



Expanding Access to Highly Effective Educators for All Students: A Review of Recent Evidence

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**Expanding Access to Highly Effective Educators for All Students: A Review of Recent
Evidence**

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Abstract

We have long known that some teachers are much more effective than others. Highly effective teachers and their students thrive in ways that have been hard to replicate on a large and consistent scale. In this paper, we read across studies to identify actionable lessons about what it will take to staff all schools with highly effective educators and to surface directions that are particularly important for further inquiry. Our analysis surfaces six cross-cutting and interrelated themes, suggesting the following key areas of consideration for teacher effectiveness: 1) match and fit; 2) professional environments; 3) collaboration and social capital; 4) coaching, mentoring, and personalization; 5) instructional materials; and 6) principals.

Expanding Access to Highly Effective Educators for All Students: A Review of Recent Evidence

Over the past decade, the teacher workforce has been in flux – layoffs in the 2010s gave way to widespread teacher shortages during the pandemic and then to layoffs again as federal COVID-19 recovery funds dried up. Many states have seen declining public-school enrollments, leading to shrinking teacher workforces. Across the country, schools are serving more multilingual learners and students with disabilities, shifting workforce demands dramatically. These evolving needs and dynamics represent a key challenge for schools.

Research repeatedly confirms that teachers are the most important school-based factor in student learning and development and that some teachers are much more effective than others (e.g., Chetty, Friedman & Rockoff, 2014). However, these highly effective teachers and their students thrive in ways that have been hard to replicate consistently at scale. Improving the effectiveness of the educator workforce is critical to ensuring equitable outcomes. How do we ensure that more students – and particularly students from historically marginalized groups – are taught by highly effective educators?

To date, research has not fully tackled this question, as most studies focus on just one aspect of the challenge in isolation. As a result, we know a great deal about pieces of this puzzle, including the types of preparation, hiring, development, and support that lead teachers to be more successful. We also know that staffing schools with effective teachers is not just about attracting and retaining specific individuals but creating the context and conditions that enable them to succeed: effectiveness is a product of the interaction between teachers, their students, and their specific contexts (Cohen, Raudenbush & Ball, 2003; Johnson, 2020).

In this paper, we read across these studies to seek to identify key themes and actionable lessons about what it will take to staff all schools with highly effective educators and to surface directions that are particularly important for further inquiry. Rather than conducting a formal literature review with search criteria and study selection criteria, we seek to provide a broader synthesis to capture the landscape of work in this space. We examine evidence centering on different stages of the teacher career lifecycle starting with teacher preparation and hiring before turning to the broader environments in which teachers work and the role of professional learning in shaping the educator workforce. These stages often fall under the purview of different policy actors at different levels of the system, but tackling this challenge at scale requires attending to their intersections and alignments.

Across these stages, we identify several cross-cutting and interrelated themes that appear to be critical for any efforts to staff all schools with highly effective teachers. First, while individual teacher characteristics are important, so is the less-researched question of **match and fit** between a teacher and a school and a teacher and her students. Strong and supportive **professional environments** not only promote teacher success but create the conditions where teachers want to stay. In these supportive environments, **social capital** is critical, as efforts to build trusting relationships and promote collaboration across colleagues lead to more effective instruction for all students.

Building supportive cultures and ensuring collaboration is not enough, though. Effective instruction requires ongoing professional learning and support throughout the career. Here, many of the most promising approaches rely on the knowledge that teachers are individuals, with distinctive and context-specific needs. Thus, **personalized** professional learning via **coaching and mentoring** plays an outsized role. And, because effective instruction represents the

interactions of teachers and students around content, a teacher's understanding of content matters. Teachers need access to **instructional tools**, including high-quality instructional materials. In all of these areas, **principals** play a key role, as they create the culture and organizational conditions in the school, set high expectations for students and ensure that teachers have appropriate instructional tools. We return to these themes in the conclusion.

Stage 1: Teacher preparation

Nearly all public-school teachers in the United States engage with teacher preparation programs (TPPs) as part of their pathway into the classroom. Teachers' preparation for the classroom matters greatly for their success, with some programs being consistently more effective than others at preparing teachers who have success with students and improve more rapidly over time (Bardelli, Ronfeldt & Papay, 2023; Ronfeldt & Campbell, 2016; von Hippel et al., 2016). Teachers who enter the classroom with no preparation at all (e.g., via emergency certification) may be less effective than their peers and may be less likely to persist in teaching (Chi et al., 2024; Backes et al., 2024).

