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Strategies for Supporting Educator Preparation Programs' Efforts to Attract, Admit, Support, and Graduate Teacher Candidates From Underrepresented Groups

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Abstract

Educator preparation programs (EPPs) are increasingly focused on identifying successful strategies for diversifying their programs by including more teacher candidates from underrepresented groups (i.e., students of color, English language learners, first-generation students). But the process of attracting, admitting, supporting, and successfully graduating students from underrepresented groups has proven to be challenging for many reasons—some more easily addressed than others. However, there are EPPs that are succeeding against the odds. This research memorandum outlines some of the challenges EPPs face and offers a consolidated look at literature-based strategies for addressing such challenges.

Key words: preservice teachers, teacher candidates, EPP diversity, teacher candidate diversity

While students in the United States prekindergarten through 12th grade (P–12) system are increasingly diverse, U.S. teachers are mostly female and White. A study from the American Association of Colleges for Teacher Education (AACTE, 2013) found that based on data from the National Council on Education Statistics, students of color account for more than 45% of the P–12 population, but only 17.5% of teachers are people of color. Researchers have noted that while the profession has diversified in recent years, minority teachers remain underrepresented (Ingersoll & Merrill, 2017). In recognition of the ongoing problem of a lack of diversity among the teaching force, accreditation standards are now requiring educator preparation programs (EPPs) to demonstrate their efforts to "recruit and support completion of high-quality candidates from a broad range of backgrounds and diverse populations . . . [reflecting] the diversity of America's P–12 students" (Council for Accreditation of Educator Preparation, 2013, Components 3.1). EPPs seem eager to comply with this standard and seek information about best practices to achieve it, but research is scattered and often focuses on a single strategy rather than on a set of strategies that concern all aspects of the stages EPPs must manage: attracting, admitting, supporting, and graduating teachers from underrepresented groups, who we define in our research to include candidates of color, English language learners, and first-generation college students. Complicating EPPs' search for strategies are challenges specific to individual EPPs, such as being located in a geographical area where there are few students from underrepresented groups.

The National Association of State Directors of Teacher Education and Certification (NASDTEC) and AACTE have both offered multiple opportunities at state and regional conferences for presentations and discussions focused on efforts to increase diversity in the teacher workforce, often featuring EPPs that have had success. Educational Testing Service (ETS) has worked closely with the associations that provide tools, information, and opportunities to connect on this issue. We share the concerns of the associations and their members, and we have been participating in conversations around the need to increase diversity in the teaching profession. A common request we receive from EPPs and associations is for information about strategies that may work for them as they focus on diversifying their programs. This research memorandum outlines some of the challenges EPPs have discussed and offers potential solutions and strategies from the research literature. The examples are offered as illustrative examples and are not meant to be exhaustive. In some instances, the research only documents that the strategies

were tried but does not provide longitudinal evidence to determine ongoing success. Contexts and the ensuing challenges vary widely across EPPs, and a solution that may work for one EPP will not necessarily work for another. In addition, some of the solutions reported in the literature and recommendations offered by various groups have limited evidence of their efficacy, meaning the EPPs should do their own due diligence before deciding whether to implement them. We hope that this memo stimulates discussions at conferences and convenings where EPPs gather to talk about these challenges and share information.

Given the mismatch between student and teacher populations, there is a need to examine the complex factors that are hindering efforts to increase diversity in EPPs. Through identifying challenges reported by EPPs and potential strategies for addressing those challenges as described in the research literature, we hope to promote EPPs' success in graduating diverse teacher candidates for our nation's P–12 classrooms. In this research memorandum, we consider what can be learned from current research literature about the ways in which higher education systems are succeeding in their efforts to bring candidates from underrepresented groups into EPPs and promote their success in becoming teachers.

Why Diversity Matters

A large majority of students enrolled in teacher preparation programs are White. In the 2012–2013 school year, 25% of individuals enrolled in a teacher preparation program based in an institution of higher education were individuals of color (U.S. Department of Education, Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service, 2016, p. 3). Studies have found that having teachers of the same race or ethnicity benefits students from underrepresented groups (Egalite, Kisida, & Winters, 2015; Gershenson, Hart, Lindsay, & Papageorge, 2017; Goldhaber, Theobald, & Tien, 2015; Wright, 2015). For example, Gershenson et al. (2017) provided evidence that, for Black male youth, exposure to just one Black male teacher cuts high school dropout rates significantly and increases the desire to attend college. In their analyses, they clarify that "there is no such effect [on drop-out probability] on Black female students. This is consistent with role-model effects being especially important for the most at-risk students [Black male students]" (p. 16). The study did not measure the impact of having more than one Black teacher for Black males. This would be useful to know in the strategic hiring and placement of teachers within a school or district to have the greatest

influence. Diversity is not just a goal unto itself; rather, diversity in the teaching workforce may have a lasting impact on students in ways that are only beginning to be understood.

