STATE-LEVEL EDUCATION LEADERS' ROLE
IN DIVERSIFYING THE TEACHER PIPELINE

PHELTON C. MOSS
American University, USA

ABSTRACT

Far too often, conversations about diversifying the teacher pipeline are left to district and school leaders. Conversely, too little conversation is grounded in the kinds of policy changes at the state level that are foundational to giving local and district leaders the tools to attract, recruit, and retain a diverse teacher workforce. This article aims to fill gaps in the literature concerning state-level leaders' role in creating policy to build a diverse educator pipeline. If school and district leaders are going to diversify the teacher pipeline, state-level leaders will need to examine their current policies and practices to make sweeping, innovative policy changes that are critical to build a diverse pipeline of teachers. Recognizing the critical role state education agencies play in shaping policy to inform school and district leaders' behavior, this paper provides recommendations for state education agencies to diversify the teacher pipeline. First, this paper highlights the literature around barriers to diversify the teacher pipeline. Second, this paper examines the role state education agency leaders play in diversifying the teacher pipeline. Finally, this paper provides five recommendations for state-level leaders to advance policies to grow the pipeline of diverse teachers.

INTRODUCTION

State education agency leaders serve as the policymakers for schools within their respective states. As such, state education agency leaders are postured to make dramatic changes to schools within their states. One such opportunity is diversifying the teacher workforce. A growing body of literature has pointed to the long-running impact of same-race teachers on several student outcomes. More specifically, Gershenson et al. (2018) found when Black students are randomly assigned to classrooms and have a Black teacher, the students are significantly more likely to complete high school and aspire to enroll in college. Since the 1954 *Brown vs. Board of Education* decision, Black students have seen fewer Black teachers in the classroom. Moreover, when schools are staffed with teachers of color, they are more likely to have the highest turnover rates (Evans & Leonard, 2018). Though many states have made increases in their share of teachers of color, the percentage is disproportionately low in comparison to the percentage of students of color (Schaeffer, 2021). As we consider practices and policy changes to increase access to strong and diverse teachers, state education agencies are positioned to strengthen the diversity of the educator workforce.

A North Carolina study concluded that Black students who were assigned to a Black teacher at least once between 3rd and 5th grade were least likely to drop out of school and more likely to attend college. A similar study in Tennessee found that Black elementary students with a Black teacher experienced greater than a 3 to 6 percentile increase in performance as compared to Black students without a Black teacher (Gershenson et al., 2018).

If we want to support the dignity and success of students from all demographics, then we must ensure students of color have access to more teachers of color. Far too often, school district and school leaders cite a lack of access to diverse educators to explain why few school faculty match the diversity of the students they serve (Schaeffer, 2021). More recently, school district and school leaders have launched calls for policymakers to enact new policies and practices to create more on

and off-ramps for individuals to become teachers. These efforts are aimed at increasing the diversity of the educator workforce. To that end, state-level advocates and policymakers have a unique opportunity to create conditions to increase access to strong and diverse educators exponentially.

To improve outcomes for students of color and their White counterparts, state education agency leaders could implement policies and innovative approaches to diversify the teacher workforce. Given the growing literature around the impact of same race teachers on students, the true opportunity rests in transforming state systems (including preparation and licensure) to increase access to strong and diverse educators to ensure students have mirrors, not windows. The greatest equity lever for transforming schools and systems is developing policies and practices that yield a racially diverse teacher workforce. Policies and practices must not only go beyond simply recruiting teachers of color, but also they must work to build a system to support the retention of teachers of color. Now, more than ever, as states are grappling with the effects of unfinished teaching and learning, teachers exiting classrooms every day, and a leaky pipeline, states must provide leadership to curb what appears to be a never-ending crisis---many students of color with no teachers of color. This paper builds on the work of Goings et. al. (2018) who explored district level leaders' role in diversifying the teacher pipeline. As such, this paper will begin by highlighting opportunities from the literature for state education agency leaders to diversify the teacher pipeline. Then, this paper will look at the role and factors influencing the role of state education agency leaders. Finally, this paper will provide high-leverage recommendations for state education agency leaders to begin making both the structural and policy changes necessary to diversity the teacher pipeline.

TEACHERS OF COLOR CHOICES IN TEACHER PREPARATION PROGRAMS

One of the three pillars critical to the diversification of education is teacher preparation programs (TPPs). TPPs are the beginning of the pipeline for individuals, followed by the actual job market process and workplace retention (Leggett, 2020). First, one must understand which TPPs are producing high numbers of educators from different racial, ethnic, and cultural backgrounds. Overall, traditional TPPs are 74% White, 11% Hispanic, 9% Black, 3% Asian or Pacific Islander, 2% multiracial, and 1% Indigenous (U.S. Department of Education, 2016, p. 18). While there is limited literature descriptively studying top TPP producers for other racial and gender groups, some research highlights one of the smallest intersections: Black men. The top five institutions that produced Black male education majors as of 2018 are: Alabama State University, South Carolina State University, Grand Canyon University, Western Governors University, and Jackson State University (Goings & Lewis, 2020). Of the top ten institutions, nine of them were "a historically Black college or university (HBCU), for-profit institution, or an institution with a strong online education presence" (Goings & Lewis, 2020).