Though the variation in teacher effectiveness by TPP is relatively small (Koedel et al., 2015) and existing studies cannot disentangle well the impacts of differences in candidates from differences in program features (Boyd et al., 2009; Ronfeldt, 2021), recent research points to specific aspects of programs that matter in preparing effective teachers. Building on Ronfeldt's recent (2021) review of the teacher preparation literature, we highlight four key lessons about the design of teacher preparation efforts.

(a) Intentional recruitment makes a difference.

Teacher preparation plays two critical roles – it attracts potential teachers into the

profession and it develops them into effective teachers. Some TPPs are more successful than others at attracting candidates with stronger academic skills and deeper content knowledge, and at cultivating diverse cohorts (NCTQ, 2021; Wilson & Kelley, 2022). Efforts to recruit community members and high school students through “Grow-Your-Own” (GYO) programs, for example, may help to attract more diverse teacher candidates to TPPs (Blazar et al., 2024; Edwards & Kraft, 2024; Gist et al., 2022; Valenzuela, 2017). TPPs can also shape the local labor market by recruiting teachers in high-need subject areas such as STEM and Special Education.

(b) Quality clinical mentorship and feedback are critical.

Robust research findings in recent years point to the importance of quality clinical mentorship and feedback. Teaching candidates who are mentored by more effective teachers (Bastian et al., 2020; Goldhaber et al., 2020; Ronfeldt et al., 2013) and whose clinical mentor provides coaching, feedback, and encouragement realize better outcomes (Matsko et al., 2020). Efforts to improve coaching practices among clinical mentors have led to better outcomes for pre-service teachers (Becker et al., 2019; Giebelhaus & Bowman, 2002). Beyond in-person formats, practice teaching in simulation settings can help prospective teachers improve in addressing student behavior (Cohen et al., 2020). The evidence on duration of clinical experiences is more mixed, suggesting that focusing on quality of the clinical experience may be more important (Boyd et al., 2009; Preston, 2017; Ronfeldt, 2015; Ronfeldt, 2021).

(c) Pre-service teachers learn better in supportive work environments.

Teachers who learn to teach in schools that are better at promoting student learning and have more stable workforces are more effective in their permanent placements and more likely to stay (Goldhaber et al., 2016; Ronfeldt, 2012; Ronfeldt, 2015). As Ronfeldt (2021) explains, a

student teaching placement in a school with “better quality teacher collaboration, histories of producing strong achievement gains and employing instructionally effective faculty, and higher rates of teacher retention ... predicts better later teaching effectiveness.”

(d) Alternative approaches to teacher preparation make teaching more accessible.

TPPs face challenges in providing candidates with hands-on experiences aligned to what they will need to do in the classroom, and some potential teachers are deterred by the significant time and costs to becoming a teacher. Many alternative programs address these challenges by providing opportunities to be employed in schools full time while offering flexible course schedules. Overall, the evidence suggests that alternatively-prepared teachers perform similarly to their traditionally trained peers, although there is substantial variation by program type and feature. Entrants through Teach For America, for example, tend to outperform their peers and improve more rapidly ((Glazerman, Mayer & Decker, 2006; Henry et al., 2014; Lovison, 2024) while alternative programs without quality feedback or mentorship see negative effects (e.g., Bland et al., 2023). Residency models and other efforts that align clinical experiences and coursework and prepare teachers for specific contexts have shown promise, with teachers prepared through these avenues more likely to stay and to be more effective over time (e.g., Guha, Hyler & Darling-Hammond, 2017; Papay et al., 2012).).

Stage 2: Hiring

However teachers are prepared, they enter the classroom as instructors of record through a hiring process. Hiring serves several critical goals – attracting highly effective teachers to the school, selecting candidates who are a good match for the school’s priorities, and providing a clear job preview that sets candidates up for success. Hiring processes can affect the quality and size of the pool of applicants that a school attracts, which are critical elements for building an

effective teaching force.

(a) Increased compensation can serve to attract and retain more effective teachers.

While teacher compensation policies are not typically considered part of hiring, they structure the pool of candidates interested in the profession and in hard-to-staff positions. Low salaries in teaching may deter high-quality workers from entering the profession, constraining the potential teacher workforce (e.g., Goldhaber & Liu, 2003). Districts can increase the size and quality of their applicant pools through higher salaries. Experimental evidence suggests that highly effective teachers respond to incentives to work in hard-to-staff schools, though these incentives may need to be large to impact teacher behavior. For example, Glazerman and colleagues (2013) study a \$20,000 bonus for high-performing teachers to transfer into low-performing schools and found positive effects on test scores and retention rates. Increased compensation can also help to increase retention, including among mid- and late-career teachers who are more effective on average than their novice counterparts (Sun et al., 2024). The use of incentives to improve teacher performance has been less successful, suggesting that districts may see more success in using incentives to recruit and retain effective teachers than offering bonuses for performance (Springer et al., 2012a; Springer et al., 2012b).