The teaching force has recently become somewhat more diverse. However, student diversity is growing at an even faster pace. As noted in a recent study from the U.S. Department of Education, "unless current trends change, moving forward the disparity between the racial makeup of students and teachers may increase further, fueling the need for substantially more progress in increasing teacher diversity" (U.S. Department of Education Office of Planning Evaluation and Policy Development and Policy and Program Studies Service, 2016, p. 2). College students from underrepresented groups have many career options to choose from, and teaching is not necessarily at the top of the list. According to an ACT survey, "in general, there is a lack of diversity among students interested in education. Just over 70% of ACT-tested 2015 graduates who are interested in becoming educators are white. In comparison, 59% of all ACT-tested graduates are white" (ACT, 2015, p. 3). Students of color may also lack role models who inspire them to pursue teaching careers. A survey created and administered at Eastern Connecticut State University asked high school students from underrepresented groups about their interest in teaching and found that some of the biggest influences on their interest were whether or not they were exposed to excellent teachers, if they were provided with financial aid opportunities, and concerns about student behavior (Easley, Moorehead, Gordon, Wickramasinghe, & Rojas, 2017).

The Teacher Pipeline

As can be understood by the nature of its name, the teacher pipeline, as it is often called in policy conversations and research, represents a series of steps from high school through licensure through which future teachers enter into the profession: attraction to the profession, admission to a teaching program, retention in that program, certification, and ultimately employment as a teacher (e.g., Education Trust-West, 2017; Ingersoll & May, 2011a, 2011b; Putman, Hansen, Walsh, & Quintero, 2016). However, the successful journey to a teaching career is easier for some groups than for others. Fewer students from underrepresented groups enter college in the first place, though the numbers have been increasing in recent years. Further, while similar proportions of Hispanic and Black college students enter the teaching field compared to White students, variation exists between the diversity of EPP graduates in cities and suburban/rural areas (Lindsay, Blom, & Tilsley, 2017; Snyder, de Brey, & Dillow, 2016). Yet,

there are strategies that may help colleges succeed in attracting students from diverse backgrounds to teaching and helping them persist through graduation, as discussed below.

Key Challenges and Strategies

As Boyer and Baptiste (1996) suggested two decades ago, it will take "much more than finding a bag of tricks to yield more people of color into the ranks of American teachers" (p. 786). We propose an organizing framework that illustrates the stages at which potential challenges are likely to impact an EPP's success attracting candidates from underrepresented groups into EPPs, admitting them equipped with financial literacy and adequate financial support, supporting students in both interpersonal and financial matters during their time in their program, and successfully graduating them after they have met requirements such as passing scores on licensure tests and completing student teaching. The following sections outline each challenge and provide potential strategies for addressing them.

Challenge 1: Attracting Students From Underrepresented Groups to EPPs

There is a dearth of published research documenting the difficulty EPPs experience in recruiting students from underrepresented groups into their programs; however, work is underway to document the problem and explore the reasons. AACTE established a networked improvement community (NIC) in 2014 to explore ideas about changing the demographic makeup of the teaching workforce (The Innovation Exchange, n.d.) and received applications from more than 50 institutions from 25 states. This suggests that many EPPs have concerns about recruiting students from underrepresented groups to their programs and are interested in engaging in finding solutions to this issue. Organizations such as AACTE and NASDTEC have in recent years hosted multiple sessions on challenges and possible solutions to increasing diversity in teacher preparation programs that are well attended by EPP representatives.

As EPPs seek to diversify their programs to include more teacher candidates from underrepresented groups, they are using a variety of strategies to attract students. While there is limited research on the effectiveness of strategies for increasing diversity within the EPP, some promising approaches have been identified, including developing mutually beneficial partnerships with local school districts (Strategy 1), collaborating with local schools in creating grow-your-own programs (Strategy 2), reaching out to nontraditional adult students from the ranks of paraprofessionals and immigrants from underrepresented groups (Strategy 3),

collaborating and coordinating EPP efforts with state interests and efforts in promoting a diverse teaching force (Strategy 4), and recruiting students from underrepresented groups who are already in the university (Strategy 5). These strategies focus on finding ways to offer students chances to learn more about teaching opportunities prior to college or early in their first 2 years of college in hopes of stimulating students' interest in pursuing a teaching career.

Strategy 1: Develop university/school district partnerships. Universities and K–12 districts working together can serve multiple important purposes. One purpose is for the university to better understand the needs of the district in terms of the qualities and qualifications the district most needs in future teachers. Those needs may include diverse teachers and teachers who are fluent in languages which are spoken by students in the district. The district benefits by increasing its access to preservice teachers and graduates who are better prepared to teach in the district. EPPs working closely with schools in partnerships designed to benefit both the schools and the EPP have shown promise. Ayalon (2004) believed that prior efforts at recruiting minority students into EPPs were piecemeal and ineffective and offered a solution based on a collaboration he co-led, focused on creating strong partnerships between urban school districts and EPPs. In particular, the collaboration between the State University of New York College at Potsdam and Yonkers Public Schools District helped to ease students from underrepresented groups into the college environment, which was especially important for first-generation college attendees. Providing college experiences to high school students from underrepresented groups who were the first in their families to go to college was essential to the success of the program. Ayalon noted that successful university/school collaborations require close communication, a mutual recognition of a common need, and committed leadership by both the college and the district.

Sleeter and Milner (2011) examined 28 university-district partnerships and documented "common features programs share" (p. 92), which provides an overview of the common components of programs designed both to serve to recruit students interested in teaching (from the district) and to provide the schools with teacher candidates who are willing to teach in the districts. Common features are described in greater detail, including types of support for teaching candidates to promote their success as students in the EPP. For example, a desired quality in candidates selected into the program is an interest in working with students of color. Another example is types of personal support provided to students, including academic, financial, and

cultural support. In addition, scheduling and location of fieldwork is tailored to needs of working adults, and paraprofessionals can student teach in their assigned classrooms. A significant proportion of the faculty and mentors are people of color (p. 92), and the expectation for culturally relevant projects is inclusion of scholarship by people of color.

