Preparing West Virginia's Teachers

Opportunities in Teacher Licensure and Program Approval

Ryan Saunders

Table of Contents

List of Figures

Acknowledgments

The appropriate citation for this report is: Saunders, R. (2021). *Preparing West Virginia's teachers: Opportunities in teacher licensure and program approval*. Learning Policy Institute.

This report can be found online at https://learningpolicyinstitute.org/product/preparing-west-virginia-teachers.

Document last revised September 23, 2021

Executive Summary

Advances in the science of learning and development, along with the increasing demands of life and work in the 21st century, are raising expectations for schools and educators. Policy levers that affect the teacher workforce will play a key role in meeting these expectations. This report, one of a series of state policy studies produced by the Learning Policy Institute in collaboration with the Council of Chief State School Officers, examines teacher licensure and preparation program approval systems in West Virginia. This study was designed to assess how these systems are advancing the preparation of a well-qualified and equitably distributed teacher workforce to support all students' deeper learning and social, emotional, and academic development.

This report draws on multiple sources, including state teacher and student data, analyses of statutory and regulatory frameworks and policy activities, and interviews with educators and state agency staff. It opens with a description of the state policy context, including challenges in public education and the teacher workforce. The report then describes in detail the current system of teacher licensure and preparation program approval, including recent policy changes and implementation. Finally, the report draws on contemporary research and state policy examples to provide recommendations aimed at systemic improvement and intended to help policymakers move closer to West Virginia's teacher workforce goals.

State Context: Lagging Statewide Achievement, Growing Social and Emotional Needs, and a Shortage of Teachers Ready to Respond

West Virginia's performance on the National Assessment of Educational Progress (NAEP) highlights a continued challenge in supporting achievement for students across the state when compared with the rest of the country. Across the 4th- and 8th-grade mathematics and reading exams, West Virginia students' scores have hovered in or near the bottom 10 states over the past decade, based on both average scale score and percentage of students who score at or above proficient. In addition, these scores have generally been on the decline or have stagnated for 4th- and 8th-grade test-takers across both mathematics and reading.

Complicating the state's efforts to improve student achievement are the structural economic problems it faces. West Virginia's poverty rate of 19.1% ranked fourth in the nation in 2019, influenced, in part, by the decline in coal production since 2012 and accompanying unemployment. Further, West Virginians attain limited postsecondary education: Less than one third hold associate degrees or higher. With the additional challenge of opioid addiction, the state faces a steep climb toward an economic resurgence.

Against this concerning backdrop, students in West Virginia navigate increasingly unstable home lives and the effects of childhood trauma and adverse childhood experiences. Among children under age 18, 24.5% live in households below the federal poverty threshold, which for a family of four is about $26,000 annually. West Virginia leads the nation in the percentage of children who do not live with either parent. This includes 6,938 children living in foster care as of March 2019 and more than

40,000 living with grandparents or other relatives. West Virginia teachers are aware of the unique challenges these students face. When asked in a 2019 West Virginia University (WVU) survey about conditions students face at home, 70% of the 2,200 teachers who responded reported an increase in students impacted by substance misuse in the home.

Given the steep odds facing children in West Virginia, it is critically important that they have expert teachers who can meet their wide-ranging needs. Yet evidence shows that schools and educators struggle to meet this challenge. From the same 2019 WVU survey, 90% of teachers reported not feeling confident in knowing how to support children with parents who misuse substances. Further, students report a lack of trust in school staff. Half of students surveyed in the 2019 West Virginia Department of Education (WVDE) *Education Survey for Students* stated that they are not "comfortable discussing problems with adults at [their] school."

At this moment of acute need for educators with the knowledge, skills, and dispositions to support the social, emotional, and academic development of students, teacher shortages in West Virginia are increasing the pressure to fill vacant classrooms with underprepared or uncertified individuals. According to state data reported to the federal government, for nearly a decade West Virginia counties have reported shortages of fully certified teachers, and the state as a whole has reported persistent shortages in a long list of subjects, including mathematics, science, special education, and elementary education. In addition, a growing number of teachers working in classrooms are not fully prepared, with as many as 1,200 of the state's 19,000 teachers serving in positions without having completed requirements for full professional licensure. The most acute shortages are concentrated in the southern portion of the state, including Boone, Logan, McDowell, Mingo, and Wyoming counties.

Two key factors contribute to teacher shortages: higher rates of teachers leaving the profession—which drives demand for new teachers—and declines in teacher preparation enrollment across the state. While the state's average teacher attrition rate of 9% is comparable to national trends, turnover rates vary widely by county, with some counties experiencing rates of 10–14%. Further, beginning teachers have seen particularly high rates of attrition, with one in five beginning teachers leaving after 1 year. Notably, research suggests that districts' financial costs from teacher attrition are between $9,000 and $21,000 per teacher lost each year. Beyond this immediate financial burden, high rates of teacher attrition undermine student achievement and hinder broader school improvement efforts. And decline in teacher supply due to attrition will not be countered by incoming, newly certified teachers: Between the 2009–10 and 2017–18 academic years, the number of individuals entering teacher preparation programs in West Virginia declined by 53%.

Policy Context: Strengthening Preparation in the Face of Growing Shortages

Policies governing teacher licensure and program approval are intended to ensure that all students have well-prepared teachers who can meet their learning needs. In working toward this goal, West Virginia's teacher preparation and licensure systems have struggled to maintain consistent and universally applied standards. Yet policy efforts over the past decade have helped the state establish

a strong foundation for meeting its workforce needs while also ensuring that new teachers receive the necessary training and support to succeed.

In 2012, the state revised its teaching standards and tasked all preparation programs with ensuring alignment with them. The state subsequently took steps to establish a performance-based system of continuous improvement at all levels of the preparation and licensure systems. This began in 2014 when the state formalized a partnership agreement with the Council for the Accreditation of Educator Preparation (CAEP) and made accreditation through CAEP a requirement for approved preparation programs operating in the state. In 2016, after a process of piloting two nationally normed teacher candidate performance assessments (the edTPA and the Praxis Performance Assessment for Teachers, or PPAT), the state established a culminating performance assessment requirement for all candidates and gave programs the choice between using an existing assessment or developing their own.

More recently, the state proved to be an early adopter of policy aimed at increasing the time individual candidates spend practicing under the wing of an expert mentor. It also increased the incentives for future teachers who are willing to commit to working in high-need classrooms. In 2018, the West Virginia Board of Education (WVBE) formally adopted a policy requiring all preparation programs to provide the option for a yearlong residency pathway that would take the place of the traditional 12-week clinical experience. These efforts have been joined by increased investments in a recently revised teacher service scholarship program, the Underwood-Smith Teaching Scholars Program. The program is intended to recruit some of the state's highest-achieving high schoolers into teaching and help the state address the persistent shortages in certain subject areas and geographic locations.

Yet persistently low teacher salaries across the state continue to challenge efforts to build a well-prepared teacher workforce, and not every recent policy change is positioned to support the long-term needs of teachers and students. Legislative changes in 2013 removed existing requirements for beginning teacher induction programs and gave local counties greater discretion over program funding provided through the state. As these changes have taken effect, there is growing concern about the level of oversight of county programs. Responses of new teachers to state surveys suggest that teachers experience declining consistency and inequitable access to quality induction programs. Further, in 2017, legislation eliminated the state's Regional Education Service Agencies, which had been responsible for supporting regional and county-level professional learning.

The state's alternative preparation system and varied licensure pathways—intended to address critical shortage areas—have evolved in a way that points to the state's growing reliance on teachers who have not completed preparation or met the state's standards. There is little publicly available data on how many individuals are licensed through the various available pathways or on the impact and retention of individuals prepared in different pathways once they are in the classroom. Further, because alternative pathways rely heavily on each county's infrastructure for new teacher support and induction, the declining quality in induction programs risks leaving underprepared teachers without necessary support.

This is concerning because underprepared teachers are two to three times more likely to leave teaching soon after entry than those who enter the profession having received comprehensive preparation. Further, underprepared teachers are disproportionately assigned to the highest need students, and research shows an association between underprepared teachers and lower achievement gains for students. Ultimately, this evolving policy context has created the potential for greater variability in quality of preparation and ongoing professional learning and supports, which, in turn, may exacerbate shortages, increase inequities in the distribution of qualified teachers, and depress student achievement across the state.

Finally, the COVID-19 pandemic has upended schools and teacher preparation programs across the state. The WVDE has worked to respond with flexibility to preparation requirements. It does not want to deny a teacher candidate the opportunity to earn certification or begin teaching in the coming years because of disruptions to certification testing and clinical practice experiences brought on by school closures or remote instruction. Yet a great deal of uncertainty remains regarding the potential impacts of future budget cuts or further disruptions to the state's teacher workforce as a result of the pandemic.

Building Strong Systems of Teacher Certification and Preparation That Enable Teachers to Support Students' Social, Emotional, and Academic Development

Strong certification and program approval systems rely on essential and interconnected elements that help all teachers develop the knowledge, skills, and dispositions needed to support students' social, emotional, and academic development. These essential elements include:

- standards that define high-quality practice,

- performance-based assessments that assess whether candidates can teach in ways that meet the standards, and

- teacher preparation accreditation and program approval processes that support continuous improvement and ensure that educator preparation programs are preparing candidates to meet the standards.

Further, strong certification and program approval systems often combine these foundational elements with incentives that draw individuals into preparation programs, as well as with mentoring and coaching during their first 2 or 3 years of teaching. This report explores West Virginia's current systems of certification and program approval to reveal key areas of alignment with this vision and highlight areas for future growth.

Standards for teacher certification and preparation

First developed in 2007, the West Virginia Professional Teaching Standards (WVPTS) serve as the guiding standards for the state's practicing teachers and for the development of preparation program content and curriculum. The WVPTS provide a strong foundation that supports a clear

and comprehensive vision for teaching and learning in the state. However, while the standards aim to ensure that teachers provide learning opportunities that are learner centered, developmentally grounded, and personalized, they do not reflect the most recent findings from the science of learning and development (SoLD). This includes the importance for teachers to integrate social and emotional learning (SEL) with cognitive and content-area learning, as well as to incorporate trauma-informed practices and educative and restorative behavioral supports.

In addition, based on a thorough analysis of the WVPTS, instances of learner-centered, developmentally grounded, and personalized teaching practices often show up only in the highest levels of the standards' developmental continuum (there are four levels of performance for each indicator within the standards—Distinguished, Accomplished, Emerging, and Unsatisfactory). Specifically, learner-centered language often appears in the Distinguished category, while more teacher-centered language is reflected in the lower developmental levels. Such a pattern raises concerns that where teaching practices are reflective of SoLD principles, only a small group of expert teachers may be expected to demonstrate them, instead of the teaching workforce as a whole. Future revisions of the standards should better reflect a developmental continuum for teaching practice that is fully aligned with SoLD principles and that encourages those practices for new and novice teachers as well as for expert practitioners.

Pathways to becoming a teacher in West Virginia

In West Virginia's system, certification is intended to attest that a teacher has completed an approved program, including all standards, requirements, and preservice clinical experience, and has passed all required assessments. Recent data reported under the Higher Education Act indicates that a majority of individuals seeking certification enroll in a Traditional Approved Teacher Preparation program pathway that leads to an Initial Professional Teaching Certificate. Candidates pursuing certification through a traditional state-approved preparation program must successfully complete an institutionally selected performance assessment, field experience hours, and a culminating clinical experience to complete a program and qualify for a Professional Teaching Certificate.

Although most candidates enter the classroom through traditional preparation pathways, state policy does provide for a series of pathways developed to help the state and counties address teacher shortages in critical-need areas. Anecdotal evidence suggests that a growing number of counties are turning to these pathways to fill vacant positions in the absence of fully certified applicants. The three alternative pathways to licensure include:

1. **First-Class/Full-Time Permit:** Individuals who hold a bachelor's degree and have completed a minimum of 6 semester hours of a WVBE-approved preparation program are eligible to serve as the teacher of record on a First-Class/Full-Time Permit for up to 6 years.

2. **Teacher-in-Residence (TIR) Permit:** The TIR Permit allows an individual currently completing their clinical experience through a traditional program to satisfy their

culminating clinical experience requirement and serve as the teacher of record in a classroom with a vacancy and receive no less than 65% of a fully certified teacher's salary.

3. **Alternative Teaching Certificate:** Individuals receive required preparation instruction through the hiring county either simultaneously or before assuming the role of educator. As of 2021, individuals entering through these pathways are required to pass a performance assessment.

It is unclear if individuals entering through these alternative pathways must meet the same expectations laid out in the traditional licensure pathway. Research for this report found that the current requirements and the flexibility allowed in program delivery have led to inconsistent implementation across programs and pathways. It also found a lack of defined support at the county level for novice teachers participating in alternative pathways, who need such supports the most.

Teacher preparation program approval and accreditation

West Virginia has taken a performance-based approach to the approval of its teacher preparation programs. State approval and national accreditation emphasize the link between state standards and requirements and demonstrated candidate proficiency, rather than relying on rating programs based on required credits or coursework.

At the same time, the efficacy of the current performance-based program approval system relies heavily on the role of national accreditation to help drive program improvement. Between 2014 and 2020, that role was played exclusively by the national accreditation organization CAEP. During that period, smaller programs noted a lack of support in the CAEP accreditation process, which led the state to seek a more consistent means to support continuous improvement. Policy revisions proposed in 2021 point to a larger state role in program approval and an expansion of national accreditation options, such as allowing for national accreditation through the Association for Advancing Quality in Educator Preparation (AAQEP), once approved by the WVBE. While there is evidence that the transition to CAEP has resulted in changes to program design and implementation, questions remain among stakeholders and the WVDE about how best to support continuous improvement across programs in the state.

Finally, policy for program approval requires preparation programs to implement a teacher performance assessment, but programs have the flexibility to develop their own or use a nationally normed assessment like the edTPA or PPAT. As of 2021, most programs use the West Virginia Teacher Performance Assessment (WVTPA), a locally created assessment modeled after the PPAT and developed in 2016 in collaboration with the West Virginia Higher Education Policy Commission's Teacher Education Advisory Council and 12 institutions from across the state. Anecdotal evidence suggests that teacher preparation programs are using performance assessment results and data to drive program improvement, but it is unclear how widespread this practice is.

West Virginia's transition to the yearlong residency

In 2019, the WVBE added minimum requirements for a yearlong residency experience to Policy 5100, the legislative rule that guides approval of teacher preparation programs. When the policy took effect on July 1, 2021, all institutions with teacher preparation programs had to be piloting a yearlong residency pathway as a final clinical experience in at least one of the institution's programs. The WVBE has indicated that, by fall 2024, every individual pursuing teaching through a traditional teacher preparation program would complete a yearlong residency as their culminating clinical practice experience. To support the full implementation, department staff are working alongside programs to develop innovative approaches to residencies. Pilot programs were implemented across five institutions during the 2019–20 school year, which resulted in some positive outcomes for teacher residents.

Conversations with stakeholders surfaced potential challenges with scaling the programs beyond the initial pilot cohorts, including finding quality cooperating teachers for residents, navigating institutional barriers to program redesign, establishing consistency and quality across residencies, and providing financial supports to residents and cooperating teachers. These challenges may be offset both by the state's plan to leverage existing grant funds for professional development school partnerships to support yearlong residency program partnerships and by the establishment of clear guidance and policy around what constitutes a high-quality yearlong residency. Proposed elements include a specific number of hours candidates must spend in the classroom each semester (14 weeks or 250 hours), stipends for cooperating teachers, and opportunities for residents to serve as substitute teachers in their "residency hub" or school. The proposed policies do not provide for financial incentives for residents beyond what might be collected through once-a-week substitute teaching.

Teacher preparation data collection and capacity

To manage such a complex system of teacher certification and program approval and to understand the nature of teacher preparation, supply, and retention, the state needs better data. Unfortunately, there is no teacher preparation data system that houses data from across all of the 19 institutions that prepare teachers in West Virginia. However, data are available from performance assessments and the teacher evaluation system that could help better inform improvement conversations at the state level. Further, conversations with stakeholders suggest opportunities for state agencies to take a lead in collecting, analyzing, and reporting on relevant data and a range of indicators that can help shape the improvement of preparation programs. Among these opportunities is support in collecting employer and program completer surveys. Conversations with stakeholders indicated a desire for the state to take on this role and provide more support, particularly when it comes to reporting requirements under CAEP. Efforts to support wider collection, dissemination, and use of data will be crucial to the state's goal of high-quality preparation for all teachers.

Finally, it is difficult to assess the effects of different types of preparation on teacher shortages and disparate access to well-prepared teachers without the ability to follow candidates from enrollment

through completion and into the classroom. It will be essential for the state to learn more about the preparation pipeline, and its successes and weaknesses, if West Virginia is to set a well-informed course for future policy.

Underwood-Smith Teaching Scholars Program

The state's broader push to tackle persistent shortages received a much-needed boost with updates to the Underwood-Smith Teacher Scholarship and Loan Assistance Program (now the Underwood-Smith Teaching Scholars Program). Legislation modified the program to target certain high-need academic disciplines and emphasized the recruitment of the state's most accomplished high school students into the profession. The legislation also substantially increased the annual award of the original program from $5,000 to $10,000 per year ($40,000 total), a sum that dwarfs the awards teacher candidates received under the prior program.

Scholars will fulfill a 5-year service requirement in their high-need field. The legislation also provides for a minimum of $3,000 in loan forgiveness annually for teachers working in critical shortage fields, or as a counselor at the elementary, middle, or secondary level in a school or geographic area of critical need.

Professional learning systems in West Virginia

New teacher supports and induction programs: With the growth of alternative certification programs and the high rates of new teacher attrition across the state, West Virginia's beginning teacher induction system is part of a broader push to retain teachers for the long term. Unfortunately, legislative changes in 2013 eliminated statewide standards for new teacher induction programs and provided counties greater flexibility in their delivery. They also led to growing variability in program quality. Data collected in March 2019 through the department's Educator Voice Survey indicate broad inconsistencies in access to supports for the new teachers surveyed and suggest limited impact of induction supports currently offered across counties.

In 2019, the state appropriated $4,584,707 for teacher and leader induction programs, and counties received a portion of these funds based on the number of first- and second-year teachers working in their schools. At the same time, there is little oversight or accountability when it comes to how counties spend these funds. Counties provide their plans for new teacher support through their West Virginia Support for Improving Professional Practice (WVSIPP) plans, but they provide no other data or evidence of implementation or impact. Addressing access to quality induction could be one of the most important steps for state leaders moving forward.

Teacher leadership and professional learning for practicing teachers: Another challenge for the state in teacher retention is that professional learning systems in West Virginia are in flux. Counties and schools are adjusting to the elimination of advanced credentials, such as the mentor and master mentor certificates, and of some support structures, such as the Regional Education Service Agencies (RESAs). This comes at a time when teachers face growing challenges in meeting student needs and have expressed a desire for greater professional development and support. Conversations

with the department and other stakeholders suggest that many practicing teachers may be falling through the cracks.

One key area in which West Virginia continues to excel is its support for the National Board Certification process. The state ranks 15th overall in the number of National Board Certified Teachers (NBCTs), a ranking that is rooted in the range of supports and incentives it offers to encourage teachers to pursue the advanced certification. Yet students have inequitable access to NBCTs. Policy meant to mitigate this issue was passed in 2015 and provides an additional incentive for NBCTs who serve as mentors in persistently low-performing schools. Unfortunately, the reach of this incentive is limited. Many NBCTs who might qualify for the additional stipend are not assigned mentor duties at the county level and thus cannot meet the statutory requirements. Nevertheless, the state's success in expanding the number of NBCTs offers a current and future source of quality mentors and cooperating teachers who could help implement the yearlong residency and other induction programs.

Recommendations

The current policy landscape in West Virginia includes some strong policies designed to attract and prepare teachers (e.g., NBCT support, yearlong residencies, performance assessments, service scholarships, and loan forgiveness), though this report found that they are not necessarily resulting in widely available opportunities for high-quality preparation. Notable gaps in the policy landscape undermine preparation and teacher retention (e.g., by eliminating statewide induction standards, providing little oversight of new teacher induction funds, eliminating mentor certifications, and allowing the number of teachers who enter the profession without full preparation or on temporary certifications to increase). The following recommendations emphasize opportunities for the state to build a sustainable workforce; formalize its commitment to the social, emotional, and academic development of students; and ensure that the standards for teaching help shape the instruction and practices of teachers across the state.

Recommendation 1: Revise the West Virginia Professional Teaching Standards (WVPTS) to reflect current knowledge about student learning and development

For educators to develop the knowledge and skills needed to support the social, emotional, and academic development of students, West Virginia should initiate a revision of the WVPTS that govern systems spanning the educator career continuum. Broadly speaking, there is a need for the standards to reinforce that all learning depends on emotional safety and attachments and that teachers should possess the skills and knowledge to:

- model strategies and practices for learning as well as strengthening social and emotional skills;

- create positive conditions for learning through strong, supportive attachments and relationships;

- use educative and restorative behavioral supports to create positive, engaging, co- constructed classroom learning communities; and

- integrate social and emotional learning to foster self-regulation, executive function, perseverance, resilience, and growth mindset.

Further, although county leadership and staff at the department consistently mentioned the need for trauma-informed practices, these practices are not mentioned in the current standards. The standards should stress the need for educators to use trauma-informed and healing-informed approaches to learning that build awareness of students' needs and support the development of their regulatory abilities.

Finally, the teaching practices highlighted above should be cultivated and expected of all teachers, both new and practicing, and the progressions in the WVPTS should support and clarify this. Specifically, practices meant to support all students and aligned to broader statewide priorities around social and emotional learning should be incorporated beyond the Distinguished category of practice under the standards.

Recommendation 2: Ensure that teacher performance assessments reflect West Virginia's standards for teaching in action and inform program improvement

Over the past 6 years, West Virginia has taken strong initial steps toward implementation of a performance assessment requiring candidates to demonstrate teaching competencies aligned to state standards before their program recommends them for a license. The state's policy of providing flexibility for preparation programs in the choice of performance assessment helped give rise to the West Virginia–developed WVTPA, which is currently used by 15 of 19 institutions in the state. The assessment, aligned to the WVPTS, is rigorous and contains the important assessment elements found in current national assessments (edTPA and PPAT), such as requiring candidates to plan and teach a unit, submit videos of their teaching, and track student progress and outcomes through an assessment plan. However, because the WVTPA has been in use only since 2016, it is still early to assess its effectiveness across the system. Additionally, because state policy allows programs to choose their performance assessment, there remains significant variability in how this requirement is met. In an effort to address the variability while still maintaining the flexibility in policy afforded to programs, West Virginia could begin by:

- improving the scoring and calibration of the WVTPA;

- ensuring that programs have access to their performance assessment data and are using it to inform program improvement; and

- utilizing statewide and program-level performance assessment data to inform policy, specifically around the ongoing implementation of the yearlong residency.

Recommendation 3: Strengthen clinical training by supporting productive teacher residencies

Policy changes in 2021 provided greater structure within which institutions can build their yearlong residency pathways and tailor them to meet candidates' needs and those of their k–12 partners. For example, cooperating teachers are compensated for working with a teacher resident, and residents can receive limited compensation by substitute teaching at their residency school.

Yet, looking ahead, scaling these yearlong residency pathways requires building an effective cadre of cooperating teachers. Further, with limited funding through the residency grant program, a deep need remains for the state and programs to establish sustainable residency funding. Finally, preparation programs still need support through partnerships with k–12 schools. To ensure the quality and sustainability of the yearlong residency pathway, the state could:

- support the recruitment and training of quality cooperating teachers;

- pilot sustainable funding strategies for the yearlong residencies that support stipends for cooperating teachers and residents; and

- convene statewide and regional collaboratives that support strong partnerships between k–12 schools and teacher preparation programs, help residency programs learn and improve with each cohort of residents, and study the progress toward successful scaling of the residency program.

Recommendation 4: Support improvements in accreditation and data use

In West Virginia, current program approval policy and related data systems yield limited data that the state and individual programs can use in their continuous improvement efforts. Further, it is unclear, based on conversations with preparation program staff and leadership, how data collection and analysis efforts linked to national accreditation can support meeting the social and emotional needs of teachers and students across the state. With policy changes proposed in 2021, the state has an opportunity to drive conversations about how programs can use data in their improvement efforts. To support performance-based accreditation and continuous improvement across programs, the state could:

- support improved collection and use of data, including employer and preparation program completer surveys, performance assessment results, and data on the number of candidates and completers by pathway within an institution (e.g., alternative certification, teacher-in-residence, yearlong residency); and

- build on proposed policy changes allowing for multiple national accreditors by working closely with both CAEP and AAQEP to ensure more direct support to programs for their continuous improvement efforts that are aligned to the state's current priorities and student needs.

Recommendation 5: Strengthen and expand efforts to address persistent teacher shortages

As noted, publicly available data on the supply and demand of the teacher workforce in West Virginia is limited and often opaque to the point of limiting potential policy responses. The data in this report on the nature of teacher shortages across the state were pulled from local news stories or data sources that have grown increasingly outdated. The state's primary education data dashboard, ZoomWV, which has a stated goal of "helping stakeholders support all students' achievement," offers data on the distribution of teachers based on their years of experience, but it has an empty field under a teacher education heading. Given documented challenges in meeting the state's persistent demand for fully prepared teachers across the state, West Virginia could:

- increase access to data tracking the supply and demand of the teacher workforce, including accurate data on teacher vacancies, turnover, and the number of individuals— by subject area—entering teaching through First-Class/Full-Time Permits, Teacher-in-Residence pathways, and Alternative Certification; and

- track and measure the impact of the recently expanded Underwood-Smith Teaching Scholars Program to determine its efficacy in meeting workforce needs.

Recommendation 6: Strengthen induction to support teacher effectiveness and retention

Induction and mentoring for new teachers increase their likelihood of staying in the classroom and protect investments in teacher preparation often lost to early-career attrition. While there is a statewide requirement for new teacher induction, and a source of funding for that support, there is little statewide infrastructure that ensures access to quality mentoring and support for all new teachers. To address the inadequate access to and inconsistent quality of induction and mentoring supports, and to tackle the high rate of attrition of beginning teachers across the state, especially in hard-to-staff schools, West Virginia could:

- establish systems for tracking and measuring the impact of beginning teacher support funds distributed to counties; and

- set minimum requirements for beginning teacher induction that support teacher retention, are aligned with research, and provide for local control and implementation.

Further, when it considers the induction supports available to novice teachers, the state could include those novice teachers who are serving as teachers of record but are still completing their training through one of the state's critical need and shortage pathways (First-Class/Full-Time Permit, Teacher-in-Residence Permit, and Alternative Certification). Because these novice teachers are not required to complete a structured clinical experience, they may never observe a good teacher or get intensive support from an expert teacher during their own training. This will also include individuals who are entering the profession on the alternative pathway created during the 2021 legislative session through SB 14, who will likely enter the classroom with few opportunities to practice or build the skills needed to support the learning of all students. To ensure that these individuals receive the

training and support they need to remain in the classroom and provide the learning experiences West Virginia students need, the state could:

- explicitly define and monitor induction and mentoring supports across the alternative certification pathways.

Finally, efforts to expand the number and distribution of National Board Certified Teachers (NBCTs) in West Virginia hold promise for supporting a range of needs across the state's systems for professional learning. NBCTs can serve as cooperating teachers for yearlong residents and mentor new teachers through county induction programs. To better leverage NBCTs as resources within the state's professional learning system, West Virginia could:

- more equitably distribute teaching expertise by improving the implementation of the state's stipend available to NBCTs working and serving as mentors in hard-to-staff schools, and

- increase the number of NBCTs serving as mentors and cooperating teachers.

Conclusion

These six recommendations build on West Virginia's recent moves to strengthen the quality of preparation available to new teachers across the state. They are primarily meant to shore up efforts to implement the yearlong residency and ensure that investments in the recruitment and retention of teachers across the state drive student learning. Applying these recommendations to shape educator preparation and practice can help move the state closer to having a well-qualified and equitably distributed teacher workforce able to support the whole child and students' social, emotional, and academic development. Further, while the impacts of the COVID-19 pandemic—addressed in an addendum to this report—have reshaped the landscape in which these recommendations may be implemented, there are new and promising opportunities through current and future federal investments that could support the state in strengthening licensure and program approval and help schools weather today's challenges and evolve to meet those of the future.

Introduction

In recent years, research on the science of learning and development (SoLD) has advanced rapidly,[1] and calls for schools to provide all students with deeper learning[2] experiences that prepare them for life and work in the 21st century have increased.[3] Meeting these rising expectations will require educational systems to address the cognitive, sociocultural, and social-emotional aspects of learning and development in ways that meet the needs of every student.[4] Teachers will play a vital role in any such realignment,[5] since their qualifications, actions, and experience, as well as the strength of their preparation,[6] affect students' well-being and their learning.[7] Further, research demonstrates that better-prepared teachers are not only more effective but are also more likely to stay in the profession longer.[8] Therefore, policies that affect teachers and the teacher workforce, such as those that govern educator licensure and preparation program approval, will be key levers in ensuring that schools provide all students with equitable access to deeper learning experiences.

A focus on state policies affecting teacher preparation and licensure can produce results across education systems and open up opportunities to address long-standing teacher workforce challenges. The application of research-aligned standards in licensing and program approval can support student learning,[9] shape preparation programs,[10] and facilitate systemic alignment with research on learning and development.[11] Challenges related to these policy areas include inequitable access to prepared and qualified teachers[12] as well as persistent teacher shortages, the latter being particularly acute in high-demand subjects like the STEM fields and special education as well as in schools serving the highest-need students and students of color.[13]

This report, produced by the Learning Policy Institute in collaboration with the Council of Chief State School Officers, examines teacher licensure and program approval systems in the state of West Virginia. The aim of the report is to ascertain how these systems are advancing the preparation of a diverse, well-qualified, and equitably distributed teacher workforce to support all students' deeper learning and social, emotional, and academic development. The report draws upon state teacher workforce data; analyses of statutory and regulatory frameworks and structures; and interviews with stakeholders from state agencies and teacher preparation programs, as well as with educators and labor representatives. (See Appendix A for methodology.) It proceeds in five parts: (1) an analysis of the West Virginia education and teacher workforce context in West Virginia; (2) a review of the broader policy context and recent policy trends across the state; (3) exploration of the state's standards for teacher preparation; (4) a review of policies guiding the systems for licensure, teacher preparation program approval, and professional learning for practicing teachers; (5) and recommendations for systemic improvement.

These recommendations are rooted in state needs and priorities, based on current research, and informed by relevant policy examples from other states. They are intended to provide ideas and direction for state policymakers to build upon and strengthen existing state systems. In a final addendum, we explore the emerging impacts of the COVID-19 pandemic on the state's schools and

systems for building an effective teacher workforce. While data collection for this report took place before the onset of the COVID-19 pandemic, the effects of which on education budgets and systems are not yet fully known as the report goes to publication, the recommendations may still contribute to future planning and offer a vision for a system that supports a sustainable and effective teacher workforce ready to meet the changing needs of the state's students well beyond the pandemic.

State Context: Lagging Statewide Achievement, Growing Social and Emotional Needs, and Teacher Shortages

West Virginia's performance on the National Assessment of Educational Progress (NAEP) highlights a continued challenge in supporting achievement for students across the state when compared with the rest of the country. Across the 4th- and 8th-grade mathematics and reading exams, students in West Virginia have hovered near or in the bottom 10 states over the past decade, based on both average scale score and percentage of students who score at or above proficient.[14] In addition, these scores have generally been on the decline or have stagnated for 4th- and 8th-grade test-takers across both mathematics and reading.[15] Given the vital role fully prepared and certified teachers play in supporting student learning,[16] the achievement of West Virginia students suggests that, for things to improve, there is a pressing need to ensure that every classroom is staffed by a fully prepared teacher who has the skills and knowledge to support student learning and achievement.