There are several approaches to recruitment by teacher preparation programs including alternative pathway programs for certification, identity-based affinity programs, and early intervention recruitment through partnerships with K-12 districts. First, alternative pathway programs contribute the most racial and ethnic diversity compared to traditional TPPs. According to a Department of Education report on racial diversity in the educational workforce, traditional TPPs had on average 11% Hispanic and 9% Black enrollment compared to 18% enrollment of Black and Hispanic teacher candidates in alternative teacher education programs outside of universities (U.S. Department of Education, 2016).

Some examples of programs chosen by teachers of color include Teach Tomorrow in Oakland (U.S. Department of Education, 2016) and EDUCamp in Southwest Florida (Carothers, Aydin, & Houdyshell, 2019). Teach Tomorrow in Oakland recruits community members, paraprofessionals, career changers, alumni, and high school students in the Oakland area to pursue teaching careers within the Oakland Unified School District and includes support for a six-week pre-service training, alternative certification classes during an internship year, and financial support (U.S. Department of Education, 2016).

EDUCamp in Southwest Florida is a summer camp initiative between five local school districts and one university partner. This camp enrolled 27 K-12 students in 2017 and 36 students in 2018, and it produced strong outcomes qualitatively. By the end of the program, students reported a 41% increase in feeling prepared or very prepared or feeling that they could teach others how to enroll in college from the start to the end of program. Their responses represented a 56% increase in those who felt prepared or very prepared, or they felt they could teach others how to teach a lesson from start to end. Moreover, their response represented a 9% increase in the likelihood that they would enroll at university to become a teacher (likely, very likely, university #1 choice to study to be a teacher) (Carothers, Aydin, Houdyshell, 2019). Even scaled-down efforts such as collaborations with high school organizations like Future Business Leaders of America) could be a successful strategy for districts attempting to implement low-cost or soft-rollouts of "grow your own" programs (Wallace & Gagen, 2020). One important caveat of these types of programs is that they do need earlier interventions even as early as elementary school. Research has shown that waiting until high school to begin initiatives like this may be too late to introduce or change the minds of students particularly young Black girls (Farinde-Wu et al., 2020).

LACK OF FUNDING SUPPORT FOR HBCU TEACHER PREPARATION PROGRAMS

Research focusing on the challenges of growing teacher education programs at HBCUs revealed a myriad of fiduciary constraints including: a decline in state and federal funding allocations for operating budgets, cuts to financial aid, economic downturn at state levels, state merges of HBCUs, decreased financial support from the public and alumni, and a lack of financial investment in HBCUs from state boards of higher education (Toldson & Lewis, 2017). Despite such challenges, HBCUs disproportionately produce higher numbers of teachers of color though HBCUs only have access to a fraction of the state, federal, and private grant money. For example, while PWIs like Columbia can hire PhD or graduate-level students to be graduate assistants to assist with time-consuming and complicated performance-based assessment processes like edTPA, many HBCUs do not have the equivalent resources at their disposal (Petchauer et al., 2018). Furthermore, HBCUs often lack financial resources to hire full-time staff to plan and implement training, provide resource materials, or other give students supportive measures that are necessary and correlated with success on certification benchmarks like edTPA (Petchauer et al., 2018). While support for edTPA preparation at many North Carolina HBCUs starts and ends with links to some generic handbooks created by SCALE (the body that created edTPA), the larger state schools have extensive edTPA resources including lesson plan templates, extensive literature, half-credit courses, and web resources (Petchauer et al., 2018). Additionally, the larger PWIs in the state have the resources to be able to send faculty to conferences and train them more in-depth on the edTPA requirements and process (Petchauer et al., 2018).

ASSESSMENTS SERVE AS BARRIERS FOR CANDIDATES OF COLOR

The introduction of assessments for teacher certification also has introduced barriers for diversifying education. Traditional assessment models such as the Praxis exam administered by Educational Testing Services (ETS) and portfolio models such as edTPA negatively impact teachers of color. Not only are these tests prohibitive and in some cases racist, but they also show little quality in terms of their ability to predict success as a teacher. First, there is substantial evidence of bias on traditional exams for educators. Teacher preparation exams have been studied and found to exhibit labeling, selection system, and cultural bias (Bennett et al., 2006; Jencks & Phillips, 1998; Nicklos & Brown, 1989). At a 2006 HBCU-ETS meeting, the assessment director of ETS at the time confirmed the regular practice of removing test questions on which White males scored poorly but other racial and ethnic subgroups excelled and retaining questions on which White males scored well and other racial and ethnic subgroups scored poorly (Graham, 2013). There is also the challenge of students receiving strategic test preparation opportunities like what is offered in enrichment programs or test preparation courses (Ginsberg et al., 2020; Graham, 2013).

HBCUs such as Jackson State University are trying to head off the preparation and anxiety barrier for Black teachers by providing a Praxis lab which offers ongoing workshops on reading, writing, mathematics, and extra test taking practice. The institution is designating and assigning targeted mentors and academic coaches to help students plan and study for the exam, and it is building a transparent culture around the Praxis test (Ginsberg et al., 2020). Many students have spoken positively about the specific help they have been able to receive from these interventions, including being able to comprehend passages better and receiving specific test taking strategies like limiting time on questions to two minutes per question and eliminating unnecessary information (Ginsberg et al., 2020). Furthermore, professors in the program make space for former students to share their experiences with preparing for and taking the Praxis exam and speak with current students to share successful strategies and help them process their anxiety centered around the exam (Ginsberg et al., 2020). Strategies like this are recommended explicitly as interventions to support historically minoritized teacher candidates mentally and academically to overcome these structural barriers in assessments (Petchauer, 2014).

