



Measuring the Power of Learning.®

Expanding the Teacher Pipeline

Initiatives for Driving Quality and Diversity
in the Teacher Workforce

ETS®
**Professional
Educator**
PROGRAMS

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Introduction

States and school systems across the country are struggling with teacher shortages in key areas of instruction, as well as with a lack of diversity in the teacher workforce at a time when the diversity of the K–12 student body is increasing.

While educator preparation programs actively engage in attracting and admitting students interested in the teaching profession, there remain stumbling blocks at many level for all students. ETS has made it a mission to work with the educator preparation community to help candidates from underrepresented groups enter the teacher workforce.

Through research and outreach, our goals are to:

- widen the path into preparation programs for students interested in teaching
- maximize the success of those who have entered preparation programs
- open the pipeline for candidates from underrepresented groups

The following papers examine a series of efforts by ETS and the educator preparation community focused on strengthening the teacher pipeline and the quality of the teachers entering America’s schools.

Raising Diversity in the Educator Pipeline

As our nation has grown more diverse, the demographics of the teacher workforce have not kept pace with the changes in student demographics. Today, teachers of color make up 17.5 percent of the workforce, while students of color constitute about 45 percent of the public school population. While actual percentages differ from state to state, and district to district, one fact remains the same — the nation has a significant diversity gap between the teacher workforce and the PK–12 student body.

Why is being committed to teacher diversity important? According to a report by the U.S. Department of Education, *The State of Racial Diversity*, diversity in schools, including diversity among teachers, provides a significant benefit for students. The report states in part that:

“Improving teacher diversity can help all students. Teachers of color are positive role models for all students in breaking down negative stereotypes and preparing students to live and work in a multiracial society. A more diverse teacher workforce can also supplement training in the culturally sensitive teaching practices most effective with today’s student populations.”

Many states have adopted programs to bring more teachers of color into the profession through early identification of prospective teacher candidates in middle and high school, alternate route preparation and certifications, scholarships and other financial incentives, and professional support systems for beginning teachers. For its part, ETS directly supports these types of initiatives and others to raise diversity in the educator pipeline.

State Agency Initiatives

Connecticut: Connecticut’s district leaders and educator preparation programs (EPPs) have identified ways to bolster diversity in their teacher pipeline. ETS’s role is to engage with policymakers, stakeholders, EPPs, community members and alternate route programs to support key strategies to inform actions to address the diversity gap. These activities include disseminating research and information to the Minority Recruitment Task Force, providing guidance on test development and test resources, helping EPPs with test review sessions and supporting an alternate certification program that focuses on candidates of color to assist these candidates in test preparation.

Virginia: ETS worked with the Virginia Secretary of Education, the Governor’s Task Force on Diversifying the Teacher Pipeline and the Virginia Association of Colleges for Teacher Education to strengthen diversity in the state’s teacher pipeline. ETS accomplished this goal by sharing knowledge, providing research findings, and making presentations on key topics and successful strategies in this area.

Developing Unbiased Teacher Licensure Tests

ETS is the developer of the *Praxis*® tests for teacher licensure. A widely adopted national program, the *Praxis* tests are administered to pre-service teachers at various stages in their licensing process. ETS works with EPPs and the state agencies that oversee the preparation and licensure of new teachers to ensure that such tests provide an equal opportunity for every test taker to demonstrate their readiness to teach, regardless of race and background.

We work closely with all stakeholders to include the voices of teacher candidates of color and minority-serving EPPs in every stage of the development process to verify that tests are free of cultural bias.

Research Initiatives

ETS researchers are investigating and documenting what EPPs are doing to meet the challenge of the diversity gap. ETS is also planning research on intercultural competence to help a largely White teacher workforce teach multicultural students in a culturally sensitive way.