For West Virginia and its teacher workforce, the challenge of improving student achievement is deeply rooted in broader conditions facing the economy and local communities. The state is currently working to reinvent and diversify an economy that has struggled under continuing declines in coal production and employment.[17] The need for such change is clear. West Virginia's poverty rate of 19.1% ranked fourth in the nation in 2019. Combined with limited postsecondary attainment across the population, where less than one third of West Virginians hold associate degrees or higher, as well as the growing public health crisis spurred by opioid addiction, the state faces a steep climb toward a future resurgence.[18]

Against this concerning backdrop, students in West Virginia navigate increasingly unstable home lives and manage the effects of childhood trauma and adverse childhood experiences:

- 24.5% of children younger than 18 years live in households below the poverty threshold, which for a family of four is about $26,000.[19] West Virginia ranked 46th among states in terms of child poverty rates for 2019.[20]

- West Virginia leads the nation in the percentage of children who do not live with either of their parents.[21] This includes 6,938 children who were living in foster care as of March 2019, and more than 40,000 children living with grandparents or other relatives. This accounts for 10.6% of all children under 18.

Teachers have marked the change. When asked about conditions students face at home on a 2019 West Virginia University (WVU) survey, 70% of the 2,200 teachers who responded reported an increase in students impacted by substance misuse in the home.[22]

What holds important implications for the findings of this study is that schools and educators are struggling with these growing challenges. From the same 2019 WVU survey, 90% of teachers reported not feeling confident in knowing how to support children with parents who misuse substances.[23] Further, students report a lack of trust with school staff. Half of students surveyed in

the West Virginia Department of Education (WVDE) Education Survey for Students state that they are not "comfortable discussing problems with adults at [their] school."[24] Taken together, these challenges speak to a broader need to build the skills of new and practicing educators across the state to better support students.

At a moment at which the need and demand for educators who have the knowledge, skills, and dispositions to support the social, emotional, and academic development of students could not be higher, teacher shortages in West Virginia continue to increase pressure to fill vacant classrooms with underprepared or uncertified individuals. Over the past decade, West Virginia has faced persistent and growing challenges in staffing classrooms with fully prepared teachers. According to data reported to the federal government on shortages in the state, nearly every county has reported persistent shortages of fully certified teachers going back almost 10 years, and the state as a whole has reported shortages in a long list of subjects.[25] The shortages by subject area mirror those experienced by a majority of states. They include special education, mathematics, science, and elementary education.[26] As one stakeholder from a preparation program put it, "In West Virginia, there's not really an area that's not high need right now."[27] While publicly available data on the teacher workforce in West Virginia is limited, the following section synthesizes recent research, local news articles, analysis of existing data by the Learning Policy Institute, and other relevant sources to describe the current status of West Virginia's teacher workforce.

Growing Teacher Vacancies and Underprepared Teachers

West Virginia faces a growing number of teacher vacancies and positions filled by teachers who have not yet met established state standards for earning a full professional West Virginia teaching credential. While conversations with the WVDE suggest the number of vacancies reported by counties may be inexact, the numbers reported at the state level have consistently increased since 2015.[28] In 2018, leadership from the department gave a presentation to the state legislature on teacher vacancies. Data presented and reported in a subsequent news article state that approximately 1,252 positions were filled by uncertified or underprepared teachers in West Virginia schools (6.5% of nearly 19,000 total teachers).[29] Recent research suggests these issues in staffing classrooms are rooted in the use of "under-qualified short-term subs, long-term substitutes, retired former teachers filling in a role and teachers forced to teach a subject they didn't specialize in."[30] These trends are particularly concerning for mathematics courses. According to the department, in 2018 38% of 7th- and 11th-grade math courses were taught by teachers without full certification.[31] Other estimates put the percentage of math and science classes taught by individuals not fully endorsed either by content area or grade level around 20% statewide.[32]

Teacher Shortages Most Severe in Certain Subject Areas and Counties

Despite the broad impacts of teacher shortages in the state, there are specific subject areas facing critical shortages, and particular counties facing the greatest challenges in filling these roles.[33] A letter provided by the WVDE to the West Virginia Higher Education Policy Commission (WVHEPC) from September 2019 identifies the subjects and counties designated as critical need

areas within the state.[34] The following subject areas were identified as critical need areas: mathematics, science, special education, elementary education, and counseling. These areas of shortage echo national teacher shortage trends. In 2019–20, 48 states reported shortages in mathematics, 47 in special education, and 46 in science.[35]

The letter also identifies the counties facing the most critical shortages in these subjects:

- Mathematics: Boone, Cabell, Fayette, Kanawha, Logan, McDowell, Raleigh

- Science: Berkeley, Boone, Fayette, Kanawha, Logan, McDowell, Raleigh, Wyoming

- Special Education: Berkeley, Kanawha, Raleigh, Wayne, Wyoming

- Elementary Education: Clay, Fayette, Kanawha, Logan, McDowell, Wyoming

- Counseling: Berkeley, Boone, Fayette, McDowell, Mercer, Monroe, Roane, Upshur, Wyoming[36]

Our conversations with stakeholders illustrated how these shortages are playing out on the ground. The Superintendent of Wood County Schools, William Hosaflook, indicated that his county still had unfilled teaching positions in November, highlighting the type of pressing need that could drive counties to pursue individuals without full certification. In considering the challenges facing counties in recruiting and retaining special education teachers, Blaine Hess, Superintendent of Jackson County Schools, described trends that forced him into a yearly race to find new teachers to fill recently vacated special education positions:

> That was the position that got your foot in the door of the district. You would take a special education job, get whatever credentials you needed to keep that job for the year, with hopes of moving to another job. That caused a little bit of instability in special education because we were constantly intaking new special education teachers, spending a lot of time training them, and then at the end of the year they would be moving to another position. That really is a stress in the special education department to keep up with getting good quality people, keeping them trained.

Additional research from within the state suggests this type of instability and the yearly race to fill vacant roles are challenges shared by many superintendents across the state.[37]

Workforce Challenges in the State's Southern Counties

Rural schools, which make up half of West Virginia's schools, face unique challenges in recruiting and retaining teachers, similar to rural communities nationwide.[38] Rural schools often experience inadequate resources, limited teacher supply, and geographic isolation—making it difficult to recruit and hire teachers. Further, these schools experience high turnover of the teachers they do hire due to inadequate resources, lower salaries, and poor working conditions.[39] In particular, counties in the state's southern region have faced persistent shortages of teachers in key subjects. Of the counties listed in the WVHEPC's letter identifying the state's critical shortages, five counties concentrated in

Figure 1
West Virginia Subject-Area Critical Teacher Shortages, by County and Subject Area

Number of critical shortage areas *(number of counties)*

- 1 subject area *(7 counties)*
- 2 subject areas *(0 counties)*
- 3 subject areas *(4 counties)*
- 4 subject areas *(4 counties)*

Subject areas

- **M** Mathematics
- **S** Science
- **SE** Special Education
- **EE** Elementary Education
- **C** Counseling
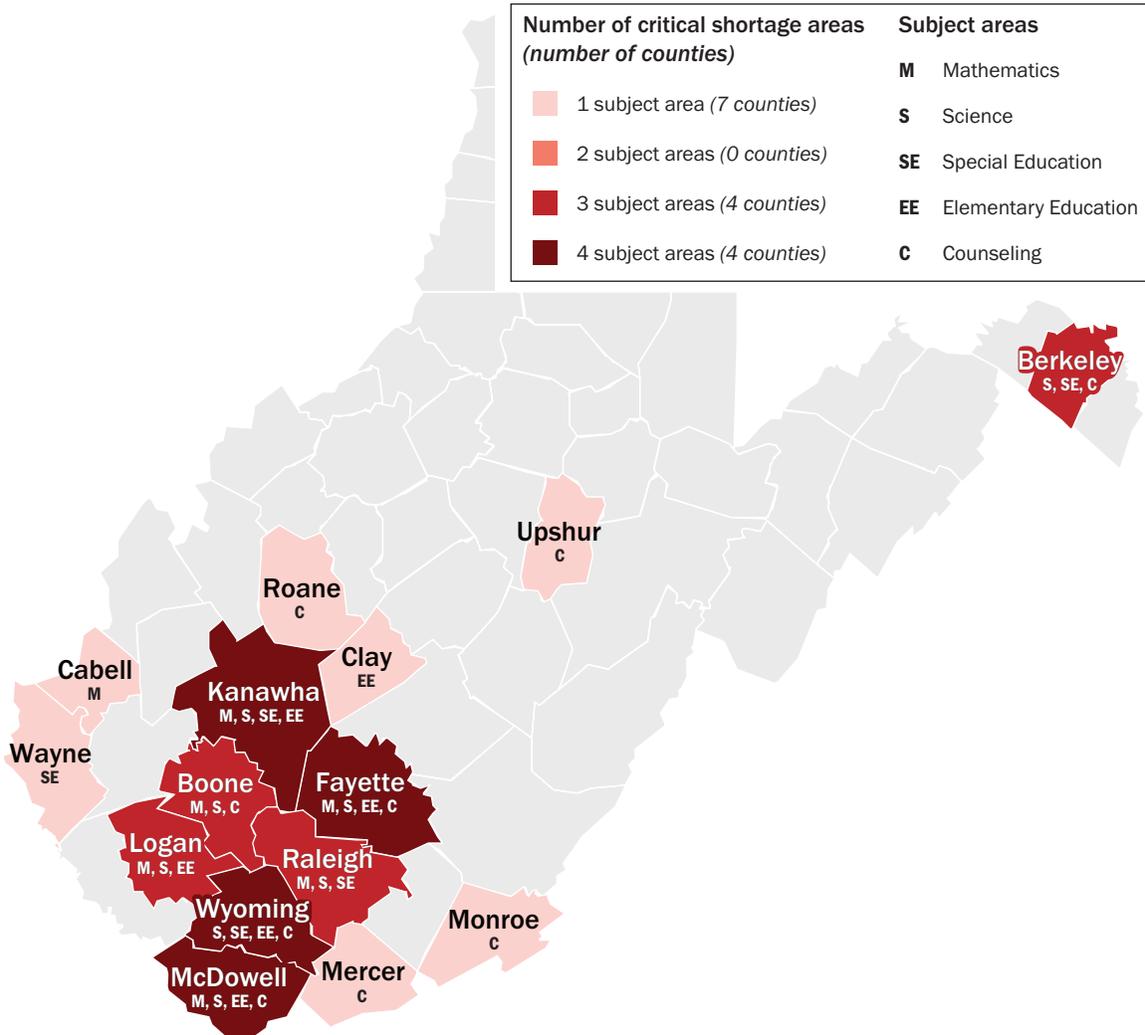
Data source: Stephen Paine, former State Superintendent of Schools (personal communication; 2019, September 19).

southern West Virginia (Boone, Logan, McDowell, Raleigh, and Wyoming) are listed across multiple subject areas, and an additional two other southern counties are listed for critical counseling shortages (see Figure 1). It should also be noted that in the state's 2015 equity report, the geographical areas of greatest shortage for the 2013–14 school year were all counties in the southern portion of the state (Boone, Logan, McDowell, Mingo, and Wyoming), further confirming the persistent challenge in staffing positions in this region.[40]

Going beyond just the reporting of these shortages, recent research helps illustrate the challenges and impacts in the southern portion of the state as leaders try to fill vacant classrooms each year. In a 2019 research study on the perception of teacher shortages in the state, a superintendent from

a southern county reported managing about 15 unfilled vacancies throughout a school year, which resulted in classrooms unstaffed by an adult on any given day.[41] An article from 2017 detailing the teacher shortages in McDowell County further illustrates the retention challenges potentially driving shortages in the southern counties.[42] Between 2013 and 2016, schools in the county hired 137 teachers but lost 163 (out of a total of about 275 employed teachers). Unsurprisingly, facing challenges in retaining teachers, schools in many counties turned to filling vacancies with long-term substitutes or uncertified teachers. In McDowell, close to one in five teaching positions were filled by substitute or uncertified teachers during the 2016–17 school year.[43] Research demonstrates that underprepared and uncertified teachers are less likely to stay in the profession, which creates a revolving door of new teachers and contributes to teacher shortages.[44]

Effects of Teacher Turnover and Attrition in Critical Need Areas

While McDowell's experience with teacher attrition is stark, teacher turnover and attrition affect other counties as well. A 2016 report from the Regional Educational Laboratory (REL) Appalachia utilized data between the 2008–09 and 2012–13 school years to measure teacher retention, attrition, and mobility across the state of West Virginia.[45] As highlighted in the report, the statewide attrition rate was around 9% each year, slightly above the national average rate of 8%. While the state-level findings reflect attrition and retention trends similar to the national level, drilling down to specific counties demonstrates the challenges of retaining teachers in the schools and subject areas where they are needed most. Counties serving a larger proportion of students eligible for free or reduced-price lunch (FRPL) had higher rates of teacher attrition (11%) and mobility (1%)—measured as teachers moving from one West Virginia county in one academic year to a different West Virginia county in the next year—each year compared to schools serving a lower proportion of FRPL-eligible students (8% attrition and 0.6% mobility).

Many of the counties identified above as having critical shortage needs also saw higher rates of teacher attrition. In particular, Kanawha County, the largest in the state, had an attrition rate of 10.9% between 2008–09 and 2012–13. Further, three counties located in the southern portion of the state saw attrition rates above the state average (9%). These included McDowell County (14.3%), Fayette County (12.3%), and Logan County (10.7%). (See Figure 2.) To further contextualize the high rates of teacher attrition experienced in these counties, it is important to remember the financial cost districts bear when teachers leave the classroom or profession. Research points to significant costs of teacher turnover, ranging from around $9,000 to replace each teacher who leaves a rural school district to upward of $21,000 for a teacher leaving a large, urban district. These estimates include costs of recruiting, onboarding, and professional development.[46] Research also points to negative effects of teacher turnover on student achievement.[47] Applying these research-based estimates conservatively, replacing 12.3% of Fayette County's 2,010 teachers each year could roughly translate to around $2.3 million diverted from the district's budget (about $9,000 per teacher) to cover the costs of replacing those teachers.[48]

Figure 2
Average Teacher Attrition Between 2008–09 and 2012–13
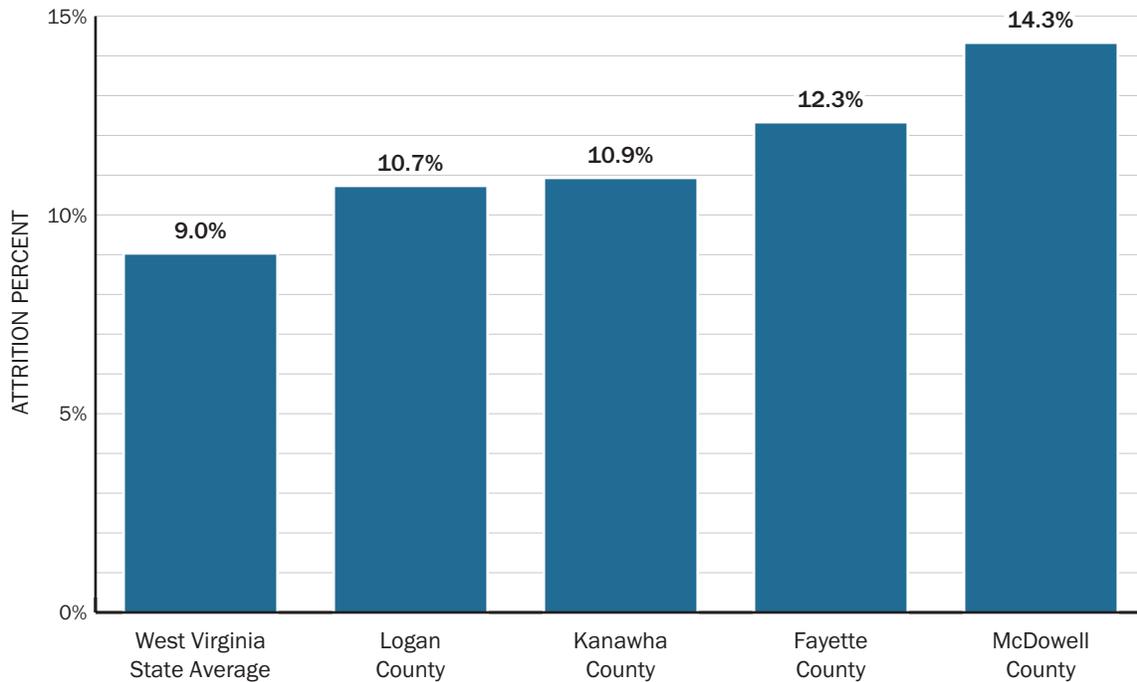
Data source: Lochmiller, C. R., Adachi, E., Chesnut, C. E., & Johnson, J. (2016). *Retention, attrition, and mobility among teachers and administrators in West Virginia* (REL 2016-161). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, and Regional Educational Laboratory Appalachia.

The report also highlights concerning trends in the attrition of beginning or early-career teachers across the state. According to the report, 20% of beginning teachers left after 1 year, compared with only 9% of teachers overall over the same period.[49] Further, 32% of those teachers who began teaching during the 2008–09 school year had left by the 2012–13 school year, 5 years later. With national estimates suggesting new teachers leave at rates somewhere between 19% and 30% over their first 5 years, these findings suggest turnover rates for new teachers in West Virginia that mirror the highest national estimates.[50] Because teaching experience is positively associated with student achievement, and gains in teacher effectiveness associated with experience are steepest in teachers' initial years, losing so many early-career teachers before they have had the chance to become more effective undermines efforts to support student learning and build teacher quality.[51]

Adding to the findings from the REL report, a 2019 survey conducted by the WVDE of over 7,000 classroom teachers and counselors and nearly 500 principals and assistant principals revealed a troubling trend consistent with data from the REL report. Of the teachers surveyed, 9% said they were planning to leave the profession in the following year.

Declining Teacher Preparation Enrollment

Further compounding the challenge of meeting the demand for fully prepared and certified teachers is the continued decline in teacher preparation enrollment across the state. Between

the 2009–10 and 2017–18 academic years, West Virginia saw a 53% decline in the number of individuals entering teacher preparation programs (see Figure 3).[52] This decline outpaces the national decline in teacher preparation enrollment, which is about 38%.[53] However, during that period, West Virginia saw a 12% decline in the number of program completers (compared with the national average of 28%).[54] This suggests that while West Virginia is experiencing a disproportionate decline in enrollment, the state has had more success than others nationally in moving candidates to program completion. Nonetheless, teacher supply is down overall. During the 2010–11 academic year, 1,133 individuals completed preparation programs in the state, while by 2017–18, that number was down to 994.[55] Taken together, these numbers paint a mixed picture for teacher preparation across the state that could portend the continued decline in the state's supply of new teachers.

Figure 3
West Virginia Teacher Preparation Enrollment, by School Year
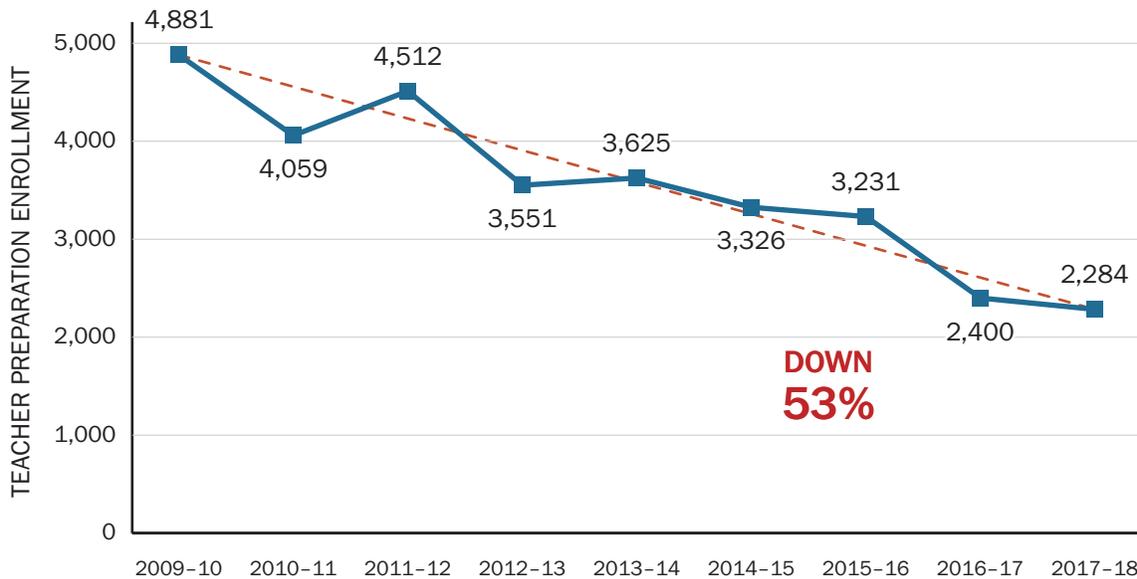
Data source: LPI analysis of Title II Reports, 2019, National Teacher Preparation Data, U.S. Department of Education.

Stakeholder Perspectives on Causes of Shortages

The impact of teacher shortages was a recurring theme in our conversations with 20 stakeholders from across the state (see Appendix A). Individuals shared a number of potential drivers for the shortages of qualified teachers across West Virginia. Many pointed to the lack of sufficient compensation and indicated that the higher pay in neighboring states Maryland and Virginia, where starting salaries for the 2018–19 school year averaged between $5,300 and $9,900 more than in West Virginia, drove teachers to move on once they found a better, higher-paying opportunity.[56] Dale Lee, President of the West Virginia Education Association, suggested that part of the problem was the lack of strong high school pipelines that might help create enthusiasm and support for teaching. Others echoed the sentiment below from Blaine Hess, Superintendent of Jackson County Schools, suggesting that the problems run deeper than pay and pipelines:

We have to figure out a more successful way to recruit new people into the profession. I think that, whether it's the political atmosphere or whatever it might be, there are things beyond money that make teaching maybe not attractive to people. I think we need to heighten the respect for the teaching profession in some way. That often comes from our political leaders.

It is clear that West Virginia faces pressing challenges in staffing hard-to-fill subject areas and geographic locations with fully prepared and certified teachers. In addition, the decline in teacher preparation enrollment and the high rates at which early-career teachers are leaving the profession suggest that policymakers should focus immediately on increasing teacher quality and retention by incentivizing candidates to enter high-retention teacher preparation pathways. Further, given the challenges facing West Virginia's student population, the state should reexamine the kinds of preparation available to teachers to assure that they are receiving the skills and knowledge required to meet student and family needs in the current context. In the next sections, we explore the current certification and program approval systems in West Virginia and consider recent policy changes and their implications for the status of the teacher workforce.

Policy Context: Strengthening Preparation in the Face of Growing Shortages

Policies governing teacher licensure and program approval are intended to ensure that all students are taught by well-prepared teachers who can meet their learning needs. In working toward this goal, West Virginia's teacher preparation and licensure system has struggled to maintain a consistent and universally applied set of standards as pressure mounts to fill vacancies in schools both in high-need subjects and in parts of the state that have faced persistent challenges in recruiting and retaining teachers. Yet policy efforts over the past decade have helped to establish a strong foundation upon which the state has sought to effectively meet its workforce needs while ensuring that new teachers receive the training and support needed to succeed. The following section describes these policy efforts—at times identifying competing trends that appear be at odds in shaping the future of the state's certification and teacher preparation system.

In 2012, the state's standards for teaching were revised and all preparation programs were tasked with ensuring alignment to the revised standards. Following the revisions and subsequent alignment, the state undertook steps to establish a performance-based system of continuous improvement at all levels of the preparation and licensure systems. This began in 2014 when the state formalized a partnership agreement with the Council for the Accreditation of Educator Preparation (CAEP) and made accreditation through CAEP a requirement for approved preparation programs operating in the state. In 2016, after a process of piloting two nationally normed teacher candidate performance assessments (the edTPA and the Praxis Performance Assessment for Teachers, or PPAT), the state established a culminating performance assessment requirement for all candidates but left programs the choice of choosing an existing assessment or developing their own.

More recently, the state has established itself as an early adopter of policy aimed at growing the amount of time individual teacher candidates spend practicing under the wing of an expert mentor, and simultaneously providing for increased incentives to future teachers willing to commit to working in high-need classrooms across the state. In 2018, the West Virginia Board of Education (WVBE) formally adopted policy requiring all preparation programs to develop yearlong residency pathways that would take the place of the traditional culminating 12-week clinical experience. The process of implementation of this shift in clinical practice requirements has seen the West Virginia Department of Education (WVDE) work to engage preparation program faculty and leaders from across the state in conversations meant to establish clear guidance and structures for the yearlong residency moving forward. These efforts have been joined with increased investments in a recently revised service scholarship program, the Underwood-Smith Teaching Scholars Program. The program is meant to recruit some of the state's highest-achieving high schoolers into teaching and help the state address the persistent shortages in certain subject areas and geographic locations.

Yet not every recent policy change in the state is positioned to support the long-term needs of teachers and students. West Virginia's teacher salaries remain near the bottom compared with other states. Even with the 2018 Red4Ed protests and subsequent progress in raising the average salary

for teachers in the state, the state ranked 50th out of 50 states and Washington, DC, for average teacher salary, according to a 2020 analysis from the National Education Association.[57] Stakeholders interviewed for this report highlighted the continued struggle to retain educators across the state when competing with higher-paying industries and nearby states.

In addition to the challenges posed by lower teacher salaries, recent trends related to new teacher induction and practicing teacher professional learning, alternative certifications, and data reporting run the risk of undermining the state's policy efforts to strengthen the teacher workforce. Legislative changes in 2013 removed requirements for beginning teacher induction programs and gave local counties greater discretion over program funding provided through the state. While the state's investment in teacher induction through Step 7d funding, an additional state allotment given to counties based on the number of new and second-year teachers working in their schools, is an important move to address potential inequities in access to quality induction, there is growing concern that there is little oversight of county programs and how the state's investments are being used. Further, surveys of new teachers in the state suggest declining consistency and inequitable access to quality induction programs. Adding to this potential inconsistency and instability in the system for new teacher supports, legislation passed in 2017 eliminated the state's Regional Education Service Agencies (RESAs), which had been responsible for supporting regional and county-level professional learning.

The evolution of the state's alternative preparation system and the licensure pathways meant to address critical shortage areas point to a growing reliance on these alternative pathways. However, there is little publicly available data demonstrating the extent that different pathways are used or the impact and retention of individuals who are prepared via the different pathways, once they are in the classroom. Further, because alternative pathways rely heavily on each county's infrastructure for new teacher support and induction as a means to support underprepared candidates, the declining quality in induction programs highlighted above risks leaving a growing number of alternatively certified teachers without necessary support. As the following descriptions of the current systems of licensure and program approval show, a main outcome of this evolving policy context thus far has been the potential for greater variability in quality of preparation and ongoing professional learning and supports, which, in turn, may exacerbate shortages, increase inequities in the distribution of qualified teachers, and depress student achievement across the state.

Finally, the COVID-19 pandemic has upended schools and teacher preparation programs across the state. The department has worked to respond with the needed flexibility to preparation requirements to ensure that no teacher candidate is denied the opportunity to earn certification and begin teaching in the coming years because of disruptions to certification testing and clinical practice experiences brought on by school closures or remote instruction. Yet a great deal of uncertainty remains regarding the potential impacts of future budget cuts or further disruptions to the state's teacher workforce.

State Systems for Certification and Preparation Program Approval

A Framework for Examining Teacher Preparation and Certification Systems

Strong certification and teacher preparation systems rely on essential and interconnected elements that help all teachers develop the knowledge, skills, and dispositions needed to support student social, emotional, and academic development. Working in tandem, these essential elements help support broad access to high-quality preparation and state systems that guide high-quality practice (see Figure 4). These systems include:

- standards that reflect what we know about how people learn,

- performance assessments that assess what educators can do in practice, and

- teacher preparation accreditation and program approval processes that look at what programs provide and what candidates learn.

Further, strong certification and preparation systems often combine these foundational elements with incentives like service scholarships and loan forgiveness programs that draw individuals into comprehensive and high-retention preparation programs and mentoring and coaching during their first 2 or 3 years of teaching to support their continued growth and long-term retention.[58]

Figure 4
Ensuring Equitable Access to a Strong, Stable, and Diverse Teacher Workforce

Broad Access to High-Quality Preparation

- Support for high-retention preparation pathways (e.g., residencies, Grow Your Own)
- Scholarships and forgivable loans that subsidize preparation
- School–university partnerships that support professional development schools
- Funding and incentives for intensive (or yearlong), high-quality clinical training
- Mentoring for candidates and novice teachers tied to career ladder roles for accomplished teachers

State Systems to Guide High-Quality Practice

- Standards that reflect what we know about how people learn
- Performance assessments that assess what educators can do in practice
- Accreditation that looks at what programs provide and what candidates learn
- Data reflecting the recruitment, distribution, and retention of qualified educators
- Induction systems that enable accomplished educators to mentor novices

The following sections consider how West Virginia's systems for licensure and teacher preparation reflect these core elements and ensure that every new teacher has access to the learning experiences that can support their growth and development and the assessments that allow them to demonstrate their ability to support learning for all students. First we explore in detail the current standards that govern teacher preparation and certification (Policy 5050) and then we consider how they shape the available pathways into the profession (Policies 5202 and 5901). Given the challenges around beginning-teacher turnover and filling hard-to-staff positions across subject areas and geographic regions, we pay particular attention to the preparation experiences embedded in each certification pathway, as well as how the current systems support educator development for enacting the science of learning and development (SoLD). In particular, we focus on the differences in requirements across pathways into the profession and the potential challenges in ensuring a high-quality and consistent preparation experience for all new teachers across the state.

The subsequent sections will explore the state systems that support teacher preparation program quality and continuous improvement (Policy 5100), including national accreditation through the Council for the Accreditation of Educator Preparation (CAEP) and the state's current transition to a yearlong residency experience for new teachers. In addition, we examine teacher education programs' access to data systems and capacity to examine data in order to reflect upon and improve program quality in alignment with CAEP standards. Finally, this section will conclude with a look at the state's current system for new teacher induction and early-career mentoring and other relevant professional learning policies, including support for National Board Certification, that influence the retention and support of teachers in the state.

Standards for Teacher Certification and Preparation

The West Virginia Professional Teaching Standards (WVPTS) serve as the guiding standards for the state's practicing teachers and for the development of preparation program content and curriculum. Established in State Board Policy 5050, the West Virginia Commission for Professional Teaching Standards (WVCPTS) is the official body responsible for reviewing and recommending to the WVBE standards for the licensure of educational personnel.[59]

The WVPTS were originally developed in 2007.[60] The articulated vision for what a West Virginia teacher should know and be able to do is informed by research and national standards, including the Interstate New Teacher Assessment and Support Consortium (InTASC) and the National Board for Professional Teaching Standards (NBPTS). Following the most recent update in 2012, preparation programs across the state participated in a process of alignment to the revised WVPTS. There are five different standards (Curriculum and Planning, The Learner and the Learning Environment, Teaching, Professional Responsibilities for Self-Renewal, and Professional Responsibilities for School and Community), with each standard broken down into functions. Each function is divided into a series of indicators, and the indicators are defined along four levels of performance: Distinguished, Accomplished, Emerging, and Unsatisfactory.