Another study examining university/school partnerships explored the participants' experiences with the partnerships in Atlanta, Houston, Kansas City, St. Louis, and Milwaukee through group interviews and school visits (Ilmer & Kirby, 2007). Study teams consisting of between four and eight members each, including K–12 administrators, university teacher educators, and university administrators who were affiliated with the urban teacher-prep programs, visited schools. The message that comes across from the interviews is that successful partnerships between EPPs and school districts require considerable effort, particularly in communication and understanding different perspectives, as well as a willingness to work through differences to achieve mutual goals. Some of the lessons learned include

- recognition that one's position in the university or school system contributes to seeing a set of problems and issues from a particular viewpoint that may differ from that of others in different roles, and

- confirmation of the need for groundwork to be done before beginning a collaboration between a university and public schools.

While universities and schools may use a cooperative process to establish partnerships, true collaborative processes require considerable work and need commitment as well as a willingness to push for significant outcomes, such as greater diversity in the teaching staff.

Strategy 2: Create grow-your-own programs. Grow-your-own (GYO) programs, similar to teaching academies, are becoming increasingly widespread and are having some significant success in attracting students into the teaching profession nationally, beginning while students are still in middle or high school (Hunter-Boykin, 1992; Yopp, Yopp, & Taylor, 1992). The purpose of GYO programs is to create a cadre of students in middle and high school who have an interest in teaching and who will ideally enter into an EPP upon graduation from high school. Through a community-based effort, programs focus on providing the aspiring teachers with a variety of teaching experiences such as developing lesson plans for younger students,

assisting teachers in their own schools or other nearby schools, earning college credit, and participating in on-campus visits to EPPs where they meet with teacher candidates and faculty.

A comprehensive literature review conducted by Valenzuela (2017) described areas where GYO programs seem to have had success. In particular, she noted the long-term commitment and success of California State University, Sacramento, which, in the 1970s, created the Multicultural Multilingual Teacher Preparation Center. Students of color make up more than 75% of the program. She stated that "exit surveys indicate strong desires to work in culturally-diverse, low-income schools, including those very communities from which they emanate" (p. 10). While this would appear to be a success story, Valenzuela contended that GYO programs are still in the early stages in developing measures to demonstrate effectiveness, noting that "…standard metrics do not apply across programs, making it difficult to draw comparisons about program effectiveness" (p. 10).

An example of a successful GYO program focused on underrepresented groups is the Educators Rising New Mexico program (see http://educatorsrisingnm.nmsu.edu/). Educators Rising is a national nonprofit that encourages students as young as 13 years old to consider becoming teachers by participating in local chapters or in an online program. A majority of the students participating in the New Mexico affiliate of Educators Rising are Hispanic, which is important in a state where nearly two thirds of K–12 students are Hispanic (U.S. Department of Education, 2016). High school students participate in curriculum emphasizing high-leverage practices and can earn microcredentials as they demonstrate competence in a particular aspect of teaching, such as antibias instruction, classroom culture, collaboration, formative assessment, and learner engagement (Brown & Rhodes, 2017). The students participate in clinical experiences under the guidance of a cooperating teacher. They also earn college credits before high school graduation which are transferrable to colleges and universities participating in the program.

According to Valenzuela (2017), "GYO teacher programs help address teacher shortages, retention issues and teacher diversity by engaging in a variety of strategies that aim to recruit teachers from local communities in hopes that the pool of candidates will increase in diversity and will be more likely to stay teaching in the community" (p. 1). Programs such as Educators Rising have a presence both online and through many state and district programs. We posit that precollege programs may be important in recruiting students from underrepresented groups and

first-generation students because they often offer opportunities to work with mentors who provide the personal attention that students may need to navigate college entry and persist in their educational goals.

The research on supports for underrepresented students suggests that some colleges are more successful at helping high school students navigate the complexities of financial aid. Castleman, Owen, and Page (2015) suggested that giving high school students personal attention, walking them through the paperwork, guiding them in determining appropriate budgets, and checking in with them periodically might help them enter college and keep them on track financially. Having on-campus appointments and using text messages to remind high school students about important deadlines such as applying for financial aid may also help students to enter college on time and start building personal relationships with the counselors and advisors who may help them remain on track (Castleman et al., 2015). Moreover, research has shown that low-income students and first-generation students already in college or in the EPP may also need guidance to manage their financial packages effectively (e.g., Scott-Clayton, 2015; St. John, 1991).

Strategy 3: Attract and support nontraditional students. Another way to increase diversity in an EPP is to attract nontraditional students who are interested in teaching. Arends, Clemson, and Henkelman (1992) described nontraditional students as "the community college student, the adult with a bachelor's degree, and paraprofessionals working in school systems" (pp. 161–162), noting that nontraditional teacher candidates may be career changers or newly entering the workforce (e.g., former stay-at-home-parents, recent immigrants). Many nontraditional students are from underrepresented groups. Researchers looked at the college distribution of students within race or ethnicity categories using federal survey data from the National Center for Education Statistics and The Integrated Postsecondary Education Data System and found that among all undergraduates in 2014 (the latest year for which data were available), Black students were more likely to be enrolled in a public 2-year college (44%) compared with a public 4-year college (29%). Similarly, Hispanic students were more likely to be enrolled in a public 2-year college (56%) compared with 29% enrolled in a public 4-year college (Ma & Baum, 2016, p. 6). EPPs that are able to offer financial support may purposefully recruit students from underrepresented groups and provide them with funding. As Villegas and Irvine (2010) noted, district and EPP collaborations with a focus on maximizing the supply of teachers of color may want to "develop both short-term and long-term programs that pursue

nontraditional recruits—including paraprofessionals, community college students, retired military personnel, and career-switchers—in addition to more traditional sources of new hires" (p. 188).