Current initiatives include:

- **EPP Diversity Survey:** In Spring 2016, ETS distributed a survey to EPPs across the country, seeking to understand how programs attract, admit, support and graduate teaching candidates from underrepresented groups. Insights from the survey were used to plan more in-depth research through interviews and case studies.
- **EPP Interviews and Site Visits:** As a follow-up, ETS conducted interviews with EPP faculty and administrators who completed its diversity survey, identifying strategies that support candidate success and explaining the challenges experienced by these programs. Seven site visits were conducted with EPPs that have been successful in raising diversity and the strategies they have used are being reported in a paper that will be available soon.
- **Literature Review:** ETS is conducting a review of the research literature, seeking to identify underlying causes that have contributed to the diversity gap in the teacher workforce. We presented preliminary results at the NASDTEC 2017 Ted Andrews Winter Symposium, as well as the NASDTEC 2017 National Conference, and have conducted workshops for EPPs at two Quality Workshops (in Fort Worth, Texas, and Minneapolis, Minn.) sponsored by AACTE. ETS researchers also reported findings from site visits at the NASDTEC 2018 National Conference, describing challenges and discussing strategies with conference attendees.
- **Minority Performance on the *Praxis* Test:** A related ETS research study focuses on understanding the differences among passing rates for the *Praxis*® Core Academic Skills for Educators assessment (or *Praxis*® Core), a program entry test. The study examines students with different backgrounds and their course-taking histories. It also compares students' initial results and retake patterns. The goal of this work is to develop a better understanding of test takers' behavior before taking *Praxis* Core, and persistence if they fail to achieve a passing score, which may contribute to the development of strategies and supports for underrepresented students applying to an EPP.
- **ETS/National Education Association Study on Increasing Teacher Diversity:** ETS and the National Education Association have co-published the report, *Toward Increasing Teacher Diversity: Targeting Support and Intervention for Teacher Licensure Candidates*. It focuses on the performance gap in demographic subgroups of teacher candidates on *The Praxis Series*® assessments. This report also offers insight into strategies and interventions that can be employed to better support minority candidates in meeting full licensure requirements.

Other Projects

- **Strengthening Instruction in Tennessee Elementary Schools: Focus on Mathematics (SITES-M):** Between 2008–2015, ETS supported and improved teacher quality in hard-to-serve areas by joining Tennessee State University and launching the SITES-M project. This math instruction program was developed at the request of the Tennessee Black Caucus of State Legislators. SITES-M provided support to five universities, four of which are Historically Black Colleges and Universities (HBCUs), to create a Summer Math Institute and Saturday Math workshops. These initiatives provided innovative mathematics-centered learning communities for K–8 teachers serving in low-income urban schools.
- **Algebra Project, the Southern Initiative of the Algebra Project and the Young People's Project:** Since 2011, ETS has been collaborating with these three organizations that are dedicated to strengthening the teaching and learning of mathematics for students in the bottom quartile of socioeconomic status and in math achievement. ETS has developed assessments designed for their curricula and collaborates with them on research.
- **Young Scholars Program:** ETS and the University of Texas at San Antonio (UTSA) formed a partnership to create the Young Scholars Program. It is designed to attract minority undergraduate students who are interested in research, assessment, statistics and education. In their first and second year, students participate in a seminar series where they engage in learning activities with UTSA faculty and receive mentoring sessions from ETS staff members.
- **HBCU-ETS Steering Committee:** Founded in 1983, this committee is comprised of seven HBCU presidents who meet regularly to provide guidance to ETS, bringing to light the issues that directly affect their student and teacher populations. Recently, the committee has focused on investigating the role of noncognitive assessments in student retention.

It Starts at the Top — Promoting Diversity Among Educator Preparation Program Leadership and Staff

The need for institutional support for diversity in EPPs. Institutional support for diversifying educator preparation programs is critical. Price & Valli (1998) stated it well: “These problems — lack of clarity about multiculturalism and lack of diversity among faculty — certainly hinder attempts to change teacher preparation programs. It is thus essential that institutions as a whole become involved in the process of transforming curriculum and the lived experiences of the various actors connected to the preparation of teachers. Without such an institutional commitment, the obstacles are insurmountable” (p. 115). ETS’s engagement with EPPs, through a survey, phone interviews and site visits, identified several EPPs that have diversified their leadership, staff and faculty as part of a larger concerted effort to create a welcoming, supportive environment for students from underrepresented groups.