The WVPTS are informed by a strong research base and provide a foundation that supports a clear and comprehensive vision for teaching and learning in the state. The standards reflect attention to ensuring that teachers provide learning opportunities that are developmentally grounded and personalized. Further, they prioritize the integration of "21st century interdisciplinary themes of global awareness; economic, business and entrepreneurial literacy; civic literacy; and health literacy."[61] The standards also address the need to support students in learning how to learn through "metacognition" and "self-directed learning."[62] Attention is also paid to key principles of whole child development established in the rapid progress of research on SoLD, including the importance of relationships for development and learning. For example, the following standard articulates the importance of collaboration and cooperation:

> Cooperation and collaboration are promoted through varied, organized learning teams to strengthen social ties, improve communication skills, and facilitate investigation. Experiences encourage students to be flexible, adaptable, resourceful, and creative. (Standard 1, Curriculum and Planning, Function 1D [Designing Instruction], Indicator 1D1, Designs Relevant and Engaging Learning Activities[63])

To this end, the standards also acknowledge the importance of teachers establishing and building relationships with students:

> The teacher's interaction with students reflects genuine respect and caring for individuals as well as groups of students. Students appear to trust the teacher with sensitive information. (Standard 2, The Learner and the Learning Environment, Function 2B [Creating an Environment of Respect and Rapport], Indicator 2B2, Demonstrates Care and Concern for Others Through Student Interactions[64])

Finally, there is a clear and consistent focus on building a "learner-centered" culture in the language of the standards, and even when the standards reference student misbehavior, they emphasize the need to nurture student dignity and self-assessment of behavior.[65]

Challenges and considerations

While the WVPTS incorporate dispositions and practices aligned with SoLD, a more up-to-date framework for teacher preparation and practice, grounded in the principles of whole child learning and development, could build off the advances in research on SoLD and their implications for classrooms, schools, and educational systems.[66] Additions to current standards could include more detailed integration of social and emotional learning (SEL) skills and mindsets with cognitive and content-area learning. Another key area for emphasis could be intrinsic motivation, including the importance of purpose in learning and the role of student choice in instruction. Finally, trauma-informed practices could be added to teachers' repertoire of skills and knowledge, along with the employment of educative and restorative behavioral supports to create welcoming, relationship-based learning environments.

Further, there are particular elements and indicators in the standards that raise questions and considerations about how a revised framework might be carried forward into the certification, program accreditation, and wider professional learning systems at the state and county level. One particular area of interest is that the levels of performance for each indicator often concentrate some of the most impactful teaching practices at the Distinguished level of performance. This concentration of SoLD-aligned teaching practices at the highest end of a developmental continuum suggests that the standards do not broadly expect all or even most teachers to enact these practices in their classrooms. It would seem that, if the state's goal is to advance equitable access to quality teaching and ensure access to SoLD-informed learning for all students, the teaching skills and practices that would advance this goal should be demonstrated by every teacher and fall more often in the Accomplished level of performance. It might even be expected that the Emerging level for each indicator would reference an inconsistent use of these practices as further evidence that every teacher should be expected to possess and build these SoLD-aligned practices and skills.

As an example of this trend, under Standard 1 (Curriculum and Planning), Function 1A (Core Content), Indicator 1A3 regarding Integrating 21st Century Skills, the Distinguished level of performance description is as follows:[67]

> **1A3, Distinguished**: Learning Activities consistently incorporate **real-world applications** requiring students critical thinking, reasoning, problem-solving, and use of digital media. **Students locate, organize, analyze, and synthesize information from a variety of sources to plan and conduct research, manage projects, solve problems, and make informed decisions** using appropriate digital tools and resources. (emphasis added)

The emphasis on real-world applications and the need to solve problems is appropriate and in line with SoLD practices and, as a matter of equity, should be available to all students across all educators in the state. Yet, under the Accomplished level of performance the language is lacking the same focus on student agency emphasized in the Distinguished category and leaves out much of the direct focus on student problem-solving and the connection to real-world contexts:[68]

> **1A3, Accomplished**: The teacher designs lessons, units of instruction and assessments that reflect an understanding of 21st century skills and their applications to core content areas. The teacher facilitates students' use of digital tools to gather, evaluate, and communicate information. The teacher consistently integrates activities that promote thinking, reasoning and innovation into lessons, units of instruction and assessments.

In particular, the emphasis on students driving the work under Distinguished versus the teacher facilitating and integrating under Accomplished is an important gap between the highest levels and expected levels of proficiency.[69]

The standards addressing social and emotional learning follow a similar trend. Stakeholders and leadership in West Virginia consistently invoked the need to improve the way new and practicing

teachers support the social-emotional and academic development of the state's students. As former Superintendent Steve Paine emphasized, "In this day and age, [teachers] need to understand the social, emotional, and mental health needs of our kids as well."[70] Importantly, this was seen as an imperative shift if teachers were to meet the changing needs of the state's students:

> Teachers are also not necessarily equipped to deal with some of the trauma that they're seeing in early childhood. **I meet with teachers all the time who tell me, "I don't know how to deal with this."** We've got trauma-informed training all over the place, but even after people take part in it, the classroom teachers should be leading instruction. That's their primary role, but they're filling so many other roles.
>
> —Fred Albert, President, West Virginia American Federation of Teachers[71]

> The roles of the classroom teacher and the administrators have changed drastically over the last 5 to 6, 7 years. Not only do they have to know how to teach, but they also **have to be trauma-informed and understand mental health and care**. We spend a lot of time and a lot of professional development on meeting [the] social [and] emotional needs of the students.
>
> —William Hosaflook, Superintendent, Wood County Schools[72]

Yet despite the emphasis across stakeholders for all teachers to build this knowledge and skillset, these competencies are more clearly articulated and concentrated in the Distinguished level of performance. The developmental progressions in Standard 1, Function 1B, Indicator 1B3 (Integrates Specialized Knowledge of 21st Century Skills) highlight this gap in building the skills of all teachers to support certain social and emotional skills:[73]

> **1B3, Distinguished:** Important life skills which include leadership, ethics, accountability, adaptability, personal productivity, people skills, self-direction, and social responsibility are consistently incorporated into instructional activities.

While these are emphasized as a practice of Distinguished teachers, under Accomplished and Emerging they all but disappear:

> **1B3, Accomplished:** Personal and workplace legal and ethical behaviors are modeled.

> **1B3, Emerging:** The teacher facilitates limited opportunities for creative thinking, innovation, and problem solving.

As the example above illustrates, the standards may warrant additional consideration as the state seeks to advance teaching and learning in line with the science of learning and development.

Finally, current standards suggest a need to shift toward an orientation that is more responsive to the emerging needs of students impacted by adverse childhood experiences (ACEs) and less focused on controlling their behavior. This is especially important given West Virginia's high concentration

of students experiencing ACEs—reflected in the 10.6% of students who do not live with either of their parents—and data from teachers on wanting to be better prepared to serve these students. In the current standards, there is no mention of adverse childhood experiences or the knowledge and skills that support trauma-informed practice. There is also no reference to understanding how trauma affects student learning and behavior, how to access resources in a multi-tiered system of support, and how to support healing. In addition, teachers need diagnostic skills to learn what children are experiencing and what they need, as well as the instructional and interpersonal skills to address those needs in the classroom or by accessing outside-of-classroom resources.[74] Further, the standards do not discuss or explore educative and restorative approaches to classroom management and discipline. The knowledge of these practices must also be accompanied by the skills to put developmental knowledge into practice.

The application of effective teaching and preparation standards requires certification and program approval systems that ensure that individuals entering the classroom as full-time educators are able to demonstrate they have met the standards and have acquired the knowledge, skills, and dispositions needed to support the learning of all students. In the following sections, the state's systems for certification and preparation program approval are explored in depth, with particular attention paid to how each system supports the application of the state's standards for teaching.

Becoming a Teacher in West Virginia

In West Virginia, there are four main pathways to earning an Initial Professional Teaching Certificate, which indicates that an individual has completed a preparation program that is aligned with the state's teaching standards:

1. Traditional Approved Teacher Preparation program

2. First-Class/Full-Time Permit

3. Teacher-in-Residence (TIR) Permit

4. Alternative Teaching Certificate

Most new teachers enter the field through a traditional pathway. According to the state's Title II reporting, 97% of individuals enrolled in teacher preparation in 2017–18 were enrolled in traditional teacher preparation programs. Only 64 candidates were enrolled in alternative certification programs, but that number was double the 32 enrolled in alternative certification pathways in 2016–17.[75] This number did not account for the individuals entering teaching through other emergency or alternative pathways that are not classified as "alternative certification" by the department, nor did it reflect the potential number of teachers who are not fully certified and/or are underprepared (as highlighted at the start of the earlier teacher workforce section). In addition to the traditional teacher preparation program pathway, the state certification system provides three other pathways developed to help counties address critical need and shortage areas. Conversations with the department and recent research conducted in the state suggest that a growing number of counties are turning to these

pathways to fill vacant positions in the absence of fully certified applicants.[76] We describe each of these four pathways below, beginning with the traditional pathway and then focusing on the three alternatives (see Figure 5). Each of these three pathways is discussed below, with particular attention paid to recent changes governing the alternative certification pathways.

Figure 5
West Virginia Teacher Licensure System

Traditional Approved Teacher Preparation Program
Complete WVBE-approved teacher preparation program and fulfill all assessment requirements for both entry and exit.

Teacher-in-Residence Permit
Teacher preparation candidate fulfills culminating student teaching requirement while serving as the teacher of record in a shortage position.

Alternative Certification Permit
Individual receives required instruction either simultaneously or before assuming the role of educator. Upon completing the alternative program, county makes recommendation for Provisional Professional Certificate.

Provisional Professional Certificate
Individual completes beginning teacher induction, two full years of teaching with evaluation ratings of Emerging or above, and six credit hours of relevant coursework.

Initial Professional Certificate

First-Class/Full-Time Permit
Work as teacher of record in a shortage position, with up to 6 years to complete preparation coursework and assessment requirements for an Initial Professional Certificate.

Data source: W. Va. 126CSR136, Policy 5202.

The Traditional Approved Teacher Preparation pathway

Teacher candidates pursuing certification through a state-approved preparation program must successfully complete required coursework, exams, an institutionally selected performance assessment, and a culminating clinical experience to graduate and qualify for an Initial Professional Teaching Certificate.[77] Under WVBE Policy 5100, which governs teacher preparation program approval, the state outlines requirements for admission to a teacher preparation program, including a minimum GPA of 2.5; successful completion of a disposition screening assessment chosen by the

educator preparation provider; and a basic skills assessment, the Core Academic Skills for Educators (CASE).[78] Candidates can waive the CASE assessment requirement with qualifying scores on the ACT, SAT, or GRE.[79] In addition, prior to completing the approved program, candidates are required to pass the appropriate Praxis II content area assessment for their anticipated specialization(s). Depending on the preparation program's required performance assessment, a candidate may be required to pass the Principles of Learning and Teaching (PLT) assessment prior to completing their preparation program.

As an alternative to the Traditional Approved Teacher Preparation pathway, individuals seeking certification in a WVDE-identified critical need and shortage area have three other options for entering the classroom: a First-Class/Full-Time Permit, TIR Permit, or Alternative Teaching Certificate.

First-Class/Full-Time Permit

A First-Class/Full-Time Permit may be issued to an individual who does not meet the requirements for the Initial Professional Teaching Certificate but who has been determined by the county superintendent to be the most qualified applicant for the position. To be eligible for this permit, candidates must be enrolled in a traditional WVBE-approved educator preparation program with 25% of the program coursework or 6 semester hours completed. The individual must hold a bachelor's degree and have a minimum 2.5 GPA. Individuals on this permit must complete annual renewal criteria, including 6 qualifying semester hours with a minimum 3.0 GPA. Individuals may serve as a teacher of record under this permit for up to 5 years, but an additional renewal can be made for a sixth year if an individual has completed all course requirements of the approved program but has not attained the required passing scores on the required Praxis content assessment.[80] Upon meeting all requirements for yearly renewal and fulfilling the graduating requirements of the teacher preparation program, an individual is eligible to apply for an Initial Professional Teaching Certificate. Data concerning the number of individuals who are currently utilizing these permits and the frequency with which they complete the requirements to upgrade to a full professional certificate were not available at the time of writing.

Teacher-in-Residence (TIR) Permit

Language within both 5202 and 5100 outline the TIR Permit. An institution of higher education (IHE) with an approved preparation program may enter into an agreement with a county board of education to establish a TIR program.[81] A TIR Permit allows an individual currently completing their final clinical experience through a traditional program to satisfy their culminating clinical experience requirements while serving as the teacher of record in a classroom with a vacancy. A prospective teacher-in-residence is required to have completed the content preparation courses with a minimum 3.0 GPA and must have passing scores on the basic skills assessment and appropriate content-specific Praxis assessment.[82] In addition, the prospective teacher-in-residence can only fill a teaching position for which no other fully certified teacher has been employed. Upon completing the year and their teaching assignment, individuals can apply for their Initial Professional Teaching Certificate.

The agreement between the IHE and the county board of education includes the specifics regarding the program of instruction and the responsibilities for supervision and mentoring by the IHE, the school principal, and mentor teachers. According to the WVDE, a supervisor connected to the IHE often checks in with individuals utilizing the TIR pathway while the county provides a mentor, but the state holds no authority over what those supports look like. As will become apparent in discussions regarding the authority given to counties to oversee their systems for new teacher induction and mentoring, there are inconsistencies in the quality of supports provided to TIRs across different counties. Further, individuals serving under a TIR Permit may not have to fulfill the performance assessment requirement for the completion of their teacher preparation program.[83] State policy requires that the salary and benefit costs for the position to which the TIR is assigned be used only for preparation support and to pay the teacher-in-residence a stipend. TIRs are guaranteed a stipend that is no less than 65% of a fully certified teacher's salary.[84]

While there are no publicly available data indicating the extent to which counties in the state are utilizing the TIR Permit to fill vacant positions, WVDE staff indicated that they have observed it being used heavily, especially around shortage areas.

Despite the lack of data, evidence suggests that superintendents are reluctant to use these permits, and they believe the permits may impact an individual's chance of staying in the profession and may weaken the overall workforce system rather than strengthen it.[85] At the same time, the lack of fully certified individuals available to staff classrooms forces superintendents to make choices to meet their immediate staffing needs. Research also suggests that for counties in more rural areas in the state, the TIR pathway may not be a viable option, given the distance from institutions with teacher preparation programs.[86] Finally, with so few fully certified educators in certain high-need subject areas, counties and schools struggle to provide the needed supports for teachers working under the TIR Permit.[87]

Alternative Teaching Certificate

In 2015, West Virginia enacted policy changes allowing additional pathways into the profession to service shortage areas in the state.[88] In place of the state's former alternative certification program, known as the Transition to Teaching Program, the Alternative Teaching Certificate pathway was created to provide opportunities for counties to recruit individuals who hold a bachelor's degree or higher and meet eligibility requirements to fill teacher vacancies in areas of critical need and shortage. Prior to or alongside placement in a school, the candidate entering the classroom through the alternative certification pathway must complete an initial teacher training, which may be provided by the school district.[89] An individual first completes this initial training while holding an Alternative Teaching Certificate. Once the individual has fulfilled the requirements of the alternative certification program, they can apply for a Provisional Professional Teaching Certificate.

Under Policy 5901, which establishes the requirements for alternative certification programs, authorized school districts must establish a partnership with one or more regionally accredited IHEs

with an approved preparation program, an entity affiliated with a regionally accredited IHE that has a WVBE-approved program for the preparation of professional educators, or the WVDE.

Policy 5901 requires Alternative Certification Partnerships to establish partnership agreements and provide instruction in a number of areas. However, diverging from the West Virginia Professional Teaching Standards, the alternative certification policy does not currently articulate specific competencies that candidates must demonstrate, leaving this up to counties to determine.[90] Areas of instruction include student assessment, development and learning, curriculum, classroom management, use of computers and other educational technology, special education and diversity, school law, and early literacy (for elementary teachers). This instruction can be delivered through 6 or more semester credit hours or through 6 or more WVDE-approved staff development professional learning hours. Programs are given flexibility under Policy 5901 to employ nontraditional methods of instruction, including online modules, electronically delivered instruction, summer sessions, professional learning, and job-embedded mentoring.

Beginning on July 1, 2021, all alternative certification programs must provide evidence of the candidate's successful completion of a valid and reliable performance assessment instrument that is consistent with relevant national and West Virginia content and professional standards. In guidance offered through the WVDE website, the edTPA and PPAT are listed as acceptable instruments. This requirement only impacts individuals enrolled in an alternative certification program after July 1, 2019.[91] Upon successful completion of a state-approved alternative certification program, which includes passing scores on a nationally normed instrument of teacher performance, applicants may be exempt from the required Professional Education Test as described in Policy 5202.[92]

Approved alternative certification programs provide a professional support team that supervises and mentors the teacher candidate and that is consistent with induction supports outlined in the partnership county's West Virginia Support for Improving Professional Practice (WVSIPP) plan. Policy 5100 indicates that there is no requirement that this support team include a teacher licensed in the same content.[93]

At the conclusion of the alternative program, providers prepare a comprehensive evaluation report on each teacher candidate's performance and make a recommendation regarding the provisional licensure of the alternative program teacher. The Alternative Teaching Certificate is issued initially for 1 year and can be renewed twice, for a total of 3 years. To apply for renewal, candidates must:

- remain enrolled and demonstrate satisfactory progress in the alternative program,

- remain employed in the critical need and shortage position for which the teacher was hired in a school that is part of the alternative program partnership, and

- receive satisfactory evaluations and receive recommendation from the county superintendent.

After meeting the renewal requirements over the 3 years, individuals are eligible to apply for a full Initial Professional Teaching Certificate.

While the effort to implement a nationally normed performance assessment requirement across the state's alternative certification programs will help ensure consistent exit standards for new teachers across pathways into the profession, the current requirements and flexibility in program delivery between First-Class/Full-Time Permits, TIR Permits, and Alternative Teaching Certificates suggest the potential for inconsistent implementation across programs and a potential lack of defined support for a group of teachers who will need such supports the most.

Adding certifications through content assessments

As a final item related to the pathways through which individuals may be able to acquire certification and fill vacant, high-need, or hard-to-staff positions across the state, Policy 5202 also allows for practicing teachers already in possession of a professional license to acquire a certification in a different content area by passing the appropriate Praxis II content area assessment and successfully completing the WVDE-approved methodology coursework. If no test is required, the professional educator must complete an approved program to add an endorsement and become certified to teach a different subject.[94]

This pathway in particular is a key part of the department's strategy to address the large number of math classrooms filled with uncertified teachers. Under West Virginia's math4Life initiative, a 5-year campaign to increase math achievement statewide, a concerted effort has been made to help recruit more certified teachers into math classrooms through this pathway. According to the WVDE, in 2018–19, 35 teachers who already held certifications in other subject areas entered into the process to earn an Algebra I endorsement through this content assessment pathway.[95]

Teacher Preparation Program Approval and Accreditation

The following section outlines the requirements for the preparation of West Virginia educators, including the governance of teacher preparation, the differing accreditation requirements for traditional preparation programs and alternative programs, the use of performance assessments in the licensure and program approval process, and requirements for clinical practice. In addition, this section explores the ways that the state's standards for teaching and policies for preparation approval and accreditation support and inform continuous improvement efforts across teacher preparation.

Teacher preparation governance

Teacher preparation in West Virginia involves a diverse set of institutional players (see Figure 6). Policy 5100 under the WVBE outlines the state's policies for teacher preparation program approval and accreditation. All programs of study that result in licensure or certification to work in the public schools of West Virginia require the approval of the WVBE. The board holds final authority over the development, revision, and adoption of program objectives, assessment instruments, and proficiency

Figure 6
West Virginia Teacher Preparation Entities

West Virginia Board
of Education (WVBE)

West Virginia Department
of Education (WVDE)

West Virginia Higher Education
Policy Commission (WVHEPC)

West Virginia
Commission for
Professional Teaching
Standards (WVCPTS)

Educator
Preparation
Program Review
Board (EPPRB)

Alternative Certification
Educator Preparation
Program Review Board
(ACEPPRB)

Teacher
Education
Advisory
Council (TEAC)

Data source: W. Va. 126CSR114, Policy 5100.

levels for the professional preparation of educational personnel. However, the board is informed and supported by partners including the West Virginia Commission for Professional Teaching Standards (WVCPTS), the WVDE, the governing boards for public and private West Virginia IHEs, public school administrators, and classroom teachers. In addition, the West Virginia Higher Education Policy Commission (WVHEPC) and the Teacher Education Advisory Council (TEAC) play roles in supporting and informing the work of the board. Policy 5100 also outlines the role of the state's Educator Preparation Program Review Board (EPPRB).[96] The EPPRB makes recommendations to the WVBE regarding the approval of educator preparation programs (EPPs) and content/specialization programs of study leading to licensure to work in the public schools of West Virginia.[97]

Traditional preparation programs: State approval and national accreditation through the Council for the Accreditation of Educator Preparation (CAEP)

Under Policy 5100, traditional educator preparation programs must have CAEP accreditation or be seeking CAEP candidacy in order for their graduates to be licensed to teach in the public schools of West Virginia.[98] As outlined in the original CAEP partnership agreement from 2014, the goal of establishing national accreditation as the main driver of state program approval was to promote excellence in educator preparation and eliminate duplication of efforts and reporting across the two systems.[99] The partnership agreement was for an initial period of 7 years and was renewed in June 2021. Recent proposed changes to 5100 intend to expand the options for meeting the national accreditation requirement. Under the proposed revisions, programs could seek accreditation from the Association for Advancing Quality in Educator Preparation (AAQEP) pending official board approval.[100]

After formalizing its partnership with CAEP, the state officially adopted the CAEP accreditation standards as board policy in June 2019. The adoption set in motion a process of ensuring that all programs were aligned to the expectations set forth in the standards, and this alignment effort was funded through grants provided by the National Governors Association and National Association of State Boards of Education.[101] The current CAEP standards are aligned with the Interstate New Teacher Assessment and Support Consortium (InTASC) standards, on which the WVPTS are based.

CAEP accreditation process

CAEP requires that EPPs seeking accreditation complete a self-study and a site visit on a 7-year cycle through which the accreditor determines an accreditation status. To complete the self-study, programs compile evidence to make their case that they are meeting CAEP standards.[102] Following the completion of the self-study, EPPs host a 2- to 3-day site visit with the CAEP review team, during which the team reviews evidence, verifies data, and examines pedagogical artifacts (e.g., lesson plans, student work samples, and videos). The teams consist of five members, including three national and two state-based members. In addition, each teacher association (WVEA and AFT-WV) may appoint one observer for the on-site review at the association's expense, and the governing agency of the EPP undergoing review may appoint an observer at its own expense. A representative from the WVHEPC also participates in these visits. Finally, a liaison from the WVDE serves in an observer role for the review team while performing an on-site review. The EPP assumes all expenses, including travel, lodging, and meals for CAEP and state team members (excluding observers), in addition to the periodic evaluation fee.

After completing the site visit, the review team provides a written report to the EPP and CAEP's Accreditation Council that includes a summary of the team's evaluation of the completeness, quality, and strength of evidence for each standard. The Accreditation Council then determines the accreditation status of the EPP. Following the completion of these steps, programs receive a final report and the approval designation.[103]

In addition to the self-study and site visit, CAEP requires the submission of an annual report from each preparation program.[104] The EPP annual report includes reporting on eight annual measures of program outcomes and impact:

1. Impact that completers' teaching has on pre-k–12 learning and development

2. Indicators of teaching effectiveness

3. Results of employer surveys, including retention and employment milestones

4. Results of completer surveys

5. Graduation rates from preparation programs

6. Ability of completers to meet licensing (certification) and any additional state requirements (license rates)

7. Ability of completers to be hired in education positions for which they were prepared (hiring rates)

8. Student loan default rates and other relevant consumer information

According to CAEP, annual reports inform CAEP about the degree to which providers continue to meet CAEP standards between accreditation visits. Providers can also use the data in their continuous improvement efforts. Yet within West Virginia, preparation programs have struggled to collect data required in the annual report. As one faculty member reported, "We've struggled with the challenge of meeting [CAEP] Standard 4, tracking the data and having to devote faculty capacity that might otherwise be spent on the preparation of new teachers."

Interestingly, despite CAEP's authority to offer approval designations for programs and establish clear priorities for program improvement, West Virginia still retains authority in authorizing programs to prepare candidates for certification in the state. Policy 5100 states, "In the event of a CAEP revocation or denial of accreditation of an EPP, the EPPRB will review the CAEP evaluation of the EPP and make an approval status recommendation to the WVBE."[105] In addition, state policy allows for the review of approved programs at the discretion of the department.[106] If a review is deemed necessary, the WVDE may assemble a team of representatives from the WVDE, higher education, and the public schools to review any matters of concern identified by the WVDE. It is unclear if the department has ever actually exercised this authority in relation to EPPs in the state. In discussing the board's authority, Keri Ferro, Director of Statewide Academic Initiatives at the WVHEPC, acknowledged the potential weight of this policy and, in doing so, also pointed toward a space through which the state might begin to take a more active role in supporting program improvement: "If you get a ding from CAEP, that's not going to really be a big deal. But if you're not following policy, the Department of Ed could really come down on [your program]."[107]

These elements of state authority are important given current conversations taking place at the department. With the 2021 expiration of the CAEP partnership, the department is taking a broader look at the entire state-level program approval process to determine where the state may be able to provide more support to programs as they work to continuously improve their preparation experiences and implement the yearlong residency option requirement (see following section).[108] The department has also expressed concern about the level of support available through the CAEP process for smaller institutions and programs across the state. This concern was echoed by programs that have found inconsistencies in information and guidance from CAEP and have struggled with the level of turnover at CAEP. One EPP faculty member described this challenge:

> You think you have somebody that you can work with and talk to, and then they're gone. Also, they change what they say. So if you go to one conference, like in the fall . . . you'll hear one thing and then you'll go to the spring conference and they'll either act like they didn't say it or they'll just say the complete opposite of what they said in the fall. But it's been a bit frustrating because I think they've been trying to land on their feet, and in the process . . . they're not sure what they want.

Programs also highlighted the strains CAEP accreditation placed on institutional resources and capacity. In particular, the expense of maintaining CAEP accreditation and hosting the accreditation visits was cited as an additional barrier smaller programs face as they work to maintain program approval. Leadership from West Virginia University at Parkersburg (WVU-P) also suggested that CAEP created capacity challenges for faculty when it removed limits on the number of credit hours for which faculty in charge of accreditation could be responsible. Instead of caps at 12, faculty could be saddled with 15-hour credit loads, making the task of leading accreditation even more challenging.

Conversations with program staff suggested that, alongside these challenges, the transition to CAEP accreditation had helped spur positive change in preparation practices. In particular, leadership and faculty at WVU-P highlighted that the process to complete their recent accreditation visit had helped them align their programs and make important changes. Dr. Missy Spivy, Associate Professor at WVU-P, noted, "I think our program has become a lot better and a lot stronger through the process, but it has been a very rigorous and tiring process. And we did very well." Further, the faculty at WVU-P suggested that, given the work they did to achieve CAEP approval, they would be wary of future changes that might require them to start all over with aligning their programs and making vast changes across the institution.

Alternative certification program approval

Unlike traditional programs, which must undergo CAEP accreditation, alternative certification programs undergo an entirely different program approval process. WVBE Policy 5901 establishes the Alternative Certification Educator Preparation Program Review Board (ACEPPRB) to oversee the state's alternative certification programs and make recommendations regarding initial and continuing alternative certification of educator preparation program approval.[109] Following the ACEPPRB's recommendation, WVBE may grant initial approval to a new or revised alternative certification program provider that would last for a period of up to 5 years, and, during this time, the alternative certification program provider may make recommendations for certification of those who successfully complete the program.

To receive continuing approval status, alternative program providers must demonstrate success through the retention of program completers in the classroom and through their impact on student achievement as documented through the West Virginia Educator Evaluation System. Continuing approval status requires a program review every 7 years. Yet because these policies remain quite new and have only been in effect since 2015, there is still quite a bit of work to be done to track and determine the quality of programs operating under the alternative certification policies. It is also unclear what other oversight programs may encounter during the 5- and 7-year stretches of initial and continuing approval. For a set of programs that may veer dramatically in form from traditional preparation in the state, it may be important to more closely track their early implementation beyond documents submitted through the ACEPPRB approval process.

Performance assessment requirements for West Virginia preparation programs

Over the past decade, many states have begun to incorporate performance assessment into their licensure processes as a tool to assess whether candidates can demonstrate they have met initial teaching standards. These newer assessments typically require teacher candidates to develop portfolios of work that include unit plans, videos of their instruction, evaluation of student work, and written reflections that connect their teaching practice to theory. They are designed to evaluate, in a more authentic way, candidates' readiness for teaching, and, indeed, initial research finds that teacher candidates' scores on the performance assessment often predict their students' academic gains.[110] Like many other states, West Virginia has established criteria and choices for performance assessments that candidates must pass in order to exit a program.

Policy 5100 outlines program requirements for implementing a teacher preparation performance assessment but allows EPPs the option to develop a performance assessment instrument or elect to use a nationally normed instrument of teacher performance.[111] If providers choose to use a nationally normed instrument, passing scores on the instrument may be substituted for the Principles of Learning and Teaching (PLT) test score requirement when applying for certification. Performance assessments must be consistent with relevant standards, including the West Virginia Professional Teaching Standards (WVPTS), and provide ongoing, systematic information useful for program improvement and certification decision-making.

Prior to establishing the current performance requirement in policy, the WVDE, in collaboration with several institutions of higher education (IHEs), piloted the use of two nationally normed teacher performance assessments, the edTPA and PPAT, with the goal of determining their efficacy in both supporting new teacher quality and meeting CAEP standards. According to conversations with the department and additional documentation concerning the 2014–15 pilot, the outcomes were mixed and resulted in changes to policy that left the determination of which teacher performance assessment to use up to the IHE.[112]

Following the conclusion of the pilot, the WVHEPC's Teacher Education Advisory Council (TEAC) sought out institutions from across the state to develop a common West Virginia performance assessment. Of the 19 IHEs that have teacher preparation programs in the state, 12 joined in the effort, and the collaboration eventually produced what would become the West Virginia Teacher Performance Assessment (WVTPA). Modeled after the PPAT, the WVTPA was first piloted among participating institutions in fall 2016.[113] A revised version was developed, and after further refinement, the participating IHEs began using the WVTPA for both the fall and spring semesters in 2017–18. Currently, the majority of programs in the state use the WVTPA, which is a cheaper option compared to the edTPA or PPAT. The WVHEPC is responsible for bringing institutions together for the annual scoring of assessments, and it is responsible for the relevant trainings to support the assessment calibration and scoring process. The WVHEPC also collects the scoring data and distributes the results to participating institutions.[114] According to stakeholders, the WVTPA does not currently meet CAEP requirements for validity or reliability, though based on conversations with the

WVHEPC and WVDE, this may be due to discrepancies with documentation and reporting delivered to CAEP.[115] It is unclear what impact this might have on programs and their CAEP accreditation.