(b) While applicant characteristics can predict future effectiveness, principals do not always hire the most effective teachers.

A long history of descriptive research shows that, on average, teachers with stronger academic preparation and content knowledge are somewhat more effective in the classroom (Aaronson, Barrow, & Sander, 2007; Bardach & Klassen, 2020; Boyd et al., 2008; Clotfelter, Ladd & Vigdor; 2007; D'Agostino & Powers, 2009; Jacob et al., 2018; Rockoff et al., 2011).

Screening tools, which are correlated with many of these measures, can also help to predict teachers' future performance (Bruno & Strunk, 2019; Gimbert & Chesley, 2009; Goldhaber et al., 2017; Rockoff et al., 2011; Young & Delli, 2002). However, studies have shown that even when principals have access to detailed information about candidates, they do not always hire the most effective teachers (Bates et al, 2023; Jacob et al, 2018; James, Kraft & Papay, 2023).

(c) Early and open hiring leads to better outcomes.

Principals face several constraints in hiring effective teachers. The teacher labor market is relatively local, so some principals can draw on more robust applicant pools than others (Boyd et al., 2005; Boyd et al, 2013; Engel et al., 2014; Hanushek, Kain, & Rivkin, 2004; Lankford, Loeb & Wyckoff, 2002; Loeb, Kalogrides, & Beteille, 2012; Reininger, 2012). External constraints, such as delayed budget approvals and priorities for internal transfers, often delay hiring processes into the summer. That said, some principals invest substantial time and effort in recruiting and hiring teachers (Simon, Johnson & Reinhorn, 2019). Some districts have worked to accelerate hiring timelines and allow for open hiring, giving school-based hiring teams more autonomy and allowing them to collect more information about candidates. These information-rich hiring practices also give candidates a stronger understanding of the school they will be entering (Liu & Johnson, 2006). Schools that have early and open practices hire more effective teachers who are more likely to stay (James et al., 2023; Kraft, Papay, Wedenoja & Jones, 2021; Levin et al., 2005; Papay & Kraft, 2016).

(d) In addition to overall effectiveness, match and fit matter.

The degree of “fit” between the teacher and their school and students has implications for success. Theory suggests that teachers are more successful in contexts that are better aligned to

their goals, values, and capacities ((Author, nd; Johnson, 2020; Youngs et al., 2015). When teachers work in schools that are a stronger fit, they are more effective with students (Jackson, 2013). For example, teachers may be more effective when they work in schools with strong alignment between school instructional approach or culture and their own values and capacities. A large literature also suggests that teacher match to students matters a great deal. Students of color benefit in both the short and long-term on a wide range of outcomes from having teachers of the same race (Dee, 2005; Egalite et al. 2015; Gershenson et al., 2022; Gottfried et al., 2022; Grissom & Redding, 2016; Holt & Gershenson, 2017; Lindsay & Hart, 2017; Redding, 2019). Some teachers also appear to be better at teaching students with disabilities (Wood et al., 2023) or English Learners (Loeb et al., 2014). Principals may prioritize these types of characteristics in their hiring procedures and in the ways that they assign students to teachers.

Stage 3: Schools as work environments

After preparation and hiring, teachers work in specific schools, and these professional environments shape the rest of their careers (Johnson, 2020). School environments affect teachers' success with students and their development over time as well as whether they persist in teaching (Kraft & Papay, 2014; Loeb, Kalogrides & Beteille, 2012). Teachers become significantly more effective within school contexts that include both strong leadership and cooperative cultures that are organized for collaboration, reducing the isolation that is inherent in teaching (Kraft & Papay, 2014).

(a) Principals shape their workforce and create conducive environments for teaching and learning.

Principals affect the outcomes of their teachers and students in important ways; some

principals are much more effective than others (Coelli & Green, 2012; Grissom, Kalogrides & Loeb, 2015). Principals can affect teacher and student outcomes through several levers. First, strong principals strategically hire and retain effective teachers (Grissom & Bartanen, 2019), although their ability to shape their school's workforce is sometimes constrained by policies such as seniority-based layoffs (Bleiberg & Kraft, 2022). Second, strong principals are instructional leaders within their buildings who set clear visions and goals, leading to improved teacher practice and student outcomes (Bryk & Schneider, 2002; Gordon & Hart, 2022; Knapp et al., 2006; Lee, Bryk, & Smith, 1993; Leithwood et al., 2004). Last, they set working conditions such as workload and planning time, which may help to attract and retain a stronger teacher workforce and help teachers to grow in their effectiveness.

