

Literature Review: Teacher Recruitment and Retention
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Introduction: The Problem of Teacher Shortages

A steady increase in student enrollment has grown the demand for teachers across the United States over the last 30 years (Aragon 2016a; Ingersoll, 2016; Murnane and Steele, 2007). However, teacher production has also steadily increased during the same period, resulting in smaller student-teacher ratios in schools (Aragon, 2016a; Murnane et. al., 2007). Additionally, national trends show a decrease in the percentage of schools with teaching vacancies (Aragon, 2016a). Nevertheless, specific schools, districts, and states continue to face serious teacher shortages (Aragon, 2016a; Aragon, 2018; Murnane et. al., 2007).

Teacher licensure requirements and other factors that facilitate or hinder the entrance into the profession affect each state's ability to attract and retain teachers. Additionally, there are understaffed and high-demand teaching positions across the nation, such as math, science, and special education. Furthermore, urban, rural, high-poverty, high-minority and low-achieving schools face more staffing challenges (Aragon, 2016a). This is often attributed to worse working conditions and neighborhood characteristics associated with these schools (Ingersoll, 2016; Murnane et. al., 2007). As a result, states and districts often turn to underqualified teachers who are more likely to leave the field to fill positions, particularly in high-need schools (Darling-Hammond, Schachner, & Edgerton, 2020; Espinoza, Saunders, Kini, and Darling-Hammond, 2018; Murnane et. al., 2007).

90% of the annual demand for teachers has been created by teachers leaving the profession (Espinoza et. al., 2018). Hence, the increased demand of teachers may not be primarily due to student enrollment increases, but to teacher turnover. Proof of this is that school to school differences in turnover are significant and there are similarities in the reasons why teachers leave schools across the country. Furthermore, teacher turnover is strongly correlated with the specific field and younger and older teachers have higher turnover rates than middle-aged teachers (Ingersoll, 2016). This is related with findings that teacher experience and turnover are related (Aragon, 2016c; Murnane et. al., 2007).

Examining teachers of color, although they have grown to be 20% of the teacher workforce over the past 30 years, this number still does not reflect the population of students of color, which is about 50% (Carver-Thomas, 2018; Murnane et. al., 2007). In addition to this, research shows that teachers of color have higher annual turnover rates due to "inadequate preparation and mentoring; poor teaching conditions, and displacement from the high-need schools they teach in" (Carver-Thomas, 2018, p. vi). This highlights the need to specifically address teachers of color shortages.

On the other hand, due to COVID-19, teacher turnover may increase as a result of a reduction of funding. Also, older and/or immune-compromised teachers may leave their positions due to fear of contracting the virus. Additionally, the demand of teachers may increase as more staff is needed to enable social distancing in schools, which includes reduced class sizes, grouping students in small cohorts, and staggering schedules. All of this can worsen teacher shortages across the country (Darling-Hammond et. al., 2020; Griffith & Kini, 2020; Kini & Saunders, 2020).

In sum, teacher shortages may be attributed to limitations in the recruitment, preparation, and retention of teachers (Aragon, 2016a; 2016b; Espinoza et. al., 2018). Hence, to address this problem, efforts should be made to recruit and retain “the right teachers, in the right subjects, for the right schools” (Aragon, 2018, p. 1).

The most common strategies used by states to address teacher shortages are alternative teacher certification, high-retention career pathways into the profession, financial incentives, induction and mentorship, providing leadership opportunities for teachers, facilitating teacher collaboration, and strengthening school leadership (Aragon, 2016a; Aragon, 2018; Espinoza et. al., 2018). Hereunder, we will analyze the literature around some of these strategies, with an emphasis on recruiting and retaining teachers of color during COVID-19.

Method

This literature review examines evidence from research on teacher recruitment and retention as the first step to develop a policy analysis and proposal to The School Superintendents Association (AASA) with recommendations on how to address teacher shortages across the U.S.

To examine evidence-based teacher recruitment and retention strategies, our literature review focused on two questions: (a) What does the research say about models for recruiting teachers into the classroom? and (b) What does the research say about models for retaining teachers in the classroom?