The WVTPA includes seven performance tasks with accompanying rubrics that are scored by university-based faculty. The rubrics include the same descriptors used to evaluate in-service teachers in West Virginia. According to the WVTPA documentation, the assessment is aligned with CAEP Standard 1.1, the WVPTS, and the InTASC Standards.[116] Candidates are required to plan and teach a unit (minimum of three to five lessons) and track student progress and outcomes along the way and afterward through an assessment plan.

Importantly, the WVTPA evaluates teacher knowledge, skills, and practices that support the social, emotional, and academic development of students and that are grounded in the science of learning and development. For example, in the initial assessment task, in which candidates are asked to describe the contextual factors they need to account for when planning their unit and preparing to support students in their individual progress, candidates are asked to discuss both whole class and individual student contexts related to "cognitive, social, emotional characteristics." This includes attention to language needs, achievement and developmental levels, approaches to learning, areas of interest, and learning styles, among other contextual characteristics. The focus on these specific skills in action goes beyond the language of the WVPTS.

The development of the WVTPA and the flexibility available to programs to choose from a variety of performance assessment options indicate a strong approach to implementing a performance assessment requirement across all programs in the state. The ability to choose an assessment allows programs to match assessments to the specific needs of their candidates. The flexibility of state policy even allows programs to develop their own assessment, though there is no available data on the number of programs that have pursued this option. The state permits IHE programs that participated in the development and implementation of the WVTPA to include their own faculty and leaders in the scoring of assessments, thus creating a feedback loop that allows for continuous improvement efforts.

Clinical practice requirements

State policy outlines additional requirements to support quality clinical practice experiences for candidates, including requirements for the partnerships with schools and counties that help support these clinical experiences. All teacher candidates completing a WVBE-approved program for initial teacher licensure must complete a minimum of 125 hours of early field experience under the direction of a teacher licensed to teach in the state in each area in which the candidate is seeking an endorsement.[117] There are no additional requirements to fulfill for the types of skills or knowledge individuals should be practicing in these early experiences, nor are there prescriptions for time spent working with specific student populations.[118] To complete the culminating clinical experience requirement, each candidate must spend a minimum of 12 weeks in the classroom unless proficiency is demonstrated in less time. However, the proficiency level that must be met in order to abbreviate the culminating clinical experience requirement is unspecified.

In addition, all approved EPPs are required to have partnership agreements with a county board of education, with the goal of building collaboration and promoting the "development of knowledge, skills, and professional dispositions of their pre-service educators necessary to demonstrate positive impact on all pre-k–12 students' learning."[119]

In addition to requiring partnerships between EPPs and surrounding schools and counties, the state establishes minimum requirements for cooperating teachers, including that they must:

- hold a valid West Virginia 5-year teaching credential in the content area of the candidate placed in their classroom, with a minimum 3 years of teaching experience;

- hold Accomplished or higher as a summative performance rating on the West Virginia Educator Evaluation during the previous 2 years of employment; and

- have successfully completed a WVBE-approved cooperating teacher course, at no cost to the teacher, or hold certification through the National Board for Professional Teaching Standards (NBPTS).

As a note on recent changes impacting the requirements for cooperating teachers, the state recently eliminated the Mentor and Master Mentor advanced credentials, which established a clear pathway for individuals seeking to directly support new teachers. These credentials were issued after the completion of a state-level training.[120]

West Virginia's Transition to the Yearlong Residency

In 2019, the WVBE approved the addition to Policy 5100 of minimum requirements for a yearlong residency experience. The policy took effect on July 1, 2021, at which time all institutions with teacher preparation programs must be piloting a yearlong residency pathway as a final clinical experience in at least one program. The WVDE has indicated that by fall 2024, barring special circumstances, every individual pursuing teaching through a traditional teacher preparation program would complete a yearlong residency as their culminating clinical practice experience.

Having already established the initial requirement in policy, the state is seeking to provide additional guidance and expectations regarding key elements of the yearlong residency experience. In fall 2020, proposed amendments to Policy 5100 outlining a more detailed definition were released for public comment. This came on the heels of a stakeholder engagement process in which the department partnered with the National Center for Teacher Residencies (NCTR) to gather input from programs and develop a shared understanding of what candidates and cooperating teachers would do as part of their work during the residency year.[121] The resulting feedback has helped create additional policy regarding, among other details, the required number of hours per semester (14 weeks or 250 hours), the expectations for cooperating teachers' training and compensation, and the ability of teacher residents to substitute teach in their residency hub school. Further, the proposed changes to Policy 5100 define **a yearlong residency** as:[122]

Component of an educator preparation program that provides teacher candidates with both the underlying theory of effective teaching and a yearlong, in-school "residency" in which they practice and hone their skills and knowledge alongside an effective teacher-mentor. Unlike other alternative teaching certification models, residents do not serve as the teacher of record in the classroom.

It is important to note that West Virginia's recent move to implement a statewide requirement that programs offer a residency option reflects a growing research base on the effectiveness of the teacher residency model. Nationwide, teacher residencies recruit candidates to work as paid apprentices to skilled expert teachers while completing highly integrated coursework. Research suggests these programs have been successful in recruiting and retaining talented candidates into high-need fields and school districts.[123] While many residencies have started as postbaccalaureate programs, a number of residency models are now situated within 4-year teacher preparation programs.[124]

Because the majority of preparation programs in West Virginia operate at the undergraduate level, the development of yearlong residency models will require additional planning and flexibility as IHEs develop alternative methods for content delivery that allow candidates to complete their coursework while working in the classroom. To support this, Policy 5100 allows programs to submit modifications for review by the EPPRB and approval by the WVBE. It is unclear how long the review process will take and what burden this might place on programs working to implement the yearlong residency.[125]

In preparation for full implementation of the policy in 2021, leaders from the department undertook a 2019 listening tour throughout the state and connected with all 19 institutions that currently operate preparation programs.[126] A staff member at the department shared that these conversations are guiding the implementation of yearlong residencies:

> The past 5 months there's been a lot of collaboration between this office and going out and visiting the institutions of higher education, just to see what types of supports they actually need. . . . We are able to really open up doors to what they are needing, not only in yearlong residency or in teacher prep, but also in accreditation. . . . I think that our preparation programs really feel that they have a voice right now.

The state's professional development school grant program (discussed in further detail later in this section) has funded five residency pilot programs, operating independently from the WVDE. They are located at Bluefield State College, Concord University, West Liberty University, West Virginia Wesleyan College, and WVU-P. The pilots are small in scale (between three and six participants) and have been implemented to varying degrees due to institutional constraints. The following section describes important lessons and learning from the pilot program at West Liberty University.

West Liberty University yearlong residency pilot

West Liberty University, a public university located near Wheeling, WV, piloted an undergraduate elementary education yearlong residency during the 2019–20 school year. The pilot included six

candidates who were placed, in pairs, in three different partner schools in Ohio County, located along the northern panhandle between Ohio and Pennsylvania.[127] The program paired students in order to provide peer support at the school site. Under the pilot, West Liberty did not provide stipends for teacher residents. The program provided cooperating teachers (teacher mentors) an $80 stipend for their work in support of candidates.

Building relationships and mentor capacity

Dr. Catherine Monteroso, Dean of the College of Education and Human Performance at West Liberty, described the process of building the relationships needed to support the yearlong residency work in Ohio County. This included efforts to connect with the personnel director in the county and inviting principals into West Liberty's co-teaching trainings. In addition to meeting with county personnel directors and school leaders, West Liberty established working groups to bring partners to the table and problem-solve the pilot's potential challenges.

West Liberty sought to build strong structures for mentor supports and to provide needed time, capacity, and resources to help residents get the most out of their mentorship experience. In order to build the capacity of teacher mentors, West Liberty hosted eight on-campus trainings in the year prior to the residency pilot. To help provide the space and time for cooperating teachers and residents to effectively collaborate and plan during the school day, the university utilized graduate assistants as substitutes for their co-teaching teams. This arrangement provided cooperating teachers and residents biweekly 2-hour co-planning blocks. It also allowed students in the pilot schools to develop relationships with the graduate assistants and provided a stable substitute presence during co-planning blocks.

Changes in preparation and content delivery

One of the primary drivers of quality in teacher residencies is the interconnected nature of the coursework and clinical practice experiences. The assessments are rooted in work happening with students in classrooms, and often coursework is delivered at the residency site within the school building where the residents spend their days. Leadership at West Liberty is working to refine these connections between practice and coursework and pushing faculty thinking and planning toward supporting more integrated content and clinical practice experiences. In addition, they hired a residency faculty member to build out courses and help redesign the delivery of content to better align with the experiences and work happening in schools and classrooms. These efforts reveal a vision for transforming the overall practice of teacher preparation and suggest that the state's move toward implementing a yearlong residency option may be bearing fruit.

Emerging impacts

Though the pilot has not been formally evaluated, Monteroso shared her impressions of its effectiveness. In particular, she described the way the pilot program engages candidates more deeply in their clinical experience opportunities:

People who are in the [yearlong residency] pilot . . . consider themselves a part of the school and a teacher in that room. . . . Non-residency candidates, they are not engaged; they're not as connected with the students in the room. . . . The students who are in the full residency . . . feel like they're teaching; the other students feel like they're doing the assignments.

In addition, Monteroso pointed to the benefits for cooperating teachers and their desire to host a new resident during the next school year:

[The mentors] all like having students longer. Current mentors are seeing the benefit. . . . They've already asked for another one for next year at a different grade level, too.

Potential challenges and opportunities with yearlong residency implementation

In this section, we consider some of the challenges and opportunities identified by stakeholders. Specifically, this includes scaling up the number of trained and effective cooperating teachers, adapting the postbaccalaureate models of teacher residencies for undergraduate programs in the state, building consensus around the structures needed to support effective residencies, and supporting students from nontraditional backgrounds.

Challenges around scaling up

Conversations that touched on the yearlong residency consistently illustrated a concern around finding quality cooperating teachers to support residents:

Everybody is still . . . concerned about the yearlong residency and how that's going to work. . . . Are we going to find enough qualified mentor teachers or cooperating teachers?

—Dr. Keri Ferro, West Virginia Higher Education Policy Commission

Programs also highlighted concern from counties when it came to expanding the residency beyond the initial pilots.

There's probably a little bit of hesitation on [the part of] the counties. They're really happy with this first element, this first go-round and this pilot. But they feel like we're dealing with the cream of the crop, and they're not sure how that pairing is going to go with everyone. . . . If they have someone they're not clicking with, what do they do? . . . They're not sure if they want them for the whole year.

—Dr. Cathy Monteroso, Dean of the College of Education and Human Performance, West Liberty University

In addition, one superintendent spoke of the need to help principals and teachers to better understand the benefits of a full-time resident and to alleviate concerns for student achievement.

It's a significant change for a teacher from having a student for half of a semester [and then] going to a whole year and sharing that classroom. . . . One of the concerns we had [was that] when you have a very effective teacher, they may not want to share their classroom for a year when they're responsible for the results, the student achievement. To be sharing that classroom for a year with someone—it takes a little bit of selling and reassuring that things will be fine.

—Blaine Hess, Superintendent, Jackson County Schools

Given this tension, it is important for stakeholders and the department to lean on research demonstrating the long-term positive impacts that hosting and supporting a student teacher can have on student achievement and cooperating teacher practice.[128]

In considering the types of support the state could offer to counties and preparation programs, staff at the WVDE highlighted ongoing efforts to create a rigorous training for cooperating teachers that helped them establish a shared understanding of the residency model and improve their ability to support novice teacher candidates.[129] At the time of this writing, it is unclear where these efforts stand and what success the state has had in recruiting and training new residency-oriented cooperating teachers.

Redesigning programs at the undergraduate level

Stakeholders spoke at length about the difficulty of integrating course content with clinical experiences while still covering required subject matter content and other coursework within the 4-year undergraduate experience. Dean Monteroso of West Liberty University mused about how to help students "get all coursework requirements completed before they hit that first semester or second semester [of senior year]."

Faculty at other preparation programs expressed concern that students may not be interested in the yearlong residency option because of the difficulty of managing course requirements alongside the demands of the more intensive clinical experience. Conversations with the department also revealed that programs may need to think creatively about the delivery of content and offer students more flexibility with institutional coursework requirements. A staff member leading the department's teacher preparation work shared:

As programs start to try to redesign their curriculum pathways, they're meeting with all kinds of roadblocks at their own institutions and people wanting to hold on to specific classes instead of actually taking the content of some of those courses and weaving them into field experiences and practice. . . . They're just really having a hard time wrapping their mind around it doesn't have to be that 3-hour class just sitting over here by yourself that you're not actually putting into practice until another time.

Defining a common vision for the yearlong residency

Conversations with stakeholders from preparation programs highlighted inconsistencies in understandings of what a yearlong residency should involve, and the inconsistencies suggested the potential for vastly divergent experiences across programs. Across the program faculty and leadership interviewed, we learned that the amount of classroom time for residents per week ranged from 2 to 4 days. One program leader shared that residents would be working in two different schools during their yearlong residency, changing schools and cooperating teachers at the semester break. These variations hold implications for the amount of sustained time a teacher resident would spend in a classroom (or school) getting to know the students, teachers, and wider community. Further, in the case of the program that will have students complete their residency in two different schools, residents and cooperating teachers will have to adjust to building relationships in the middle of the year with a whole new group of students, potentially impacting the quality of the experience and their culminating performance assessment. These findings highlight the importance of recent efforts to define the yearlong residency experience in policy and suggest the ongoing need for further support and technical assistance as programs across the state seek to build impactful and consistent residency experiences.

Meeting student needs and managing time commitments

In addition to design challenges facing programs that seek to provide comprehensive clinical opportunities for candidates, stakeholders also discussed the need for financial supports for both residents and mentors and the challenge of supporting candidates who have demands on their time beyond classroom learning experiences. Program faculty highlighted that a number of participants in the pilots were raising children and/or working additional jobs on top of the yearlong residency experience, limiting their ability to keep up with coursework and assessments meant to extend and complement their classroom experiences.

The opportunities and challenges facing programs as they transition toward the yearlong residency are not new and have been tackled with some success across previous efforts to build more robust teacher preparation models in the state. The residency policy builds on the state's prior focus on professional development schools that can now be leveraged to support the development of yearlong residencies. These past efforts hold a number of lessons for moving forward with the continued implementation of the yearlong residency and co-teaching model in the state.

Reinvigorating West Virginia's prior professional school partnerships to support teacher residencies

Professional development schools (PDSs), like teaching hospitals, offer yearlong residencies under the guidance of expert teachers. These schools engage in intensive professional development for veteran teachers and may become hubs of professional development for their districts.[130] Importantly, research on PDSs finds that the model has shown promise in improving both recruitment into teaching and retention in the profession.[131] Further, veteran teachers working in highly developed PDSs have reported changes in their own practice and improvements at the

classroom and school levels as a result of the professional development, action research, and mentoring that are part of the PDS model.[132]

Professional development schools in West Virginia

West Virginia has a long history with PDSs. The Benedum Collaborative Model of Teacher Education at West Virginia University (WVU) began in 1988 and was funded through a $1 million grant from the Claude Worthington Benedum Foundation. The resulting model of teacher preparation included, among other features, a 5-year, dual-degree program leading to a bachelor's in a content area and a master's in education and a minimum of 1,000 hours working in a PDS (akin to the number of hours someone might spend in a teacher residency).[133]

Over the course of 10 years, WVU established PDS relationships with 21 public schools at the elementary, middle, and high school levels in a five-county area around Morgantown. A 1999 RAND Education preliminary study of the program found improved outcomes for teachers prepared in PDSs when compared with non-PDS teachers, specifically in mathematics, reading, and language arts. In addition, the findings from the study suggested a tangible impact on the feelings of efficacy of practicing teachers working in PDSs. One teacher shared that PDS-prepared teachers felt "empowered with new opportunity to direct their professional development and respected as peers of WVU faculty."[134]

Following its initial success, the Benedum Foundation and the WVDE partnered to expand the WVU model to other teacher preparation programs across the state. The resulting effort was funded through a combination of investments from both the state and the foundation, but by the mid-2000s Benedum's contributions had ended. Ultimately, the preparation programs that participated in the state program were left to sustain their models with limited state support and absent philanthropic investment.

While the impact of the PDS models is challenging to discern, given a lack of publicly available documentation on the initiative, two key challenges that surfaced through interviews hold implications for the current implementation of the yearlong residency. First, programs faced challenges working to build and sustain rigorous models of preparation in the face of persistent and rising teacher shortages across the state. The need to meet rising demand for new teachers and fill vacancies in hard-to-staff schools and subjects led programs to pull back on program requirements and length and accommodate more streamlined and shorter pathways. As highlighted by Donna Peduto, Executive Director of the West Virginia Public Education Collaborative, even WVU was forced to adapt and shorten their original 5-year model.[135] Second, the rigorous elements of the PDS model (the number of clinical hours, the number of program years, and the amount of time available faculty were able spend in schools) were never codified into policy, leaving programs with little ability to push back against pressure to downsize their more rigorous models to meet growing demand.

The professional development school grant program becomes the residency grant program

The state still operates a version of the original PDS grant program that had been providing annual grants to institutions in support of building PDS partnerships with local counties.[136] The program was subsequently renamed the residency grant program, and the grants have been used to support institutions as they develop their yearlong residency models. The WVDE anticipates leveraging these funds further to support efforts in scaling up the yearlong residency.[137] For 2020, the grant program was funded at $429,775,[138] and, to give a sense of the likely distribution of funds, one program reported receiving a grant totaling about $50,000 for its Tier I, Intensive Site (see below).[139]

To support the implementation of the yearlong residency, the department opened up the funding to all institutions operating preparation programs (public and private) and enacted a tiered system of implementation to prioritize the distribution of funds. Specifically, to access the highest tier and the largest grants (Tier I), programs need to implement the yearlong residency and the co-teaching model and ensure that the majority of the residents' coursework is taught at the partnership school site.[140] Recent proposed changes to Policy 5100 would orient the program more fully toward the yearlong residency by replacing the term "professional development school" with "residency hub" (a newly defined term in the proposed policy changes) and continue to distribute grants to Tier I and Tier II sites.

Teacher Preparation Data Collection and Capacity

West Virginia's current teacher preparation data collection and dissemination is limited. There is no teacher preparation data system that houses data from across all 19 institutions that prepare teachers in West Virginia. However, although a state system is not yet in place, there is available data across performance assessments and the teacher evaluation system that could inform improvement conversations at the state level. Further, the existence of these data, and the desire for additional data, suggests opportunities for state agencies to take a lead in collecting, analyzing, and reporting on relevant data that can help shape the improvement of preparation programs. Further, conversations with stakeholders revealed a desire for the state to take on this role and provide more support, particularly when it comes to reporting requirements under CAEP.

There are opportunities for the WVDE to partner closely with other agencies, such as the WVHEPC. The WVHEPC maintains and has access to a range of potential data sources that could inform future efforts to support teacher preparation data capacity in the state. In its role, the WVHEPC currently runs employer and first-year teacher surveys for 15 out of 19 preparation programs that choose not to run their own. According to conversations with staff at preparation programs and the WVHEPC, the response rates for both completer and employer surveys is low, though exact percentages were not available at the time of writing.[141] Further, no one program was having success in collecting the data needed to report on progress related to survey responses from employers and program graduates. WVU-Parkersburg reported that their return rates were "terrible" and that they had at most two people respond to their most recent alumni survey.[142]

In addition to running the employer and completer surveys for a large percentage of the state's preparation programs, the WVHEPC also collects all of the data on the state's WVTPA submissions. This includes data on the students who submitted the assessment, the program they were in, their scores, and the number of times they took the assessment. Based on interviews for this report, we learned that the data are not used to answer questions about program effectiveness, and conversations with the WVHEPC indicated that this data was not used in any conversations with the department. Because a majority of programs (15 of 19) use the WVTPA as their required performance assessment, there is potential to begin building the capacity of the state and programs to generate more targeted reports and analysis that reflect on candidate progress in meeting state priorities for teacher preparation and to consider the progress of programs as they implement the yearlong residency. Further, as the process of analyzing and reporting on data collected from the assessment is refined, the department will be able to compare candidates from across different preparation pathways, including the yearlong residency option and alternative certification pathways (if counties choose to utilize the WVTPA). These data can play an important role in guiding the development and refinement of educator preparation policies.

Data from the West Virginia teacher evaluation system

Data from West Virginia's teacher evaluation system may provide additional insight into teacher preparation program graduates' success in the classroom. It can also offer programs insights that may help drive program improvement over time. Currently, the WVDE shares educator data with the WVHEPC to then be shared with programs. Although limited, some data points could contribute to a broader continuous improvement conversation. These include individual outcomes from the state's teacher evaluation system, including a teacher's summative evaluation progression level and student learning objective rating(s). The WVHEPC also shares school-level reports on student outcomes across mathematics, reading and language arts, and average evaluation ratings.[143] Despite possible uses of available data for continuous improvement efforts, it is unclear how or if programs have made use of this data beyond annual CAEP reporting. The WVHEPC staff stated that they did not know if programs used the data, and conversations with program staff did not uncover any evidence of data use.

The availability of these program data reveals a need for alignment across the state's teacher evaluation system and the teacher preparation system and for a better understanding of how the department can ensure that the two systems are mutually supporting the overall priorities for the teacher workforce. Under the current teacher evaluation system, teachers are evaluated on seven standards.[144] The West Virginia Professional Teaching Standards (WVPTS) serve as the first five standards, while Standard Six addresses student learning and Standard Seven addresses professional conduct. The four performance rating categories, highlighted in the previous discussion of the state standards, include Distinguished, Accomplished, Emerging, and Unsatisfactory. The state requires districts to base evaluations on two component areas: professional practice (80%) and student growth (20%), as measured by at least two teacher-determined goals. All teachers complete a self-reflection at the start of the year and submit two student learning goals by November 1 of each

school year. State policy requires a combination of formal and informal evaluations followed by post-observation conferences within 10 days of the classroom observation. State policy also requires an annual summative evaluation conference on or before June 15 of each year.

Administrators serve as the sole evaluators of teacher performance under the system and conduct observations of teachers based on their years of experience.[145] Teachers with 1–3 years of experience are observed four times throughout a year. Teachers with 4–5 years of experience are observed on two occasions. Observations are not required for teachers in their sixth year and beyond (the Advanced progression).[146] According to a 2019 report from the Southern Regional Educational Board (SREB), the majority of teachers fall into the Advanced progression.

A key challenge with the evaluation system, and any effort to rely on data from the system to inform teacher preparation conversations, is that many of the individuals tasked with the observations see the system as a compliance exercise.[147] In addition, the system is not currently set up to support educator growth year over year. Administrators surveyed for the SREB report stated that they do not have time to provide ongoing support to their teachers.[148] Based on how the system is currently designed, the distribution of observations across a teacher's career may end after their fifth year. While the data from the state's evaluation system could prove valuable in the drive to build the state's capacity to support continuous improvement in teacher preparation programs, the current shortcomings suggest the system may require additional adjustments to bring it into alignment with the teacher preparation system. Notably, a key benchmark in how the state assesses alternative certification programs is student growth as measured through the evaluation system. Participant retention rates are also used in the state's evaluation. Taken together with the current limits on understanding teacher vacancy data, the number and distribution of teachers on permits, and teacher preparation enrollment and completion across the state's different pathways, this signifies another area in which the state's ability to effectively gauge the impact of alternative certification programs in preparing quality teachers may be undermined by the current challenges with the evaluation system.

Underwood-Smith Teaching Scholars Program

Another element of West Virginia's system for teacher preparation is the availability of incentives for candidates to train and serve in high-need fields and/or locations, which is particularly important given the workforce challenges described in the first section of this report. This translates to growing numbers of vacancies and teachers entering classrooms without having completed their preparation, especially in certain high-need fields and locations; high rates of turnover among novice teachers; and declining enrollment in teacher preparation. Research points to service scholarship and loan forgiveness programs as an effective policy strategy to both recruit and retain qualified teachers in high-need fields and locations.[149] West Virginia recently codified an updated version of a previous scholarship and loan forgiveness program meant to draw aspiring teachers from inside and outside the state into and through the state's teacher preparation programs.[150]

The original Underwood-Smith scholarship program provided teacher candidates with up to $5,000 in scholarship funding per year in exchange for 2 years of service in a high-need subject area or high-need school for every year of funding they receive.[151] However, data suggests the program had limited reach. A review of reports from the WVHEPC from 2012 and 2017 highlight a 64% decline in available scholarship funding between 2006–07 ($272,018) and 2015–16 ($96,150).[152] As a result, the number of scholarships granted to candidates shrunk from 57 to 23 during this time. In addition, because of the limited availability of scholarships, individuals were often only able to access a single-year scholarship of about $4,000 during their preparation, which limited the impact the program had on addressing the state's teacher shortages.[153] Data from a 2017 report showed that a majority of reward recipients had either completed or were in the process of completing their service commitment through teaching, or were still in the process of completing teacher preparation. Of the 93 new Underwood-Smith scholarship recipients awarded grants between 2011 and 2015, 18.3% have canceled their obligation through teaching, 52.7% are currently working to cancel their obligation through teaching, and 13% are still in school. While the two reports from the WVHEPC indicate whether individuals were working to repay their scholarships either by working in a qualifying classroom or through repayment, there does not appear to be any publicly available data on whether recipients were retained in the classroom after their service commitment.[154]

Legislation passed in 2019 modified and renamed the program. The new Underwood-Smith Teaching Scholars Program substantially increased the annual award of the original program from $5,000 to $10,000 per year ($40,000 total) and emphasized the recruitment of the state's most accomplished high school students into the profession.[155] The move to increase the size of the award for Teaching Scholars holds promise, given that research on service scholarship and loan forgiveness programs in both medicine and teaching found that when such strategies cover a significant portion of tuition and/or living costs, they are effective in recruiting and retaining high-quality professionals into the fields and communities where they are most needed.[156] Scholarships will first be awarded in FY2020. The initial $328,000 appropriation set aside for the original program was increased by $300,349 for FY2021, and the total annual cost of the program upon full implementation (when 100 scholarships would be awarded per year) will be $1.35 million.[157]

In addition to the formal preparation requirements established in the legislation, scholars will work with a teacher mentor throughout their time in the program and participate in required professional development opportunities. After graduation, Underwood-Smith Teaching Scholars will fulfill their 5-year service requirement in a high-need field. The WVHEPC is currently working to recruit and train potential mentors for the first cohort accepted into the program. Chosen mentors will receive a $1,500 stipend each year. The legislation includes a priority around attracting students from "low-income backgrounds, ethnic or racial minority students, students with disabilities, and women or minority students who show interest in pursuing teaching careers in critical teacher shortage areas and who are underrepresented in those fields," though it does not establish any targets or outline any particular structures to support this recruitment goal.[158]

Underwood-Smith Teacher Education Loan Repayment Program Award

The legislation also modifies language regarding loan forgiveness for teachers working in a critical shortage field, or as a counselor in a school or geographic area of critical need. The subject and geographic areas of critical need are established between the WVHEPC and WVDE on an annual basis. Individuals, if selected, can receive at minimum $3,000 of loan assistance annually, and the WVHEPC is directed to determine the loan amount on an annual basis. The loan amount is based on funding availability, although it is unclear what portion of the fund established to support both the scholarships and loan forgiveness is intended for loan assistance.

Looking ahead to implementation

The revised Underwood-Smith Teaching Scholars Program holds promise for supporting a new generation of future West Virginia teachers, but it will be important for the state track the impact and progress of scholars as they complete their preparation and enter the classroom. As highlighted above, it is unclear if efforts have been made to track the impact (student achievement or retention rates) of individuals receiving scholarships or loan forgiveness under the previous program. Conversations with stakeholders also highlighted the need to scale up the capacity of practicing teachers to serve as mentors. Further, questions remain regarding how these mentors will be selected and prepared to have the greatest impact in supporting and building the capacity of individuals pursuing teaching through the Underwood-Smith Teaching Scholars Program. This challenge echoes the challenge posed by the yearlong residency implementation and suggests the need to focus on the state's professional learning system and how it is set up to support the development of mentor teachers.

Professional Learning Systems in West Virginia

While the WVDE develops guidance, processes, definitions, and resources to support the design and delivery of the state's comprehensive professional learning system, it is the responsibility of West Virginia county school systems to develop, support, implement, and monitor professional learning experiences for their teachers. To communicate their plans for professional learning, counties are required to create and submit West Virginia Support for Improving Professional Practice (WVSIPP) plans to the WVDE for annual approval. It is within these plans that counties outline how they plan to support beginning teachers through comprehensive induction and mentoring.[159]

New teacher supports and induction programs

New teachers who receive high-quality induction supports, such as mentorship in the same field, common planning time with same-subject teachers, regularly scheduled collaboration with other teachers, and participation in an external network of teachers, are twice as likely to remain in the classroom than new teachers who do not receive such supports.[160] For states that have seen higher rates of new teachers leaving the profession each year, providing induction and mentoring supports is an important step toward building a sustainable and quality teacher workforce. Currently, individuals are required to complete a beginning educator induction program to qualify for a permanent

professional license in West Virginia.[161] However, legislative changes enacted in 2013 have provided counties greater flexibility in the delivery of induction programs, which has led to growing variability in induction programs and raised concerns among stakeholders about the consistency and efficacy of current supports provided to new teachers.

Prior to 2013, state requirements for new teacher induction included required training for mentors, dedicated release time to allow them to support new teachers during the school day, and a $600 stipend. Counties and schools were required to provide beginning teachers with opportunities to be observed by their mentor and to observe other experienced teachers in the school. Counties and schools were also required to provide adequate time for joint planning and collaboration between a mentor and beginning teacher.[162] However, in 2013, House Bill 3157 eliminated statewide requirements for new teacher induction programs.[163] In reflecting on reasons for the change, staff at the department indicated that, in some cases, districts in more rural or remote parts of the state struggled to adhere to these requirements and viewed them as an added burden.

Following the elimination of the state-level induction requirements, supports for new teachers are now determined and implemented at the county board of education level. While induction support is still required for all new teachers in order to advance to a professional certificate, counties are given significant latitude to determine what their induction program will look like. County plans must address how the school system will coordinate supports for mentors and coaches, though there are no requirements for ongoing mentor professional development. The plans are also required to address the manner in which the school system will adjust scheduling, use substitutes, create collaborative planning time, and any other measures that are necessary to provide sufficient time for accomplishing the goals of the induction programs.

To help fund county-level initiatives, the state provides a supplement (Step 7d) based on the number of first- and second-year teachers working in the county and on the level of support submitted in the WVSIPP plan.[164] In 2020 the state appropriated $5,443,468 for teacher and leader induction programs.[165] Based on flexibility provided to the counties in developing their WVSIPP plans, these funds can be used broadly to support professional learning for practicing teachers in addition to supports provided for new teachers.[166] In addition, it is up to the county to determine whether mentors are compensated for their efforts and at what level to compensate them.[167] Because counties are not required to report on whether they intend to pay mentors, it is unclear which counties paid stipends and the average amount of those stipends.

Beyond the submission of the county's plan and subsequent approval from the department, there are no further policies in place to determine how the plans are implemented and the extent to which implementation mirrors the approved plan. Further, there are no systems to gauge impact and there are no mechanisms, outside of what is written into a plan, to track what types of supports teachers across the state are receiving. Staff at the department review what is included in the WVSIPP plans regarding induction programs and make sure they outline specific program elements, like support for experienced teachers or mentor quality. There is no other form of oversight or accountability when it comes to county spending on beginning teacher induction.[168] This inability to effectively track and

measure the impact of county induction programs came up in two different conversations with staff at the WVDE. In addition, stakeholders expressed concern that systems for new teacher induction across the state may not be consistent or equitable. A staff member at the department highlighted this contrast between current and prior systems for beginning teacher induction:

> Any teacher in the state of West Virginia who served as a mentor had been through a minimum of a 2-day professional development with the Charlotte Danielson framework. . . . That was an attempt at equity, . . . [and] a new teacher in [the] southern West Virginia coalfield [is] going to get the same induction support as a teacher in one of the wealthier counties. That was the purpose. But once that requirement was removed . . . you have teachers, new teachers, falling through the cracks with no support.