Portfolio assessments like edTPA have been understudied for their racial bias and impacts on candidates of color. The edTPA assessment is now being used in 19 states as of 2020 (The Council of State Governments, 2020). The edTPA program has shown bias against both Black and Latinx teaching candidates (Petchauer et al., 2018). Using the 2014 and 2015 scores, edTPA results showed a "statistically significant difference between edTPA score means for Black and White candidates each year" (Petchauer et al., 2018, p. 329). When studying one of the five pilot states, Washington, there were statistically significant differences between the performance of Latinx candidates and White candidates. Latinx candidates were "3-times as likely to fail the exam compared to White candidates" (Petchauer et al., 2018, p. 330). The organization that created the edTPA assessment process, the Stanford Center for Assessment, Learning, and Equity (SCALE), has not engaged in comprehensive testing to ensure that there is "measurement equivalency for different racial groups" (Petchauer et al., 2018, p. 330). Given the growing popularity of assessments like edTPA and the potential for wider adoption, testing and mitigation of racial bias in these assessments must be implemented. Moreover, the cost of performance-based assessments may be a significant barrier. For example, the cost of the edTPA test is $300 per assessment. There are some full or partial vouchers available by purchase from TPPs, but the vouchers are unable to be applied retroactively (Pearson Education, Inc, 2021). This is a prohibitive cost considering the cost of college education.

Additionally, paraprofessionals and emergency certified and/or substitute teachers may be attempting to gain full certification through processes like edTPA. However, the cost is generally one of the most prohibitive factors for candidates of color. Individuals in one of those employment positions may only be earning $1,200 per month before taxes in a state like Mississippi, which means that the edTPA exam is equivalent to almost a week of pay (Van Cleve, 2020).

Ultimately, assessments required for teacher accreditation are edging teachers of color from the profession with little to no benefit to student outcomes. In a study of middle school math, high school algebra and geometry, and high school biology student outcomes, basic skill assessments were only "modestly predictive" of student outcomes and only had significant student achievement correlated with the subject-specific licensure exam for biology (Goldhaber et al., 2017). While under qualification of teachers can be an issue in some cases, the larger issue is that teachers are forced into subject and/or grade assignments that match neither their education nor training (Ingersoll, 2007). The combination of teacher shortages and internal school administrative management issues exacerbate this issue (Ingersoll, 2007).

LACK OF SUPPORT FOR TEACHERS OF COLOR THROUGHOUT THE PIPELINE
Teacher Compensations Structures Decrease Attractiveness
An incentive factor that significantly contributes to a decrease in attractiveness for teachers, especially teachers of color, of joining the profession is compensation. It is estimated that teachers enter the profession having anywhere from $20,000-$50,000 of debt from schooling (Fiddiman et al., 2019). This large amount of debt has resulted in many teachers feeling apprehensive from entering the field of education. In programs like Texas's UTeach Program, both students who intended to go into teaching as well as students who did not intend to go into teaching felt that financial incentives were critical to being able to both enter and complete the UTeach certification (Cade et al., 2019). In addition to the cost of education, teacher candidates also face substantial costs associated with certification and testing. For example, the Praxis exam is $130 per test administration, and teachers, depending on their area of certification, may need to take between 2-6 of these exams. Jackson State University has addressed this issue by providing scholarship money to cover Praxis test costs. When interviewing students at Jackson State University, "The participants collectively noted that $130 could be the difference between graduating with an education degree or the need to change majors" (Ginsberg et al., 2020).

Working Environment
Finally, recruitment means very little if it is not matched by retention efforts. While recruitment of educators from diverse ethnic, cultural, and racial backgrounds has been largely successful over the past four decades, the same teachers are being driven from the classroom due to a failure to develop and manage teaching adequately upon hiring (Ingersoll et al., 2019). For example, if teachers are not placed in the subject areas in which they are qualified and prepared to teach, this has negative outcomes for the teacher and students (Ingersoll, 2007). Furthermore, the working conditions of schools has been a significant driver in the turnover of Black, indigenous, Latinx, Asian, Native Hawaiian, Pacific Islander, and multiracial teachers (Ingersoll et al., 2019). The combination of personal reasons (ex: pregnancy, medical reasons, relocation), dissatisfaction with teaching, and a desire to improve career opportunities account for the vast majority of historically marginalized teachers exiting the profession (Ingersoll et al., 2020). During the COVID-19 pandemic, teachers who left the profession were twice as likely to indicate stress as their reason for departure over

pay (Diliberti et al., 2021). Teachers who returned after leaving during the pandemic reported that flexibility in their new job was the core reason they returned to a classroom (Diliberti et al., 2021).

Mentoring and Induction

The retention of teachers from diverse ethnic, cultural, and racial groups also provides students with more opportunities for consistent, stable, and culturally responsive learning opportunities (Lee, 2018). Initiatives like the Chicago Teacher Education Pipeline (CTEP) have been able to bridge the learning that teaching candidates experience in their TPP at Illinois State University. Within their first two years of teaching service, students are provided with ongoing mentoring support within their schools based on their grade level and content area. (Lee, 2018). The outcomes of this program have been impressive. Teachers who participated in this program have a 95% retention rate after three years and an 83% retention rate after five years. This represents a 53% improvement over Chicago Public Schools average five-year retention rate (Lee, 2018).