Arends et al. (1992) noted that, in many cases, these candidates already have college degrees, but the candidates may have discovered that "jobs are not as plentiful or salaries as high as they had anticipated" (p. 162). The authors documented the participation of 12 instructional assistants (including seven from underrepresented groups) in a 2-year master's program in Maryland. A collaboration between Montgomery County Public Schools, University of Maryland College Park, and the Maryland State Department of Education, the wrap-around services embedded in the master's program included a thematic coursework plan, internships, financial aid, and coaching. To attract applicants, the participants were guaranteed teaching positions and teaching certificates (after passing licensure tests, for which they received test preparation), and applicants agreed to teach for at least 2 years in the district. The 12 participants were expected to pass their coursework and required assessments in order to remain in the program and receive a teaching position. Particular strengths of the program to help support these students included financial support for the cohort; personal and professional support through coaches, instructors, mentors, and cohort members; the thematic core of instruction, which included research, repertoire, reflection, and relationships; and extended internships that went beyond normal student teaching expectations. However, some weaknesses were apparent, including a lack of any male participants. In addition, the program has found "…the process of breaking down conventional ideas about teaching and replacing them with new ones difficult" (p. 178). For example, participants' own experiences as P–12 students may have shaped their beliefs about classroom practices in ways that ran counter to current best practices about promoting student learning for students of all abilities and managing classrooms that ensure engagement and participation.

Additionally, Villegas and Clewel (1998) researched programs focused on helping paraprofessionals obtain teaching licenses and made a number of recommendations about how to select potential candidates. For example, they suggested using a variety of measures to evaluate candidates' qualifications in addition to traditional criteria (e.g., GPA, assessment scores), including writing samples, group and individual interviews, evidence of a commitment to

teaching in urban and diverse settings, school staff recommendations, leadership potential, and motivation, among other nontraditional factors (p. 125).

Strategy 4: Collaborate and coordinate with state efforts to increase teacher diversity. It is not just EPPs that are focusing on recruiting students from underrepresented groups—numerous states have initiatives (sometimes spurred by legislation) to increase the numbers of K–12 teachers from underrepresented groups. For example, in Virginia a task force focused on recruiting more minority teachers met over the course of a year and developed recommendations. Their report outlined the work of the group and included a list of identified barriers and proposed solutions (Task Force on Diversifying Virginia's Educator Pipeline, 2017). Representatives from a number of EPPs contributed to the suggestions, which include working with districts to provide financial aid for student teachers, continuing to convene the annual statewide Teachers of Color Summit and Minority Teachers Recruitment Fair, developing a public-awareness campaign targeted toward minority students graduating in content areas, and providing clear pathways for these students to transfer into provisional licensure, which includes needed supports and ensures attainment of a teaching license in Virginia.

In Oregon, numerous state agencies working with the Educator Equity Advisory Group have outlined four key recommendations for increasing diversity in the teacher workforce, as outlined in its educator equity report:

- State-funded scholarships and stipends for culturally and linguistically diverse Oregon Promise students seeking to become teachers.

- State-funded mentors for 2 years for every culturally and linguistically diverse teacher hired in Oregon schools.

- Seed funding for a phased-in expansion of university/district partnerships in communities where students of color exceed 40% of the student population.

- Coordination of plans with partners from each equity-focused state plan work group and regular reporting to the legislature via future educator equity reports (Chief Education Office, 2016, p. 8).

Other states are making concerted efforts to diversify their workforces as well. The Council of Chief State School Officers has convened a working group of 11 states (Colorado, Connecticut, Illinois, Missouri, Mississippi, Nebraska, Pennsylvania, South Dakota, Tennessee,

Virginia, and Wisconsin) that are receiving guidance and support from researchers with expertise in teacher diversity. As described in an *EdWeek* blog (Will, 2017), the states are committed to developing comprehensive plans that will lead to increased diversity in the teacher workforce. Regular meetings allow states to share strategies, hear from researchers in the area of diversity, and develop their plans.

While these state-led efforts are crucial to developing an agenda for the promotion of teacher diversity, it will be important for EPPs to seek continued collaboration with state agencies and actors who are responsible for carrying out the recommendations of the working groups. For instance, reconvening at regular intervals to discuss progress and share promising strategies will remain an important factor in EPP success.

Strategy 5: Recruit students from within the college or university. Flores, Clark, Claeys, and Villarreal (2007) described the work of the Academy for Teacher Excellence program at University of Texas at San Antonio and San Antonio College. They developed a comprehensive recruitment plan to attract Latino students who were already enrolled at the schools to participate in the EPP. Their efforts included soliciting referrals from faculty and student service offices, ensuring that program staff were at freshman orientations and other campus events, and disseminating information about the program widely around the two campuses to ensure quick recognition of the work they were doing. The two campuses also created programs to support the students. San Antonio College offers "traditional learning communities with specific linked gateway courses during freshman year" while University of Texas at San Antonio has a hybrid approach where "staff or peer mentors create a community of learners with teacher candidates at different levels of preparation" (p. 60). The programs focus not only on recruiting teacher candidates from underrepresented groups but also on developing a curriculum that supports all teachers in understanding the needs of the diverse students they would likely be teaching. Researchers found that the preservice teachers seem "highly satisfied" with their programs and that, between the two schools, retention efforts are finding success (p. 65).