Our review includes peer-reviewed empirical studies, meta-analysis articles, reports from research organizations, and conference papers from the last 20 years that we gathered from academic databases. Search terms included “teacher shortages”, “teacher certification”, “teacher recruitment”, “grow your own programs”, “teacher retention”, and “COVID-19”. We initially identified approximately 25 relevant sources by reading their abstracts and then selected 20 sources by assessing the impact of the journal where they were published, publication year, number of citations, and research design.

Findings

What does the research say about models for recruiting teachers into the classroom?

To answer this question, we examined different teacher preparation models, focusing on what research says about traditional and alternative teacher certification. Then, we researched recruitment strategies for teachers of color emphasizing on Grown Your Own Programs.

Teacher Certification

Traditional teacher preparation programs refer to college- and university-based programs that usually last four to five years. On the other hand, alternative teacher preparation programs are post-baccalaureate programs that vary in length, usually between one to four years (Goldhaber, 2019; Zeichner & Schulte, 2001).

Goldhaber (2019) reviews quantitative evidence about teacher preparation programs. He explains that traditional teacher preparation programs have been criticized for not preparing teachers effectively, despite being approved and accredited by states, while supporters claim that they are a form of professionalizing the teaching profession. On the other hand, opponents

of alternative certification claim that these programs lower the standards of entry into the teaching profession, while supporters argue that they encourage innovation. Additionally, proponents of alternative certification propose deregulating teacher preparation, so schools and districts have greater flexibility for hiring teachers.

Ultimately, Goldhaber finds that most studies show only modest differences in the effectiveness of teachers from different preparation programs, and all show more variation in teacher effectiveness within programs than across them. However, traditionally certified teachers tend to stay in the profession longer.

Goldhaber explains that regardless of whether it is a traditional or alternative certification program, some features seen in effective teacher preparation programs are: student teaching takes place in a school with a low turnover rate and high levels of teacher collaboration; student teaching is “well supervised and aligned with methods coursework” (p. 94); the demographics of student teaching school are similar to the demographics of the career school; the program requires a capstone project that relates their clinical experience to training; and the partner/supervising teacher during student teaching receives a high performance rating (2019).

Adding to Goldhaber’s findings, Darling-Hammond et. al. (2020) highlight the ingredients of high-quality educator preparation programs, which include having a coherent vision and well-defined standards, modeling research-based and effective practices in courses, and integrating strong clinical experiences and performance assessments.

Zeichner and Schulte (2001) focus on peer-reviewed literature on alternative teacher certification and also find differing perceptions about these programs. Particularly, they observe that while critics consider these programs “undermining attempts to professionalize teaching,” others believe that they “enhance the status of the (...) profession by bringing into teaching academically competent individuals who would not otherwise enter the profession” (p. 266).

Comparing teachers from both types of certification programs, Zeichner et. al. (2001) find that teachers from alternative certification programs may have more content knowledge about the subject being taught than teachers from traditional certification programs. However, both alternatively and traditionally certified teachers show the same pedagogical knowledge. Also, they do not find a significant difference in GPAs between both groups. And as Goldhaber (2019), they do not find a difference in perceived teaching performance between them.

Zeichner et. al. assert that alternatively certified teachers in urban areas are “more likely to have grown up in urban areas, speak a language in addition to English, and have high expectations for the learning of poor and minority students” (p. 278). However, traditionally certified teachers are more likely to express a long-term commitment to teaching. Nevertheless, differences in retention rates among teachers from both types of certification vary across subjects, as they have different opportunities outside of teaching depending on their field of expertise (2001).

Kane, Rockoff, and Staiger focus on the city of New York by analyzing six years of panel data on students and teachers to determine the effect of teacher certification on student outcomes (2008). They find that teachers alternatively certified and uncertified tend to work in schools that are urban, high-minority, high-poverty, high-need, and low-performing, in contrast to the schools where certified teachers work. However, certified and uncertified teachers tend to attend less selective colleges than many alternatively certified teachers. Regardless of these differences, like the previously cited studies, they find little or no differences in the average effectiveness of

certified, uncertified, and alternatively certified teachers. However, unlike Goldhaber (2019), they find similar retention rates between the different groups of teachers in this context.