How EPP leadership, faculty and staff can promote diversity. Part of the recruitment challenge is ensuring a welcoming environment for diverse students. EPPs may want to examine their programs and the supports that are provided to students from underrepresented groups. Green & Martin (2018) reported on the barriers encountered by four Black men seeking to become teachers and identified several themes: 1) faculty and teachers’ bias about students of color, 2) feelings of isolation, and 3) limited culturally responsive teaching practices in teacher preparation programs (p. 6). EPPs may want to consider ways to proactively identify and address their own barriers in order to provide more supportive, inclusive environments for students from underrepresented groups, which may make those EPPs more attractive to students interested in teaching careers. EPPs might also examine their hiring practices in relation to increasing faculty diversity.

The role of the Chief Diversity Officer. Another institutional support for increasing diversity in the university is the position of Chief Diversity Officer (CDO). The Standards for Chief Diversity Officers in Higher Education describes the knowledge needed by CDOs, including Standard 6: “Has an understanding of how institutional programming can be used to enhance the diversity mission of higher education institutions for faculty, students, staff, and administrators” (Worthington, Stanley, & Lewis Sr., 2014, p. 231). While the position seems to hold promise for supporting diversity efforts for EPP students, faculty and staff, little research exists on how CDOs prioritize their responsibilities and on what metrics are used to determine their success. Institutions may find it useful to document how CDOs prioritize their responsibilities and clearly define the metrics used to determine their success so that the impact of CDOs’ efforts can be documented, particularly for programs (such as EPPs) that seek greater diversity.

From our engagement with EPPs, a standout example of an EPP’s effort to support diversity is an all-male support group for Black teacher candidates in a predominantly White EPP. The EPP recruits African-American men who teach in nearby school districts to serve as mentors for the students in the support group.

The importance of mentoring and support for students from underrepresented groups. Research is beginning to show us that academic advisors can play a key role in attracting and supporting students of color. A study consisting of interviews with advisors (including both male and female White advisors and advisors of color) and the students of color they served in predominantly White universities found that particular characteristics of advisors may be contributors to students’ success, as measured by retention in the university and graduation rates (Museus & Ravello, 2010). Analyses of the data revealed that students of color appreciated advisors who “humanized” academic advising by “being human” with them and also by being caring and committed to their students’ success. Students also favored advisors who employed a multifaceted approach to advising. Finally, interview participants underscored the importance of proactive academic advisors.

Approaches used by three EPPs. We reached out to numerous EPPs and asked them to share with us what actions they were taking to increase teacher diversity at their institutions, including three programs that were situated in predominantly White institutions, but reported that they were making efforts to increase diversity among their EPP students. We interviewed program representatives and conducted site visits at the three institutions. The programs had the following characteristics: institutional commitment to diversity, Black leaders and/or recruiters in the EPP, well-resourced recruitment efforts to attract students of color, programs and organizations for supporting/mentoring students of color, caring advisors and strong mentor relationships.

Title II data (<https://title2.ed.gov/Public/Home.aspx>) for the three EPPs showed that the enrollment of students identified as Hispanic/Latino, Black/African American, and two or more races increased from the 2013–14 to the 2015–16 academic year, which aligns with the time frame the diversity efforts were put into place or expanded (although it cannot be assumed that the diversity efforts alone led to the observed increases). In one EPP, the percentage of students of color enrolled more than doubled: from 10 percent in the 2013–14 academic year to 21 percent in 2015–16. Another EPP increased enrollment of students of color from 9 percent to 15 percent in that same period, and a third university increased from 8 percent to 11 percent. In all three EPPs, the leaders we spoke with noted the importance of their university's and their EPP's commitment to hiring leadership of color for the EPP and providing adequate funding for the EPP as they focused on increasing diversity through targeted recruitment efforts. Within the three EPPs, leaders communicated with students proactively to determine needed support and ensure that it was available to them, and multiple opportunities were provided for students of color to meet and be mentored by faculty of color.

In conversations with EPPs, we learned that underrepresented students benefitted from the university's spending on institutional supports such as additional recruiters and positions focused on attracting and admitting students of color, including traveling outside the predominantly White environs of the university when needed.

Overcoming EPP location as a barrier to attracting students of color. Across the EPPs with which ETS engaged to better understand the challenges that they are facing, a key challenge they reported in efforts to attract or recruit underrepresented candidates was quite simply the lack of diversity in their immediate geographical location. However, some EPPs, such as those described above in the three site visits, are focusing on diversifying their leadership, staff and faculty in the EPP. They develop intentional, planned recruitment and support efforts, including reaching out to high schools or community colleges serving diverse student populations, even when this means traveling to where students from underrepresented groups are and bringing them to the campus for visits.