For EPPs housed within minority-serving institutions (MSIs), strategies are less focused on attracting diverse candidates because they are already well supplied with them. They are, instead, focused on attracting students to careers in teaching. Ginsberg, Gasman, and Samayoa (2017) focused on key questions about access to a career in teaching for minority students, recruitment of these students, and mentoring and support within MSIs. The authors determined

that early, proactive recruitment during high school and "looking beyond base tests scores and GPAs to identify dynamic, promising, and committed students who could be high achievers with additional academic supports and encouragement" are ways in which MSIs employ successful strategies for recruiting minority candidates into teacher education programs (p. 17).

Challenge 2: Admitting Students Equipped With Financial Literacy and Adequate Financial Support

High school graduates from low-income families may not attend college due to financial barriers, or they may drop out of college due to financial pressures. The expense of college, the time commitment, and familial obligations may weigh more heavily on students from underrepresented groups and/or those of low socioeconomic status than on students from families with more resources. Furthermore, first-generation students in particular may not be aware of financial supports available to them or how to access scholarships and state/federal funding for which they may qualify. To address this challenge, EPPs might consider employing multiple strategies to promote adequate financial literacy, including helping students understand the application process (Strategy 6) and understand what support is available (Strategy 7).

Strategy 6: **Provide students with knowledge to understand the financial aid application process.** Because of licensure requirements, it is a given that if students fail to persist in college and do not earn a bachelor's degree, they will not go on to become teachers. To better understand why students fail to persist in college, we consider research that examines challenges and supports for students from underrepresented groups, particularly those from low-income families for whom financial challenges loom large.

College students, particularly first generation, may have limited understanding of and experience with financial aid, and they may need more than just an information session to understand the process and what's available to them. We discuss this further in Strategy 7. As Scott-Clayton (2015) pointed out, "students need proactive help to navigate the aid system, not just more information" (p. 8). Thus, workshops for student-aid applications should include not just an overview of what aid is available, but also trained staff to help students complete the forms. Multiple follow-up texts should be sent afterward to ensure that the forms are submitted properly and deadlines are not missed. While there may be some cost involved in providing such workshops, it is likely cost-effective because the EPP is more likely to retain students who maintain adequate funding.

Berumen, Zerquera, and Smith (2015) also found that the supports (financial as well as mentoring, work study, and so forth) vary considerably from campus to campus. Students complained that support services were too general and did not give them personal attention or tell them what they really wanted to know about campus life. However, campus staff reported being prevented from providing more extensive support by their own budget constraints. Also, communicating with students proved challenging—staff reported that students did not regularly check their email accounts and missed important information and meetings because of this. The support-services staff indicated that they had difficulty finding consistent ways to reach students.

Ensuring that students are aware of the college cost-benefit equation and take advantage of all financial supports available to them is crucial, and efforts made by EPPs to help students in that capacity could make the difference between completion and dropping out (Scott-Clayton, 2015). A conclusion that may be drawn from these studies on managing financial aid is that providing students with personal, tailored support on a regular basis, including managing deadlines and budgeting, may help students stay on track.

Another study by Page and Scott-Clayton (2016) that focused on improving student access to college considers a variety of factors including financial needs and drew an important conclusion: "The most effective solutions may be ones that seek to address multiple barriers to college access together, rather than in isolation" (p. 17). In other words, simply providing financial support may not be enough for some students; other factors may need to be addressed, such as helping students manage their financial aid, apply for scholarships, budget their funding, and establish spending.

Strategy 7: Ensure that students have adequate knowledge of what financial support is available to them. Finding sufficient funding to support college aspirations may be challenging for students from underrepresented groups. EPP recruitment efforts should include discussions with prospective students about financial realities, including how the EPP can help. Fortunately, there are funding options available to lessen financial hardships that may prevent students from pursuing college degrees. A number of states have grants and scholarships intended to support teacher candidates of color. Foundations also provide funding. For example, the Gates Millennium Foundation provides full scholarships for minority students who want to become teachers, and the United Negro College Fund has both need- and merit-based scholarships, particularly for teacher candidates focused on STEM subjects. The Continental

Society, Daughters of Indian Wars Native American Scholarship comes with a requirement to teach in Native American schools. Researchers found that "Black and Latino students (54.1% and 55.7%, respectively) are more than three times as likely to receive a Pell grant as their White peers (17.1%). One quarter of Asian American/Pacific Islander freshmen (25%), just less than one third (29.4%) of multiracial freshmen, and nearly half (48.2%) of Native American freshmen report having received a Pell grant for the 2015–2016 academic year" (Eagan et al., 2015, p. 10). However, even with Pell grants and/or other financial aid, there are other issues that may impede students' progress, such as lack of knowledge of available scholarships and lack of support in managing their financial resources and pursuing additional resources. Berumen et al. (2015) found that students receiving state scholarships to cover tuition, room, and board still had difficulties with the cost of textbooks, housing, and living expenses. They also noted that some students may use financial support to care for family members, and, thus, must find additional sources of support (e.g., loans, work study, part-time jobs) in order to remain enrolled. Importantly, in this study the program administrators who were interviewed expressed concern about students' financial literacy and inability to budget their financial aid appropriately. Financial insecurity and family considerations are identified by underrepresented students as making it difficult to go to and/or continue in college. Other than financial aid, some EPPs have made funds available in the form of grants, specifically to support future teachers from underrepresented groups. In some cases, there is an expectation or agreement that the teacher candidate will seek employment in schools where they are most needed, often high-poverty rural or urban schools that struggle to attract teachers. Moreover, unpaid internships take a serious toll on students with limited funding. Ethnographic studies such as that from Waldschmidt (2002) highlight the personal level of supports needed to meet complex personal and family obligations when teacher candidates must balance reduced or diminished salaries with the unpaid internships of student teaching.