Adding on the findings from these studies, Aragon (2016b) affirms that about 20 percent of teachers are entering the profession through an alternative certification program. Additionally, Aragon (2016b) as well as Espinoza et. al. (2018) explain that the design of these programs varies across states, but they all share the goal of offering a quicker and less expensive path into teaching than traditional programs to individuals who already have a bachelor's degree. Hence, alternative certification programs can not only increase diversity in the teaching workforce, as they attract minority candidates that are more likely to work in urban or high-need schools, but also increase teaching quality, as they encourage individuals with a professional background relevant to the subject being taught to bring new ideas into teaching (Aragon, 2016b). Finally, regardless of certification type, teachers who are and feel better prepared tend to remain longer in the profession (Aragon, 2016b; Espinoza et. al., 2018).

In sum, it seems that certification alone does not determine teacher effectiveness and retention, but instead the preparation and support teachers receive in schools and the opportunities they have outside of them. Additionally, high-quality teacher preparation programs should provide candidates clinical experiences that are aligned with their coursework and assessments.

Diversifying the Teacher Workforce

Carver-Thomas (2018) explains that students of color who enter the teaching profession may be discouraged from completing their teacher preparation program. This may be as a result of personal limitations such as being underprepared for college-level coursework caused by a lack of exposure in high school, family responsibilities, transportation difficulties, dissatisfaction with little faculty diversity, the overall difficulty of being in an environment that does not reflect or respect their culture or experience, and financial constraints. Related with that, teachers of color are more likely to enter the teaching profession through alternative pathways and, as a result, are more likely to leave these schools.

Similarly, Gist, Bianco, and Lynn (2019) highlight the structural barriers that students of color face in teacher preparation programs, such as “economic exclusion, standardized testing, and racially based definitions of teacher quality” (p. 17). Additionally, they explain that these individuals experience a lack of relational capital within teacher preparation programs and schools.

Moreover, Darling-Hammond et. al. (2020) explain that cuts in state funding for higher education will affect low-income students and students of color the most. As a result, many of these students will have an even more limited access to higher education, including teacher preparation programs, which raise concerns in terms of increasing diversity in the teacher workforce.

Rogers-Ard, Knaus, Bianco, Brandehoff, and Gist find that teachers of color are “disproportionately assigned to underresourced schools in low-income urban communities” (2019, p. 25). This finding may be related with the connection between teaching preparation programs and specific schools and districts, as teachers tend to find jobs in the schools where they did their student teaching or where they grew up, which has important equity implications (Goldhaber, 2019; Murnane et. al., 2007).

Rogers-Ard et. al. (2019) explain that students of color are the most affected by the growing teacher shortage and lack of diversity in the teaching workforce. They are more likely to have a teacher who is not certified and does not have a college major or minor in the subject being taught. As a result, they are more likely to be taught by teachers who are less qualified and racially dissimilar than White students. Similarly, Murnane et. al. also identify an “unequal distribution of high-quality teachers”, in which poor students and students of color “are disproportionately assigned to teachers with the least preparation and the weakest academic backgrounds” (2007, p. 36). Furthermore, Darling-Hammond et. al. posit that teacher shortages have been most severe in communities serving low-income students and students of color (2020). This is evidenced in the percentage of uncertified teachers working in schools with high enrollment of students of color - 4.8% - compared to schools with a low enrollment of students of color - 1.2% (Kini & Saunders, 2020).

At the same time, Carver-Thomas (2019) explains that longitudinal data from North Carolina shows that students of color benefit the most from having teachers of color. Similarly, Rogers-Ard et. al. (2019) affirm that the presence of teachers of color is associated with a reduction in suspensions, expulsions, and misplacement in special education as well as an increase in the recommendations to gifted education and graduation rates of students of color. This is related with evidence that “students benefit academically from having teachers whose race or ethnicity matches their own” (Murnane et. al., 2007, p. 22). Furthermore, white students also benefit from having teachers of color, as it has been found that children who have childhood interactions with individuals of other racial backgrounds are less likely to hold implicit biases as adults (Carver-Thomas, 2019).

