowing their offerings or possibly providing more opportunities for more specialized middle level teacher preparation. As a part of this link between policy and practice, the current status of middle level teacher certification/licensure should also be examined.

We also need additional research to examine the impact of specialized preparation. This research needs to address not only academic but also non-academic outcomes, such as overall well-being. With this, examining the impact of development, pedagogy, and content courses on the academic and non-academic outcomes may be a useful avenue to pursue. Given that broadening certification/licensure bands, as well as fast-track programs, is partially a response to teacher shortages, being able to determine courses and content that could be particularly beneficial. Also, examining teacher retention with regard to certification/licensure pathways is another area of need. We need to not only be able to prepare future middle level educators but retain them to make long-term contributions to schools and students. Teacher turnover is costly (Nguyen et al., 2022), but providing faster paths to certification/licensure to fill vacancies may only ultimately exacerbate the challenges of the teacher shortage and retention problem facing the United States.

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Appendix A Glossary of Terms

1. **Certification/Licensure:** an initial or advanced teacher education license or certificate from a state providing legal permission to an individual to teach in public schools
2. **Major:** sequence of courses for a plan of study leading to an undergraduate or graduate degree, which, upon completion, makes the student eligible to apply for an initial teacher licensure in a specific state
3. **Minor:** sequence of courses for a plan of study including courses with a specific focus in addition to the content of a major. These courses alone do not make a student eligible to apply for an initial teacher license in a specific state. However, a minor may lead to additional licensure areas, such as through a middle level endorsement.
4. **Endorsement:** refers to changing the grade band and/or content areas on an existing teacher license.