Some researchers also present evidence that more time in the classroom during TPPs can have a positive outcome on teacher retention. Ladson-Billings discusses the need for field experiences as another essential component of preparing educators to educate Black students properly (Ladson-Billings, 2000). One such example of this type of field experience in action is found at Jackson State University's "Call Me Mister" program, which gives teaching candidates extensive opportunities to experience classrooms in predominantly Black schools (Ginsberg et al., 2020). The researchers found in interviews with faculty and students in the program that this experience component reduces "practice shock" (p.11). The classroom experience with students of color was "particularly poignant for teachers of color who are not prepared for the systemic racism they are about to encounter." (Kohli 2018, pp.118)

ROLE STATE LEVEL EDUCATION AGENCIES PLAY IN DIVERSIFYING THE EDUCATOR PIPELINE

State level agencies play three principal functions: coordination, financing, and benchmarking/accountability. First, state agencies can help coordinate collaboration between K-12 and higher education entities. While these partnerships can emerge organically, state agencies can provide a strong foundation and help facilitate aligned partnerships. One of the most successful types of collaboration that state agencies can facilitate is related to Grow Your Own (GYO) initiatives. Recently, the teacher shortage crisis nationwide has led many states to convene task forces to investigate and make recommendations regarding teacher shortages and diversify statewide teacher pipelines. These task forces are often formed by state governors or state legislatures and include multiple state agencies including, but not limited to the K-12 regulating agency and higher education regulation agency. One such example of this is in Nevada. The multilevel coordination between the Nevada Department of Education (NDOE) and the Nevada System of Higher Education (NSHE) will occur through the NSHE Teacher Pipeline Task Force and will research, scale-up, and build new teacher pipeline initiatives through replicating successful initiatives at TPPs in the state and aligning those initiatives with the needs and progress of the 17 districts throughout the state (State of Nevada Department of Education, 2021). State agency coordination increases the efficiency of identifying challenges and implementing solutions across the entire state instead of relying on school districts and TPPs to figure out solutions organically.

Second, many school districts and TPPs lack the independent funding to bankroll teacher pipeline programs and substantive diversity initiatives. State agencies can provide both technical and financial assistance to secure funds for these types of initiatives. For example, in the state of Mississippi, the Mississippi Department of Education was able to use its staff capacity to secure a $4.1 million grant in 2019 from the W.K. Kellogg Foundation to fund a diversity pipeline program entitled, the Mississippi Teacher Residency (Mississippi Department of Education, 2019). This program is run through the Mississippi Department of Education (MDE) and works with Mississippi TPPs as well as Mississippi K-12 school districts to recruit and train diverse educators through a coursework and on-the-job training approach (Mississippi Department of Education, 2021). The MDE plays an important role with this program by managing the application process for teachers in residency, selecting partners, ensuring that partner districts and universities are aligned to the outcomes of the program, and continually securing funds to ensure the continuation of the program. After the Kellogg funds were exhausted, the MDE was able to apply for and receive funds through the American Rescue Plan Elementary and Secondary School Emergency Relief (ESSER) which has helped sustain the program (Mississippi Department of Education, 2021). States are also able to use Title II, Part A funds through the Every Student Succeeds Act (ESSA) that they receive to support initiatives for diversification of teacher pipelines. A 2018 report by the Center for American Progress highlights at least 15 state teacher pipeline and diversity initiatives that are funded through Title II, Part A ESSA plans (Johnson, 2018).

Finally, state agencies provide an important role in holding districts and schools accountable for diversifying their teaching staff. Unfortunately, those who work in diversity, equity, and justice spaces know that organizations and individuals often make large claims about diversity initiatives, yet they fail to deliver results. State agencies force districts to prioritize diversification as a priority through mandates. One state that has implemented this is Tennessee. As of the 2021-2022 school year, districts are required to submit annual goals, plans, and progress towards increasing the number of teachers of color in their district to the Tennessee State Board of Education (Aldrich, 2021). Tennessee is one of the first states to implement a mandate of this nature, and it may yield promising results for the state, which has one of the Whitest teaching forces in the nation (Aldrich, 2021). The Tennessee Department of Education also will be doing vital work by publishing human capital data reports (Johnson, 2018). Many districts, especially in high-need and underserved districts, lack the technical capacity and staffing to hire data experts who can maintain, analyze, and publish data on issues like this. Therefore, state agencies providing this type of technical support in tracking data and measuring progress serve an important infrastructure role that may assist districts and schools in diversifying their teaching force. The District of Columbia (D.C.) Office of the State Superintendent (OSSE) has also been leveraging funds to partner with third-party data consultants, and 90% of the schools in the D.C. district collect and monitor data, which allows the district to tailor solutions more closely to match data related to teacher outcomes and school needs (Johnson, 2018).

STATE LEVEL LICENSURE GUIDELINES SERVE AS GATEKEEPERS OF QUALITY

One area state education agency that leaders control which may hinder progress in the diversification of the teacher pipeline is state licensure guidelines. At best, many licensure requirements lack alignment to meaningful teacher and student outcomes; at worst, licensure programs can be excessively vague, unclear, and rigid. While some states have a state policy that dictates the license requirements for teachers, other states have more autonomy to set licensure criteria and processes

within state agencies themselves. There are two areas in which state agencies can impact diversity in the teaching profession: certification pathways with a higher barrier of entry to the profession and a lack of consistency in policy practices.