Among the three EPPs we highlighted above, all of which are located in predominantly White geographical locations, hiring leadership and staff of color and giving them opportunities to develop targeted recruitment efforts may have played a role in diversifying their EPPs.

Green, S. L., & Martin, D. (2018). Playing the Game: Recruiting Black Males in Teaching. *Multicultural Learning and Teaching*, 13(1).

Museus, S. D., & Ravello, J. N. (2010). Characteristics of academic advising that contribute to racial and ethnic minority student success at predominantly white institutions. *NACADA Journal*, 30(1), 47–58.

Price, J., & Valli, L. (1998). Institutional support for diversity in preservice teacher education. *Theory into Practice*, 37(2), 114–120.

Worthington, R. L., Stanley, C. A., & Lewis Sr., W. T. (2014). National Association of Diversity Officers in Higher Education standards of professional practice for chief diversity officers. *Journal of Diversity in Higher Education*, 7(4), 227.

Diversifying Educator Preparation Programs — Financial Challenges and Targeted Solutions

Financial challenges confronting EPPs. Though our research focused on challenges and solutions for increasing the diversity of the teacher workforce, ETS researchers identified three main areas in which financial issues can impact EPPs' success or failure in attracting, admitting, supporting and graduating students from underrepresented groups (students of color, language minority students and first-generation students). In this brief, we will discuss these three areas: 1) prospective or admitted students' financial insecurity; 2) scholarships or other funding at the EPP to attract and/or support students; and 3) recruitment resources and institutional commitment.

Addressing financial insecurity of students. Financial insecurity has been identified by underrepresented students as making it difficult to go to and/or continue in college (Zerquera & Smith, 2015). Zerquera and Smith found that even students receiving state scholarships to attend college still had difficulties with the cost of textbooks, housing and living expenses. They also noted that some students provided financial support for family members, and thus had to find additional sources of support (loans, work study, part-time jobs). Furthermore, in Zerquera and Smith's study, program administrators expressed concern about students' financial literacy and inability to appropriately budget their financial aid.

However, there are opportunities for underrepresented students to receive supplemental funding. Eagan et al. (2014, p. 10) noted 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."

While these grants can be very helpful, not all students who qualify are aware of them or apply for them. In fact, communicating with students has been shown to be challenging — staff reported that students did not regularly check their email accounts (Zerquera & Smith, 2015).

Zerquera and Smith also found that the supports (financial as well as mentoring, work study, etc.) varied 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 needed to know about campus life. But campus staff reported being prevented from providing more extensive support by their own budget constraints.

Scott-Clayton (2015) summarized research on the role of financial aid in promoting college access and success:

- Net prices matter for college access and college choice.
- Program complexity undermines aid effectiveness.
- Students need proactive help to navigate the aid system, not just more information.
- Every program has incentives and these incentives affect outcomes.
- While loans are unpopular, they may still be an important tool for access.

Scholarships or other funding at the EPP to attract and/or support students. Sleeter and Milner (2011) addressed the question of how to attract and support students of color in the EPP, noting that "programs aimed toward college students offer scholarships as well as other support that will enable them to successfully enter and succeed within the teacher education program" (p. 88). To further investigate how EPPs attract, admit, support and successfully graduate teachers from underrepresented groups, ETS researchers collected surveys from 2016 to 2017 from 139 EPP representatives in 29 states.

When asked "What factors do you believe have contributed to any difficulties your college or university has had in attracting or recruiting underrepresented candidates?," eight respondents indicated that no or limited scholarships for students made it difficult to recruit students from underrepresented groups, while 25 respondents noted that the high cost of tuition at their institutions made it difficult to attract diverse students.

When asked “When you have had success in recruiting students from underrepresented groups to your EPP and supporting them through graduation and initial licensure, what factors appear to have made the most difference?,” 20 respondents indicated that financial support and/or scholarships were most important to their success, but few had sufficient funds for all of the students who had financial needs. One survey respondent indicated that their partnership with a local community college allowed students to complete basic requirements at a lower cost, then complete their teaching courses at the university.

