

University of Nebraska at Omaha

DigitalCommons@UNO

Special Education and Communication Disorders Faculty Publications

Department of Special Education and Communication Disorders

8-6-2020

# From NCLB to ESSA: Implications for Teacher Preparation and Policy

Ambra L. Green

Jennifer McKenzie

Timothy J. Lewis

Apryl L. Poch

Follow this and additional works at: https://digitalcommons.unomaha.edu/spedfacpub Part of the Special Education and Teaching Commons Please take our feedback survey at: https://unomaha.az1.qualtrics.com/jfe/form/ SV\_8cchtFmpDyGfBLE



# From NCLB to ESSA: Implications for Teacher Preparation and Policy

Ambra L. Green, PhD<sup>1</sup>, Jennifer McKenzie, PhD<sup>2</sup>, Timothy J. Lewis, PhD<sup>3</sup>, and

# Apryl L. Poch, PhD<sup>4</sup>

1The University of Texas at Arlington, TX, USA2Southern Utah University, Cedar City, UT, USA3University of Missouri, Columbia, MI, USA 4Duquesne University, Pittsburgh, PA, USA

## Abstract

With the 2001 reauthorization of the Elementary and Secondary Education Act (ESEA), the term highly gualified teacher (HQT) became an important component of teacher licensure, including for special educators. However, when ESEA was reauthorized in 2015 as the Every Student Succeeds Act (ESSA), the highly qualified regulations were removed. The purpose of this study was to look back at the historical record of policy implementation of HQT and compare the record across states to provide implications for teacher preparation and licensure policy in the era of ESSA. This was accomplished through a review of the history of special education teacher licensure and completion of a comprehensive analysis of state licensure requirements under the Individuals with Disabilities Education Improvement Act. Despite a general consistency across three domains (i.e., degree, examination, and licensure) of the highly qualified statute, inconsistencies among states at both the elementary and secondary levels of special educator licensure may yield significant challenges related to the impact of teacher guality on student outcomes. Better understanding of these challenges is important as policymakers will be better able to make decisions regarding what teachers need to know prior to entering the field to meet students' needs and generate student achievement.

# Keywords

highly qualified, HQT, Every Student Succeeds Act (ESSA), licensure

A body of research exists that supports the idea that what teachers know and do makes a difference in student learning (Darling-Hammond & Youngs, 2002; National Commission on Teaching and America's Future, 1996; Sanders & Horn, 1998). However, even after 200 years of educating students in America, it appears there is little agreement as to how best to quantify what it is that all teachers really need to know and be able to do (Sindelar et al., 2010). This is especially true for special education teachers whose roles are as diverse as the students they serve. Interest in models of licensure (e.g., evidence that one has met a certain set of criteria to hold a given professional position) for special education teachers began around the time the federal government became involved in the education of students with disabilities (Geiger et al., 2014).

Mackie and Dunn (1954) completed one of the earliest studies of special education licensure prior to the passage of any federal special education legislation. At that time, 32 states and the District of Columbia offered special licensure for students with exceptionalities. Mackie and Dunn (1954) pointed out large disparities in special education licensing standards between states in the early 1950s. For example, specific courses were required in one state and not in the neighboring state. In some instances, teacher candidates were required to fulfill considerable requirements in class- rooms working with students with a particular type of dis- ability, whereas in another state, there were very few required classroom hours; instead, requirements were met by taking related courses (Mackie & Dunn, 1954).

A few years prior to the passage of the Education for all Handicapped Children Act of 1975 (EHA, and what would later become known as the Individuals with Disabilities Education Act [IDEA]), Abeson and Fleury (1972) published a document outlining state-by-state licensure requirements for special education. By this time, almost all states had licensure requirements in various categories of disabilities, ranging from one to eight categories per state. After the pas- sage of the EHA, there was a significant increase in research focusing on teacher quality that, for the first time, included special education teachers. This research helped drive competency-based teacher preparation programs (Brownell et al., 2010), which focused more on precise learning objectives, or competencies, that were defined in behavioral terms and organized into learning modules rather than traditional con- tent and methods courses (Forzani, 2014). By 1988, Mauser and Cranston-Gingras's national survey of state departments of education reported that 33% of states-certified special education teachers using the traditional categorical model, 25% used a noncategorical system, and the remaining 42% offered both types of licensures. This study also stated that 30% of the state education agencies (SEAs; including U.S. Territories) required that special education teachers be certified in general education and 25% required secondary special education teachers to have a teaching license in a specific academic content area along with a special education license (Mauser & Cranston-Gingras, 1988). Furthermore, 50% of SEAs required a competency examination for special education teacher certification, but specifics regarding these examinations were not included in the study.