Survey data collected in March 2019 through the department's Educator Voice Survey, a survey of over 7,000 teachers and counselors meant to inform the WVBE about the state of education in West Virginia and assist the board in its future decisions, help illuminate a number of the gaps in mentoring and induction experiences for new teachers.[169] Surveyed teachers with 1–3 years of experience reported problematic trends in access to quality induction supports. In particular, while a large majority of respondents indicated that they had an assigned mentor (80%), received some form of orientation (76%), and attended "specifically tailored" seminars (72%), 20%, or nearly 150 early-career teachers, reported receiving no additional supports. Given that nearly half of respondents indicated that they were not granted time to meet with their mentor during school hours, and 46% of new teachers reported not being in the same school building as their mentor, the structures meant to support mentor–mentee relationships appeared to be breaking down. Further, 73% of new teachers surveyed were not granted additional time to observe other teachers, and 66% never observed their assigned mentor. Unsurprisingly, 3 out of 10 new teachers reported they were "hardly" or "not at all" influenced by their mentor.

Conversations with the department illuminated the unevenness of induction implementation, both in terms of what it is and who has access to it. For example, staff at the department reported induction programs that serve as a system for employee onboarding instead of a system for building the professional skills of new teachers. One employee explained:

> And many times and in those situations it's not going to be an induction program. It's going to be an orientation program. How do you use the copier? How do you fill out a leave form? . . . That's not teacher induction.

Other staff at the department referenced the challenges in more rural counties, where lack of resources and capacity makes it challenging to staff mentors for every new teacher and where the ratio of mentors per new teacher can be very uneven. For example, one staff member explained that one county had only two mentors for all new teachers, whereas another county had an individual mentor for every new teacher. She continued:

> We have counties that hire retired teachers for mentors. We have counties that have six full-time "beginning teacher academic coaches." We have other counties that take the

money and use [it] for books and study materials and then have volunteers that act as mentors at each building. So it's so different at every county, and there's no way to track the effectiveness.

Compounding these challenges are potential barriers to understanding the landscape of beginning teachers across the state. According to conversations with staff at the department, while the Office of Finance currently collects the number and distribution of first- and second-year teachers across the state, the staff tasked with supporting new teacher learning have not seen or interacted with that data. Further, stakeholders highlighted an interest in helping preparation programs access that data to better understand where their graduates end up working, and to better understand additional supply-and-demand challenges in their regions.

Ultimately, with the limited state purview over induction, the varying priorities of county leadership could undermine equitable access to early-career mentoring and erode systems meant to keep new teachers in the classroom long term. Given the challenges with new teacher retention highlighted at the start of the report, addressing access to quality induction could be an important step for state leaders interested in supporting equitable access to quality teachers for all students and building a strong and sustainable teacher workforce.[170]

Teacher leadership and professional learning for practicing teachers

The state of professional learning in West Virginia is in flux as counties and schools adjust to the elimination of advanced credentials, like the mentor and master mentor certificates, and support structures, like the Regional Education Service Agencies (RESAs).[171] Legislation from 2018 not only eliminated the state's Department of Education and the Arts, the department previously in charge of teacher professional learning, but also eliminated the RESAs, leaving counties to reorganize to ensure a consistent transition of services previously overseen by the regional support offices. The subsequent changes and flexibility offered to counties, along with limited state oversight, has created inconsistencies in overall program delivery across the state and placed additional strain in the short term on counties and schools as they adjust to the changing landscape of statewide supports for professional learning. A WVDE staff member described this challenge:

> One of the things that we heard . . . was teachers that are experienced feel really disconnected and . . . abandoned. That not much focus is placed on them, that professional development isn't really applicable to them, they don't get to choose things that really impact them. Now, of course, I'm sure there are a few pockets of districts that may be doing that appropriately, but in general, that's what we've heard across the state—that they just really don't feel that they have much control over their professional development.

The recent revisions to Policy 5202 eliminating the mentor and master mentor certificates holds implications for both new teacher induction and the Underwood-Smith scholarship program. (See Categories of Teacher Licenses/Certifications in West Virginia for current licensure categories.)

> ### Categories of Teacher Licenses/Certifications in West Virginia
>
> **Provisional Professional Teaching Certificate:** A Provisional Professional Teaching Certificate is issued to an individual who has met all requirements of a West Virginia alternative certification program. The certificate is valid for one school year and may be renewed twice.
>
> **Initial Professional Teaching Certificate:** The first license issued to an individual who has completed a preparation program at the BA or MA level. The Initial Professional Teaching Certificate is valid for 3 school years.
>
> **Professional Teaching Certificate:** Individuals are eligible to apply for a Professional Teaching Certificate after they have completed a Beginning Teacher Internship/Induction and required coursework outlined in Policy 5202. The Professional Teaching Certificate is valid for 5 years.
>
> **Permanent Professional Teaching Certificate:** A Permanent Professional Teaching Certificate is a lifetime license that can be earned by (a) accruing experience in West Virginia public schools and completing relevant coursework, (b) obtaining a master's degree, or (c) earning National Board Certification.
>
> Source: W. Va. 126CSR136-10.11, Policy 5202

Though mentor trainings are still delivered through the WVDE,[172] interviews with staff suggest that interest in these trainings has declined due to the lack of recognition or incentive for teachers who might be interested in pursuing a broader role beyond their own classroom. In eliminating the advanced certificates tied to mentoring, the state also eliminated the key lever to incentivize mentor learning over time. Previously, individuals were required to renew their mentor certificates every 3 years.[173]

Legislation passed during the 2020 legislative session signals additional changes to the state's professional learning and teacher leadership systems. HB 4804 allows county boards to develop teacher leader programs that are meant to support new teacher induction and overall professional growth.[174] County boards are given the option to provide additional compensation to teachers who are teacher leaders, and the bill requires the WVDE to allocate $100,000 over 5 years to assist county boards with the design and implementation of a teacher leader program. The move allows the department to develop new professional pathways for practicing teachers that could replace the previous system for advanced certification. At the same time, the legislation may suffer from the same pitfalls highlighted in the prior discussion of the state induction system, with counties implementing an inconsistent patchwork of models for their teacher leader systems. It is unclear what level of authority the WVDE will have in assisting county boards or what oversight has been built into the system and over the available funding.

An additional area of uncertainty involved efforts to build the capacity of teachers to support the social, emotional, and academic development of students. Senate Bill 1039 from 2019 requires

that every West Virginia teacher receive professional development on the social, emotional, and behavioral needs of students by July 1, 2020.[175] However, it is unclear how this effort has progressed amid the current system, in which counties determine the extent to which this professional development requirement is implemented.

Support for National Board Certification

One key area in which West Virginia continues to excel is in its support for the National Board Certification (NBC) process, which has enabled tens of thousands of teachers to remain in the classroom while pursuing greater recognition, career and leadership opportunities, and increased compensation. Several studies have found that teachers who become nationally certified are, on average, more effective teachers than teachers without National Board Certification with similar experience.[176] Further, National Board Certified Teachers (NBCTs) appear to offer even greater educational benefits to low-income students than to their more affluent peers.[177] In some cases, districts use NBCTs as mentors to new and struggling teachers, as experts in curriculum design and support, and as instructional leaders in their schools. Recent research demonstrates the potential for accelerated learning gains in students taught by novice teachers who have NBCTs as mentors, compared to students of novice teachers mentored by non-NBCTs.[178] Finally, as a recent study in South Carolina highlights, NBCTs have been found to have higher retention rates when compared to their non-NBCT counterparts, a finding that held true in the 2016 Regional Educational Laboratory study of teacher turnover in West Virginia.[179]

West Virginia currently ranks 15th overall in the number of teachers who have earned National Board Certification, a position rooted in the variety of generous state supports and incentives offered to encourage teachers to pursue the advanced certification.[180] The state provides an annual $3,500 stipend for NBCTs who remain in the classroom, and counties are able to supplement this stipend with additional incentives up to $3,500.[181] In conversations, leaders at the department indicated that very few counties match the full state amount.[182] While the extent of a county's investment in NBC is dependent on a number of factors, including available funds and leadership support, the current policy leads to variations in the level of incentives available to teachers across the state. This may contribute to the inequitable distribution of NBCTs across the state highlighted in the state's 2015 Equity Plan.[183] (See Figure 7.) In the equity report, the state identifies gaps in the distribution of NBCTs between high-poverty and low-poverty schools, with an average of 3.5% of teachers at low-poverty schools being National Board Certified, compared to an average of 1.7% of teachers at high-poverty schools.[184] The report also indicates that at the time of publication there were two high-poverty districts that reported having zero NBCTs.

Legislation to mitigate the inequitable distribution of NBCTs across schools in the state was passed in 2015 and provides an additional incentive for NBCTs who serve as mentors in persistently low-performing schools. NBCTs can receive an additional $2,000 a year for serving in this role at the county level and, if eligible, would continue to receive this award for up to 5 years regardless of the

Figure 7
Distribution of National Board Certified Teachers (NBCTs) in West Virginia (High Poverty Versus Low Poverty)
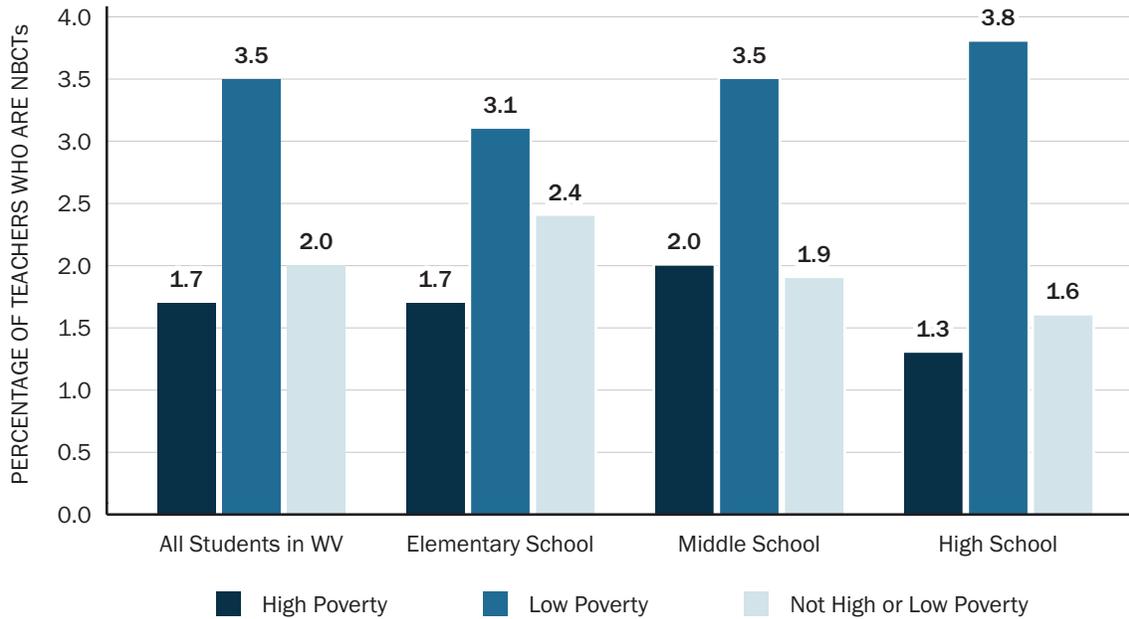
Note: The West Virginia Department of Education measures school poverty based on the number of students eligible to receive free or reduced-price lunch. High-poverty schools are in the top quartile of poverty in West Virginia when ranked from the highest level of poverty to the lowest level of poverty. Low-poverty schools are in the bottom quartile of poverty in West Virginia when ranked from the highest level of poverty level to the lowest level of poverty.

Data source: West Virginia Department of Education. (2015). *West Virginia educator equity plan*. (pp. 53–55). https://www2.ed.gov /programs/titleiparta/equitable/wvequityplan9315.pdf.

future performance designation of their school.[185] Unfortunately, the reach of this incentive appears limited. At the time of writing, only four individuals in the state qualified to receive the stipend.[186] According to the WVDE, many NBCTs who might qualify for the additional stipend are not assigned mentor duties at the county level and thus are unable to meet the statutory requirements.[187]

Recommendations to Support Quality Preparation Across West Virginia

A primary goal of this report is to take the "what" of educator preparation—the content educators need to learn about teaching, learning, and child development—and the "how"—the strategies for educator learning that produce deep understanding; useful skills; and the capacity to reflect, learn, and continue to improve—and consider how to build systems that support learning so that it is consistently available. One of the keys to expanding the number of programs preparing teachers with the above skills and knowledge is to create a policy framework that supports and incentivizes the adoption of such practices and strengthens the broader teaching profession to attract and retain teachers in the classrooms where they are needed most. Though current policy in West Virginia includes some strong policies designed to attract and prepare teachers (e.g., National Board Certification support, yearlong residencies, performance assessments, service scholarships, and loan forgiveness), there are also some notable gaps in the policy landscape that undermine preparation and teacher retention (e.g., growing numbers of teachers entering the profession without full preparation or on temporary certifications, the elimination of statewide induction standards and mentor certifications, and little oversight of professional learning funds).

With the current mix of policies in mind, as well as a vision of systems that align with the science of learning and development, the following recommendations emphasize opportunities for the state to build a sustainable workforce; formalize its commitment to the social, emotional, and academic development of students; and ensure that standards for teaching shape the preparation, instruction, and practices of teachers across the state. The recommendations include:

- revising the West Virginia standards to reflect current knowledge about how to support student learning and development,

- refining assessment systems to support continuous improvement and ensure progress in meeting (or exceeding) the standards,

- expanding clinical experiences that allow individuals to practice and learn the knowledge and skills needed to meet the standards,

- building the data systems needed to provide a clearer understanding of progress toward meeting the needs of the state's teacher workforce and student population, and

- aligning the priorities of teacher preparation with the systems that support the recently prepared teachers of West Virginia once they enter the workforce and begin their careers.

Recommendation 1: Revise the West Virginia Professional Teaching Standards to Reflect Current Knowledge About Student Learning and Development

In order for educators to develop the knowledge and skills to support the social, emotional, and academic development of students, West Virginia could initiate a revision of the teaching standards that govern systems spanning the educator career continuum to incorporate updated, research-based understandings of the knowledge, skills, and dispositions needed by teachers.

To drive changes in practice that meet the needs of students and support their long-term civic and economic future, the state should revise the West Virginia Professional Teaching Standards, which were last updated in 2012. As outlined in the previous section exploring West Virginia's teaching standards, there is room to update and reframe the knowledge, skills, and dispositions needed of all classroom teachers and improve the programs that prepare them through such revisions. Broadly, there is a need for the standards to integrate current practices reflected in the science of learning and development (SoLD). These practices reinforce an understanding that all learning is dependent on emotional safety and attachments and that teachers should possess the skills and knowledge to:

- model strategies and practices for learning as well as for strengthening social and emotional skills;

- create positive conditions for learning through strong, supportive attachments and relationships;

- use educative and restorative behavioral supports to create positive, engaging, co-constructed classroom learning communities; and

- integrate social and emotional learning to foster self-regulation, executive function, perseverance, resilience, and growth mindset.

Further, though county leadership and staff at the department consistently mentioned the need for trauma-informed practices—which are particularly pressing for West Virginia due to the state's ongoing opioid crisis and the 10.6% of all children under 18 who do not live with either parent—there is no mention of these practices in the current standards. The standards should stress the need for educators to use trauma-informed approaches to learning that build awareness of students' needs and support the development of their regulatory abilities.

In addition to these opportunities to align standards with SoLD and stakeholder priorities, there is an opportunity through future revisions to clarify what knowledge, skills, and dispositions teachers must possess to be successful in the classroom. As highlighted in the earlier analysis of West Virginia's teaching standards, references to practices that support a student's social, emotional, and academic development are concentrated only at the highest performance level of the West Virginia Professional Teaching Standards (WVPTS), which raises the concern that practicing teachers may not feel such practices are within the current expectations for their work. Further, for preparation programs working to develop the initial skills and knowledge of teacher candidates, the gaps between what is deemed Distinguished versus Emerging suggest programs may not need to see or develop knowledge, skills,

and dispositions that would support candidates in developing toward the highest progressions on the continuum. However, to meet the needs of all students, it is clear that the most needed and pressing teaching practices should be cultivated and expected of all teachers, both new and practicing, and the progressions outlined in the standards should support and clarify this.

Other states have recently revised their standards to better reflect current knowledge about how to support student learning and development. For example, California's Teacher Performance Expectations (TPEs) offer an example of a detailed set of competencies that sustain a vision of early teaching that supports the whole child by drawing upon the science of learning and development.[188] Sample language from the standards highlights expectations applied to all teachers as they prepare to enter the classroom. For example, to ensure that teachers consider the social and emotional needs of all students and the need for educators to promote active learning behaviors, the TPEs require candidates to demonstrate how they:

> Promote students' social-emotional growth, development, and individual responsibility using positive interventions and supports, restorative justice, and conflict resolution practices to foster a caring community where each student is treated fairly and respectfully by adults and peers.

> Establish, maintain, and monitor inclusive learning environments that are physically, mentally, intellectually, and emotionally healthy and safe to enable all students to learn.

> —TPE 2, Creating and Maintaining Effective Environments for Student Learning[189]

Following the most recent update to the standards in 2012, all teacher preparation programs in West Virginia realigned to meet the standards and submitted documentation for peer review at the state level.[190] As the state approaches 10 years since this last update, and with the push to reimagine the way preparation programs operate through the yearlong residency, there may be a new window to consider how content is delivered in conjunction with extensive clinical experiences and how that content elevates and focuses on priorities like social, emotional, and academic development and trauma-informed practices. Importantly, this could serve as a springboard for a more robust state role in supporting program continuous improvement and program review.

Recommendation 2: Ensure That Teacher Performance Assessments Reflect West Virginia's Standards for Teaching in Action and Inform Program Improvement

Having recently formalized performance assessment policies, West Virginia could:

- improve the scoring and calibration of the West Virginia Teacher Performance Assessment (WVTPA);

- ensure that programs have access to their performance assessment data and are using it to inform program improvement; and

- utilize statewide and program-level data to inform policy, specifically around the ongoing implementation of the yearlong residency.

In combination with the design of clinical experiences and integrated coursework, teacher performance assessments allow candidates to synthesize and practice what they are learning and help instructors see what their candidates know and are able to do and where they need to grow. Preparation programs utilize performance assessments as a key measure of progress toward competencies that support the learning of students from diverse backgrounds. When these programs are implemented well, faculty report strong benefits from using the results of teacher performance assessments to improve their practice and their programs.[191] Importantly, in addition to serving as a predictor of future teacher quality, performance assessments have been shown to help beginning teachers develop their practice well beyond the actual assessment experience.[192]

Improve the scoring and calibration of the WVTPA

Over the past 6 years, West Virginia has taken strong initial steps toward implementation of a performance assessment requiring candidates to demonstrate competencies aligned to state standards prior to being recommended by their program for a license. The state's policy of providing flexibility for preparation programs in the choice of performance assessment helped give rise to the West Virginia–developed WVTPA. The assessment, aligned to the WVPTS, is rigorous and contains the important assessment elements found in current national assessments (edTPA and PPAT), such as requiring candidates to plan and teach a unit (minimum of three to five lessons), submit videos of their teaching, and track student progress and outcomes through an assessment plan.

The state should be commended for demonstrating a model approach to developing a performance assessment that supports systemic alignment across the career continuum through its alignment with the WVPTS. Further, the alignment of the assessment with the standards for practicing teachers also holds the potential for additional collaboration between preparation programs and counties, given the shared articulation of quality teaching, and could inform county induction efforts as well. However, it is only the fourth year of the WVTPA's implementation, so it remains early to assess its effectiveness across the system. Additionally, because state policy allows programs to choose their performance assessment, there is significant variability in how this requirement is met, although, according to the West Virginia Higher Education Policy Commission, about two thirds of programs in the state currently use the WVTPA.

In an effort to address the variability highlighted above while still maintaining the flexibility afforded programs in policy, West Virginia could begin by supporting efforts to improve the scoring and calibration of the WVTPA. This step would support the assessment's ability to demonstrate a candidate's knowledge and skills and could further support program efforts to refine the implementation of yearlong residency programs and overall continuous improvement efforts. This process could include collaboration among the West Virginia Department of Education (WVDE), the West Virginia Higher Education Policy Commission (WVHEPC), and the 12 programs currently implementing the assessment. It could also incorporate learning from other programs that have

either implemented nationally normed assessments or their own program-specific assessments. This collaboration would likely give the department a better understanding of how the assessments are used to measure candidate learning. Further, the work to refine the scoring and calibration of the WVTPA will support subsequent recommendations around using performance assessments to drive program improvement and inform state policy.

Ensure that programs have access to their performance assessment data and are using it to inform program improvement

Over the course of conversations with stakeholders, we found only minimal evidence suggesting that programs were utilizing data from their chosen performance assessment to drive program improvement. Staff at the WVHEPC indicated that they did not know what programs did with their data after collecting the final scores from the WVTPA. Only one program faculty member interviewed for this report explicitly highlighted the use of a performance assessment to drive program improvement, and it was an assessment of their own devising. To address this potential issue, the WVDE should consider policy revisions that would require programs to demonstrate the use of their performance assessments to drive program improvement and should connect these efforts to a broader push to better use data more generally for teacher preparation program improvement across the state.

Utilize statewide and program-level data to inform policy, specifically around the ongoing implementation of the yearlong residency

Prioritizing the collection and availability of performance assessment data holds promise for supporting WVDE priorities moving forward. In particular, the use of performance assessment data to inform both program practice and state policy could yield additional benefits for the state's work to scale and refine the yearlong residency across programs. Because current plans for the yearlong residency implementation allow for institutions and programs to potentially operate parallel culminating clinical experiences—the yearlong residency and the traditional 12-week culminating clinical experience—the WVTPA and other assessments could serve as tools for comparing candidates and outcomes across the different preparation program pathways. The opportunity to use these tools is only temporary as the state pushes to scale the residency across all programs, but the approach could aid in identifying effective programs while implementation of the residency progresses. These tools could also support the state's efforts to identify and elevate effective practices for undergraduate residency programs. Going further, these early outcomes—should they demonstrate the effectiveness of the yearlong residency—could encourage additional buy-in from across institutions in the state.

Exploring and comparing performance assessment outcomes across preparation pathways, including the state's alternative certification programs, would also support a more informed conversation across the state about how well prepared candidates are for the classroom, and whether there are any significant differences based on preparation pathway. Given the state's need to promote high-

retention pathways into the profession, this type of data would hold value for policymakers and leaders seeking a clearer picture of what is driving quality teaching in the state and what might be undermining the state's overall mission.

Finally, a focused effort to review and study the outcomes of the WVTPA could provide preparation programs and the WVDE with data on institutional and statewide progress toward meeting priorities around advancing the skills and knowledge of new teachers to support the social, emotional, and academic development of students; apply trauma-informed practices in the classroom; and demonstrate alignment with the science of learning and development. Paired with additional data indicators discussed further in Recommendation 4, such a study of the WVTPA could contribute to a better understanding of how current efforts are faring and what further work might be needed to ensure that new teachers are being prepared with this knowledge and these skills in mind. Data collected on these priorities could also inform county induction and mentoring for newly certified teachers by shaping the types of supports provided to new teachers and identifying where their mentoring and induction work should focus during the early months of their first year.

Recommendation 3: Strengthen Clinical Training by Supporting Productive Teacher Residencies

West Virginia is approaching the full implementation of the yearlong residency option across all programs in the state. To ensure the quality and sustainability of this policy change, the state could:

- support the recruitment and training of quality cooperating teachers;

- pilot sustainable funding strategies for the yearlong residencies that support stipends for cooperating teachers and residents; and

- convene and support statewide and regional collaboratives to support stronger preparation partnerships between k–12 and teacher preparation programs, facilitate program learning and improvement, and drive a more intensive study of progress toward the yearlong residency.

West Virginia has made a state-level commitment to rigorous clinical practice through a yearlong residency policy. Importantly, while the residency will eventually be a requirement for all new teachers completing their preparation through traditional pathways, the department's current implementation allows for a more gradual uptake and scaling across programs beyond the written policy timeline of 2021. In addition, staff at the department have worked to establish clear lines of communication with institutions to ensure that they remain responsive to the needs of programs and faculty, and to better understand how the department can support the next phase of the work. At the same time, the state is attempting a particularly challenging transition given that there is little available guidance for how to implement residency models at the undergraduate level.

However, because the residency option is not required for programs until the 2021–22 school year, there is still time for the department and other stakeholders to set up the system for sustainability

and success. A key consideration in laying out the following recommendations is how the WVDE can preserve the quality of the yearlong residencies, address shortages, and produce the teachers the k–12 system badly needs. We recommend three steps the state can take to strengthen implementation of the yearlong residency option.

Support the recruitment and training of quality cooperating teachers

West Virginia's existing requirements for cooperating teachers for all educator preparation programs (EPPs) are quite robust and require a substantial level of experience, which is strongly associated with increased teacher effectiveness,[193] and demonstration of teacher quality (2 recent years of Accomplished summative performance ratings). Further, the department offers trainings that cooperating teachers must complete to qualify. In looking ahead to the next phase of implementation of the yearlong residency, the WVDE is looking to establish additional ways to support the quantity and quality of cooperating teachers. Under the proposed revisions to Policy 5100, the department has also sought to outline requirements for cooperating teachers to receive both training and compensation for their work with teacher residents.[194]

Given the need to support a variety of newer skills associated with the social, emotional, and academic development of students, and the recognition that even practicing teachers across the state need support in developing these skills, it would benefit the state to ensure additional incentives for cooperating teachers to update and further improve their skills and knowledge. Further, the recent legislative changes that will allow the WVDE to work alongside counties to develop teacher leader roles and frameworks offer an additional opportunity to invest in models that specifically support the capacity of practicing teachers to serve as cooperating teachers for the new teacher residents. This will be important due to the many challenges with recruiting and supporting cooperating teachers that came up in conversation with stakeholders. This work could also help develop more consistent expectations for the skills and knowledge needed to be an effective cooperating teacher in the state. Finally, given the growing number of National Board Certified Teachers (NBCTs), additional incentives described under Recommendation 6 could support not only the increase in NBCTs in the state, but also their equitable distribution in schools and classrooms where their expertise is needed most and where they could be positioned to add further support to the yearlong residency implementation.

Pilot sustainable funding strategies for the yearlong residencies that support stipends for cooperating teachers and residents

The challenges of time commitments and the lack of financial support for teacher residents were voiced by stakeholders and faculty from several programs. For example, Paula Lucas, a faculty member at Marshall University, stated:

> One [resident] told me that she works almost 40 hours a week. . . . A couple of them
> work; one of them has a child. So they have extra things going on outside of school, and
> then they have additional classes. So this is not the only thing they're doing. . . . And I

hate to say it, because everybody always falls back on money, but I think there's got to be some financial support for the cooperating teachers and for the students themselves, because with everything we're expecting, I'm not sure that some of the EPPs would be able to provide that to the students.

These concerns are reflected in national residency research.[195] The intensity of teacher preparation programming and full-time, yearlong residencies during the school day generally requires financial supports for residents as a key to ensuring equitable access to residencies—including stipends that cover basic living expenses, just as medical, engineering, pharmacy, and other pre-professionals receive. Funded residencies remove barriers to quality preparation, making teaching more accessible to candidates from across the state and with a variety of backgrounds. Further, mentor stipends are crucial to recruiting and retaining highly effective mentor teachers, as they recognize the skill, time, and specialized professional development required of residency mentors. These teachers provide residents with mentorship and support over the course of a full academic year, typically 4 to 5 days a week. In contrast, mentor teachers supporting candidates in a typical culminating clinical experience placement may only have a student teacher in their classroom for 10 to 15 weeks, and often for a more limited number of hours per week.[196] The proposed requirement that cooperating teachers receive compensation is an important step, and it will be important for the department to track the extent of these incentives and their ability to draw quality teachers into the pool of available cooperating teachers across the state.

In addition, it is clear that while the department explores available funding sources, the current need may outweigh the available resources in the short and long term. Many programs across the country have turned to more sustainable funding sources for residency models over time,[197] highlighting the need for targeted investment that can support early progress and help guide sustainable funding models for all programs across the state. For example, to sustain funding for residency costs and resident stipends over time, programs have adopted models that leverage existing roles (e.g., paying residents to substitute teach one day a week or as paraprofessionals), reduce preparation costs by restructuring coursework, and reinvest savings from reduced teacher turnover.[198] In a credit to the WVDE's work, the state has taken key steps in policy to support this push for sustainable funding, including incorporating language into the recent Policy 5100 revisions allowing yearlong residency candidates to substitute at their school site. With further technical support and guidance, programs will likely be able to identify additional sustainable funding strategies to support their work.

Finally, to create high-quality, sustainable residency programs, the state may want to consider expanding grants provided through the professional development school (PDS) grant program that could support candidate stipends, planning or capacity-building to design programs, and the development of strong partnerships between districts and institutes of higher education (IHEs). For example, California offered $50,000 capacity-building grants and Pennsylvania offered $75,000 planning grants to new residency programs. Because every preparation program in the

state will be attempting this transition in the coming year, additional funds to expand access to the grants may be needed through the initial implementation phase.

As West Virginia looks ahead to full implementation of the yearlong residency program, it is important that the WVDE continues outreach to a range of stakeholders, including superintendents, principals, teacher preparation program faculty and leaders, and practicing teachers, with the goal of developing a shared understanding of the residency and the broader benefits of reciprocal k–12 and teacher preparation partnerships. Further, with the lessons from the original PDS program in mind, it is important that the state develop clear supports and structure to ensure that programs have the capacity and resources to implement a quality yearlong residency.

Convene and support statewide and regional collaboratives to support stronger preparation partnerships between k–12 and teacher preparation programs; facilitate program learning and improvement; and drive more intensive study of progress toward the yearlong residency

The state board and department could consider additional structures to support the development of quality partnerships that can, in turn, support stronger residency models. Other states seeking to implement residency models and stronger partnerships between districts and EPPs have used collaborative structures like networks to support stronger implementation.

For example, both Georgia and Tennessee have built networks of partnerships that support knowledge sharing and provide a structure within which existing partnerships may continue to grow and new partnerships can take root. Tennessee's initial network for teacher preparation partnerships started as a pilot program through which the state developed key recommendations and requirements for revisions to the program approval process.[199] Georgia's P20 Regional Collaboratives bring together leadership from preparation programs and local districts with the goal of building and sustaining a network of leaders focused on sharing and disseminating the progress from new or existing teacher preparation partnerships. The collaboratives also helped spur the creation of PDSs.[200]

Following the creation of a new state grant program to launch and expand teacher residencies in California, several foundations provided funding to create the California Teacher Residency Lab, which supports the development and implementation of residencies in California.[201] The lab is designed to provide technical assistance to new and existing teacher residency programs and create systems to share knowledge and build expertise.