Challenge 3: Supporting Students and Helping Them Maintain Their GPA

Once students from underrepresented groups enroll in an EPP, retaining them in the program may become a challenge for more than just financial reasons (Middleton, Mason, Stilwell, & Parker, 1988). College presents many new expectations and hardships on students that can lead to students dropping out. Some ways to combat this challenge include using supportive strategies to build a diverse and welcoming program that proactively supports

students (Strategy 8). An example of such a program is Project Transformative Educational Achievement Model (TEAM), which was designed to "increase the number of students from underrepresented minorities at Indiana University who enter a teacher education program (P–12), complete their baccalaureate degree, and obtain teaching licensure in Indiana" (Bennett, 2002). Helping students pass their coursework and maintain their GPA is generally required for remaining in the EPP and for obtaining their teacher licensure. Students can benefit from placement exams to help identify students proactively who might be at risk for falling behind (Strategy 9). Further, determining which additional learning supports are needed and are cost-effective for the EPP (Strategy 10) is also integral to the success of the students.

Strategy 8: Build a diverse and welcoming program that proactively supports students. A report from Education Trust-West (2017) detailed the barriers facing boys and men of color when navigating the kindergarten through 12th grade (K–12) system, enrolling in college, and completing college and makes recommendations about the supports needed in these systems to ensure that these students are successful in completing their degrees and becoming teachers. The report includes young men's voices, which are compelling in their descriptions of the lack of encouragement—or even skepticism—they encountered in their efforts to take higher-level courses in high school as preparation for college admission. From collecting and analyzing the statements of boys and men of color, the authors developed a set of best practices for postsecondary schools that aim to support the success of young men of color in becoming teachers (p. 9):

- Having leaders dedicated to transformational change.
- Fostering a welcoming environment.
- Building relationships with families to support student success.
- Supporting the transition to and through college.
- Providing broad academic and socio-emotional supports.
- Streamlining and expediting the academic experience at community colleges.
- Analyzing data to identify and address needs.
- Diversifying faculty and training faculty/staff around recognizing and minimizing bias.
- Developing relationships with community partners and institutions.

One of the challenges facing EPPs is how to develop a program of support and document whether the adopted practices actually work in supporting and retaining students of color.

Middleton, Mason, Stilwell, and Parker (1988) provided a clear task list for creating a comprehensive system, with specific steps under each task (pp. 15–16). The eight tasks are:

1. Analyze teacher education program systems.

2. Specify goals for minority participation in teacher education.

3. Involve community groups.

4. Develop plans for recruitment and retention.

5. Prepare for installation of recruitment/retention plan.

6. Implement the minority recruitment and retention plan.

7. Evaluate minority recruitment and retention program outcomes.

8. Maintain recruiting and retention reference systems.

The final two tasks may be particularly helpful to EPPs as they determine which parts of their system were most effective and what level of funding and staffing was required to achieve that level of success. Helping underrepresented students affirm that they belong on campus can take many forms, including participation in student support groups focused on their race, ethnicity, and culture that provide a safe space for conversations and sharing strategies for successfully navigating potential obstacles. Creating communities of learners to support underrepresented groups is not new, but it has often been an approach used for a specific major, such as science and engineering. Treisman (1985) sought to build a community at University of California, Berkeley of freshmen students from underrepresented groups with the expectation that they would provide each other with peer support while focusing on academic excellence. In addition, supplementary instruction was provided to the students along with monitoring progress, providing academic advising, and advocating for their interests. Comparing participants' results with those of nonparticipants demonstrated that participants achieved their academic goals and that participation contributed to students' persistence in the science and engineering major. It is certainly plausible that the goals and structure of the program at Berkeley and others like it would be beneficial to a group of underrepresented students attending an EPP.

Another way that students from underrepresented groups may struggle is through *stereotype threat*, a term that is associated with difficulty achieving and maintaining school success where members of underrepresented groups may feel that "others' judgments or their

own actions will negatively stereotype them in the domain" (Steele, 1997, p. 613). This may lead to anxiety about their ability to succeed, which could contribute to test anxiety as well as feeling as though they do not belong in the program or school. Steele noted that more effective schooling would be more likely to help students combat stereotype threat, rather than trying to change the students' internalized views. He suggested several strategies, including (a) "an optimistic teacher-student relationship" that focuses on the instructor conveying the message that students have the potential to succeed; (b) "challenge over remediation," which recommends giving students challenges that show respect for their ability; and (c) "stressing the expandability of intelligence," which affirms that they can and will grow in knowledge and skills (p. 613).