This exacerbates the need for a culturally responsive approach to teacher shortages that responds to the increasingly diverse student population in the country (Murnane et. al., 2007; Rogers-Ard et. al., 2019). Some policy suggestions that address this problem are recruiting teachers from nontraditional populations; offering them comprehensive preparation programs; providing them support through tutoring, mentorship and other services; and covering the cost of teacher preparation through exam stipends, service scholarships, loan forgiveness programs, and funded teacher residencies. Also, adjusting teacher licensure requirements and assessments (Aragon, 2018; Carver-Thomas, 2018; Espinoza et. al., 2018).

Additionally, districts can design data systems to monitor racial diversity in enrollees of teacher preparation programs and the teacher workforce (Aragon, 2018; Carver-Thomas, 2018). They can also implement hiring strategies that contribute to diversify the teacher workforce, which include adjusting the timing of hiring, information in the hiring process, and licensure and pension portability to increase accessibility for teachers of color. In addition to this, they can partner with local teacher preparation programs and minority serving institutions. Lastly, create diversity committees where current teachers of color can shape recruiting, hiring, and induction strategies (Carver-Thomas, 2018).

One of the most popular efforts to diversify the teaching profession have been Grown Your Own (GYO) Programs (Aragon, 2018; Carver-Thomas, 2018; Gist et. al., 2019; Rogers-Ard et. al., 2019). These programs usually rely on partnerships between school districts, schools and external public and private organizations such as foundations, community-based organizations, teacher preparation programs, universities, community colleges, etc. (Gist et. al., 2019; Rogers-Ard et. al., 2019).

Rogers-Ard et. al. (2019) define GYO programs as “highly collaborative, community-rooted, intensive supports for recruiting, preparing, placing, and retaining diverse classroom teachers”

to “serve in the schools where they live and may have grown up” (p. 27). As a result, teachers from these programs are culturally responsive and community-rooted change agents in their schools.

Gist et. al. made a meta-analysis of studies on GYO programs. They explain that these programs rely on the assumption that teachers of color possess specific knowledge, skills and abilities that enable them to effectively teach students of color (2019).

The variety in GYO programs’ designs suggests the importance of adapting them to the geographical, cultural, and structural characteristics of the schools and communities they seek to serve focusing on recognizing the structures of racism that prevent adults of color becoming teachers. This under the belief that teacher candidates are likely to experience the same racial injustices that the students they serve (Rogers-Ard et. al., 2019).

There are two ways through which GYO programs recruit teachers: community and school recruitment and pre collegiate recruitment. Community and school recruitment programs focus on adult members of the school community, such as paraprofessionals and other school staff as well as parents, community activists, and religious leaders (Espinoza et. al., 2018; Gist et. al., 2019). They assess candidates holistically and consider diverse acceptance requirements, including recommendations, evidence of commitment with the school and community, and experience as a leader. Preparation is particularly concerned with the barriers that aspiring teachers of color face within teacher preparation programs and schools. Programs that have successfully addressed these limitations have worked on constructing a culturally responsive preparation that builds upon the capabilities of candidates and is embedded within the context of the communities they serve (Gist et. al., 2019; Rogers-Ard et. al., 2019). Evidence from these programs shows that teachers have high retention rates in schools and that they exhibit professional engagement and commitment. However, few of these programs offer professional development support after program completion. Furthermore, a particular problem is finding consistent funding to support these efforts over time (Gist et. al., 2019).

Pre collegiate recruitment programs focus on middle and high school students through informational events, career fairs, teaching clubs, and teacher referrals. They select candidates considering GPA, application essays, and teacher or school administrator recommendations. Preparation varies depending on the program, but usually consists of after school clubs, summer courses, pre collegiate courses offering college credit, teaching academies, or magnet programs (Gist et. al., 2019; Rogers-Ard et. al., 2019). There is not a current and comprehensive database of these programs and, as a result, there is not enough evidence on the support these teachers receive, their retention rates, and the impact they have in the schools where they work (Gist et. al., 2019).