Federally funded TEACH grants provide up to \$4,000 a year for students in eligible EPPs who are willing to commit to teach in a high-need assignment — such as special education, bilingual education, foreign language, math, science or reading specialist — for at least four years in a school serving low-income students.

Recruitment resources and institutional commitment. In our survey, a respondent commented that one reason they had difficulty in attracting students from underrepresented groups to the EPP was because of a cut in recruitment resources. Recruitment resources may be used in a variety of ways that have the capacity to improve diversity. One example from site visits conducted by our research team was an EPP that sought to hire a recruiter of color, but when two outstanding candidates applied, they hired both. As a result, diversity within the program, within a predominantly White institution, has improved. It is notable that the institutional commitment was present in this case, since a significant increase in funds was needed to support this decision. In addition, a commitment to diversity is likely to require more funds for recruitment efforts in geographical locations that lack diversity or in areas where most students from underrepresented groups have significant financial needs.

Finally, many of the institutions ETS researchers interviewed or visited as part of our research had been very successful in diversifying their programs and most had found external funding to support their efforts at diversifying their programs from a variety of public and private sources. Using funds for strategic hiring decisions that drove targeted efforts to attract underrepresented students appears to have contributed to successful outcomes.

In summary, EPPs may find that a substantial financial commitment — to students, recruiters, EPP leadership and support staff — will be needed to ensure successful outcomes in efforts to diversify their programs. Ensuring successful recruitment, providing students with support packages sufficient for their needs, conducting workshops for students on acquiring and managing funding from multiple sources, and providing individual financial counseling as needed are all part of a complete package.

Eagan, K., Stolzenberg, E. B., Ramirez, J. J., Aragon, M. C., Suchard, M. R., & Hurtado, S. (2014). The American freshman: National norms fall 2014. Retrieved from <https://assets.documentcloud.org/documents/2710405/The-American-Freshman-National-Norms-Fall-2015.pdf>

Scott-Clayton, J. (2015). The role of financial aid in promoting college access and success: Research evidence and proposals for reform. *Journal of Student Financial Aid*, 45(3), 7–23.

Sleeter, C. E., & Milner IV, H. R. (2011). Researching successful efforts in teacher education to diversify students. In A. F. Ball & C. A. Tyson (Eds.), *Studying Teacher Diversity* (pp. 81–103). New York: Rowman & Littlefield Publishers, Inc.

Zerquera, D. D., & Smith, J. S. (2015). More than access: the role of support services in the transitional experiences of underrepresented students in a statewide access program. *Journal of Student Financial Aid*, 45(1), 27–44.

Attracting Them Early — K–12 Teacher Academies as a Lever for Increasing Enrollment of Diverse Teacher Candidates

Attracting youth from diverse backgrounds to the teaching profession. As EPPs seek a more diverse cohort of future teachers, the problem of how to attract youth from diverse backgrounds to pursue a career in teaching remains difficult to solve. However, some EPPs have responded to the challenge by establishing school-university partnerships with local school districts — especially schools with a diverse student body — to establish teacher academies. Partnering with schools is intended to help provide students of color, first-generation students and English learners with help along the pathway to pursuing teaching as a career.

ETS’s engagement with EPPs, through an online survey and phone interviews, has identified several EPPs that are in varying stages of conceptualizing and enacting teacher academies. The following brief reports on recent studies in this area, as well as some of the learning ETS researchers have recently documented.

What we know from past research. Creating innovative programs aimed at various stages in the teacher pipeline is a crucial step to bolstering the diversity of enrolled teacher candidates, and teacher academies for high school students can play a big role in a solution, as suggested by Sleeter and Milner (2011). But while such programs have been implemented since the 1980s, research on their impact and best practices of these programs remains sparse. Further, studies tend to be narrative in nature, often do not track a program longitudinally to show its long-term impacts and are not often conducted by external evaluators (Fletcher & Diccio, 2017). However, studies documenting characteristics that may lead to success are worth considering when creating a program, such as mentorship by pre-service teachers from the EPP, early earning of college credit and exposure to the university through on-site visits, as well as the inclusion of culturally relevant curriculum (Hunter-Boykin, 1992; Fletcher, 2013; Yopp, Yopp, & Taylor, 1992).