In the same vein as managing stereotype threat, self-affirmation may be an approach helpful to students from underrepresented groups who do not feel a sense of belonging on campus. This approach may involve activities such as guided writing to affirm one's sense of belonging. Layous et al. (2017) conducted a study of students with a low sense of belonging and found that the GPAs of those who participated in affirming writing activities increased over three semesters, whereas nonaffirmed students with a low sense of belonging declined in GPA over three semesters.

At the high school level, a study found that African American high school students who participated in a networking group that was designed to support and engage Black students in school showed that students felt safer and more connected, and grade point averages, disciplinary referrals, and attendance showed positive trends (Grier-Reed & Wilson, 2016). While that study focused on high school students, groups and networks providing support to underrepresented college students have also been reported by EPPs to be beneficial (Roth & Goe, 2018).

Strategy 9: Use placement assessments to identify students at risk. Using placement assessments or in-class assessments at the beginning of the course to identify students who may be at risk for failing a course due to a lack of prerequisite knowledge may prove to be a useful tool in identifying students in need of additional support. The use of such assessments is not intended to identify only students from underrepresented groups who need assistance, but rather to identify all students who may need more intensive support in order to perform well on required tests. It is preferable—both financially and for the students' confidence in their own ability—to identify students' weaknesses and address them prior to their taking the required tests, and the placement assessment can facilitate this effort. Once concerns are identified, the

EPP can set up study groups with group leaders who know the subject and understand students' common misconceptions and errors. While the EPP may need to pay study group leaders for this work, it would be more cost-effective to help struggling students complete the course than to risk their dropping out of the program because they failed required tests and do not persist. Similarly, tutors can be assigned to students who need one-on-one attention to pass required courses. However, students who have been identified by pretest results as relatively close to passing may benefit more from tutoring and other test-preparation support than students whose pretest performance is very low. For students with very low pretest performance, more intensive coursework and support will likely be needed (Longwell-Grice, McIlheran, Schroeder, & Scheele, 2013).

Strategy 10: Determine which support strategies are most needed for the students to receive additional learning support and are cost-effective for the EPP. Along with other challenges focused on measures of student success, maintaining the required GPA, completing course requirements, and preparing for end-of-course exams may require support. An EPP may consider student tutors or highly proficient students to provide struggling teacher candidates with assistance. Creating support groups for underrepresented students may also be worthwhile. Bennett (2002) described Project TEAM at Indiana University as an instructional initiative focused on promoting the success of students from underrepresented groups interested in teaching. Bennett found that an honors seminar designed for minority students "reveals the value of collaborative group pedagogy that encourages best effort and high achievement, rather than a competitive learning environment based on individual tests and papers" (p. 25). In other words, participants were able to focus on and discuss their own identities as students, including their experiences and interactions with their coursework, professors, and other students, in ways that supported their continued academic growth and commitment to teaching careers. Ninety-two percent of Project TEAM participants graduated, and 80% went on to become teachers in public schools. EPPs may wish to compare the costs of supporting such efforts with the cost (and likelihood) of losing students because they cannot maintain the required GPA.

It is worthwhile for EPPs to determine which support strategies are most effective for promoting the success of students from underrepresented groups specific to their program's and their students' needs. Surveying students, convening a focus group, consulting with advisors, and other methods may be useful to identify the most beneficial supports for students at a particular

school. Determining how much the support strategy costs per student can allow the EPP to make some comparisons and prioritize those support strategies that are providing the best value for the amount spent—meeting students' needs without breaking the budget. There are many support strategies that may contribute to improving retention. For example, "MSIs engage in a range of retention strategies which have proven to be especially necessary and effective for poor and first-generation college students, including: personal mentoring and intrusive counseling, greater access to financial aid and childcare, more flexible scheduling of classes, cohort models, and structured help passing high-stakes testing" (Ginsberg et al., 2017, p. 18). Intrusive counseling, also called intrusive advising and high-touch intrusive counseling, are terms that describe advising or counseling that seeks to focus not only on academic concerns but on problems, concerns, and more complex and long-term decisions (Glennen, 1976).

Challenge 4: Graduating Diverse Teacher Candidates

There are multiple challenges when ensuring that underrepresented students persist to graduation. First, these students are at greater risk for dropping out or failing to complete their degree on time (Ishitani, 2006). Financial issues are a contributing factor, and EPPs may want to consider proactive measures to prevent stop-outs and drop-outs and also take advantage of outcomes-based funding (Strategy 11). When students enter their internship semesters, also known as student teaching, the time requirement in addition to their coursework expectations can often impinge on their time for other commitments, such as part-time jobs. While the financial aspect of completing an unpaid internship may be of greatest concern for students who have limited funds, the assurance of a positive experience in their student-teaching placement may be of great importance, as described in Strategy 12. Even when teacher candidates complete their EPP coursework and their internships semesters, the hurdle of licensure examinations is still in front of them. EPPs can help with this challenge by using student data to determine specific student needs and by providing support for students in preparing for these examinations (Strategies 13 and 14, respectively).