In 2002, Geiger published the most recent exhaustive study of national trends in special education licensure. This study revealed that, similar to studies dating back to the 1950s, the basis for issuing special education licenses was significantly inconsistent from state to state. All SEAs reported that "completion of the curricula of state approved institutions of higher education" was a basis for issuing a license (Geiger, 2002, p. 5). Other requirements reported included a minimum number of credit hours in specific content or topical areas; a minimum number of credit hours in special education; demonstration of required competencies in special education; and combinations of course-based, competency-based, and performance- based assessment options (Geiger, 2002). Licensure in 42 of the SEAs was "freestanding," meaning that no general education teaching license was required to obtain a special education certificate. All but five SEAs offered some form of generic special education license, 27 reported expansive generic licenses, and another 27 offered generic licenses that were based on one or more levels of disability, such as mild/moderate and severe/profound (Geiger, 2002).

#### Perspectives on Special Education Teacher Licensure

In recent years, there have been differing views on the best routes to prepare teachers for special education licensure. One view is that preparation should be guided by the body of research on good teaching and good practices in teacher education, with the research informing and improving the licensure process (Leko et al., 2015; Marszalek et al., 2010). Another perspective challenges the need for completion of a

university preparation program, arguing that good teaching primarily requires strong content knowledge and the rest learned through on-the-job training (Paige et al., 2002). Some research suggests that teacher licensure and teacher knowledge of the content they teach are significantly related to student outcomes (McLeskey & Billingsley, 2008) and, on average, teacher preparation programs result in higher ratings of preparedness and effectiveness, as well as increased retention rates, than programs with less preparation prior to entry into the field (Cochran-Smith et al., 2015). State licensure has traditionally been the entry gate through which teachers enter the profession, and teacher preparation programs are, by nature of the system, at the mercy of state licensure requirements. Although research on teacher licensure exists, it has led to no discernment of which type of license has the greatest effect, or any effect at all, on student achievement (Sindelar et al., 2018).

#### No Child Left Behind Act (NCLB) (2001).

The reauthorization of the Elementary and Secondary Education Act of 1965 (ESEA) as the NCLB in 2001 ushered in a period of the most expanded federal involvement in teacher training, evaluation, and licensure since the beginning of special education as a profession. NCLB required all 50 states to develop performance systems to improve the quality of the teaching force through elements such as performance goals, evaluations, rewards, teacher dismissals, and school sanctions (Patrick, 2012) and created a new term: "highly qualified teacher" (HQT). The intent was to guide initial and continuing teacher licensure at the state level. Although intended as guidance, interpretation of the definition was left to state licensure agencies, creating a wide variety of state standards for beginning and experienced teachers.

In 2004, IDEA was once again reauthorized, becoming the Individuals with Disabilities Education Improvement Act (IDEIA). The main purpose of this most recent reauthorization was to align federal special education regulations to NCLB. The changes regarding teacher licensure in IDEIA were significant (Yell, 2012). Specifically, the addition of a federal definition of HQT under NCLB translated to a definition of "highly qualified special education teacher" under IDEIA (2004). To be considered "highly qualified" under NCLB, teachers were required to hold at least a bachelor's degree, be fully certified or licensed by the state, and demonstrate content knowledge in each of the core subjects they teach (NCLB, 2002). Although this high standard is an understandable goal for which to strive, it created a conundrum for the field of special education, which has suffered from a shortage of certified teachers since the passage of the EHA (Brownell et al., 2010; Rosenberg & Sindelar, 2005).

#### HQT and Every Student Succeeds Act (ESSA) (2015).

Beginning in the 2016–2017 academic year, local education agencies (LEAs) and SEAs were no longer responsible for complying with or reporting teachers' HQT status (including reporting to parents when their child was assigned to or had been taught for four or more consecutive weeks by a teacher who was not highly qualified), as ESSA removed the definition of highly qualified from its regulatory language. However, starting with the 2016–2017 academic year, states were required to ensure that an individual employed as a special education teacher at the elementary, middle, or high school level (a) had obtained full licensure or had passed the state special education licensing exam, (b) not had their special education licensure waived on a provisional/emergency/ temporary basis, and (c) had obtained at least a bachelor's degree (ESSA, 2015). Interestingly, these continuing requirements under ESSA still reflect some of the original HQT requirements, namely, that teachers have a degree and have obtained full licensure or had demonstrated proficiency by passing the requisite licensing exam(s). Although the issue of what constitutes "demonstrating proficiency" may be called back into question moving forward as states are working within ESSA, a standard-albeit at what level-still exists for individuals looking for a job as a special educator.