First, state education agency leaders have a litany of requirements for teaching candidates to enable them to earn licenses. These include a combination of the following areas: content knowledge exams, performance assessments, state specific coursework, and measures of protection such as "good moral character" (The Council of State Governments, 2020). State agencies are the core source of communication to teacher candidates about these requirements and the process needed to complete them. When this information is vague or unclear, it becomes a deterrent for candidates who are considering the career pathway of teaching. In particular, this lack of clarity discourages teachers of color from considering these careers. Furthermore, state licensing agencies can reject applications that they think violate "good moral character" provisions (The Council of State Governments, 2020). While some states only consider criminal activity that could have a direct harm on children, other states define these criteria more broadly and can include things like defaulting on a loan, having any arrest (even if not convicted), or failing to pay taxes. This means that teachers who may be activists or have financial hardship may be barred from teaching in some states. Further, a lack of regard for these inequities can exacerbate the retention problem further by limiting opportunities for those who are unfairly targeted.

Additionally, while some states are working to add additional pathways to licensure for teachers who did not complete TPPs, other states like Minnesota have considered restricting these license pathways. In 2021, Minnesota's legislature heard a bill, Governor's Policy Bill (SF788), that would eliminate their Tier 3 (permanent) license option without going through a TPP or doing a performance assessment (Eischens, 2021). It would have also eliminated a Tier 2 (renewable up to three times) pathway that would have allowed teachers to be eligible for that license tier with "two of the following: upper division credits in the subject area, method training, two years of teaching, and certain exams or a teacher preparation program" (Eischens, 2021).

State education agency leaders also can act as gatekeepers to diversity in K-12 education by failing to apply policies consistently in their practice of granting teacher licensure. For example, states may have vague policies when it comes to coursework that is accepted for meeting licensure requirements. As a result, the types of courses allowed and approved by licensure boards may change as staff members and board members rotate out of their positions. In these cases, one candidate may have a course count in one year, and that same course may be rejected by the licensing board just a few years later. Similarly, criteria like "cut-scores" (minimal scores necessary to pass licensing exams) can change annually, which literally shifts the goalposts for teacher candidates who are working to obtain teaching certification.

FACTORS IMPACTING STATE LEVEL AGENCIES AND
POLICY CHANGES TO DIVERSITY THE EDUCATOR PIPELINE OVERTIME

There are several contemporary simultaneous events occurring that may accelerate or impede the ability of states to change their policies to improve diversity in the educator pipeline. These catalyst conditions include: the structure of ESSA, public saliency of diversity in education and industries, and COVID-19 era policy changes (Diliberti et al., 2021; Johnson, 2018).

The ESSA has provided states with both the incentives and the funds necessary to concentrate efforts on diversifying their educational workforce. In terms of incentives, ESSA and the Department of Education have created space in state plans to prompt state agencies to discuss innovative plans to recruit and retain diverse teachers in their state. Additionally, under Title II, Part A, states can receive and disburse funds to focus on these efforts. This encourages states to consider diversity in their calculus for federal accountability. For states which rank low in overall academic performance but are working to improve growth metrics rapidly, pursuing a more diverse workforce may improve the overall quality of education for students in the state while helping the state perform better in ESSA accountability. In short, the federal government has reframed diversification to be an exciting benefit for states to consider and pursue instead of view as a potential liability. Moreover, the federal government has named the diversification of the teacher pipeline as a priority.

Finally, COVID-19 has presented substantial challenges to recruiting and retaining educators, and it has provided opportunities financially for diversifying the pipeline. Many states have been able to obtain as well as grant waivers for several policies including student assessments and teacher certification requirements. Furthermore, the availability of federal recovery funds through the American Rescue Plan Elementary and Secondary School Emergency Relief (ESSER) has allowed states to divert funds to new, innovative programs and policies to support the diversification of teacher workforces. At the time of this article, the U.S. is experiencing a wave of the omicron COVID-19 variant, which is creating similar policy and operational circumstances to the initial March 2020 wave of the pandemic. The COVID-19 pandemic has changed almost every aspect of teaching and may push states to continue revising their policies and provide financial investment for the recruitment and retention of teachers as many schools and districts face down massive waves of resignations and challenges.

SUGGESTIONS FOR STATE LEVEL EDUCATION LEADERS ON PLANNING TO DIVERSIFY THE EDUCATOR PIPELINE

Here are six high-leverage opportunities developed from evidence-based practices in the recruitment and retention of teachers of color and experience and connected to state-level efforts to diversify the educator pipeline. State leaders now have an opportunity to support district and school leaders to increase students' access to highly qualified and diverse teachers through strong policy and practice.