The need to support the growth of quality yearlong residencies through partnerships between k–12 districts and educator preparation programs remains paramount to West Virginia's efforts moving forward. The state could build out regional partnership collectives established with seed funding that would allow district and preparation leaders to convene on a regular basis, build relationships that support the sharing of best practices, and establish new partnerships. This would allow for collaborative work to address some of the emerging challenges in successful residency implementation, such as effectively integrating coursework and assessments with expanded clinical

experiences and identifying and supporting quality cooperating mentors. Philanthropic entities could play a role in supporting these partnerships, as they did previously with PDSs.

Recommendation 4: Support Improvements in Accreditation and Data Use

In West Virginia, current accreditation policy and related data systems yield limited data for use by the state and individual programs in their continuous improvement efforts. To support performance-based accreditation and continuous improvement across programs, the state could:

- support improved collection and use of data, including employer and completer surveys, performance assessment results, and data on the number of candidates and completers by pathway within an institution (e.g., alternative certification, teacher-in-residence, yearlong residency); and

- build on proposed policy changes allowing for multiple national accreditors by working closely with both the Council for the Accreditation of Educator Preparation (CAEP) and the Association for Advancing Quality in Educator Preparation (AAQEP) to ensure more direct support to programs for their continuous improvement efforts that are aligned to the state's current priorities and student needs.

Through expanded collection of teacher preparation–related data, West Virginia could further support programs in their continuous improvement efforts. Importantly, program completer and employer surveys—which yield important information about graduates' level of preparedness for the classroom—are generally left up to programs (with support from the WVHEPC) to deliver and collect. The most consistent system of data reporting is the CAEP annual report, but conversations with the department and other stakeholders did not clarify how that data is used by the department to advance their priorities. The state has an opportunity to expand department and program access to data that supports continuous improvement efforts and to shine a spotlight on key priority areas for the state, such as supporting the transition to the yearlong residency or a more robust program approval and accreditation process. In addition, given the growing use of alternative certification programs, it will be important to ensure a rigorous and consistent process of accreditation and data collection that goes beyond current measures of evaluation.

Support improved collection and use of data, including employer and completer surveys, performance assessment results, and data on the number of candidates and completers by pathway within an institution (e.g., alternative certification, teacher-in-residence, yearlong residency)

The CAEP accreditation process requires annual reporting on employer and graduate surveys, but programs and staff at the WVHEPC indicated challenges with response rates and capacity to manage systems for survey data collection. The state, perhaps through a partnership between the department and the WVHEPC, could work to drive the use of new teacher and employer surveys as a tool for program improvement beyond meeting CAEP requirements. Importantly, the state could support the broader capacity of preparation programs by requiring the use of these surveys

and designing a common survey instrument aligned to the state's teaching standards. California currently uses surveys of all program graduates about their opportunities to learn, their student teaching experience, and how well their program prepared them in various areas of teaching. Candidates complete the survey after they have finished their training, as they apply online for their initial credential. Two years later, they complete another survey about both their preparation and their induction experience as they apply online for their clear credential. California also surveys mentor teachers and employers about the quality of candidates and programs and uses all of these data in its program accreditation process. The state has ensured high survey response rates (more than 90%) by asking program graduates to complete the survey online as they submit their online application for their teaching credential.[202]

To encourage the use of performance assessment data to inform program improvement, the WVHEPC and WVDE should ensure that data from assessments, including the WVTPA, PPAT, and edTPA, are reported back to programs. Further, program faculty should be required to reflect on the results and describe any programmatic changes made in response. Establishing a performance assessment requirement for all candidates is an important step toward ensuring that future teachers demonstrate the skills needed to support all students. Additionally, using the results from the assessment to guide conversations around program improvement is an important opportunity for the state to generate collaborative and focused conversations on the needs of students and preservice teachers.

In addition to the expanded use of surveys and performance assessment data, efforts should be made to clearly track and report on the number of candidates moving through the state's different pathways into the teaching profession. This will support efforts to discern the impacts of each pathway on the teacher workforce.

Finally, efforts to improve educator preparation program quality could focus not only on traditional programs, but also on how best to measure and track outcomes from the state's growing alternative certification programs. Incorporating consistent data collection and reporting requirements across traditional and alternative programs will be an important step toward understanding how the programs are working to meet the state's long-term teacher workforce needs. This could include incorporating requirements for the collection of survey data from alternative certification program completers and the school leaders who employ them, as well as data on performance assessments to drive program quality. This push for expanded data collection could also include systems to ensure that data are reported and analyzed on a yearly basis for the alternative certification programs. Because research indicates that these teachers are more likely to leave the profession, there should be a more consistent and transparent effort made to report on program quality that goes beyond the current 5- and 7-year approval cycles outlined in Policy 5901.[203]

In looking to the future, West Virginia could take steps toward building a central state longitudinal data system to collect and consolidate data from across programs to support teacher preparation program improvement in the state. Many states are moving toward indicators and data dashboards on preparation programs and could provide West Virginia with a variety of potential models for

building a statewide teacher preparation data system that would complement current requirements around national accreditation. Delaware and Louisiana are among the states using such dashboards, and they are readily available for consumers of teacher education to examine and for the accrediting body to incorporate into its investigations of programs.[204] Missouri and Washington also collect a range of data and set program performance benchmarks based on a set of indicators.[205] If a program falls below the benchmark, the state then steps in for further investigation and review. Missouri's indicators include program completers' evaluation of their program at completion and in the first year of teaching. There is an additional indicator that looks at supervisors' evaluations of new teachers' preservice preparation.[206]

Build on proposed policy changes allowing for multiple national accreditors by working closely with both CAEP and the AAQEP to ensure more direct support to programs for their continuous improvement efforts that are aligned to the state's current priorities and student needs

Complicating the state's move toward performance-based accreditation, CAEP has not demonstrated the ability to support programs in their improvement efforts beyond the formal steps in the accreditation process. Through conversations with staff at smaller programs, we learned that they have struggled to meet CAEP standards and that the time and energy required to meet the standards can often stretch their capacity. Further, the process of meeting CAEP standards does not necessarily mean programs receive feedback on priority areas that might benefit the state's broader workforce, such as the practices and skills outlined in the first recommendation on teacher standards. Evidence from conversations with the department and the WVHEPC indicates a frustration with the CAEP process and a desire to be more involved in supporting preparation programs.

Reflecting some of these concerns, the state has recently proposed changes to Policy 5100 to allow for a new path for national accreditation through the AAQEP. These proposed changes offer a window to initiate conversations across accreditors and programs to ensure that state systems are providing the necessary supports and feedback needed for continuous improvement.

Regardless of the next steps taken by the state, it is clear there is a need for more consistent data collection and sharing. Programs would benefit from data systems that inform programmatic improvement and support in meeting CAEP standards, and the department would have a stronger understanding of how efforts to improve preparation are playing out across the state. Further, combined with systems of data management that allow for improved analysis of information associated with the state's educator supply and demand (discussed in Recommendation 5), the efforts to expand overall data capacity in the state could also support collaboration across k–12 and teacher preparation programs to address persistent challenges in teacher recruitment and retention.

Recommendation 5: Strengthen and Expand Efforts to Address Persistent Teacher Shortages

Given documented challenges in meeting the persistent demand for comprehensively prepared teachers across the state, West Virginia could:

- increase access to data tracking the supply and demand of the teacher workforce, including accurate data on teacher vacancies, turnover, and the number of individuals—by subject area—entering teaching through alternative certifications, First-Class/Full-Time Permits, and teacher-in-residence pathways; and

- track and measure the impact of the recently expanded Underwood-Smith Teaching Scholars Program to determine its efficacy in meeting workforce needs.

Increase access to data tracking the supply and demand of the teacher workforce, including accurate data on teacher vacancies, turnover, and the number of individuals—by subject area—entering teaching through alternative certifications, First-Class/Full-Time Permits, and teacher-in-residence pathways

Currently, publicly available data on the supply and demand of the teacher workforce in West Virginia is limited and often opaque to the point of limiting potential policy responses. For the most part, data exploring the nature of teacher shortages across the state in this report was pulled from local news stories or sources that have grown increasingly outdated. The state's primary education data dashboard, ZoomWV, which has a stated goal of "helping stakeholders support all students' achievement,"[207] offers data on the distribution of teachers based on their years of experience but has an empty field under a teacher education heading. When asked about the potential for updating the section or filling their teacher education field, staff at the department indicated that there were current plans to begin populating that field and collecting relevant data, though it was unclear what specific indicators or data might be included. Given the expressed intent in the West Virginia ESSA plan to "develop a system of data collection to assist districts in processes connected to hiring, induction, and retention of effective educators so that all students have access to high-quality teachers," efforts to move this goal forward would go a long way toward policy responses to the state's workforce challenges.[208]

To support efforts to understand the supply and demand of teachers across the state, a system of data collection could include clear and transparent indicators for tracking—by subject area—alternative certifications, First-Class/Full-Time Permits, Teacher-in-Residence (TIR) Permits, and teacher vacancies. In addition to data on preparation pathways, such a system could include updated data on teacher attrition, retention, and mobility at the county and state levels. This data could be disaggregated by years of experience or pathway into the profession to support inquiries around the types of preparation that best support teacher retention and the effectiveness of county induction programs. In a number of instances, stakeholders identified turnover challenges in particular parts of the state, but it was difficult to access data that verified stakeholder concerns. Further, in conversations with the WVDE, it was clear that the department would benefit from access to teacher workforce data across offices. As previously highlighted in the induction section, data on the number of first- and second-year teachers in the state were unavailable to certain offices that might have made valuable use of the information. This type of data sharing and transparency would support increased collaboration across offices within the department.

Finally, to provide more localized and targeted responses to staffing challenges across the state, the department should explore ways of making data on teacher supply and demand more readily available to the wider public, as many of the states described above have done through data dashboards. This process would involve an audit of the state's current data capacity to consider how to improve the quality and accuracy of data collected across county boards of education. In particular, understanding local labor markets may allow the state to better respond to inequitable distributions of qualified and certified teachers within counties, and to build state systems to incentivize teachers to work in harder-to-staff subjects, schools, and regions. This step would also support the work of teacher preparation programs and county schools working to meet persistent and emerging staffing needs.

Track and measure the impact of the recently expanded Underwood-Smith Teaching Scholars Program to determine its efficacy in meeting workforce needs

The Underwood-Smith Teaching Scholars Program should be assessed with respect to its effectiveness in preparing and retaining teachers who have received financial support and mentoring through the program. In particular, as the first graduates of the updated program enter classrooms in 4 years, it will be important for the state to gauge where they are pursuing teaching careers and if the state might need to consider additional incentives to bring Teaching Scholars to parts of the state that might need them most. It will also be important to track their retention rates over time. Further, it may be necessary for the state to better communicate how decisions are made regarding the designation of critical shortage areas and locations eligible to employ a Teaching Scholar or receive loan forgiveness. Conversations with staff involved in the program from both the WVDE and WVHEPC revealed that staff did not understand how the state made determinations for specific counties, and what data was utilized in making those designations.

It may also be useful to track the programs Teaching Scholars graduate from and determine if any additional lessons might be gleaned from understanding their eventual choices regarding their clinical practice pathway (yearlong residency versus traditional culminating clinical experience). In the future, if the yearlong residency pathway proves beneficial in supporting teacher effectiveness and retention, it may be important to implement an additional requirement that scholars complete their preparation through a yearlong residency pathway. Given the financial supports these individuals receive, the push to enter a quality yearlong residency pathway could make sense given they would not necessarily require the same level of investment as a teacher candidate who is not receiving state funds for preparation.

Recommendation 6: Strengthen Induction to Support Teacher Effectiveness and Retention

To address the inadequate access and inconsistent quality of induction and mentoring supports for new teachers, and to tackle the high rate of attrition of beginning teachers across the state and in hard-to-staff schools, West Virginia could:

- establish systems for tracking and measuring the impact of beginning teacher support funds distributed to counties;

- set minimum requirements for beginning teacher induction that support teacher retention, are aligned with research, and provide for local control and implementation;

- require that candidates entering the profession through alternative certification pathways are provided more robust induction and mentoring than what is provided to other new teachers in the state; and

- more equitably distribute teaching expertise by improving the implementation of the state's stipend available to NBCTs who work and serve as mentors in hard-to-staff schools, and increase the number of NBCTs serving as mentors and cooperating teachers.

Access to quality induction supports is a key part of a state's preparation and professional learning systems. Induction and mentoring for new teachers increase their likelihood of staying in the classroom and protect investments in teacher preparation often lost to early-career attrition.[209] While there is a statewide requirement for new teacher induction, and a source of funding for it, there is little statewide infrastructure that ensures access to quality mentoring and support for all new teachers.

Establish systems for tracking and measuring the impact of beginning teacher support funds distributed to counties

As highlighted in the section on professional learning in the state, the current system for induction across West Virginia gives ultimate authority to county boards of education. Funding is allocated to counties based on the number of new and beginning teachers working in county schools, but there is little accountability for how counties use the funding. The presence of specific funding meant to support beginning teacher induction is a demonstration of the state's commitment to supporting new teachers, but because counties are able to utilize those funds as part of their broader professional learning systems that support all teachers, it suggests that even the limited funding for new teacher induction may not directly support the needs of early-career teachers in the state. Further, the current system of professional learning, which is driven in large part by the state's evaluation system, requires that new teachers receive an increased number of observations from their administrators. However, as highlighted by administrators in the state, these observations are often treated as a compliance exercise and rarely result in meaningful opportunities to support professional growth.[210] Thus, even while new teachers may be getting additional attention under the state's evaluation system, they are not all getting the supports they need to grow in their role and stay in the profession.

To ensure that state funding allocated to support new teacher retention and quality actually works toward those goals, the state should undertake an audit of induction programs across the state. Importantly, steps should be taken to determine how induction programs outlined in a county's

West Virginia Support for Improving Professional Practice (WVSIPP) plan are being implemented and how that implementation impacts beginning teacher retention and quality. In addition to uncovering successful programs and the programmatic elements that lead to improved outcomes, this process would shine a light on current practices in the state and ensure that the state understands how public funds are being spent.

Set minimum requirements for beginning teacher induction that support teacher retention, are aligned with research, and provide for local control and implementation

As highlighted in the state's Educator Voice Survey from March 2019, new teachers are not experiencing consistent or equitable early-career supports, potentially undermining the state's effort to retain them in the classroom. In addition to tracking and measuring the impact of new teacher induction programs in the state, West Virginia should set minimum requirements for new teacher induction while maintaining flexibility at the county level for determining how minimum requirements are met. Iowa adopted a structure like this; it outlines minimum requirements for 2-year induction programs and commits financial resources to support implementation across the state. In 2001, Iowa enacted the Teacher Quality Act, expanding teacher induction statewide and making it a requirement for second-tier teacher licensure.[211] The Iowa Mentoring and Induction program annually involves approximately 3,000 first- and second-year educators across the state and was allocated $4 million for FY2016. These funds provided $1,300 to districts and Area Education Agencies to cover mentor stipends and program costs. In addition to general guidance on how districts can structure their induction programs, the state stipulates minimum levels of beginning teacher support, including release time to design lessons and plan with a mentor, opportunities to observe experienced teachers, and opportunities to receive constructive feedback on instruction.[212] Beyond these minimum requirements set by the state, it is the responsibility of districts to design programs that engage teachers in meaningful activities that support the Iowa teaching standards and meet the needs of beginning educators working in their schools. The Iowa program is a strong example of locally controlled implementation and the provision of research-based supports for new teachers.

Require that candidates entering the profession through alternative certification pathways are provided more robust induction and mentoring than what is provided to other new teachers in the state

When considering induction supports available to novice teachers across the state, an important subgroup of novice teachers to consider are those who have not yet completed teacher preparation and are serving as teachers of record while completing their training through an alternative certification program or other permit. Because they are not required to complete a culminating clinical experience, individuals on First-Class/Full-Time or TIR Permits or completing alternative certification may never see a good teacher teach or get intensive support from an expert teacher in their own learning.[213] Research shows that individuals who enter the classroom on emergency-style permits or similar alternative certification pathways are both less effective when they begin teaching and more likely to leave the classroom than those who have been fully prepared before entry.[214] This

points to a need to provide this group of novice teachers heightened attention through the induction and mentoring process. To ensure that these individuals receive the training and support they need to remain in the classroom and provide the learning experiences West Virginia students need, induction and mentoring supports should be more concretely defined and monitored across the alternative certification pathways.

Further, it is important that the state clearly understands the level of preparation available in alternative or abbreviated pathways, particularly given data pointing to an increase in individuals entering the profession through these pathways, described in the status of the teacher workforce section of this report. Much like the state's process for induction supports, this requires a more explicit understanding of how counties are implementing their alternative certification programs and what tailored supports are available to candidates that may differ from what other beginning teachers, prepared through more traditional pathways, receive.

Finally, with the passage of SB 14 during the 2021 legislative session, individuals with a bachelor's degree will be able to earn a teaching certificate following the submission of passing Praxis scores and completion of what is described as pedagogical training.[215] It is unclear exactly the types of preparation individuals might receive through this pathway, though the limited language suggests the absence of comprehensive clinical practice and limited exposure to the types of teaching skills and practices aligned with the needs of students across the state. The pathway raises additional concerns about the likely increase in individuals entering the classroom in need of the targeted supports outlined above.

More equitably distribute teaching expertise by improving the implementation of the state's stipend available to NBCTs working and serving as mentors in hard-to-staff schools, and increase the number of NBCTs serving as mentors and cooperating teachers

While the state provides a salary supplement ($3,500) and additional supports for individuals completing the National Board Certification (NBC) process, inequities exist in the ability (or desire) of counties to fully match the state supplement and in the accessibility of the state's additional stipend for working in a hard-to-staff school. Further, the additional stipend, meant to draw NBCTs to hard-to-staff schools, is not working as intended, as only four teachers are currently receiving the additional funds. Given the substantial benefits that NBCTs bring to the classrooms and schools in which they work, including potential supports and benefits for the new teachers working around them, the state should ensure that teachers working in hard-to-staff schools are eligible to receive the additional state stipend.[216] This could require improvements in the implementation of the existing policy, or adjustments to the language, that allow more NBCTs to access the funds. These changes would allow an NBCT to receive the $2,000 for teaching in a high-need school as well as an additional $2,000 stipend if they take on mentoring responsibilities to support new teachers in their school (or county) or serve as a cooperating teacher supporting a yearlong resident in their classroom. Regardless of additional mentoring responsibilities, incentivizing NBCTs to work in high-need schools is a necessary step to increase the number of accomplished teachers working in the

schools where they are needed most. The additional stipend for taking on the responsibilities of a cooperating teacher or mentor would increase the number of high-quality cooperating teachers or mentors available in hard-to-staff schools. It could also support the mentoring of new teachers and preparation of yearlong residents in these types of schools. Importantly, these supportive conditions could help teacher residents become successful teachers in the same school once their residencies are completed.

Addendum: Current and Potential Impacts of the COVID-19 Pandemic on the Teacher Workforce

The findings, analyses, and recommendations in this report are based on data and information that were, for the most part, gathered before the widespread onset of the COVID-19 pandemic in the United States. The pandemic has brought serious disruptions to the teacher workforce. While massive teacher layoffs tied to the COVID-19 recession may have been averted temporarily through one-time budget actions and substantial federal stimulus funding, concerns remain about West Virginia's long-term fiscal outlook and the state of the workforce amid and beyond the pandemic. The increased staffing demands of socially distanced schools, combined with pandemic-related teacher retirements and resignations, may further exacerbate persistent teacher shortages. These trends will certainly add to the state's workforce challenges and affect policymakers' ability to implement the recommendations of this report. At the same time, the growing investment in federal recovery dollars for schools offers a potential lifeline to states and counties. These funds may help address short-term needs across schools and the workforce, as well as tackle long-term challenges specific to the workforce in West Virginia. This section addresses what research shows about the effects of COVID-19 on the teacher workforce in West Virginia as this report goes to publication in the fall of 2021.

Teacher Retirements and Shortages

After the 2020–21 school year, policymakers' attention increasingly focused on ongoing efforts to safely reopen schools for in-person instruction and to address lost instructional time for students. However, critical teaching shortages, a challenge that predates the pandemic, have continued to jeopardize West Virginia schools' ability to safely reopen and stay open.

At the outset of the pandemic, national press gave much attention to a potential wave of retirements across the teaching field, in particular with concerns that more experienced teachers might opt to avoid taking on the health risks of in-person instruction.[217] This was particularly true for states such as West Virginia, where, in 2020, approximately 20% (or about 3,850 teachers) of public school teachers were age 55 or older and in the high-risk category for the virus.[218] Further, staff at the West Virginia Department of Education (WVDE) highlighted the fact that even if teachers may not be in the high-risk category themselves, they might be living with or caring for someone in a high-risk group.[219] Despite these initial concerns, WVDE reports only anecdotal responses from counties regarding potential retirements,[220] and there is little data from the past year to suggest that a wave of retirements has materialized.

Yet schools still faced ongoing staffing challenges this past year, driven largely by the ongoing shortage of teachers and the need to adhere to public health guidance around contact tracing and quarantining individuals who may have been exposed to the virus. According to State Superintendent Clayton Burch, "Many times this fall, school closures weren't due to spread of COVID-19, but rather a

shortage of teachers. . . . When it was necessary to contact trace and quarantine folks for a period of time, we didn't have teachers sitting on the bench waiting to come in."[221]

Shortages of Support Staff and Substitute Teachers

While the wave of predicted teacher retirements has not materialized, West Virginia saw one of the largest declines among states in public education employment (–14%) between September 2019 and September 2020.[222] A large portion of these cuts affected bus drivers, food service personnel, support staff, and other noninstructional staff, but they were likely only temporary as schools initially shut down in-person learning. Regardless, there is continued evidence of schools struggling to respond to ongoing substitute teacher and support staff shortages across the state. The declines in substitute teachers and support staff have hampered efforts to fully reopen schools across the state, which the West Virgina Board of Education (WVBE) mandated in March 2021. At the time, the board required 5-day in-person instruction for students in pre-k through 8th grade and recommended (but did not require) the same for high schools.[223] In December 2020, the Mercer County Board of Education sought to address the persistent shortage of substitute teachers by revising local policies to allow retired teachers to return to local schools to work as substitute teachers.[224] In Morgan and Upshur Counties, superintendents reported in early 2021 difficulties in staffing classrooms amid concerns from their substitute pool about exposure to the virus.[225]

To help counties respond to these challenges, State Superintendent Clayton Burch announced in October 2020 that college seniors could move straight into substitute teaching prior to completing their degrees. Instead of completing the state's required 12-week culminating clinical experience placement, candidates can apply to serve as a paid substitute teacher.[226] Marshall University helped education majors take advantage of the paid substitute teaching positions as part of their supervised student teaching training, and it raised up the practice as an additional way for college students to gain hands-on classroom experience.[227]

Supporting the Teacher Pipeline During the Pandemic

There is anecdotal evidence that teachers across the state are struggling amidst the ongoing staffing challenges and the continued disruptions created by shifting conditions within schools. During an October 2020 State Board of Education meeting, Fred Albert, President of AFT West Virginia, spoke to rising stress levels and frustrations among teachers and staff:

> Stress levels . . . are up to the sky. School staff are frustrated and worried about not having enough teachers to fill when needed. We also have a tremendous shortage in substitutes . . . and our teaching staff. I think that's only going to grow. . . . They don't want to risk their lives.[228]

The state has sought to help address these challenges by ensuring that the supply of new teachers graduating from teacher preparation is not unduly affected and that candidates are able to complete their preparation and enter classrooms as quickly as possible. These efforts have included leveraging existing flexibility in policy and providing emergency flexibility when needed. One example of existing

flexibility includes Policy 5100, which already allows teacher candidates to complete virtual clinical experiences for up to 50% of required hours.[229] Programs were thus able to adapt quickly to closures in March 2020 and during the 2020–21 school year, as counties moved between in-person, hybrid, and fully remote instruction models. Existing flexibility around the state's student teaching requirement, which allows programs to recommend candidates for certification before they complete the required 12 weeks of student teaching, has also proven helpful in navigating ongoing shifts in county and school policies.[230] Lastly, the state also issued flexibility for individuals who have not completed all the required assessments for licensure by issuing a 1-year, nonrenewable Temporary Professional Teaching Certificate, which gives individuals an extra year to complete required content assessments and their performance assessment.[231] These additional exemptions ended on July 1, 2021.[232]

To support schools as they implemented their 2020–21 reopening plans, the WVDE spearheaded an Instructional Support Professional Learning Forum in early August 2020. The virtual event featured a series of nearly 100 online professional learning sessions covering a variety of remote learning topics including teaching reading comprehension, conducting science labs, and supporting the needs of vulnerable students and students with special needs. The event had over 20,000 registrants.[233]

Finally, in considering the ongoing school staffing challenges across the state, the state launched a new task force in late 2020 meant to tackle teacher shortages and lay out a new vision for teacher recruitment, preparation, and retention.[234] The task force brings together both the WVDE and the West Virginia Higher Education Policy Commission in a partnership that can help build a coordinated and interagency approach to addressing these ongoing workforce challenges both within and beyond the pandemic. The task force will meet throughout 2021 and intends to produce recommendations by the end of the year.[235]

Impact of COVID-19 on West Virginia's Budget

Over the past two budget cycles (FY2021 and FY2022), West Virginia has managed to avoid drastic cuts to education and government services despite early warnings at the start of the pandemic about growing budget gaps. At the start of April 2020, Governor Jim Justice projected a $350–375 million deficit,[236] but by May that projection had shrunk to $205 million.[237] On June 26, 2020, Governor Justice announced that the state was expecting a revenue surplus thanks in part to nearly $200 million pulled from unspent funds and by using emergency reserve money to cover the remaining gap. In addition, the state has relied on increased Medicaid reimbursements from the federal government[238] and has used Medicaid reserve funds to balance both the FY2021 and FY2022 budgets. While the state will be able to use these reserves to support their budgets in the near term, they are not a long-term solution.[239]

Unfortunately, these early successes in staving off budget cuts may be undercut by future declines in state revenue.[240] The governor's FY2021 6-year budget outlook, a document prepared by the governor and submitted to the state legislature with each year's budget proposal, showed significant budget gaps in the coming years despite no new spending on higher education and declining state

spending on the school aid formula.[241] Further, the effort to hold off potential cuts to current state education investments may already be ending, as the WVDE saw its budget shrink by $65.8 million in the recently passed FY2022 budget.[242] In addition, there are lingering questions about current state investments meant to support the recruitment and retention of teachers across the state. For example, the Underwood-Smith Teaching Scholars Program was funded at $628,349 in FY2021 and FY2022, but it is unclear whether the investment can be sustained if state revenue continues to decline in the coming years.[243]

Federal Investment and the 2021–22 School Year

With the ongoing budgetary challenges facing the state, the three federal COVID-19 relief laws passed in 2020 and 2021 will likely prove vital in helping West Virginia as it works to emerge from the pandemic with an eye toward a lasting recovery.

All three laws fund an Elementary and Secondary Schools Emergency Relief (ESSER) fund, which provides federal aid to states and districts. Each law reserves some funding at the state level (the percentage varies) and provide states with broad flexibility for its use. Some states are using their state funds to build their teacher pipeline and support new teachers' entry into the profession. For example, Tennessee used ESSER funds to expand its Grow Your Own Competitive Grant program. Illinois, for its part, created an induction program for new teachers, many of whom were unable to complete in-person clinical training in spring 2020.

The March 2020 Coronavirus Aid, Relief, and Economic Security (CARES) Act and the December 2020 Coronavirus Response and Relief Supplemental Appropriations (CRRSA) Act also created Governor's Emergency Education Relief (GEER) funds. Governors have discretion over how to use these funds, which can be allocated to Local Education Agencies (LEAs) and Institutes for Higher Education (IHEs) and can also be used to support the teacher pipeline. In Minnesota, for example, Governor Tim Walz allocated up to $5 million to support teacher preparation candidates and programs.

LEAs also have authority to use ESSER funds to help grow and retain a pipeline of diverse and well-prepared teachers. All three laws allow districts to use their ESSER funds (except for those dedicated specifically to addressing lost instructional time in the American Rescue Plan Act) toward any activity authorized in the Elementary and Secondary Education Act, the Perkins Career and Technical Education Act, and the Individuals With Disabilities Education Act.[244] This flexibility means that districts can utilize rescue funds to address the root causes of teacher shortages and advance partnerships and strategies to build a stable and diverse teacher workforce.[245] This can include, for example, supporting partnerships with educator preparation programs; induction and mentoring programs; and professional growth and development opportunities for teachers, including National Board Certification.[246]

While the American Rescue Plan requires LEAs to set aside 20% of their ARP ESSER funds for addressing lost instructional time, these funds can also potentially be leveraged to provide learning

recovery while simultaneously strengthening the educator pipeline. For example, teacher candidates can potentially serve as tutors in high-quality tutoring programs, staff summer and before-/after-school programs, or serve as paraprofessionals in a co-teaching/resident role.[247] These opportunities for teacher candidates can provide much-needed staffing for these programs, while providing teacher candidates with paid opportunities to gain clinical experience.

Under the most recent American Rescue Plan, West Virginia is on track to receive $761,418,000 from the ARP ESSER Fund.[248] A minimum of $666,240,750 from that total will pass directly to LEAs. States and LEAs have until September 30, 2024, to obligate these funds, and 120 days after that deadline to spend them.[249]

Implications for the Future

As the state continues to battle both the pandemic and the variety of challenges brought on by the transitions to remote, hybrid, or in-person learning models across schools, there are still many unknowns. One of these unknowns is whether the pandemic and its impact on the WVDE's operations and budget will be a barrier to implementing the recommendations of this report. At the same time, there is no shortage of opportunities for using federal funding to address long-standing challenges in the state, including the persistent challenge of staffing classrooms across all counties with a well-prepared teacher.

Many of the recommendations in this report—including supporting the development of financially sustainable and effective undergraduate teacher residency models, expanding data use and capacity, and revising the state's teaching standards—could be achieved with minimal cost. Further, the state could take a deeper look at how the recommendations fit into plans for the post-COVID education system, including the necessity of maintaining workforce and pipeline capacity through lean budget years. In the past, some states have used lean budget years to strengthen their licensure and certification processes with an eye toward building a more sustainable system over the long term.[250] Other recommendations that would likely require funding up front may not have to be deferred, should the state deem workforce efforts both a short- and long-term need and choose to invest federal recovery funds for this purpose. Importantly, expenditures directed at high-retention pathways, expanding National Board Certification incentives, and induction could help to sustain the well-prepared workforce that will be needed to serve all students through the pandemic and afterward.

Conclusion

The purpose of this report is to ascertain how state licensure and program approval systems in West Virginia are advancing the preparation of a well-qualified and equitably distributed teacher workforce to support all students' deeper learning and social, emotional, and academic development. An additional topic of inquiry, which emerged over the course of the report, involves the connections between the state's preparation and professional learning systems and how the systems are working in tandem to produce and support the teachers needed for West Virginia's schools. An analysis of state teacher workforce data and an examination of statutory and regulatory frameworks and the systems they support has provided a picture of the progress the state has made as well as opportunities for improvement.

The six recommendations provided here lay out ideas and next steps for updating standards, supporting high-quality preparation, building sustainable teacher residencies across the state, and improving data use and teacher induction. The state has a long history with standards-based systems, and each of the recommendations provided here builds on current efforts and past progress. With this foundation in place, West Virginia is well positioned to apply these research-based recommendations to shape educator preparation and practice toward improved teaching and learning for all the state's students. And while the impacts of the COVID-19 pandemic may alter or delay the implementation of these recommendations, there are still steps the state can take now to ensure that licensure and program approval are strengthened as schools weather today's challenges and evolve to meet those of the future.