Considering the possible negative implications of each state determining highly variable standards as outlined in ESSA, more information is needed to determine how states have implemented NCLB's HQT requirement in the past. The purpose of this study was twofold: first, to look back at the historical record of policy implementation to review how states interpreted and monitored HQT after its inception in NCLB in 2001; and second, to compare the historical record of policy implementation across states to provide implications for teacher practice and policy in the era of new policy (i.e., ESSA). This was accomplished through a review of the history of special education teacher

licensure (provided above) and completion of a comprehensive analysis of state licensure requirements (including the District of Columbia) under IDEIA.

#### Method

#### Procedures

This descriptive study was conducted through five phases. Phase 1 consisted of gathering HQT criteria for elementary and secondary special educators across the 50 United States and the District of Columbia via an internet search of each state's Department of Education website in the Fall of 2013 (pre-ESSA) and again in Fall 2016 (beginning of ESSA) to retrieve missing data from the first search. Search terms entered in the state's Department of Education website included highly qualified, special education teacher, certification, and licensure. Phase 2 included reviewing each state's HQT criteria to look for common patterns (e.g., degree vs. bachelor's degree). In Phase 3, tables were created to assist with summarizing the collected data, which represented four domains: degree, examination, licensure/ endorsement, and methods for demonstrating proficiency in one's designated content area. In Phase 4, the table was revised to account for the varied ways in which the data were leveled (i.e., to highlight the options by which teachers can meet HQT definitions). In some instances, items coded were mandatory according to IDEIA. For example, to meet HQT status at the elementary level in the state of Texas, teachers were required to hold a bachelor's degree, have obtained special education licensure, and have passed the state Elementary exam. Others, however, were optional avenues to demonstrate mandatory proficiency in the con- tent area(s) taught (e.g., to meet HQT status at the Elementary level in Massachusetts, teachers were required to hold a bachelor's degree, have obtained special education licensure, and either have met High Objective Uniform State Standard Evaluation (HOUSSE) requirements or passed the general state exam). In Phase 5, results were analyzed by level (e.g., elementary, secondary) and each domain. A frequency count was conducted to determine how many states provided information across and within the domains.

#### Procedural Reliability

During Phases 3 through 5, the first and fourth authors worked collaboratively to reach 100% agreement on the coding for each domain. The authors consulted the respective state's website and called one state's Department of Education teacher certification division for additional information. Any discrepancies were discussed, and agreement was reached.

#### Results

Results are discussed first by level (i.e., elementary and sec- ondary) as there are nuances (e.g., content-specific foci) between lower and higher levels of K-12 education, then domain, and within domain by required criteria and optional ways to meet domain criteria. The HQT requirements were unable to be retrieved from state websites or through direct contact for the states of New York, North Dakota, and Pennsylvania and therefore were not included in the analysis. It should also be noted that states use differing terms to describe qualifying criteria, particularly as it relates to recognizing that a teacher has achieved a particular credential to teach in the state and has passed requisite assessments. We have defaulted to the language used by the states in reporting our findings. We believe it is noteworthy that states seem to have, in most cases, adopted different terms to refer to the same process (e.g., certificate, license, credential, and endorsement when referring to an individual possessing a certain level of knowledge/expertise that grants them the ability to practice as a teacher). It is equally worth noting that states utilize varying descriptions of the types of assessments that teachers must pass for licensure though clarification of the similarities and differences between a general and a content exam are not always made clear.

#### Elementary

At the elementary level, most states (n = 36) and the District of Columbia specified that a teacher must have obtained a bachelor's degree (see Figure 1). Three states indicated the possession of a degree without specifying at which level of educational attainment, whereas nine states did not specifically indicate that teachers were required to have obtained a degree.