1. **Make diversifying the educator pipeline explicit in the state's strategic plan and goals.**

   First is to track and publicly report progress around the established goals. The strategic plan of an organization drives what gets done day-to-day in an organization. Additionally, resources are made available to drive the desired results of the strategic plan. State education agency leaders must ensure the work of diversifying the educator pipeline is a priority in what gets done through licensure policies, educator preparation program review and approval, and professional learning opportunities. To remain accountable to the work of diversifying the educator pipeline, state education agency leaders could monitor and publicly track progress around state level actions to diversify the educator pipeline. Given that the state's strategic plan drives what happens, state's education agency leaders must leverage such systems to ensure the work of diversifying the educator workforce is a priority of all work streams. For example, Mississippi has embedded in in state's strategic plan their desire to have "diverse learner- ready teachers"

2. Prioritize departmental budgets and staffing to ensure state education agency leaders have the human capital and resources needed to diversify the pipeline.

State level education agencies overwhelmingly assign the work of diversifying the educator pipeline to existing teams that already are strapped for staff and resources. If states are serious about diversifying the educator pipeline, they must devote money and human capital strictly to work on diversifying the educator pipeline. State chiefs and boards of education must ask their state legislatures in their budget requests to provide specific funding for diversifying the educator pipeline. Critical to the work of diversifying the educator pipeline is having funding to not only support the recruitment of new teachers but also to support the retention of current teachers. Subsequently, funding is critically important to efforts to diversify the educator pipeline. For example, in Maryland, state education agency staff members are assigned solely to work on addressing issues relative to diversifying the educator pipeline.

3. Retool state-level licensure guidelines, policies, and practices.

Prospective teachers of color often struggle with passing high-stakes licensure exams. Studies have concluded Black and Latinx teachers disproportionately fail standardized assessments. States should implement competency-based and student outcomes-based approaches for licensing teacher candidates. For example, Mississippi most recently launched a performance-based licensure pilot with 70 teachers of color. Each participant has at least three years of teaching experience, has produced exceptional results with students, and has struggled with passing required licensure exams. The state awarded the teachers a three-year, special non-renewable license to alleviate any anxiety teachers may face in meeting licensure requirements. Rather, the state asked educators to focus on the performance of students as a metric for determining the issuance of a license. The state looks to make a recommendation in the next three years including the option in the state's licensure guidelines as a permanent option for teacher licensure.

4. Invest in early intervention programs to prepare teachers.

Early intervention programs or "grow your own" programs have data alluding to their success (Rogers-Ard et al., 2019). These programs work on recruiting students early in their K-12 education trajectory into the field of education. These programs often use university-district partnerships to build and maintain recruitment pipelines (Carothers et al., 2019). This partnership has been emphasized by many researchers as a critical strategy for recruiting more teaching candidates from historically marginalized and excluded backgrounds into the classroom, including Black women and men (Farinde-Wu et al., 2020; Wallace & Gagen, 2020; U.S. Department of Education, 2016). With teachers of color exiting schools at higher rates than their counterparts, states should consider strategies in the preparation of teachers of color including strong mentoring and induction (Ingersoll et al., 2020). Teacher residences, much like medical residences, provide a strong model for supporting teachers of color in a cohort. Often, residences are alternative route programs and provide extensive, context-relevant professional learning for the teachers they train. Nationally, about 49% of individuals trained in teacher residency programs are teachers of color. In many cases, residency programs are born out of the idea of training diverse teachers. The Boston Teacher Residency, much like other residency programs, has

committed to ensuring that each cohort has at least 50% of the participants be educators of color. Since its launch, the Boston Teacher Residency has exceeded its goal. Even more striking, a 2014 study concluded that graduates of the program were twice as likely to be rated "Exemplary" than other Massachusetts teachers (Massachusetts Department of Elementary and Secondary Education, 2016).

5. Invest in funding for scholarships at historically Black colleges and universities.

While there are some federal grant sources available to HBCUs to help support these programmatic efforts, only about 10% of the funds like the NSF Noyce Program, which works to recruit 100,000 new STEM teachers to middle schools and high schools, go to Minority Serving Institutions (MSIs) like HBCUs or Hispanic Serving Institutions (HSIs) (Toldson & Lewis, 2017). There is some evidence to suggest that when there are targeted support measures such as workshops and other technical assistance programs for MSIs, there is high payoff. For example, 59% of MSIs that received Noyce grants as of 2016 participated in one of the workshops or technical assistance programs through the Quality Education for Minorities network (Toldson & Lewis, 2017). In addition to these types of grants, community partnerships and alumni bases should be mobilized to establish and maintain endowments to recruit diverse educators (Wallace & Gagen, 2020).

6. Use district or state-based loan forgiveness programs, compensation structures, and scholarships as a recruitment tool, particularly in recruiting candidates from historically Black colleges and universities (HBCUs).

The Center for American Progress recently wrote that Black and Latinx students who prepared to be teacher were more likely to borrow federal student loans compared to their White peers: 91% of Black students, 82% of Latinx students compared with 76% of White students. (Fiddiman et al., 2019) The same study concluded that for teachers who borrowed the most federal student loan money in their cohort, figures show that Black and Latinx teachers borrowed significantly more money compared to White teachers (Fiddiman et al., 2019). Additionally, 50% of the current Black teacher workforce attended an HBCU. There is no question that looking to HBCU's to prepare more teachers of color is the way forward. Other studies have predicted the probability that students who take out large amounts of loans will not take on public service roles like teaching, particularly because of the low salary they can expect to make. States should invest and strengthen state-level loan forgiveness programs and make more sense of how much debt prospective and current teachers of color are facing in their effort to become teachers. Aside from the cost of education in relation to loan forgiveness programs, several states are pursuing more aggressive pay-additive measures to recruit and retain teachers. In the state of California, recent legislation allows for districts to provide housing subsidies and grants to teachers (Lambert & Willis, 2019). Although there is no research to show if this initiative will be effective in retaining teachers, 40,000 teachers left the state over the four year period between 2013-2017 as housing costs continued to skyrocket (Lambert & Willis, 2019). Other states like Maine are also pursuing longevity bonuses, which would provide additional compensation for teachers who live in high-need districts such as those that are in rural areas or serve predominantly minoritized and/or low-income students (Johnson, 2018). Additionally, the Indiana Department of Education is advising districts how to

adjust compensation for teachers who take on additional leadership roles or duties outside their normal contracts (Johnson, 2018).