(b) Principals may support teachers in the context of evaluation.

Leaders who provide personalized and constructive feedback on teaching within a supportive environment help teachers to grow in their effectiveness (Grant & Drew, 2024; Grissom, Loeb & Master, 2013). This feedback is sometimes offered to teachers in the context of an evaluation process. Although teacher evaluation reforms do not always lead to improved teacher effectiveness at scale (Bleiberg et al., 2024), school leaders play a crucial role in ensuring that teachers feel that they are able to learn and grow from evaluation processes (Donaldson & Papay, 2014; Donaldson & Firestone, 2021).

(c) Colleagues and collaboration support instructional effectiveness and improvement.

Teachers thrive in collaborative school environments with high degrees of social capital (Leana, 2006). Strong leaders create cultures that support collaborative practice where teachers can learn and grow together, nurturing strong positive relationships and building relational trust,

(Bryk & Schneider, 2002; Gordon & Hart, 2022; Louis & Murphy, 2017; Toole & Louis, 2002). Principals can promote such environments by creating formal structures and systems for teachers to collaborate, such as professional learning communities (PLCs) that provide space for teachers to work together and receive feedback from their peers to improve their practice, leading to improved student outcomes (Brown, Horn & King, 2018; Grissom, Egalite & Lindsay, 2021; Park, Lee & Cooc, 2019; Supovitz, Sirinides & May, 2010). Given that teaching in a school with more effective colleagues leads to greater teacher effectiveness (Jackson & Bruegmann, 2009), this strategic behavior likely increases the baseline effectiveness of a school workforce but also enhances the extent to which teachers can grow.

(d) Tools, time, and resources can boost teacher effectiveness.

The types of tools and resources that are available to teachers such as instructional supplies, networks of community partners, and up-to-date textbooks also shape teacher effectiveness. Having access to a high-quality curriculum does not necessarily translate into a better learning environment for students (Jackson & Makarin, 2018; Kane et al., 2016), but instead schools must support teachers in fully implementing the curriculum such as through professional development and aligned evaluation systems (Darling-Hammond, 2009; Hill & Papay, 2022; Kraft, Blazar & Hogan, 2018; Novicoff & Dee, 2023).

Stage 4: Professional learning

Teachers learn over time on the job, and some work environments make this learning more likely and valuable. But school systems also offer more formal opportunities for growth and development. The emerging consensus on teacher professional learning echoes that of teacher preparation and working conditions: strong coaching and mentoring make a significant

difference, collaboration matters, and professional learning is most effective when it is sustained over time and built around processes and tools that integrate directly into teachers' day-to-day practice.

(a) Teachers' initial experiences in the classroom are critical.

Teachers' first few years in the classroom influence their retention and development into more effective teachers. Induction programs have emerged as a pivotal strategy in supporting novice teachers' instructional effectiveness, ongoing development, well-being, and retention. Most evidence suggests that induction programs are positively associated with teacher retention, instructional practices, and student outcomes (Ingersoll & Strong, 2011; Keese et al., 2023; Ronfeldt & McQueen, 2017), although one causal study finds that these effects may not be realized immediately and may not be as effective in hard-to-staff contexts (Glazerman et al., 2010). Regardless of induction program design, research makes clear that strong mentors are key (Kapadia, Coca, & Easton, 2007; Wechsler et al., 2012).

(b) Professional learning is more effective when it promotes collaboration and is grounded in practice.

Descriptive studies highlight the efficacy of professional learning that allows teachers to collaborate around broad learning rather than only working with peers on day-to-day planning (Little, 2003; Patrick, 2022a; Patrick, 2022b). Such collaborative efforts require intentional time for teachers to focus on instruction and improving their practice. At the same time, experimental evidence suggests that tying professional learning directly to teacher practice, such as by focusing on curriculum and assessments or by working on instructional moves rather than content knowledge alone, is more likely to shift teacher and student outcomes (Kennedy, 2016;

Roth et al., 2019). There is also increasing evidence that programs that explicitly attend to and aim to improve teacher-student relationships often have outsized effects (Gregory et al., 2017).

(c) Individualized coaching is particularly effective.