**Figure 1.** Required examinations by elementary and secondary levels. *Note.* SPED = special education.

Three different kinds of state examinations were reported as being required across states: elementary, content, and special education based. Although the states did not define what the exams included, generally, elementary exams include elementary curriculum for multiple content areas (e.g., English language arts, mathematics, science, social studies); content exams include a specific content area focus (e.g., Algebra at the secondary level); and special education exams include an assessment of special education content and curriculum. Thirteen states required an elementary examination in which it was suggested that teachers would be tested on materials pertinent to the elementary curriculum. Two states required a content-specific test, and one state required a special education test. In Minnesota, teachers had the option to take either a general state exam or a content-specific state exam.

One of the greatest areas for interpretation was in what type of certification, licensure, and/or endorsement (e.g., documentation indicating the teacher is qualified in an additional area that was not part of their initial certification) teachers must obtain to be recognized as highly qualified. Nine categories were identified. Standard certification was required by three states, state licensure was required by 11 states, state teaching certification was required by one state, a teaching credential was required by the District of Columbia, elementary certification was required by nine states, a special education credential was required by two states, special education licensure was required by 26 states, and a special education endorsement was required by two states. In New Hampshire, teachers had the option of special education licensure or certification. In Nebraska, teachers had the option of an elementary endorsement or HOUSSE. In Vermont, in addition to requiring a special education certificate, teachers had the option of elementary certification or HQT status from the secondary level.

Three states provided options across state examinations and certification. New Mexico provided options across state examinations or holding National Board Certification.

States also provided seven different ways in which teachers were required to demonstrate proficiency in their content area, including a broad statement that teachers must demonstrate proficiency, but not defining or detailing the ways in which teachers might go about this process (see Figure 3). These were marked as "not-defined." One state required an alternative route to certification, one state and the District of Columbia required following the SEA's HOUSSE, one state required National Board Certification, one state required a graduate degree, one state required college credit hours, three states required a content exam, and nine states did not define their expectations. Interestingly, 32 states did not mention "demonstrate proficiency" in their requirements of HQT status. Four states provided multiple ways in which teachers might demonstrate proficiency. For example, in Nevada, proficiency could be demonstrated through the SEA's HOUSSE requirements or a content exam.



**Figure 2.** Required licensures and endorsements by elementary and secondary levels. *Note.* SPED = special education.





*Note.* HOUSSE = High Objective Uniform State Standard Evaluation; HQT = highly qualified teacher.

#### Secondary

At the secondary level, most states (n = 36) and the District of Columbia specified that a teacher must have obtained a bachelor's degree (see Figure 2). Three states indicated the possession of a degree without specifying at which level of educational attainment, whereas nine states did not specifically indicate that teachers were required to have obtained a degree.

Three different kinds of state examinations were reported as being required across states: secondary, general state exam, and content specific. One state required a secondary examination in which it was suggested that teachers would be tested on materials pertinent to the secondary curriculum. One state required a general state exam, and one state required a content-specific exam.

One of the greatest areas for interpretation was in what type of certification, licensure, and/or endorsement teachers must obtain to be recognized as highly qualified. Nine categories were identified. Standard certification was required by two states, state licensure was required by nine states, state teaching certification was required by four states, a special education credential was required by two states, a

teaching credential was required by the District of Columbia, special education licensure was required by 26 states, a special education endorsement was required by two states, and content-specific certification was required by three states.

One state provided options across state examinations and certification. Six states provided options across certification and demonstrating proficiency. Fourteen states pro- vided options across state examinations and demonstrating proficiency.

At the secondary level, 10 states indicated that teachers must demonstrate proficiency, but they did not define or detail the ways in which teachers might go about this process (see Figure 3). These were marked as "not-defined." The District of Columbia required adherence to their HOUSSE plan. Interestingly, seven states did not mention "demonstrate proficiency" in their requirements of HQT status. Several states provided multiple ways in which teachers might demonstrate proficiency. For example, in Rhode Island, proficiency could be demonstrated through HOUSSE or college credit hours.

#### Discussion

The purpose of this descriptive review of state licensure standards was to, first, review the history of policy implementation regarding states' interpretation and monitoring of HQT after NCLB and, second, compare the historical record across states to provide implications for policy and teacher preparation in the era of ESSA. To do this, we first reviewed the history of special education teacher licensure and then completed a comprehensive analysis of current state licensure requirements.