Strategy 11: Take advantage of outcomes-based funding. Students, colleges, and states all benefit from on-time graduation. Students graduate with less debt and are able to enter the workforce sooner. This is an important factor in states with teacher shortages. The increase in working college graduates also generates tax revenues for the state. Colleges benefit by increasing both their enrollment and graduation rates, because more openings are available for

new students to enter the program as students graduate on schedule. EPPs and other departments within the college benefit directly or indirectly from the additional funds. According to a recent report, more than half the states have outcomes-based funding (OBF) in place for colleges (Holly & Fulton, 2017). Metrics for success may include degrees awarded, progress toward completion, and certification that prepares students for workforce demands. An OBF typically focuses on 2- and 4-year colleges and may include state-funded incentives. For example, the researchers found that in Kentucky, 35% of higher education allocations are reserved to be used as performance incentives. Planning for on-time graduation should be a means of focusing on students' long-term success, beginning with the admission process. Knowing that some groups of students (such as first-generation students and those from low-income households) are at greater risk for failing to graduate on time should lead departments within the university to develop strategies that support students' efforts to graduate on time as well as ensuring consistent oversight of students' progress on their individual journeys.

        Strategy 12: Promote successful candidate/school assignment matches. Besides financial hardship, another concern about student teaching is a potential mismatch between teacher candidate and assignment, which may lead to discouragement and perhaps leaving the program. A study by Goldhaber, Krieg, and Theobald (2016) found "strong evidence that interns who student taught in schools with less teacher turnover (i.e., a higher stay ratio) are less likely to leave the state's public teaching workforce" (p. 20). This research suggests that care should be taken to ensure appropriate placements that will nurture student teachers' desire to stay in the profession. Further, The National Council on Teacher Quality (Greenberg, Pomerance, & Walsh, 2011) recommended that cooperating teachers have at least 3 years of teaching experience, be effective instructors, be capable of mentoring another adult, and be willing to take on a student teacher. Careful consideration by EPP staff is needed to ensure that all of these requirements are met for each student teacher. However, for EPPs in hard-to-staff urban areas, these recommendations may be difficult to follow, however well-intended.

        Strategy 13: Determine student support needs in preparing for licensure assessments. As noted above, the expense of providing teacher candidates with support to prepare for required tests may be cost-effective, compared with student attrition. Passing rates for EPPs are a key component of Title II reporting (Educational Testing Service, 2017), state approval, and national accreditation, and are thus important for the EPPs, not to mention the

investment in time and money for the student. For that reason, investment in providing support for students as they prepare to take licensure tests is cost-effective for the EPP. Practice test results or other means of assessing students' readiness for taking and passing the test are useful sources of data that can provide insights into how students might perform on a test of basic skills or a licensure test. In addition, students' performance on coursework related to the content may provide some evidence about the need for additional targeted support. In order for EPPs to develop strategies that will help students succeed on licensure tests, they should reject a one-size-fits-all approach in favor of targeted support that focuses on identified weaknesses for particular students.

Strategy 14: Provide students with support in preparing for licensure assessments. A recent thesis by Ellrich (2014) focused on whether SAT scores are predictors of education majors' success in the EPP. While focused on the SAT, the study also looked at other measures of student success, including whether students passed the *Praxis*® I and II exams.[1] The students surveyed were asked about the importance of the use of study materials for the Praxis exams and indicated on a scale of 1 to 5 (with 5 being the highest) an average importance of 4.03 (p. 33). They also noted that academic-sponsored study sessions were the single most important Praxis support that helped them be successful. This study appears to confirm the need for intentional, EPP-sponsored support for students as they prepare for required exams. While the study focused on *SAT*® and Praxis exams, it is likely to hold true for other teacher examinations as well. Longwell-Grice, McIlheran, Schroeder, and Scheele (2013) found that tutoring does make a difference for students in Praxis performance. However, their study found that for improvement to occur, the tutoring had to be closely targeting the math knowledge needed for specific content that appeared on the test. Thus, determining what specific learning tutoring should focus on may make a difference in how well students perform on tests.

Summary

The complexity of the issues involved in attracting, admitting, supporting, and graduating underrepresented students from EPPs cannot be overestimated. This research memorandum touches on some of the challenges experienced by EPPs, focusing particularly on those issues that are most relevant to EPPs that want to consider various approaches to increase diversity in their programs as well as to ensure the successful completion of graduation and teacher licensure requirements. We have focused primarily on four areas: (a) attracting students from

underrepresented groups to EPPs, (b) admitting students equipped with financial literacy and adequate financial support, (c) supporting students and helping them maintain their GPA, and (d) graduating diverse teacher candidates. We also realize that contextual factors specific to individual EPPs make some of the challenges and strategies more or less likely to be relevant, and we recognize that policy changes within universities and colleges may be difficult. Thus, we do not anticipate that an EPP will embrace all of the strategies we have described, but we hope to inspire leadership and staff members at EPPs to consider their own school's challenges and visualize a way forward that will ensure greater diversity within their programs.

We believe that more research is needed to clarify the challenges and solutions, and ETS is currently undertaking a multiyear effort to address research in this area by collecting survey, phone interview, and site visit data from EPPs throughout the country. We look forward to sharing our findings in the near future. We also hope to promote and participate in the continued collaboration of EPPs which have expressed a deep commitment to ensuring a more diverse teacher workforce at national conferences. Moving forward, we hope to see EPPs continue the conversations around how to ensure that the diverse students they invite to their programs are given the tools, guidance, and financial support they need. We also hope that EPPs will conduct their own research and hold conversations with students, faculty, and staff to determine how the EPPs can best support successful outcomes.

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Notes

[1] In 2014, Praxis I was renamed. It is now called Praxis Pre-Professional Skills Test, commonly abbreviated as Praxis Core. Praxis II tests are subject-specific tests and are typically called Praxis Subject Tests.