Causal studies of instructional coaching programs show a consistent and positive effect on student achievement (Kraft, Blazar & Hogan, 2018). Additionally, research suggests that coaching can impact other outcomes beyond achievement, such as student disciplinary referrals by race (Gregory et al., 2017). Coaching programs tend to be resource-intensive, however, with coaches working with relatively few teachers at once and on long timeframes where effects are not always immediately realized (Campbell & Malkus, 2011). Individualized coaching programs may yield increases in teacher effectiveness but require significant investment.

Discussion

Decades of research on teacher improvement has left the field with a considerable evidence base on teacher effectiveness and the ways that interventions across the staffing lifecycle can improve teacher and student outcomes. Yet it has been harder for the field to build a common understanding of what it will take to produce the kinds of transformative changes that generate large-scale shifts in the workforce.

By summarizing and synthesizing across studies, we aim to make it easier to understand why this is the case and what it will take to bring about more significant improvements in teacher effectiveness.

Looking across the evidence base, we see six broader principles at work that help to explain the types of interventions that have been most successful in shifting workforce outcomes.

- (1) *Match and fit.* Teachers are individuals, with specific capacities and dispositions. Some teachers enter the classroom or their preparation programs with stronger subject-specific knowledge and pedagogical skills than others. Students are individuals, with myriad instructional and socio-emotional needs. Schools are unique, with different missions, goals, and environments. The match between all of these things is likely to matter as much as any individual's overall abilities.
- (2) *Professional environments.* The professional environments in which teachers work are shaped by state policies, district practices, school leadership, and colleagues. While some elements of the larger policy environment are important, the school context is most critical. Strong, supportive and high-functioning environments with high expectations for all educators attract effective teachers, lead them to stay, support their development, and ultimately produce outsized impacts on student learning.
- (3) *Collaboration and social capital.* Increasing the number of highly effective educators requires individuals working together in productive ways. Schools that promote educator effectiveness at scale tend to be those that move away from the traditional "egg crate" school where teachers work in their classrooms with their doors closed. Instead, such schools support collaboration and learning from peers, make practice more public, and see education as a collective responsibility.
- (4) *Coaching, mentoring, and personalization.* While individual capacities and dispositions certainly matter, teacher instructional practice evolves and develops throughout the career. Just as differentiated instruction promotes student learning, personalized supports for teachers can lead to stronger adult learning across career stages. Clinical mentors shape pre-service teachers' experiences and learning. Effective induction and mentoring

start teachers on the right track and support them in staying. High-quality professional learning requires attention to individual teachers' needs, and personalized coaching supports play an important role.

(5) *Strong instructional materials.* Effective instruction requires educators to have access to high-quality instructional materials that support student learning. Strong curricular materials are an important support that schools can provide, particularly when coupled with robust professional learning.

(6) *Principals.* Across teachers' careers, principals play a crucial role in facilitating teacher effectiveness. They create the culture and organizational conditions in the school, set high expectations for students, ensure that teachers have appropriate instructional tools, organize schedules and structures to support ongoing professional learning, and run robust recruitment and hiring processes to staff schools with teachers who have strong capacities and fit the school well.

How can we use these principles to better understand the modest success of attempts to shift workforce effectiveness? One key explanation is that very few of the attempts to improve teaching that we have reviewed are building sufficient connections across these different areas of need. Many schools and districts have seen some success by addressing individual pieces of the puzzle. But tinkering with these factors individually has not led to transformative improvement in most cases.

Systemic improvement will require systemic change, and the elements of this system are not controlled in any coordinated fashion or by any individual actor. District and school leaders in charge of selecting teachers and eager to diversify their workforce or staff teachers in high-

need areas can do little to affect the pool of candidates emerging from preparation programs. In-state preparation programs in turn bump up against the costs of coordinating across multiple districts and balancing across the many instructional systems and curricula that will be used by different program graduates.

Doing the work differently would mean finding ways to attend to the balance of actors and needs across the system. For example, preparing effective teachers requires supporting the development of robust instructional practices, building deep content knowledge, and creating educators who are reflective and able to adapt to the rapidly changing learning environments in schools. Principals are the key driver of creating strong and supportive professional work environments in schools that attract and retain highly competent teachers, support their instructional effectiveness, and promote their ongoing development. Robust professional learning is critical for meeting the adaptive challenges of schooling and responding to changing instructional approaches and student learning needs. Throughout, educators need the tools to do their work well, not reinventing the wheel but relying on materials and support structures that enable them to focus on their central work with students.

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