State education agency leaders must prioritize the building of a strong teacher pipeline to diversify the educator workforce. For all children to benefit from a diverse educator workforce, states must enact multiple, cross cutting solutions that address leaks in the pipeline. Given that state education agency leaders serve as the policymakers for schools within their respective states, state education agency leaders are best positioned to enact bold solutions to support principals in closing the opportunity gap by focusing on the diversification of the educator workforce. These recommendation for systems change are only the beginning.

REFERENCES

Aldrich, M. W. (2021, February 5). Tennessee school districts must set educator diversity goals under new policy. *Chalkbeat Tennessee*. https://tn.chalkbeat.org/2021/2/5/22269094/tennessee-school-districts-must-set-educator-diversity-goals-under-new-policy

Bennett, C. I., McWhorter, L. M., & Kuykendall, J. A. (2006). Will I ever teach? Latino and African American students' perspectives on PRAXIS I. *American Educational Research Journal*, *43*(3), 531–575. https://doi.org/10.3102/00028312043003531

Berry, B. (2021). *Five Lessons on Teacher Recruitment and Retention June 2021*.

Cade, W., Liu, F., Vaden-Kiernan, M., & Dodson, M. (2019). *An examination of recruitment and retention of UTeach Program candidates*. American Institutes for Research. https://institute.uteach.utexas.edu/sites/default/files/Cade-et-all-examination-of-recruitment.pdf

Carothers, D., Aydin, H., & Houdyshell, M. (2019). Teacher shortages and cultural mismatch: District and university collaboration for recruiting. *Journal of Social Studies Education Research*, *10*(3), 39–63.

Curammeng, E. R. (2020). Advancing teacher preparation through ethnic studies: Portraits of Filipino American self-identified male teachers. *Race Ethnicity and Education*, *23*(3), 454–472.

Diliberti, M. K., Schwartz, H. L., & Grant, D. (2021). *Stress topped the reasons why public school teachers quit, even before COVID-19*. RAND Corporation. https://doi.org/10.7249/RRA1121-2

Education First. (2020, September 24). *Condition setting to catalyzing action: The state's role in accelerating teacher diversity*. *Education First*. https://education-first.com/condition-setting-to-catalyzing-action-the-states-role-in-accelerating-teacher-diversity/

Eischens, R. (2021, March 16). Legislators hear debate over teacher licensing bill. *Minnesota Reformer*. https://minnesotareformer.com/briefs/legislators-hear-debate-over-teacher-licensing-bill/

Evans, B. R., & Leonard, J. (2013). Recruiting and retaining Black teachers to work in urban schools. *SAGE Open*, *3*(3), 215824401350298. https://doi.org/10.1177/2158244013502989

Farinde-Wu, A., Butler, B. R., & Allen-Handy, A. (2020). Conceptualizing a Black female teacher pipeline: From recruitment to retention to retirement. *Theory Into Practice*, *59*(4), 337–347. https://doi.org/10.1080/00405841.2020.1773160

Fiddiman, B., Campbell, C., & Partelow, L. (2019, July 9). Student debt: An overlooked barrier to increasing teacher diversity. *Center for American Progress*. https://www.americanprogress.org/article/student-debt-overlooked-barrier-increasing-teacher-diversity/

Gershenson, S., Hart, C. M., Hyman, J., Lindsay, C., & Papageorge, N. (2018). The long-run impacts of same-race teachers. https://doi.org/10.3386/w25254

Ginsberg, A., Gasman, M., & Castro Samayoa, A. (2020). "A learning process versus a moment": Engaging Black male teacher education candidates in culturally sustaining pedagogy at Jackson State University. *The Teacher Educator*, *56*(2), 171–193.

Goings, R. B., & Lewis, C. W. (2020). Critically examining the trajectories of Black male preservice teachers: Implications for teacher education programs. *Peabody Journal of Education*, *95*(5), 449–455.

Goldhaber, D. (2019). Evidence-based teacher preparation: Policy context and what we know. *Journal of Teacher Education*, *70*(2), 90–101.

Goldhaber, D., Gratz, T., & Theobald, R. (2017). What's in a teacher test? Assessing the relationship between teacher licensure test scores and student STEM achievement and course-taking. *Economics of Education Review*, *61*, 112–129. https://doi.org/10.1016/j.econedurev.2017.09.002

Goldrick, L., Sindelar, P., Zabala, D., & Hirsch, E. (2014). *The role of state policy in preparing educators to meet the learning needs of students with disabilities* (Document No. PA-1). University of Florida, Collaboration for Effective Educator, Development, Accountability, and Reform Center. http://ceedar.education.ufl.edu/tools/literature-syntheses/

Graham, A. (2013). Black teacher education candidates' performance on PRAXIS I: What test results do not tell us. *Negro Educational Review*, *64*(1/4), 9.