Consistent with the general expectations of HQT as out- lined by NCLB, elementary and secondary special educators primarily met HQT eligibility across most states through attainment of a degree, special education certification, and demonstrating proficiency in the core areas to be taught. That the requisite components of HQT eligibility were represented is reassuring in that there is a baseline for establishing HQT status. However, as Geiger (2002) out- lined earlier in reviewing teacher licensure requirements across states, considerable levels of variability and options were still prevalent in routes for demonstrating HQT status at the elementary level. Furthermore, the wider level of variability and options evident in routes for demonstrating HQT status at the secondary level is disconcerting and raises concern about the potential for significant differences in quality of content expertise, especially as secondary educators define themselves foremost as content experts.

Inconsistencies among states at both the elementary and secondary levels of special educator licensure offer significant challenges related to the impact of teacher quality on student outcomes, as student outcomes might therefore be dependent on the quality of teachers that each state seeks for filling classroom vacancies. Furthermore, findings from the analysis regarding HQT eligibility for elementary and secondary special education teachers have many implications for teacher preparation and policy in this new era of ESSA. As such, practical considerations of the disparity in licensure across states and across levels remain important for policymakers, SEAs, LEAs, and researchers, despite the new regulations put forward in ESSA. Indeed, students with disabilities represent a class of students who continue to underperform across the nation's schools.

#### Implications for Teacher Preparation and Policy

A review of states' HQT criteria presents a viable opportunity for SEAs, policymakers, and researchers to reevaluate the rigor and content of teacher preparation programs as well as universities' and states' routes to teacher certification. Although complete agreement across states is not a likely outcome, an initial step to close the gap in teacher quality as it relates to licensure might, at a minimum, start a conversation about the critical knowledge and skills that make a quality special educator and how such qualifications might be viewed by hiring committees within the nation's schools. One way in which such a conversation might occur is by teaching teachers to use high-leverage, evidence- based practices that will support both academic and behavior needs of students with disabilities (McLeskey et al., 2017) and instituting true practice-based teacher education (Forzani, 2014).

At present, most preparation programs teach content and pedagogy through a regimented series of in-seat courses with limited connection to classroom practice (Darling- Hammond, 2006) or to the identified needs situated within their local setting (Grossman & McDonald, 2008). Preparation programs might consider using the

identified Council for Exceptional Children High Leverage Practices (McLeskey et al., 2017) as the scaffolding for building competency-based programs, infused with carefully crafted, sequenced opportunities to practice and use these evidence- based strategies (Leko et al., 2015). Research has shown that teaching cannot be mastered through the disconnected learning of content and strategies to teach it; rather, teaching also involves craft and skill (Grossman & McDonald, 2008). Much of the research efforts of the last two decades have focused extensively on what teachers know rather than what they can actually do. Teacher preparation programs have the chance to transform teacher education by designing programs that allow multiple opportunities for practice of and reflection on the most important aspects of teaching, as defined by experts in the field.

As ESSA transfers decision-making authority from the federal to the state level, this is an optimal time to thoroughly reexamine routes to special education licensure. As extant research has not definitively shown which type of licensure policies, if any, has a positive effect on student achievement (Sindelar et al., 2018), the time for innovative thinking and critical investigation of new practices is now. State licensing agencies must allow teacher preparation programs the flexibility to develop inventive ways for pre- service teachers to learn and, most important, practice core competencies to allow them to become experts in the field. This will most likely require abandonment of the current model of most states, which mandates a certain amount of credit hours and/or "in seat" hours to earn a degree.

In addition, the impact of the nation-wide shortage of special education teachers becomes exacerbated by further considering issues of teacher quality and its effect on student success. The HQTs are disproportionately distributed across the nation's schools (Garcia & Weiss, 2019). That is, teachers with the least experience and qualifications are often found across schools serving high rates of students from low socioeconomic environments, whereas teachers with more years of experience and highly qualified status are found in schools with students from higher socioeconomic homes (Garcia & Weiss, 2019). This staffing disproportionality may contribute to the poor educational and disciplinary outcomes experienced by students of color (i.e., non-White students), students with disabilities, and students from impoverished

environments (Musu-Gillette et al., 2016). To reduce the dearth of qualified teachers, SEAs must implement evidence-based policies and develop quality plans that specifically target the root cause (e.g., recruitment, retention, incentives, compensation, support, collaboration, resources) of the teacher shortage in individual LEAs (Darling-Hammond & Podolsky, 2019).