In sum, teachers of color face several barriers in their preparation and placement in schools, and this mainly affects low-income students and students of color. Considering the benefits of having high-quality teachers of color for all students, efforts to address teacher shortages should focus on recruiting and preparing teachers of color. The strategies described above are especially important in the current context, as efforts should be focused on recruiting and preparing teachers for high-need communities, where shortages have historically been higher and will increase as a result of COVID-19. Furthermore, cost as a barrier to quality teacher preparation for candidates of color should be a particular element to be addressed during this crisis (Darling-Hammond et. al., 2020).

What does research say about models for retaining teachers in the classroom?

To answer this question, we first investigated general retention strategies focusing on school-level factors. We then narrowed our focus on strategies for the retention of teachers of color.

Teacher Retention

Ingersoll (2015) explains that a limitation of previous research is that it explains teacher turnover as a function of the characteristics of individual teachers, and not as a function of schools. Hence, organizational characteristics of schools may be related to teacher turnover and, as a result, to shortages. The implications of these findings highlight the importance of improving the school environment to contribute to teacher retention. This includes providing support to teachers, reducing student discipline problems, enhancing faculty input in school decision making, and increasing salaries. Additionally, schools must have a coherent mission, clearly defined values, and a strong sense of community.

Darling-Hammond et. al. (2020) build on the same argument, explaining that “[t]eacher turnover is reduced in settings that enable greater collaboration, professional learning, and engagement in decision-making – and where principals have longer tenures” (p. 56).

Similarly, Murnane et. al. (2007) emphasize on the importance of improving working conditions in schools. These include measurable conditions such as class size and contract hours and also more difficult to measure conditions such as infrastructure, parental support, collaboration among teachers, curricular autonomy, and quality of school leadership. Additionally, these authors emphasize on addressing high attrition rates among new teachers.

Espinoza et. al. (2018) also highlight the importance of supporting new teachers once they are hired and strengthening school leadership, as well as boosting teacher compensation to create a “strong, effective, and stable teaching profession” (p. 36).

Ingersoll & Strong (2011) focus on induction and mentorship programs as a strategy to retain new teachers. These programs not only improve retention, but also contribute to the professional growth of these teachers and, as a result, improve student learning. Additionally, they increase teacher commitment and satisfaction.

Ingersoll et. al. explain that “having a mentor from the same field, (...) common planning time with other teachers in the same subject and (...) regularly scheduled collaboration with other teachers” are elements that make induction and mentorship programs successful (2011, p. 18). Similarly, Aragon (2016c) emphasizes on providing the necessary time for mentees and mentors to work collaboratively without it becoming an additional burden; having the mentorship for at least one year; setting high standards that are incorporated with teaching standards; and using criteria to select mentors as well as training and providing them with the necessary tools to make these programs more comprehensive.

Collegial collaboration not only benefits new teachers, but teachers in general, as it is considered one of the most important variables for learning and retention among teachers. Furthermore, evidence shows that it increases teacher effectiveness. Therefore, building collaboration time within teacher schedules in order to provide them with opportunities to work in teams and learn from each can be very beneficial (Darling-Hammond et. al., 2020).

On the other hand, Aragon (2016d) asserts that providing leadership opportunities to teachers can be an effective strategy to retain experienced teachers in schools. Understanding teacher leadership as the process by which they influence their colleagues, administrators, and other members of the school community to improve teaching and learning in order to increase student achievement; these opportunities can be either organizational or instructional, formal or informal, and can take place at different levels within the school system. These opportunities increase job satisfaction, as they are considered as an advancement in an otherwise flat career like teaching is perceived to be.

However, finding long-term and sustainable funding is a significant challenge in teacher leadership programs. Also, the school environment, in the form of its governance structure, culture, and the roles and relationships between teachers and administrators determines the sustainability of these initiatives. Hence, they must be embedded in a positive environment where administrators and teachers work to support and sustain these programs (Aragon, 2016d).