In an online survey conducted by ETS from 2016 to 2017 of 139 EPP representatives from 29 states, 26 percent said that they “work with or sponsor teacher academies at local high schools for students interested in teaching careers” as part of an effort to recruit teacher candidates from underrepresented groups.

An example of a teacher academy showing emerging success. During in-depth interviews with EPP leaders from across the country, one emerging success story of a teacher academy partnership stood out. An EPP representative from a large public research university in an urban setting told of their school-university partnership and teacher academy program, which was implemented to address the state’s teacher shortage crisis. The program recruits eighth-graders into a teacher academy cohort as they prepare to enter high school. At the high school, dedicated partnership teachers engage students with a rich curriculum that is written by an EPP faculty member and supplements the students’ general high school courses. The teacher academy classes, which take the place of other electives, include curriculum on critical thinking, writing and teaching-related topics. Courses are intended to provide a “solid knowledge base and foundation,” help “enrich [students’] interest in education and teaching,” and help prepare students for success in college and the workforce.

The goal is that once these students graduate high school, they will be prepared to meet entrance requirements (e.g., minimum GPA, entrance examinations) in order to enroll in the supporting university’s EPP. Additionally, admissions officers provide early information sessions at the high school for students to learn about the college process, instead of waiting for students to approach the university in their junior year. This proactive measure is meant to expose students and parents as early as ninth grade to the process in order to demystify it.

The program recruits students into the cohort while they are in eighth grade through information sessions on the range of education careers. While the program currently has only two cohorts, EPP leaders are noticing an increased interest from students and parents, as well as increased enrollment of both non-White and male students in the cohorts. For example, in the current ninth- and tenth-grade cohorts, nine out of 10 students are non-White, and the percentage of boys is 70 percent in ninth grade and 42 percent in tenth grade. Further, enrollment more than doubled in the second year.

“ [A]n effective school-university partnership must be symbiotic, embodying three basic characteristics: (1) the partners need to be dissimilar (e.g., having different missions), (2) the goal of the partnership should address the self-interest of each institution, and (3) each member should sacrifice sufficiently so as to fulfill the needs of other participants” (Ayalon, 2004).

Considerations for EPPs when envisioning teacher academy partnerships. Other EPP leaders discussed some pitfalls and concerns from partnerships that did not work out. To mitigate these troubles, leaders suggested careful planning to maintain a consistent leadership and funding source, as well as dedicated time to oversee the success of the program, being mindful that it could take at least five years from program implementation until the first cohort arrives on the university campus. It was recommended by one EPP dean not to consolidate leadership with only one individual on campus; a diversified leadership team both at the EPP and the school would ensure that one person leaving his or her position would not significantly jeopardize the program. The leaders viewed careful planning and detailed agreements as integral to assuring the program is beneficial to the EPP, the local school and the students.

Others suggested that when approaching a local school district, consider what the EPP has to offer in addition to what it has to gain. Some examples include EPP faculty leading on-site teacher professional development sessions, placing pre-service teachers in the school’s classrooms, funding the development of curriculum for the teacher academy cohorts and providing funding to cover the teaching academy teacher’s time.

If a teacher academy program is not possible, some EPP leaders suggested considering smaller-scale projects in partnership with the local schools, such as implementing a faculty-in-residence program. One EPP representative we interviewed discussed such a program in which a professor spends half of his or her time at the high school working with teachers and conducting research.

Through teacher academies, collaboration with local school districts is one approach for EPPs to consider to help foster and support the interest of future teacher candidates from diverse backgrounds.

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Fletcher, E. C. (2013). High school students’ exposure to diversity in an urban teaching academy and their conceptions of its place in future practice. *Urban Review*, 46, 597–619.

Fletcher, E. C., & Diccio, M. (2017). Exploring teacher concerns of pre-collegiate urban teaching academy students. *The Teacher Educator*, 53(2), 114–137.

Sleeter, C. E., & Milner IV, H. R. (2011). Researching successful efforts in teacher education to diversify students. In A. F. Ball & C. A. Tyson (Eds.), *Studying Teacher Diversity* (pp. 81–103). New York: Rowman & Littlefield Publishers, Inc.

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