Appendix A: Research Background

Data collection took place from July 2019 to February 2020 and consisted of the following:

Document analysis: included state statutes and regulations regarding licensure and program approval, recent state legislative acts and permanent rule changes, West Virginia Department of Education (WVDE) reports (including ESSA plan) and presentations, outside research reports on workforce issues, state data (for students, teachers, and EPPs), WVDE documents relating to licensure and program approval, the WVDE website and handbooks, Federal Title II and Teacher Shortage Area (TSA) data, EPP websites, and media articles on teacher shortages and licensure pathways.

Interviews: WVDE staff from the Certification, Teacher Preparation, School Improvement, and Data teams; staff from the West Virginia Higher Education Policy Commission (WVHEPC); EPP leadership and faculty; union leadership; k–12 superintendents; and regional foundation leadership.

List of individuals interviewed and consulted for this project:

West Virginia Department of Education

- Robert Hagerman, Director, Office of Certification

- Lisa Hedrick, former Director, Office of Educator Quality and Effectiveness

- Oliver Ho, former Coordinator, Office of Data Analysis and Research

- Robert Mellace, Coordinator, Office of Educator Development and Support

- Jodi Oliveto, Coordinator, Office of Educator Development and Support

- Steven Paine, former State Superintendent of Schools

- Bridget Phillips, Coordinator, Office of Educator Development and Support Services

- Jeff Takarsh, Program Lead, Office of West Virginia Education Information System

- Carla Warren, Director, Office of Educator Development and Support

- Margaret Williamson, Director, Office of School Improvement

- Lori Wilson, Coordinator, Office of Certification

Stakeholders

- Fred Albert, President, AFT-West Virginia

- Kelli Baronak, former Associate Professor, West Liberty University

- Andrea Campbell, Faculty, Concord University

- Jim Denova, Vice President, Claude Worthington Benedum Foundation

- Keri Ferro, West Virginia Higher Education Policy Commission

- Kathy Hawks, Faculty, Concord University

- Blaine Hess, Superintendent, Jackson County Schools

- William Hosaflook, Superintendent, Wood County Schools

- David Lancaster, Chair, West Virginia University at Parkersburg

- Dale Lee, WVEA President

- Paula Lucas, Faculty, Marshall University

- Cathy Monteroso, Dean, West Liberty University

- Donna Peduto, Executive Director, West Virginia Public Education Collaborative

- Jo Pennington, Dean, Ohio Valley University

- Missy Spivy, Faculty, West Virginia University at Parkersburg

Endnotes

1. Cantor, P., Osher, D., Berg, J., Steyer, L., & Rose, T. (2019). Malleability, plasticity, and individuality: How children learn and develop in context. *Applied Developmental Science*, *23*(4), 307–337; Osher, D., Cantor, P., Berg, J., Steyer, L., & Rose, T. (2020). Drivers of human development: How relationships and context shape learning and development. *Applied Developmental Science*, *24*(1), 6–36; National Academies of Sciences, Engineering, and Medicine. (2018). *How People Learn II: Learners, Contexts, and Cultures*. National Academies Press.

2. See, for example: Alliance for Excellent Education. (2011). *A time for deeper learning: Preparing students for a changing world*; Darling-Hammond, L., Oakes, J., Wojcikiewicz, S. K., Hyler, M. E., Guha, R., Podolsky, A., Kini, T., Cook-Harvey, C. M., Jackson Mercer, C. N., & Harrell, A. (2019). *Preparing Teachers for Deeper Learning*. Harvard Education Press; National Research Council. (2012). *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. National Academies Press. https://doi.org/10.17226/13398; Mehta, J., & Fine, S. M. (2019). *In Search of Deeper Learning: The Quest to Remake the American High School*. Harvard Education Press.

3. Brown, A. (2016, October 6). Key findings about the American workforce and the changing job market. Pew Research Center. http://www.pewresearch.org/fact-tank/2016/10/06/key-findings-about-the-american-workforce-and-the-changing-job-market/ (accessed 08/20/20); National Research Council. (2012). *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. National Academies Press. https://doi.org/10.17226/13398; Donohue, T. J. (2017). *Building a 21st century workforce*. U.S. Chamber of Commerce. https://www.uschamber.com/series/your-corner/building-21st-century-workforce.

4. Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 97–140. https://doi.org/10.1080/10888691.2018.1537791; Darling-Hammond, L. (2010). *The Flat World: How America's Commitment to Equity Will Determine Our Future*. Teachers College Press.

5. Branford, J., Darling-Hammond, L., & LePage, P. (2005). "Introduction" in Darling-Hammond, L., & Bransford, J. (Eds.). *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do* (pp. 1–39). John Wiley & Sons.

6. Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2006). How changes in entry requirements alter the teacher workforce and affect student achievement. *Education Finance and Policy*, *1*(2), 176–216; Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2010). Teacher credentials and student achievement in high school: A cross-subject analysis with student fixed effects. *Journal of Human Resources*, *45*(3), 655–681; Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education*, *53*(4), 286–302; Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Heilig, J. V. (2005). Does teacher preparation matter? Evidence about teacher certification, Teach for America, and teacher effectiveness. *Education Policy Analysis Archives*, *13*(42), 51; Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). *Solving the teacher shortage: How to attract and retain excellent educators*. Learning Policy Institute.

7. Goe, L. (2007). *The link between teacher quality and student outcomes: A research synthesis*. National Comprehensive Center for Teacher Quality; Kini, T., & Podolsky, A. (2016). *Does teaching experience increase teacher effectiveness? A review of the research*. Learning Policy Institute; Kyriakides, L., Christoforou, C., & Charalambous, C. Y. (2013). What matters for student learning outcomes: A meta-analysis of studies exploring factors of effective teaching. *Teaching and Teacher Education*, *36*, 143–152; Ladd, H. F., & Sorensen, L. C. (2017). Returns to teacher experience: Student achievement and motivation in middle school. *Education Finance and Policy*, *12*(2), 241–279; Podolsky, A., Darling-Hammond, L., Doss, C., & Reardon, S. (2019). *California's positive outliers: Districts beating the odds*. Learning Policy Institute.

8. Ingersoll, R., Merrill, L., & May, H. (2014). *What are the effects of teacher education and preparation on beginning teacher attrition?* [Research report #RR-82]. Consortium for Policy Research in Education, University of Pennsylvania; Henke, R., Chen, X., & Geis, S. (2000). *Progress through the teacher pipeline: 1992–93 college graduates and elementary/secondary school teaching as of 1997*. Postsecondary Education Descriptive Analysis Report for the U.S. Department of Education. National Center for Education Statistics; Carver-Thomas, D., & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters and what we can do about it*. Learning Policy Institute.

9. Darling-Hammond, L., Wise, A. E., & Klein, S. P. (1999). *A License to Teach. Raising Standards for Teaching*. Jossey-Bass; National Commission on Teaching for America's Future. (1996). *What matters most: Teaching for America's future*. (p. 69); Darling-Hammond, L., Wise, A. E., & Klein, S. P. (1999). *A License To Teach. Raising Standards for Teaching*. Jossey-Bass; National Research Council. (2010). *Preparing teachers: Building evidence for sound policy*. Committee on the Study of Teacher Preparation Programs in the United States, Center for Education. Division of Behavioral and Social Sciences and Education. National Academies Press.

10. Darling-Hammond, L. (in collaboration with Fickel, L., Koppich, J., Macdonald, M., Merseth, K., Miller, L., Ruscoe, G., Silvernail, D., Snyder, J., Whitford, B. L., & Zeichner, K.). (2006). *Powerful Teacher Education: Lessons From Exemplary Programs*. Jossey-Bass; Darling-Hammond, L., Oakes, J., Wojcikiewicz, S. K., Hyler, M. E., Guha, R., Podolsky, A., Kini, T., Cook-Harvey, C. M., Jackson Mercer, C. N., & Harrell, A. (2019). *Preparing Teachers for Deeper Learning*. Harvard Education Press.

11. Darling-Hammond, L., Burns, D., Campbell, C., Goodwin, A. L., Hammerness, K., Low, E. L., McIntyre, A., Sato, M., & Zeichner, K. (2017). *Empowered Educators*. Jossey-Bass. (pp. 232–233).

12. Cardichon, J., Darling-Hammond, L., Yang, M., Scott, C., Shields, P. M., & Burns, D. (2020). *Inequitable opportunity to learn: Student access to certified and experienced teachers*. Learning Policy Institute. https://learningpolicyinstitute.org/sites/default/files/product-files/CRDC_Teacher_Access_REPORT.pdf; Darling-Hammond, L. (1998). *Unequal opportunity: Race and education*. Brookings Institution. https://www.brookings.edu/articles/unequal-opportunity-race-and-education/; Darling-Hammond, L. (2006). Securing the right to learn: Policy and practice for powerful teaching and learning. *Educational Researcher*, *35*(7), 13–24; Darling-Hammond, L. (2010). *The Flat World and Education: How America's Commitment to Equity Will Determine Our Future*. Teachers

College Press; Goldhaber, D., Quince, V., & Theobald, R. (2018). Has it always been this way? Tracing the evolution of teacher quality gaps in U.S. public schools. *American Educational Research Journal, 55*(1), 171–201; Ladd, H. F., & Sorensen, L. C. (2017). Returns to teacher experience: Student achievement and motivation in middle school. *Education Finance and Policy, 12*(2), 241–279; Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). *A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.* Learning Policy Institute; Xu, Z., Ozek, U., & Hansen, M. (2015). Teacher performance trajectories in high- and lower-poverty schools. *Educational Evaluation and Policy Analysis, 37*(4), 458–477.

13. Darling-Hammond, L., & Sykes, G. (2003). Wanted: A national teacher supply policy for education: The right way to meet the "Highly Qualified Teacher" challenge. *Education Policy Analysis Archives, 11*(33). https://epaa.asu.edu/ojs/article/viewFile/261/387; Espinoza, D., Saunders, R., Kini, T., & Darling-Hammond, L. (2018). *Taking the long view: State efforts to solve teacher shortages by strengthening the profession*. Learning Policy Institute.

14. LPI analysis of National Assessment of Educational Progress Results, 2019, National Center for Education Statistics, Institute of Education Sciences.

15. LPI analysis of National Assessment of Educational Progress Results, 2019, National Center for Education Statistics, Institute of Education Sciences.

16. Goe, L. (2007). *The link between teacher quality and student outcomes: A research synthesis*. National Comprehensive Center for Teacher Quality; Kini, T., & Podolsky, A. (2016). *Does teaching experience increase teacher effectiveness? A review of the research*. Learning Policy Institute; Kyriakides, L., Christoforou, C., & Charalambous, C. Y. (2013). What matters for student learning outcomes: A meta-analysis of studies exploring factors of effective teaching. *Teaching and Teacher Education, 36*, 143–152; Ladd, H. F., & Sorensen, L. C. (2017). Returns to teacher experience: Student achievement and motivation in middle school. *Education Finance and Policy, 12*(2), 241–279; Podolsky, A., Darling-Hammond, L., Doss, C., & Reardon, S. (2019). *California's positive outliers: Districts beating the odds*. Learning Policy Institute.

17. Greenblatt, A. (2016, November 22). *In life after coal, Appalachia attempts to reinvent itself*. Governing: The Future of States and Localities. https://www.governing.com/topics/finance/gov-coal-trump-appalachia-economy.html.

18. West Virginia's Climb. (n.d.). The facts. http://wvclimb.com/#facts (accessed 07/20/20).

19. The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using the Consumer Price Index. The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps); U.S. Census Bureau. (2020). Poverty thresholds. https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html (accessed 10/10/20).

20. United Health Foundation. (2020). *America's health rankings*. https://www.americashealthrankings.org/explore/annual/measure/ChildPoverty/state/WV (accessed 10/10/20).

21. West Virginia Department of Education. (2019). *A toolkit for connecting social-emotional and mental health supports to the opioid epidemic*. https://wvde.us/wp-content/uploads/2019/07/ReClaimWV_Toolkit.pdf.

22. West Virginia University. (n.d.). Project TRAIN: West Virginia teachers and the opioid epidemic. https://cehs.wvu.edu/project-train (accessed 07/10/20).

23. West Virginia Department of Education. (2019). *2018–2019 year in review*. https://wvde.us/wp-content/uploads/2019/10/2018-19-YearInReview-v15.pdf.

24. West Virginia Department of Education. (n.d.). *Education Survey for Students results*. https://wvde.us/wp-content/uploads/2019/05/Report-on-Education-Survey-for-Students.pdf (accessed 07/10/20).

25. Cross, F. (2017). *Teacher shortage areas nationwide listing 1990–91 through 2017–18*. U.S. Department of Education; West Virginia Higher Education Policy Commission. (2018, August 1). Underwood-Smith Loan Assistance Program [Press release]. https://content.xap.com/media/11206/high_need_fields_and_locations_18-19.pdf (accessed 08/02/20).

26. Espinoza, D., Saunders, R., Kini, T., & Darling-Hammond, L. (2018). *Taking the long view: State efforts to solve teacher shortages by strengthening the profession*. Learning Policy Institute.

27. Interview with Dr. Cathy Monteroso, Dean of the College of Education and Human Performance at West Liberty University (2019, November 19).

28. Note: The state reported more than 400 vacancies in 2015. That number rose to 593 in 2016 and upward of 718 vacancies by 2017. See: Kerchaval, H. (2017, February 20). Teacher vacancies reach crisis level. *MetroNews*. http://wvmetronews.com/2017/02/20/teacher-vacancies-reach-crisis-level/.

29. Note: In the presentation, the department indicated that 727 professional positions are not filled with full-time, fully certified employees in West Virginia schools. Leadership indicated that this did not include an additional 89 teachers authorized to teach outside their field of certification ("out-of-field authorization") or another 436 individuals who are First-Class/Full-Time Permit teachers. The 436 First-Class/Full-Time Permits represent individuals who could be anywhere within the 6-year window to complete their preparation experience while full-time teaching in a West Virginia classroom and who have not met the requirements for a full professional license in the state.

30. MetroNews Staff. (2018, September 4). Researchers: WV's teacher shortage problem more than just a number. *MetroNews*. https://wvmetronews.com/2018/09/04/researchers-wvs-teacher-shortage-problem-more-than-just-a-number.

31. Quinn, R. (2018, February 13). WV House OKs lowering teacher criteria; non-fully certified teachers teach 38% 7th–11th grade math courses. *Charleston Gazette-Mail*. https://www.wvgazettemail.com/news/education/wv-house-oks-lowering-teacher-criteria-non-fully-certified-teachers/article_5aeccf1a-55e9-5a7b-87e8-5be16cf7db9a.html.

32. McHenry-Sorber, E., & Campbell, M. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413.

33. Cross, F. (2017). *Teacher shortage areas nationwide listing 1990–91 through 2017–18*. U.S. Department of Education.

34. Letter from Dr. Stephen Paine, former State Superintendent of Schools (2019, September 19).

35. Stevens, A., Alexander, A., Cummins, S., Nelson, D., Riley, C., Brown, R., & Liguori, B. (2019). *Teacher shortages and supports for new teachers*. Legislative Research Commission, Office of Education Accountability. https://apps.legislature.ky.gov/CommitteeDocuments/117/12027/UPDATED%20DRAFT%20-%20Teacher%20Shortages%20EAARS.PDF.

36. Letter from Dr. Stephen Paine, former State Superintendent of Schools (2019, September 19).

37. McHenry-Sorber, E., & Campbell, M. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413.

38. Showalter, D., Hartman, S. L., & Johnson, J. (2019). *Why rural matters 2018–2019: The time is now*. Rural School and Community Trust. http://www.ruraledu.org/WhyRuralMatters.pdf (accessed 01/15/20).

39. McHenry-Sorber, E., & Campbell, M. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413; Showalter, D., Hartman, S. L., Johnson, J. (2019). *Why rural matters 2018–2019: The time is now*. Rural School and Community Trust. http://www.ruraledu.org/WhyRuralMatters.pdf (accessed 01/15/20).

40. West Virginia Department of Education. (2015). *West Virginia educator equity plan*. (p. 58).

41. McHenry-Sorber, E., & Campbell, M. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413.

42. Hanford, E. (2017, August 28). Schools in poor, rural districts are the hardest hit by nation's growing teacher shortage. *APM Reports*. https://www.apmreports.org/story/2017/08/28/rural-schools-teacher-shortage.

43. Hanford, E. (2017, August 28). Schools in poor, rural districts are the hardest hit by nation's growing teacher shortage. *APM Reports*. https://www.apmreports.org/story/2017/08/28/rural-schools-teacher-shortage.

44. Ingersoll, R., Merrill, L., & May, H. (2014). *What are the effects of teacher education and preparation on beginning teacher attrition?* [Research report #RR-82]. Consortium for Policy Research in Education, University of Pennsylvania; Henke, R., Chen, X., & Geis, S. (2000). *Progress through the teacher pipeline: 1992–93 college graduates and elementary/secondary school teaching as of 1997*. Postsecondary Education Descriptive Analysis Report for the U.S. Department of Education. National Center for Education Statistics; Carver-Thomas, D., & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters and what we can do about it*. Learning Policy Institute.

45. Lochmiller, C. R., Adachi, E., Chesnut, C. E., & Johnson, J. (2016). *Retention, attrition, and mobility among teachers and administrators in West Virginia* [REL 2016-161]. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Appalachia. https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=2460.

46. Barnes, G., Crowe, E., & Schaefer, B. (2007). *The cost of teacher turnover in five school districts: A pilot study*. National Commission on Teaching and America's Future; Milanowski, A., & Odden, A. (2007). *A new approach to the cost of teacher turnover*. School Finance Redesign Project, Center on Reinventing Public Education; Shockley, R., Guglielmino, P., & Watlington, E. J. (2006). *A national crisis in teacher education: What are the costs?* Pearson Education.

47. Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, *50*(1), 4–36; Carver-Thomas, D., & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters and what we can do about it*. Learning Policy Institute.

48. Learning Policy Institute. (2017). *What's the cost of teacher turnover?* https://learningpolicyinstitute.org/product/the-cost-of-teacher-turnover (accessed 02/12/20).

49. Lochmiller, C. R., Adachi, E., Chesnut, C. E., & Johnson, J. (2016). *Retention, attrition, and mobility among teachers and administrators in West Virginia* [REL 2016-161]. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Appalachia. https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=2460.

50. Studies have produced a range of estimates for beginning teacher attrition, all of which have shortcomings. For example, one recent estimate using national longitudinal data put the attrition rate around 17%, finding 83% of beginning teachers still teaching at the end of their fifth year, including some who had left and re-entered. (See Gray, L., Taie, S., & O'Rear, I. [2015]. *Public school teacher attrition and mobility in the first five years: Results from the first through fifth waves of the 2007–2008 Beginning Teacher Longitudinal Study*. U.S. Department of Education. http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED556348&site=ehost-live.) However, the analysis omitted the large number of individuals who did not respond to the survey at various points during these years without adjusting for nonresponse bias. In general, survey evidence finds that those who do not respond to such surveys are more likely to have left their position than to have continued teaching. For that reason, the 17% figure likely underestimates attrition by an unknown margin. Our own imputations to adjust these data based on the characteristics of nonrespondents suggest that the attrition rate is likely at least 19%. Older estimates of attrition using national cross-sectional data suggested about a 30% attrition rate at the end of 5 years. See Darling-Hammond, L., & Sykes, G. (2003). Wanted: A national teacher supply policy for education: The right way to meet the "Highly Qualified Teacher" challenge. *Education Policy Analysis Archives*, *11*(33), 1–55.

51. Kini, T., & Podolsky, A. (2016). *Does teaching experience increase teacher effectiveness? A review of the research*. Learning Policy Institute.

52. LPI analysis of Title II Reports, 2019, National Teacher Preparation Data, U.S. Department of Education.

53. LPI analysis of Title II Reports, 2019, National Teacher Preparation Data, U.S. Department of Education.

54. Partelow, L. (2019). *What to make of declining enrollment in teacher preparation programs*. Center for American Progress. https://www.americanprogress.org/issues/education-k-12/reports/2019/12/03/477311/make-declining-enrollment-teacher-preparation-programs/.

55. LPI analysis of Title II Reports, 2019, National Teacher Preparation Data, U.S. Department of Education.

56. Starting teacher salaries for 2018–19: Maryland, $45,685; Virginia, $41,077; West Virginia, $35,767; Pennsylvania, $45,404; Ohio, $36,709. See: National Education Association. (2020). *NEA 2018–2019 teacher salary benchmark report*. https://www.nea.org/sites/default/files/2020-09/2018-2019%20Teacher%20Salary%20Benchmark%20Report.pdf; McHenry-Sorber, E., & Campbell, M. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413.

57. Flannery, M. E., & Litvinov, A. (n.d.). Why we are red for ed. *Education Votes*. https://educationvotes.nea.org/2018/10/17/why-we-are-red-for-ed/; NEA Research. (2020). *Rankings of the states 2019 and estimates of school statistics 2020*. National Education Association. https://www.nea.org/sites/default/files/2020-07/2020%20Rankings%20and%20Estimates%20Report%20FINAL_0.pdf.

58. Darling-Hammond, L., Oakes, J., Wojcikiewicz, S., Hyler, M. E., Guha, R., Podolsky, A., Kini, T., Cook-Harvey, C., Mercer, C., & Harrell A. (2019). *Preparing Teachers for Deeper Learning*. Harvard Education Press.

59. W. Va. 126CSR154-3.2, Policy 5050. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=25986&Format=PDF.

60. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. https://wvde.state.wv.us/teachwv/docs/wvde1890master.pdf.

61. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. (p. vii). https://wvde.state.wv.us/teachwv/docs/wvde1890master.pdf.

62. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. (p. vii).

63. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. (p. 11).

64. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. (p. 20).

65. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. (p. 28).

66. Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B. J., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 425–469. https://doi.org/10.1080/10888691.2018.1537791; Learning Policy Institute. (2020). *Preparing educators to enact the science of learning and development*. Unpublished manuscript. (pp. 8–9).

67. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. (p. 4).

68. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. (p. 4).

69. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. (p. 4).

70. Interview with Dr. Steven Paine, former State Superintendent of Schools at the West Virginia Department of Education. (2019, November 19).

71. Interview with Fred Albert, President of the West Virginia American Federation of Teachers (2019, December 16).

72. Interview with William Hosaflook, Superintendent of Wood County Schools (2019, November 19).

73. West Virginia Department of Education. (2012). *West Virginia Professional Teaching Standards*. (p. 7).

74. Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B. J., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 425–469. https://doi.org/10.1080/10888691.2018.1537791; Learning Policy Institute. (2020). *Preparing educators to enact the science of learning and development*. Unpublished manuscript. (pp. 8–9).

75. LPI analysis of Title II Reports, 2019, National Teacher Preparation Data, U.S. Department of Education.

76. Interview with staff from the West Virginia Department of Education (2020, January 15); McHenry-Sorber, E., & Campbell, M. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413.

77. West Virginia Department of Education. (n.d.). Career pathways to a professional teaching certificate. https://wvde.us/wp-content/uploads/2019/06/One-Sheet-on-Teacher-Recruitment-Final-20190701.pdf (accessed 03/10/20); W. Va. 126CSR114-6.5, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

78. W. Va. 126CSR114-6.5, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

79. In addition, there are a variety of ways to earn exemption from the CASE requirement for out-of-state teachers; West Virginia Board of Education. (n.d.). West Virginia Licensure Testing Directory. https://wvde.us/wp-content/uploads/2021/02/WVLicensureTestingDirectory_20210210.pdf.

80. W. Va. 126CSR136-10.11, Policy 5202. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52986&Format=PDF.

81. W. Va. 126CSR114-8.1, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

82. W. Va. 126CSR136-11.5, Policy 5202. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52986&Format=PDF.

83. W. Va. 126CSR136-11.5, Policy 5202. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52986&Format=PDF.

84. W. Va. 126CSR114-8.2.d, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

85. McHenry-Sorber, E., & Campbell, M. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413.

86. McHenry-Sorber, E., & Campbell, M. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413.

87. McHenry-Sorber, E., & Campbell, M. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413.

88. 2015 W. Va. Acts 237. http://www.wvlegislature.gov/Bill_Status/Bills_history.cfm?input=2005&year=2015&sessiontype=RS&btype=bill.

89. W. Va. 126CSR161-4.3.b.3, Policy 5901. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52987&Format=PDF.

90. W. Va. 126CSR161-7.1, Policy 5901. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52987&Format=PDF.

91. West Virginia Department of Education. (n.d.). West Virginia alternative certification frequently asked questions. https://wvde.us/wp-content/uploads/2019/02/Alternative-Certification-FAQs-final-9_2016.pdf (accessed 11/20/20).

92. W. Va. 126CSR161-7.4.4, Policy 5901. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52987&Format=PDF.

93. W. Va. 126CSR114-6.7.b.5, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

94. W. Va. 126CSR136-21.2, Policy 5202. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52986&Format=PDF.

95. West Virginia Department of Education. (2019). *2018–2019 year in review*. https://wvde.us/wp-content/uploads/2019/10/2018-19-YearInReview-v15.pdf.

96. W. Va. 126CSR114-15.1, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

97. Specifically, the EPPRB reviews and makes recommendations regarding:
    - documents submitted by EPPs requesting Initial Status for a new EPP course of study that has not previously been included in the CAEP accreditation review;
    - documents related to EPP-proposed content specializations that have not previously been included in the CAEP accreditation review;
    - documents submitted by EPPs requesting Approval Status for a Revised Program of Study; and
    - approval of a new EPP that desires to deliver an EPP of study that leads to licensure to work in the public schools of West Virginia.

98. W. Va. 126CSR114-5.9, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

99. Council for the Accreditation of Educator Preparation. (2014). *Agreement between the West Virginia Board of Education and the Council for the Accreditation of Educator Preparation*. http://caepnet.org/working-together/~/media/Files/caep/state-partners/wv-partnershipagreement.pdf?la=en.

100. W. Va. 126CSR114-11.3, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

101. West Virginia Department of Education. (2018). *West Virginia's consolidated state plan for the Elementary and Secondary Education Act of 1965, as amended by the Every Student Succeeds Act of 2015*. https://wvde.us/wp-content/uploads/2018/02/WV_ESSA_Plan_Response_010918_f.pdf.

102. Council for the Accreditation of Educator Preparation. (n.d.). Accreditation cycle. http://caepnet.org/accreditation/caep-accreditation/accreditation-cycle (accessed 04/14/20).

103. The CAEP Approval Designations are as follows:
     - *Full Accreditation*: Granted if an EPP meets all the CAEP standards and required components, even if areas for improvement are identified in the final report.
     - *Probationary Accreditation*: Failure to submit a response to the stipulation within a 2-year time frame results in automatic denial. Failure to correct the condition leading to the stipulation within the specified 2-year period results in denial.
     - *Revocation of Accreditation*: For EPPs seeking continuing accreditation that fall below CAEP guidelines.
     - *Denial of Accreditation*: For EPPs seeking initial accreditation that fall below CAEP guidelines in two or more standards.
     - *Stipulations*: Serious deficiencies in meeting CAEP standards that must be brought into compliance in order to continue accreditation. All stipulations and relevant evidence must be submitted for review by the end of the second year from the assignment of those stipulations. Failure to correct the condition leading to the stipulation within the specified 2-year period results in revocation of accreditation.

104. W. Va. 126CSR114-14.1, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

105. W. Va. 126CSR114-5.22.b, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

106. W. Va. 126CSR114-12.3.c, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

107. Interview with Keri Ferro, Director of Statewide Academic Initiatives at the West Virginia Higher Education Policy Commission (2019, December 12).

108. Interview with staff from the West Virginia Department of Education (2020, January 15).

109. W. Va. 126CSR161, Policy 5901. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52987&Format=PDF.

110. Darling-Hammond, L. (2010). *Evaluating teacher effectiveness: How teacher performance assessments can measure and improve teaching*. Center for American Progress. See also: Goldhaber, D., Cowan, J., & Theobald, R. (2016). *Evaluating prospective teachers: Testing the predictive validity of the edTPA* [CALDER Working Paper No. 157]. National Center for Analysis of Longitudinal Data in Education Research.

111. W. Va. 126CSR114-9.4.c, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

112. West Virginia Higher Education Policy Commission. (2019). West Virginia Teacher Performance Assessment 4.0. http://www.ucwv .edu/wp-content/uploads/2019/09/WVTPA-4.0.pdf; interview with staff from the West Virginia Department of Education (2020, January 15).

113. Interview with Keri Ferro, Director of Statewide Academic Initiatives at the West Virginia Higher Education Policy Commission (2019, December 12).

114. Interview with Keri Ferro, Director of Statewide Academic Initiatives at the West Virginia Higher Education Policy Commission (2019, December 12).

115. Personal email with Jodi Oliveto, Coordinator, Office of Educator Development and Support (2021, May 21).

116. West Virginia Higher Education Policy Commission. (2019). West Virginia Teacher Performance Assessment 4.0. http://www.ucwv .edu/wp-content/uploads/2019/09/WVTPA-4.0.pdf

117. W. Va. 126CSR114-6.7.b.3, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

118. W. Va. 126CSR114-6.7.b.3, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

119. W. Va. 126CSR114-6.1, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

120. Interview with staff from the West Virginia Department of Education (2020, January 15).

121. Interview with staff from the West Virginia Department of Education (2020, November 3).

122. W. Va. 126CSR114-5.39, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

123. Papay, J. P., West, M. R., Fullerton, J. B., & Kane, T. J. (2012). Does an urban teacher residency increase student achievement? Early evidence from Boston. *Educational Evaluation and Policy Analysis*, *34*(4), 413–34; Guha, R., Hyler, M. E., & Darling-Hammond, L. (2016). *The teacher residency: An innovative model for preparing teachers*. Learning Policy Institute.

124. Kindle, K. J., Shudak, N. J., Wiebers, R., Campoli, A. K., Baron, M., & Easton-Brooks, D. (2016). *Teacher residency in South Dakota*. Center for Educational Research; Dennis, D. V. (2016). A teacher residency melds classroom theory with clinical practice. *Phi Delta Kappan*, *97*(7), 14–18.

    Below are examples of different undergraduate teacher residency program models employed in different parts of the country:
    • Urban Teacher Residency Partnership Program at the University of South Florida
    • Metropolitan State University of Denver
    • University of South Dakota
    • University of Louisiana at Lafayette

125. W. Va. 126CSR114-6.7.b.5.F, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

126. Nelson, J. (2019, October 23). State Department of Education officials share new college program to retain teachers. *The Register-Herald*. https://www.register-herald.com/news/state-department-of-education-officials-share-new-college-program-to/article _29aadebd-a1b6-5830-bc4d-478481037082.html.

127. Flatley, J. (2020, June 11). Ohio County among school districts looking at all the options for opening this fall. *MetroNews*. https:// wvmetronews.com/2020/06/11/ohio-county-among-school-districts-looking-at-all-the-options-for-opening-this-fall/.

128. Goldhaber, D., Krieg, J. M., & Theobald, R. (2019). Exploring the impact of student teaching apprenticeships on student achievement and mentor teachers. *Journal of Research on Educational Effectiveness*, *13*(2), 213–234. https://doi.org/10.1080 /19345747.2019.1698087.