In terms of COVID-19, the expectations of teachers are higher than they have ever been. Hence, now it is even more important to invest in high-quality professional development for teachers to develop the tools necessary to face the challenges of teaching remotely as well as in blended and in-person modalities, emphasizing on the schools and subjects that suffer more shortages (Darling-Hammond et. al., 2020; Evans, Scott, & McDole, 2020; George, 2020). In that sense, Evans et. al. (2020) recommend including teachers and school leaders in identifying current professional learning needs. Additionally, Darling-Hammond et. al. (2020) propose developing and sharing expertise across the profession through innovative teacher and leader preparation programs and micro-credentialing.

Similarly, induction and mentoring have become even more important now, especially for novice teachers whose preparation was affected by COVID-19. Furthermore, as new teacher positions and schedules are being created in the reopening of schools, induction, mentoring, and collaboration should be elements to consider in order to boost teachers' professional development (Darling-Hammond et. al., 2020).

On the other hand, it is essential to address teachers' mental health and self-care by creating support systems within schools (Darling-Hammond et. al. 2020; George, 2020). George (2020) emphasizes the role of school leaders in providing support to teachers and the importance of building the principal pipeline. She also recommends investing in school counselors that work not only with students, but with teachers as well.

In sum, providing teachers opportunities for induction and mentoring, collaboration, and leadership are strategies that can contribute to their retention in schools. These strategies accompanied with high-quality professional development and support are critical in providing the tools that they need to adequately face the challenges of teaching in the times of COVID-19.

Retention of Teachers of Color

Focusing on the retention of teachers of color, policy recommendations emphasize on creating proactive induction strategies, which include offering comprehensive services, such as job placement support and ongoing mentorship (Carver-Thomas, 2018).

Additionally, Carver-Thomas affirms that "recent evidence shows that administrative support is especially critical in improving the retention of teachers of color" (2018, p. 28). Therefore, it is

essential to create district and school policies that develop the knowledge, skills, and attitudes necessary for school leaders to create a school environment that supports teachers of color. This implicates investing in and strengthening principal preparation, recruitment, induction and development (Carver-Thomas, 2018; Espinoza et. al., 2018).

Furthermore, learning from successful GYO programs, relying on teachers' of color knowledge, skills and abilities as assets can be useful to foster their strengths, identity needed support throughout their professional development, and design programs tailored to tap their cultural wealth. Nevertheless, without consistent funding, it is unlikely that effective support can be provided to increase their retention and that research is conducted to identify best practices in recruitment, preparation, placement, and retention of teachers in these programs and their impact on student learning (Gist et. al., 2019; Rogers-Ard et. al., 2019). In general, GYO programs need more attention through funding, research, and policies to embrace their potential to sustainably diversify the teacher workforce (Gist et. al., 2019).

In sum, retention strategies for teachers of color should focus on providing them support to successfully be placed in schools. These strategies should be asset-based, focusing on what these teachers bring to the school. Additionally, support from the school leadership is critical for the retention of teachers of color.

Conclusions

Teacher shortages are a growing problem in the U.S. that affects particular subjects, schools, and districts. Policies to address this problem should focus on improving the recruitment, preparation, and retention of teachers. In terms of recruitment and preparation, despite the differences between teacher certification programs, they tend to have the same effect on teacher effectiveness and retention. On the other hand, some teacher preparation pathways are particularly more effective to diversify the teaching profession, which include alternative certification, service scholarships, loan forgiveness programs, funded teacher residencies programs and, particularly, Grow Your Own programs. In terms of retention, school-level factors are essential to reduce teacher turnover. Offering induction and mentoring programs as well as collaboration and leadership opportunities are the most effective strategies to improve retention among teachers. Focusing on teachers of color, offering induction and mentoring opportunities that build upon their capacity in order to embrace their strengths and providing them the support they need is critical for their retention. Additionally, capacity-building in school leadership to ensure support for diversity and inclusion within the school is fundamental to improve their working conditions and, as a result, increase their retention.

All the recruitment and retention strategies described are more relevant than ever, as COVID-19 will increase teacher shortages and affect high-need communities the most. Therefore, an essential element to ensure that all students have the same learning opportunities during this crisis is investing in the teacher workforce. Like Darling-Hammond et. al. assert "(...) it is important for policymakers to recognize how critically important it is to recruit, develop, and retain a strong educator workforce so that other aspirations for education for our children can be realized" (2020, p. 89).

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