As evidenced by the review, HQT across the United States remained an elusive construct to define beyond basic requirements traditionally associated with licensure. If little consensus surrounded the tenets of being highly qualified, and states continued to exhibit great variability across elementary and secondary levels of licensure, the removal of highly qualified language should be critically examined to determine whether any significant changes occur as SEAs continue to roll-out ESSA. Ultimately, the success of ESSA will depend heavily on the states.

#### Study Limitations

Although this study addresses an area of practical importance for policymakers, LEAs, and SEAs, limitations must be noted. First, we attempted to review the HQT criteria of all states, including the District of Columbia as reported on state's Department of Education websites. However, we were also limited by the materials provided, which led us to exclude data from three states. It is possible that alternative methods for working with state Departments of Education would have revealed additional insight and the inclusion of these other states within the analysis. Second, collection of a portion of state-level data was collected post-reauthorization of NCLB as ESSA which could have impacted the amount of information states were reporting electronically given that they are no longer required to utilize these standards for evaluating teacher quality.

#### Conclusion

In today's highly political educational context, replete with historic qualified teacher shortages, reports of below-par national student achievement, and standardization of curriculum and the profession, questions regarding teacher preparation and licensure have taken center stage (Cochran-Smith & Power, 2010). In this era of heightened accountability for student achievement and teacher performance,

many of the intangible necessities of teaching, such as pedagogy and classroom management, may have been overlooked. Federal policy has raised standards for teacher quality while simultaneously easing entry into the profession through alternate, "short-cut" certification programs (Darling-Hammond, 2006; Drame & Pugach, 2010; Rosenberg & Sindelar, 2005).

With the HQT requirements removed from ESSA, what SEAs and LEAs decide to do when hiring new special educators, especially in districts and states that have severe shortages of special educators, is unknown. Although much is left to be determined as it relates to the roll-out of ESSA, one thing should be certain, expecting the best of students with disabilities requires that policymakers, LEAs, SEAs, and researchers demand the best when it comes to special education teacher knowledge of both pedagogy and content expertise, both of which are reflected in teacher licensure requirements.

#### **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

#### References

- Abeson, A., & Fleury, J. (1972). *State certification requirements for education of the handicapped*. State-Federal Information Clearinghouse for Exceptional Children.
- Brownell, M. T., Sindelar, P. T., Kiely, M. T., & Danielson, L. C. (2010). Special education teacher quality and preparation: Exposing foundations, constructing a new model. *Exceptional Children*, *76*(3), 357–377. http://doi.org/10.1177/001440291007600307
- Cochran-Smith, M., & Power, C. (2010). New directions for teacher preparation. *Educational Leadership*, 67(8), 6–13.

Cochran-Smith, M., Villegas, A. M., Abrams, L., Chavez- Moreno, L., Mills, T., & Stern,
R. (2015). Critiquing teacher preparation research: An overview of the field, part
II. *Journal of Teacher Education*, 66(2), 109–121.
https://doi.org/10.1177/0022487114558268

Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of Teacher Education*, *57*(3), 300–314. http://doi.org/10.1177/0022487105285962

Darling-Hammond, L., & Podolsky, A. (2019). Breaking the cycle of teacher shortages: What kind of policies can make a difference? *Education Policy Analysis Archives*, *27*(34), 1–15.

Drame, E. R., & Pugach, M. C. (2010). A HOUSSE built on quicksand? Exploring the teacher quality conundrum for secondary special education teachers. *Teacher Education and Special Education*, *33*(1), 55–69. http://doi.org/10.1177/0888406409356402

Education for All Handicapped Children Act of 1975, P.L. 94-142, 20 U.S.C. § 1401. (1975).

Elementary and Secondary Education Act of 1965, P.L. 89-10, 20 U.S.C. § 236-244. (1965).

Every Student Succeeds Act of 2015, P.L. 114-95, 20 U.S.C. § 6301. (2015).

Forzani, F. M. (2014). Understanding "core practices" and "practice-based" teacher education: Learning from the past. *Journal of Teacher Education*, 65(4), 357–368.

- Garcia, E., & Weiss, E. (2019). *The teacher shortage is real, large and growing, and worse than we thought*. Economic Policy Institute.
- Geiger, W. L. (2002). Requirements for conventional licensure of special education teachers (ERIC Document Reproduction Service No. 460-563). ERIC
   Clearinghouse on Disabilities and Gifted Education.