129. Interview with staff from the West Virginia Department of Education (2020, January 15).

130. Darling-Hammond, L., Oakes, J., Wojcikiewicz, S., Hyler, M. E., Guha, R., Podolsky, A., Kini, T., Cook-Harvey, C., Mercer, C., & Harrell A. (2019). *Preparing Teachers for Deeper Learning*. Harvard Education Press.

131. Kenreich, T., Hartzler-Miller, C., Neopolitan, J. E., & Wiltz, N. W. (2004). *Impact of teacher preparation on teacher retention and quality*. Paper presented at the annual meeting of the American Educational Research Association; Hunter Quartz, K. (2003). Too angry to leave: Supporting new teachers' commitments to transform urban schools. *Journal of Teacher Education*, *54*(2), 99–111; Fleener, C. (1998). *A comparison of attrition rates*. Texas A&M University; Latham, N. I., & Vogt, W. P. (2007). Do professional development schools reduce teacher attrition? Evidence from a longitudinal study of 1,000 graduates. *Journal of Teacher Education*, *58*(2), 153–167.

132. Trachtman, R. (1996). *The NCATE professional development school study*. Paper presented at the annual meeting of the American Educational Research Association; Crow, N. A., Bullough, R. V., Jr., Kauchak, D., Hobbs, S., & Stokes, D. K. (1996). *An alternative model of teacher development in a PDS*. Paper presented at the annual meeting of the American Educational Research Association; Houston Consortium of Professional Development. (1996). *Association of Teacher Educators, Newsletter*. (p. 7); Jett-Simpson, M., Pugach, M. C., & Whipp, J. (1992). *Portrait of an urban professional development school*. Paper presented at the annual meeting of the American Educational Research Association.

133. Guha, R., Hyler, M. E., & Darling-Hammond, L. (2016). *The teacher residency: An innovative model for preparing teachers*. Learning Policy Institute.

134. Gill, B., & Hove, A. (2000). *The Benedum Collaborative Model of Teacher Education: A preliminary evaluation*. RAND Corporation. https://www.rand.org/pubs/documented_briefings/DB303.html.

135. Interview with Donna Peduto, Executive Director, West Virginia Public Education Collaborative (2020, July 15).

136. The grant program discussed in this section has gone by different names throughout its existence, including the Benedum Professional Development Collaborative and the professional development school grant program.

137. Interview with staff from the West Virginia Department of Education (2020, January 15).

138. 2020 W. Va. Acts 11. https://budget.wv.gov/approvedbudget/Documents/SB150_Enrolled.pdf.

139. Interview with Dr. Paula Lucas, Program Director, Elementary Education at Marshall University (2019, December 15).

140. Tiers for the professional development school grant program (as of July 2020):

    Tier III: Partnership site:

    • Grounded in teacher questions; collaborative; connected to and derived from teachers' work with their students; and sustained, intensive, and connected to other aspects of school change.

    • Experiences shall be based on the co-teaching model.

    Tier II: Progressive site:

    • In addition to the characteristics found in a Partnership site, Progressive sites must include high-quality induction and professional growth for both the EPP faculty/staff and pre-k–12 educators.

    Tier I: Intensive site:

    • In addition to the characteristics found across Progressive and Partnership sites, Intensive sites include clinical experiences that are yearlong and based on the co-teaching model:

        ◦ The majority of the pre-service teacher's coursework is taught onsite.

        ◦ Sites shall include work that addresses the WVBE areas(s) of focus and priority.

141. Interview with Keri Ferro, Director of Statewide Academic Initiatives at the West Virginia Higher Education Policy Commission (2019, December 12).

142. Interview with Dr. Missy Spivy, Associate Professor at West Virginia University at Parkersburg (2019, November 16).

143. Interview with Keri Ferro, Director of Statewide Academic Initiatives at the West Virginia Higher Education Policy Commission (2019, December 12).

144. W. Va. 126CSR142, Policy 5310. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=25997&Format=PDF.

145. Boren, M., Horwath, B., & Brookhart, E. (2019). *Educator effectiveness final progress monitoring report: West Virginia fall/winter 2018–19*. Southern Regional Education Board.

146. W. Va. 126CSR142, Policy 5310. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=25997&Format=PDF; Boren, M., Horwath, B., & Brookhart, E. (2019). *Educator effectiveness final progress monitoring report: West Virginia fall/winter 2018–19*. Southern Regional Education Board. (p. 11); personal memo from the West Virginia Department of Education (2019, July 20).

147. Interview with staff from the West Virginia Department of Education (2019, December 15); Boren, M., Horwath, B., & Brookhart, E. (2019). *Educator effectiveness final progress monitoring report: West Virginia fall/winter 2018–19*. Southern Regional Education Board.

148. Boren, M., Horwath, B., & Brookhart, E. (2019). *Educator effectiveness final progress monitoring report: West Virginia fall/winter 2018–19*. Southern Regional Education Board. (p. 11).

149. Podolsky, A., & Kini, T. (2016). *How effective are loan forgiveness and service scholarships for recruiting teachers?* Learning Policy Institute.

150. W. Va. C.S.R. §133-26-1. http://www.wvhepc.edu/wp-content/uploads/2020/06/Series-26-USTSP-Final-File-SOS-Ver-2020-06-02.pdf; 2019 (1X) W. Va. S.B. 1039. http://www.wvlegislature.gov/Bill_Text_HTML/2019_SESSIONS/1X/bills/sb1039 ENG.pdf.

151. West Virginia Higher Education Policy Commission & West Virginia Community and Technical College System. (2017). *West Virginia financial aid 2017 comprehensive report*. http://www.wvhepc.edu/wp-content/uploads/2017/12/FA-Comprehensive-Report_FINALDRAFT_11_28_2017.pdf; West Virginia Higher Education Policy Commission & West Virginia Community and Technical College System. (2012). *West Virginia financial aid comprehensive report—2012*. https://www.wvhepc.org/downloads/LOCEA/FINANCIAL_2012_11-30-12.pdf.

152. West Virginia Higher Education Policy Commission & West Virginia Community and Technical College System. (2017). *West Virginia financial aid 2017 comprehensive report*. http://www.wvhepc.edu/wp-content/uploads/2017/12/FA-Comprehensive-Report_FINALDRAFT_11_28_2017.pdf; West Virginia Higher Education Policy Commission & West Virginia Community and Technical College System. (2012). *West Virginia Financial Aid Comprehensive Report—2012*. https://www.wvhepc.org/downloads/LOCEA/FINANCIAL_2012_11-30-12.pdf.

153. Podolsky, A., & Kini, T. (2016). *How effective are loan forgiveness and service scholarships for recruiting teachers?* Learning Policy Institute.

154. West Virginia Higher Education Policy Commission & West Virginia Community and Technical College System. (2017). *West Virginia financial aid 2017 comprehensive report*. http://www.wvhepc.edu/wp-content/uploads/2017/12/FA-Comprehensive-Report_FINALDRAFT_11_28_2017.pdf; West Virginia Higher Education Policy Commission & West Virginia Community and Technical College System. (2012). *West Virginia financial aid comprehensive report—2012*. https://www.wvhepc.org/downloads/LOCEA/FINANCIAL_2012_11-30-12.pdf.

155. Higher Education Policy Commission. (n.d.). Underwood-Smith Teaching Scholars. http://underwoodsmith.org/ (accessed 11/10/20).

156. Podolsky, A., & Kini, T. (2016). *How effective are loan forgiveness and service scholarships for recruiting teachers?* Learning Policy Institute.

157. 2020 W. Va. Acts 11. https://budget.wv.gov/approvedbudget/Documents/SB150_Enrolled.pdf; Magee, E. (2019). Fiscal Note #4204, S.B. 1039. West Virginia Higher Education Policy Commission. http://www.wvlegislature.gov/Fiscalnotes/FN(2)/fnsubmit_recordview1.cfm?RecordID=746554761.

158. W. Va. C.S.R. §133-26-1. http://www.wvhepc.edu/wp-content/uploads/2020/06/Series-26-USTSP-Final-File-SOS-Ver-2020-06-02 .pdf; 2019 (1X) W. Va. S.B. 1039. http://www.wvlegislature.gov/Bill_Text_HTML/2019_SESSIONS/1X/bills/sb1039 ENG.pdf.

159. W. Va. Code §18A-3C-3. http://www.wvlegislature.gov/WVCODE/ChapterEntire.cfm?chap=18a&art=3C&section=3.

160. Carver-Thomas, D., & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters and what we can do about it*. Learning Policy Institute.

161. W. Va. 126CSR136-9.5, Policy 5202. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52986&Format=PDF.

162. Personal email with Carla Warren, Director, Office of Educator Development and Support West Virginia Department of Education (2020, July 20).

163. 2013 W. Va. Acts 56. http://www.wvlegislature.gov/Bill_status/bills_history.cfm?year=2013&sessiontype=RS&input=3157.

164. West Virginia Department of Education. (2019). Step 7d in the Strategic Plan [PowerPoint slides]. https://wvde.us/wp-content /uploads/2019/08/Step-7d-Combined-Handout.pdf (accessed 03/10/20).

165. 2020 W. Va. Acts 11. https://budget.wv.gov/approvedbudget/Documents/SB150_Enrolled.pdf.

166. W. Va. Code §18A-3C-3. http://www.wvlegislature.gov/WVCODE/ChapterEntire.cfm?chap=18a&art=3C&section=3.

167. W. Va. Code §18A-3C-3. http://www.wvlegislature.gov/WVCODE/ChapterEntire.cfm?chap=18a&art=3C&section=3.

168. Interview with staff from the West Virginia Department of Education (2020, January 15).

169. West Virginia Board of Education. (2019). *Educator Voice Survey results*. https://wvde.us/wp-content/uploads/2019/04/WVBE -Educator-Voice-Survey-Board-Report-on-Preliminary-Results_v2.pdf.

170. Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Educational Research*, *81*(2), 225.

171. West Virginia Department of Education. (2019). *2018–2019 year in review*. https://wvde.us/wp-content/uploads/2019/10/2018 -19-YearInReview-v15.pdf; Criss, D. (2018, March 12). Actually, West Virginia isn't dismantling its Department of Education. *CNN*. https://www.cnn.com/2018/03/12/politics/west-virginia-department-of-education-trnd/index.html.

172. W. Va. 126CSR136, Policy 5202. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52986&Format=PDF.

173. Interview with staff from the Office of Educator Development and Support at the West Virginia Department of Education (2020, January 15).

174. 2020 W. Va. Acts 320. https://www.wvlegislature.gov/Bill_Status/bills_history.cfm?INPUT=4804&year=2020&sessiontype=RS.

175. 2019 (1X) W. Va. S.B. 1039. http://www.wvlegislature.gov/Bill_Text_HTML/2019_SESSIONS/1X/bills/sb1039 ENG.pdf.

176. Cowan, J., & Goldhaber, D. (2016). National Board Certification and teacher effectiveness: Evidence from Washington State. *Journal of Research on Educational Effectiveness*, *9*(3), 233–258; Goldhaber, D., & Anthony, E. (2007). Can teacher quality be effectively assessed? National Board Certification as a signal of effective teaching. *Review of Economics and Statistics*, *89*(1), 134–150; Chingos, M. M., & Peterson, P. E. (2011). It's easier to pick a good teacher than to train one: Familiar and new results on the correlates of teacher effectiveness. *Economics of Education Review*, *30*(3), 449–465; Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2010). Teacher credentials and student achievement in high school: A cross-subject analysis with student fixed effects. *Journal of Human Resources*, *45*(3), 655–681.

177. Goldhaber, D., & Anthony, E. (2007). Can teacher quality be effectively assessed? National Board Certification as a signal of effective teaching. *Review of Economics and Statistics*, *89*(1), 134–50.

178. Zhu, B., Gnedko-Berry, N., Borman, T., & Manzeske, D. (2019). *Effects of National Board Certified instructional leaders on classroom practice and student achievement of novice teachers*. American Institutes for Research.

179. Center for Educator Recruitment, Retention, and Advancement. (2020). *Updated: Retaining SC teachers through National Board Certification*. https://www.cerra.org/uploads/1/7/6/8/17684955/nbct_retention_paper_spring_2020.pdf; Lochmiller, C. R., Adachi, E., Chesnut, C. E., & Johnson, J. (2016). *Retention, attrition, and mobility among teachers and administrators in West Virginia* [REL 2016-161]. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Appalachia. (p. 6). https://ies.ed.gov/ncee/edlabs/projects/project.asp ?projectID=2460.

180. West Virginia Department of Education. (2019). *2018–2019 year in review*. https://wvde.us/wp-content/uploads/2019/10/2018 -19-YearInReview-v15.pdf.

181. Interview with staff from the West Virginia Department of Education (2019, December 15); W. Va. 126CSR136-23.5, Policy 5202. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52986&Format=PDF.

182. Interview with staff from the West Virginia Department of Education (2019, December 15).

183. West Virginia Department of Education. (2015). *West Virginia educator equity plan*. (pp. 53–55). https://www2.ed.gov/programs /titleiparta/equitable/wvequityplan9315.pdf.

184. The West Virginia Department of Education measures school poverty based on the number of students eligible to receive free or reduced-price lunch. High-poverty schools are in the top quartile of poverty in West Virginia when ranked from the highest level of poverty to the lowest level of poverty. Low-poverty schools are in the bottom quartile of poverty in West Virginia when ranked from the highest level of poverty to the lowest level of poverty.

185. W. Va. Code §18A-4-2c. http://www.wvlegislature.gov/WVCODE/ChapterEntire.cfm?chap=18A&art=4&section=2C.

186. Personal email with Dr. Bridget Phillips, Coordinator, Office of Educator Development and Support at the West Virginia Department of Education (2020, April 17).

187. 2015 W. Va. Acts 102. https://www.wvlegislature.gov/Bill_Status/bills_text.cfm?billdoc=hb2381%20intr.htm&yr=2015&sesstype =RS&i=2381.

188. Commission on Teacher Credentialing. (2016). *California Teaching Performance Expectations.* Sacramento, CA; Commission on Teacher Credentialing. https://www.ctc.ca.gov/docs/default-source/educator-prep/standards/adopted-tpes-2016.pdf?sfvrsn=8cb2c410_0 (accessed 03/10/18).

189. Commission on Teacher Credentialing. (2016). *California Teaching Performance Expectations.* Sacramento, CA; Commission on Teacher Credentialing. https://www.ctc.ca.gov/docs/default-source/educator-prep/standards/adopted-tpes-2016.pdf?sfvrsn=8cb2c410_0 (accessed 03/10/18).

190. Interview with staff from the West Virginia Department of Education (2020, January 6).

191. Darling-Hammond, L. (2010). *Evaluating teacher effectiveness: How teacher performance assessments can measure and improve teaching.* Center for American Progress. See also: Goldhaber, D., Cowan, J., & Theobald, R. (2016). *Evaluating prospective teachers: Testing the predictive validity of the edTPA* [CALDER Working Paper No. 157]. National Center for Analysis of Longitudinal Data in Education Research.

192. Darling-Hammond, L. (2016). Research on teaching and teacher education and its influences on policy and practice. *Educational Researcher, 45*(2), 83–91.

193. Kini, T., & Podolsky, A. (2016). *Does teaching experience increase teacher effectiveness? A review of the research.* Learning Policy Institute.

194. W. Va. 126CSR114-Appendix A, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

195. Yun, C., & DeMoss, K. (2020). *Sustainable strategies for funding teacher residencies: Lessons from California.* Learning Policy Institute.

196. Guha, R., Hyler, M. E., & Darling-Hammond, L. (2016). *The teacher residency: An innovative model for preparing teachers.* Learning Policy Institute.

197. Yun, C., & DeMoss, K. (2020). *Sustainable strategies for funding teacher residencies: Lessons from California.* Learning Policy Institute.

198. Yun, C., & DeMoss, K. (2020). *Sustainable strategies for funding teacher residencies: Lessons from California.* Learning Policy Institute.

199. Tennessee Department of Education. (2017). *Preparation through partnership: Strengthening Tennessee's new teacher pipeline.* https://www.tn.gov/content/dam/tn/education/reports/Preparation_through_Partnership_report_final_web.pdf (accessed 04/21/18).

200. Georgia Department of Education. (2017). Georgia's P-20 Collaboratives. Georgia Department of Education. https://coe.uga.edu/assets/downloads/for-fyi/P20-Infographic-7202017.pdf (accessed 06/10/18).

201. California Department of Education Foundation. (n.d.). California teacher residency lab. https://cdefoundation.org/cde_programs/california-teacher-residency-lab/ (accessed 04/14/20).

202. Commission on Teacher Credentialing. (2017). Credential program completer surveys. https://www.ctc.ca.gov/educator-prep/completer-surveys.

203. W. Va. 126CSR161-9.6, Policy 5901. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=52987&Format=PDF.

204. Delaware Department of Education. (n.d.). Educator Preparation Program Scorecards. https://www.doe.k12.de.us/domain/398 (accessed 11/10/19); Louisiana Board of Regents. (n.d.). Teacher Preparation Data Dashboards. https://regents.la.gov/divisions/planning-research-and-academic-affairs/academic-affairs/teacher-education-initiatives/teacher-preparation-data-dashboards-fact-book/ (accessed 11/10/19); California Commission on Teacher Credentialing. (n.d.). Data and reports. https://www.ctc.ca.gov/commission/reports/default (accessed 11/10/19).

205. Teacher Preparation Analytics. (2016). *Accountability in teacher preparation: Policies and data in the 50 states and DC.* Council of Chief State School Officers. (p. 16). https://www.ccsso.org/sites/default/files/2017-10/50StateScan092216.pdf.

206. Missouri Department of Elementary & Secondary Education. (2017). *Annual performance reports for educator preparation programs.* https://apps.dese.mo.gov/MCDS/FileDownloadWebHandler.ashx?filename=98e2dd87-e307Comprehensive%20Guide%202017.pdf.

207. West Virginia Department of Education. (n.d.). ZoomWV. https://wvde.state.wv.us/zoomwv/ (accessed 12/05/19).

208. West Virginia Department of Education. (2018). *West Virginia's consolidated state plan for the Elementary and Secondary Education Act of 1965, as amended by the Every Student Succeeds Act of 2015.* https://wvde.us/wp-content/uploads/2018/02/WV_ESSA_Plan_Response_010918_f.pdf.

209. Carver-Thomas, D., & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters and what we can do about it.* Learning Policy Institute.

210. Boren, M., Horwath, B., & Brookhart, E. (2019). *Educator effectiveness final progress monitoring report: West Virginia fall/winter 2018–19.* Southern Regional Education Board.

211. S. F. 476, 79th Leg., Gen. Sess. (Ia. 2001).

212. S. F. 476, 79th Leg., Gen. Sess. (Ia. 2001).

213. West Virginia Board of Education. (2019). *Educator Voice Survey results.* https://wvde.us/wp-content/uploads/2019/04/WVBE-Educator-Voice-Survey-Board-Report-on-Preliminary-Results_v2.pdf.

214. Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2010). Teacher credentials and student achievement in high school: A cross-subject analysis with student fixed effects. *Journal of Human Resources, 45*(3), 655–681; Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2007). Teacher credentials and student achievement: Longitudinal analysis with student fixed effects. *Economics of Education Review, 26*(6), 673–682; Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Heilig, J. V. (2005). Does teacher preparation

matter? Evidence about teacher certification, Teach for America, and teacher effectiveness. *Education Policy Analysis Archives*, *13*(42), 51; Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2006). How changes in entry requirements alter the teacher workforce and affect student achievement. *Education Finance and Policy*, *1*(2), 176–216.

215. 2021 (RS) W. Va. S.B.14. https://www.wvlegislature.gov/Bill_Text_HTML/2021_SESSIONS/RS/bills/SB14 SUB1 ENR.pdf.

216. Cowan, J., & Goldhaber, D. (2016). National Board Certification and teacher effectiveness: Evidence from Washington State. *Journal of Research on Educational Effectiveness*, *9*(3), 233–258; Goldhaber, D., & Anthony, E. (2007). Can teacher quality be effectively assessed? National Board certification as a signal of effective teaching. *Review of Economics and Statistics*, *89*(1), 134–150; Chingos, M. M., & Peterson, P. E. (2011). It's easier to pick a good teacher than to train one: Familiar and new results on the correlates of teacher effectiveness. *Economics of Education Review*, *30*(3), 449–465; Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2010). Teacher credentials and student achievement in high school: A cross-subject analysis with student fixed effects. *Journal of Human Resources*, *45*(3), 655–681.

217. Hart Research Associates. (2020). *Parents' and teachers' views on reopening schools*. https://www.aft.org/sites/default/files/survey_school-reopening_augsept2020.pdf; MacFarlane, S., Yarborough, R., Jones, S., Piper, J. (2020, November 17). Teacher turnover concerns as educators juggle work & family. *NBC Washington*. https://www.nbcwashington.com/investigations/teacher-turnover-concerns-as-educators-juggle-work-family/2478539/.

218. Bailey, J. P., & Schurz, J. (2020). *COVID-19 is creating a school personnel crisis*. American Enterprise Institute. https://www.aei.org/wp-content/uploads/2020/05/COVID-19-Is-Creating-a-School-Personnel-Crisis.pdf.

219. Personal communication with Jodi Oliveto, Coordinator, Office of Educator Development and Support (2020, November 10).

220. Urbanski, R. (2020, June 15). WVEA fears COVID-19 may trigger teachers retiring. *WCHS News*. https://wchstv.com/news/local/wvea-fears-covid-19-may-trigger-teachers-retiring.

221. Kroll, K. (2020, December 27). Higher ed, K-12 system to collaborate and address teacher preparation, recruitment and retention in West Virginia. *WVNews*. https://www.wvnews.com/news/wvnews/higher-ed-k-12-system-to-collaborate-and-address-teacher-preparation-recruitment-and-retention-in/article_73f90b02-de3a-5563-8c0f-7399cdde0fcd.html.

222. Rosewicz, B., & Maciag, M. (2020, November 10). *Nearly all states suffer declines in education jobs*. The Pew Charitable Trust. https://www.pewtrusts.org/en/research-and-analysis/articles/2020/11/10/nearly-all-states-suffer-declines-in-education-jobs?source=email (accessed 11/10/20).

223. Kroll, K. (2021, March 8). West Virginia school systems return to four- or five-day in-person instruction. *WVNews*. https://www.wvnews.com/statejournal/news/west-virginia-school-systems-return-to-four--or-five-day-in-person-instruction/article_e0405919-ded4-5c04-8142-8fdb62b48f6a.html.

224. Jordan, G. (2020, December 7). Retired West Virginia teachers returning to fill pandemic vacancies. *West Virginia Press*. https://wvpress.org/wvpa-sharing/retired-west-virginia-teachers-returning-to-fill-pandemic-vacancies/.

225. Evans, K. (2021, March 10). County schools facing serious shortage of substitutes. *The Morgan Messenger*. https://www.morganmessenger.com/2021/03/10/county-schools-facing-serious-shortage-of-substitutes/; Hines, A. (2021, January 28). Schools experiencing substitute teacher shortage due to COVID-19. *12WBOY*. https://www.wboy.com/news/schools-experiencing-substitute-shortage-due-to-covid-19/.

226. WTOV9. (2020, October 14). W. Va. Board of Education tackling teacher shortages. https://wtov9.com/news/local/wva-board-of-education-tackling-teacher-shortage?fbclid=IwAR2GCMMm59cN1v3tYVDRRt4tdlHyl-ZFQ0qVpUQG7E40YxWOXRuaYakdTp8.

227. Singer, N. (2021, January 19). Pandemic teacher shortages imperil in-person schooling. *The Baltimore Sun*. https://www.baltimoresun.com/coronavirus/sns-nyt-pandemic-substitute-teacher-shortages-20210119-bf2vbd7hfbfpxazew2rirsgvra-story.html.

228. WTOV9. (2020, October 14). W. Va. Board of Education tackling teacher shortages. https://wtov9.com/news/local/wva-board-of-education-tackling-teacher-shortage?fbclid=IwAR2GCMMm59cN1v3tYVDRRt4tdlHyl-ZFQ0qVpUQG7E40YxWOXRuaYakdTp8.

229. W. Va. 126CSR114-6.7.b.5, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

230. W. Va. 126CSR114-6.7.b.5, Policy 5100. https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=51034&Format=PDF.

231. West Virginia Department of Education. (2020). *COVID-19 guidance for educator preparation program completion and initial licensure, fall 2020*. https://wvde.us/wp-content/uploads/2020/07/Fall-2020-COVID-19-EPP-Guidance.pdf.

232. Personal email with Carla Warren, Director, Office of Educator Development and Support, West Virginia Department of Education (2021, June 1).

233. West Virginia Department of Education. (2020, July 24). WVDE prepares educators for 2020–21 school year with professional learning forum [Press release]. https://wvde.us/wvde-prepares-educators-for-2020-21-school-year-with-professional-learning-forum/ (accessed 07/10/20).

234. Kroll, K. (2020, December 27). Higher ed, K-12 system to collaborate and address teacher preparation, recruitment and retention in West Virginia. *WVNews*. https://www.wvnews.com/news/wvnews/higher-ed-k-12-system-to-collaborate-and-address-teacher-preparation-recruitment-and-retention-in/article_73f90b02-de3a-5563-8c0f-7399cdde0fcd.html.

235. Personal communication with Carla Warren, Director, Office of Educator Development and Support, West Virginia Department of Education (2021, May 28).

236. Kabler, P. (2020, April 8). Justice: State facing $350 million shortfall, hopeful federal stimulus funding can fill the gap. *Charleston Gazette-Mail*. https://www.wvgazettemail.com/news/justice-state-facing-350-million-shortfall-hopeful-federal-stimulus-funding-can-fill-the-gap/article_31d7b3f0-807e-5756-b9dd-ca162b302a09.html.

237. Morris, J., & Moore, A. (2020, May 1). W. Va. Faces $205 million budget hole amid coronavirus pandemic. *WCHS Eyewitness News*. https://wchstv.com/news/local/west-virginia-governor-to-hold-covid-19-news-conference-friday-afternoon.

238. Kabler, P. (2020, June 30). Justice sweeps $198M unspent funds, 'borrows' $68M to close $255M budget shortfall. *Charleston Gazette-Mail.* https://www.wvgazettemail.com/news/politics/justice-sweeps-198m-unspent-funds-borrows-68m-to-close-255m-budget-shortfall/article_6bd9b50a-3454-5fbc-94c7-b39dcdf192b0.html; Office of the Governor. (2020, June 26). COVID-19 Update: Gov. Justice: Revenue surplus projected despite pandemic; announces plan to distribute $1.25 billion in CARES Act funding [Press release]. https://governor.wv.gov/News/press-releases/2020/Pages/COVID-19-UPDATE-Gov.-Justice-Revenue-surplus-projected-despite-pandemic-announces-plan-to-distribute-CARES-Act-funding.aspx (accessed 07/10/20).

239. O'Leary, S. (2021, March 15). *Pay more, get less: The West Virginia FY2022 budget proposal.* West Virginia Center on Budget & Policy. https://wvpolicy.org/pay-more-get-less-the-west-virginia-fy-2022-budget-proposal/.

240. O'Leary, S. (2021, March 15). *Pay more, get less: The West Virginia FY2022 budget proposal.* West Virginia Center on Budget & Policy. https://wvpolicy.org/pay-more-get-less-the-west-virginia-fy-2022-budget-proposal/.

241. Allen, K., & O'Leary, S. (2021, March 2). With significant tax reform on the table, lawmakers lack complete picture of WV's future budget needs [Blog post]. https://wvpolicy.org/with-significant-tax-reform-on-the-table-lawmakers-lack-complete-picture-of-wvs-future-budget-needs/.

242. O'Leary, S. (2021, March 15). *Pay more, get less: The West Virginia FY2022 budget proposal.* West Virginia Center on Budget & Policy. https://wvpolicy.org/pay-more-get-less-the-west-virginia-fy-2022-budget-proposal/.

243. 2020 W. Va. Acts 11. http://www.wvlegislature.gov/Bill_Status/bills_history.cfm?INPUT=150&year=2020&sessiontype=RS.

244. U.S. Department of Education. (2021, May). Frequently asked questions: Elementary and Secondary School Emergency Relief Programs and Governor's Emergency Education Relief Programs. https://oese.ed.gov/files/2021/05/ESSER.GEER_.FAQs_5.26.21_745AM_FINALb0cd6833f6f46e03ba2d97d30aff953260028045f9ef3b18ea602db4b32b1d99.pdf?source=email.

245. U.S. Department of Education. (2021, May). Frequently asked questions: Elementary and Secondary School Emergency Relief Programs and Governor's Emergency Education Relief Programs. Question D-1. https://oese.ed.gov/files/2021/05/ESSER.GEER_.FAQs_5.26.21_745AM_FINALb0cd6833f6f46e03ba2d97d30aff953260028045f9ef3b18ea602db4b32b1d99.pdf?source=email.

246. U.S. Department of Education. (2021, May). Frequently asked questions: Elementary and Secondary School Emergency Relief Programs and Governor's Emergency Education Relief Programs. https://oese.ed.gov/files/2021/05/ESSER.GEER_.FAQs_5.26.21_745AM_FINALb0cd6833f6f46e03ba2d97d30aff953260028045f9ef3b18ea602db4b32b1d99.pdf?source=email.

247. See, for example, sections C-2 and D-1 in U.S. Department of Education. (2021, May). Frequently asked questions: Elementary and Secondary School Emergency Relief Programs and Governor's Emergency Education Relief Programs. https://oese.ed.gov/files/2021/05/ESSER.GEER_.FAQs_5.26.21_745AM_FINALb0cd6833f6f46e03ba2d97d30aff953260028045f9ef3b18ea602db4b32b1d99.pdf.

248. U.S. Department of Education. (2021). *Elementary and Secondary School Education Relief Fund state formula.* https://oese.ed.gov/files/2021/03/ARP-ESSER-twothird-onethird-Allocations_Final-1.pdf.

249. U.S. Department of Education. (2021, May). Frequently asked questions: Elementary and Secondary School Emergency Relief Programs and Governor's Emergency Education Relief Programs. https://oese.ed.gov/files/2021/05/ESSER.GEER_.FAQs_5.26.21_745AM_FINALb0cd6833f6f46e03ba2d97d30aff953260028045f9ef3b18ea602db4b32b1d99.pdf?source=email.

250. Darling-Hammond, L., Schachner, A., & Edgerton, A. K. (with Badrinarayan, A., Cardichon, J., Cookson, P. W., Jr., Griffith, M., Klevan, S., Maier, A., Martinez, M., Melnick, H., Truong, N., & Wojcikiewicz, S.). (2020). *Restarting and reinventing school: Learning in the time of COVID and beyond.* Learning Policy Institute.

About the Author

Ryan Saunders is a Senior Policy Advisor who works on the Learning Policy Institute's Policy team and co-leads the Educator Quality team. He is a coauthor of *Taking the Long View: State Efforts to Solve Teacher Shortages by Strengthening the Profession*. Before joining LPI, he worked at the Council of Chief State School Officers, supporting educator preparation reform at the state level through the Network for Transforming Educator Preparation. His work included a focus on teacher preparation data systems, preparation program approval, clinical partnerships, and teacher recruitment and retention across 15 states. Earlier in his career, Saunders taught high school social studies and literature in Turkey, the Dominican Republic, and Denver, CO. In Denver, he served as a Teacher Leader for the Literacy Design Collaborative in the public school system. Saunders holds an M.A. in Teaching from the Evergreen State College in Olympia, WA and a B.A. in English from the University of Georgia.