Ingersoll, R. (2007). *A comparative study of teacher preparation and qualifications in six nations*. 16. Consortium for Policy Research in Education.

Ingersoll, R., May, H., & Collins, G. (2019). Recruitment, employment, retention and the minority teacher shortage. *Education Policy Analysis Archives*, *27*, 37. https://doi.org/10.14507/epaa.27.3714

Ingersoll, R., May, H., Collins, G., & Fletcher, T. (2020). *Trends in the recruitment, employment, and retention of teachers from under-represented racial-ethnic groups, 1987 to 2016*. American Educational Research Association, Washington, D.C.

Jencks, C., & Phillips, M. (Eds.). (1998). *The Black-White test score gap*. Brookings Institution Press.

Johnson, S. (2018). *These states are leveraging Title II of ESSA to modernize and elevate the teaching profession*. Center for American Progress. https://www.americanprogress.org/article/states-leveraging-title-ii-essa-modernize-elevate-teaching-profession/

Ladson-Billings, G. (2000). Fighting for our lives: Preparing teachers to teach African American students. *Journal of Teacher Education*, *51*(3), 206–214. https://doi.org/10.1177/0022487100051003008

Lambert, D., & Willis, D. (2019, April 17). In need of teacher housing, more California school districts building their own. *EdSource*. https://edsource.org/2019/in-need-of-teacher-housing-more-california-school-districts-building-their-own/611220

Lee, R. E. (2018). Breaking down barriers and building bridges: Transformative practices in community-and school-based urban teacher preparation. *Journal of Teacher Education*, *69*(2), 118–126.

Lee, S. (2019). Black teachers matter: Examining the depths of seven HBCU teacher preparation programs. *Urban Education Research & Policy Annuals*, *6*(2) 13-16.

Leggett, A. (2020). *Black teacher preparation: Experiences at a PWI and HBCU* [Doctoral dissertation, George Mason University]. ProQuest.

Mississippi Department of Education. (2019, February 12). *MDE invites applicants for new Mississippi Teacher Residency Program*. https://www.mdek12.org/ocgr/news/2019/2/12/MDE-Invites-Applicants-for-New-Mississippi-Teacher-Residency-Program

Mississippi Department of Education. (2021). *Mississippi Teacher Residency*. https://www.mdek12.org/OTL/MTR

Nicklos, L. B., & Brown, W. S. (1989). Recruiting minorities into the teaching profession: An educational imperative. *Educational Horizons*, *67*(4), 145–149. JSTOR.

Pearson Education, Inc. (2021). *Fees and Payment Options*. https://www.edtpa.com/PageView.aspx?f=GEN_OperationalFees.html

Petchauer, E. (2014). "Slaying ghosts in the room": Identity contingencies, teacher licensure testing events, and African American preservice teachers. *Teachers College Record: The Voice of Scholarship in Education*, *116*(7), 1–40. https://doi.org/10.1177/016146811411600701

Petchauer, E., Bowe, A. G., & Wilson, J. (2018). Winter is coming: Forecasting the Impact of edTPA on Black teachers and teachers of color. *The Urban Review*, *50*(2), 323–343. https://doi.org/10.1007/s11256-018-0453-1

Rogers-Ard, R., Knaus, C., Bianco, M., Brandehoff, R., & Gist, C. D. (2019). The grow your own collective. *Teacher Education Quarterly*, *46*(1), 23–34. JSTOR.

Shaver, M. (2021, February 16). *V1.SF788 Governor's Policy Bill*. https://www.senate.mn/ committees/2021-2022/3106_Committee_on_Education_Finance_and_Policy/V1.%20 SF788%20Governor's%20Policy%20Bill.pdf

State of Nevada Department of Education. (2021, April 19). *NSHE and NDE team up to locally grow Nevada's diverse teacher pipeline*. https://doe.nv.gov/News__Media/Press_Releases/2021/ NSHE_and_NDE_Team_Up_to_Locally_Grow_Nevada_s_Diverse_Teacher_Pipeline/

The Council of State Governments. (2020). *The state of teacher licensure and mobility* (p. 19). The Council of State Governments. https://licensing.csg.org/wp-content/uploads/2020/12/ Teacher_Licensure.pdf

Toldson, I. A., & Lewis, C. W. (2017). Advancing teacher training programs at Historically Black Colleges and Universities through technical assistance and federal investments (Editor's Commentary). *The Journal of Negro Education*, *86*(2), 83–93.

U.S. Department of Education. (2016). *The state of racial diversity in the educator workforce*. https://files.eric.ed.gov/fulltext/ED571989.pd

Van Cleve, C. (2020). *Performance-based licensure: Increasing teacher diversity and effectiveness with licensure exam alternatives*. https://dash.harvard.edu/handle/1/37364857

Wallace, D. L., & Gagen, L. M. (2020). African American males' decisions to teach: Barriers, motivations, and supports necessary for completing a teacher preparation program. *Education and Urban Society*, *52*(3), 415–432.

Will, M. (2019, July 24). Teacher-preparation programs again have a choice of accreditors. But should they? *Education Week*. https://www.edweek.org/leadership/teacher-preparation-programs-again-have-a-choice-of-accreditors-but-should-they/2019/07