Geiger, W. L., Mickelson, A., McKeown, D., Barton, J., Kleinhammer-Tramill, J., & Steinbrecher, T. (2014). Patterns of licensure for special education teachers. In
P. T. Sindelar, E. D. McCray, M. T. Brownell, & B. Lignugaris (Eds.), *Handbook of research on special education teacher preparation* (pp. 30–46). Routledge.

Grossman, P., & McDonald, M. (2008). Back to the future: Directions for research in teaching and teacher education. *American Educational Research Journal*, *45*(1),

184-205. https://doi.org/10.3102/0002831207312906

- Individuals with Disabilities Education Improvement Act of 2004, P.L. 108-446, 20 U.S.C. § 1400. (2004).
- Leko, M. M., Brownell, M. T., Sindelar, P. T., & Kiely, M. T. (2015). Envisioning the future of special education personnel preparation in a standards-based era. *Exceptional Children*, 82(1), 25–43.
- Mackie, R. P., & Dunn, L. M. (1954). State certification requirements for teachers of exceptional children (Bulletin No. 1, 1954). U.S. Department of Health, Education, & Welfare, Office of Education.
- Marszalek, J. M., Odom, A. L., LaNasa, S. M., & Adler, S. A. (2010). Distortion or clarification: Defining highly qualified teachers and the relationship between certification and achievement. *Education Policy Analysis Archives*, 18(27), 1–29. http://doi.org/10.14507/epaa.v18n27.2010
- Mauser, A., & Cranston-Gingras, A. (1988, March 28). Special education teacher certification trends: A National Survey [Paper presentation]. 66th Annual Convention of the Council for Exceptional Children, Washington, DC.
- McLeskey, J., Council for Exceptional Children, & Collaboration for Effective Educator Development, Accountability and Reform. (2017). *High-leverage practices in special education*. Council for Exceptional Children.
- McLeskey, J., & Billingsley, B. S. (2008). How does the quality and stability of the teaching force influence the research-to- practice gap? A perspective on the teacher shortage in special education. *Remedial and Special Education*, 29(5), 293–305. Musu-Gillette, L., Robinson, J., McFarland, J., Kewal Ramani, A., Zhang, A., & Wilkinson-Flicker, S. (2016). *Status and Trends in the education of racial and ethnic groups 2016* (NCES 2016-007). U.S. Department of Education, National Center for Education Statistics. http://nces.ed.gov/pubsearch
- National Commission on Teaching and America's Future. (1996). *What matters most: Teaching for America's future: Report of the National Commission on Teaching & America's Future*. The Commission.

No Child Left Behind Act of 2001, P.L. 107-110, 20 U.S.C. (2002).

Paige, R., Stroup, S., & Andrade, J. R. (2002). *Meeting the highly qualified teacher* 

*challenge: The secretary's annual report on teacher quality*. U.S. Department of Education, Office of Postsecondary Education, Office of Policy Planning and Innovation.

- Patrick, B. (2012). Fiscal federalism, performance policies, and education reforms: Are states using performance policies to improve workforce quality? *Politics & Policy*, 40(4), 593–628. http://doi.org/10.1111/j.1747-1346.2012.00370.x
- Rosenberg, M. S., & Sindelar, P. T. (2005). The proliferation of alternative routes to certification in special education: A critical review of the literature. *The Journal of Special Education*, 39(2), 117–127. http://doi.org/10.1177/00224669050390020201
- Sanders, W. L., & Horn, S. P. (1998). Research findings from the Tennessee Value-Added Assessment System (TVAAS) data- base: Implications for educational evaluation and research. *Journal of Personnel Evaluation in Education*, 12(3), 247–256.
- Sindelar, P. T., Brownell, M. T., & Billingsley, B. (2010). Special education teacher education research: Current status and future directions. *Teacher Education* and Special Education, 33(1), 8–24. http://doi.org/10.1177/0888406409358593
- Sindelar, P. T., Pua, D. J., Fisher, T., Peyton, D. J., Brownell, M. T., & Mason-Williams,
  L. (2018). The demand for special education teachers in rural schools revisited:
  An update on progress. *Rural Special Education Quarterly*, *37*(1), 12–20.
  https://doi.org/10.1177/8756870517749246
- Yell, M. L. (2012). *The law and special education* (3rd ed.). Pearson/Merrill/Prentice Hall.