



What do we know about teacher hiring? Using early, open, and intensive hiring processes to build the teacher workforce

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Introduction

Over the next two years, school districts across the country will be receiving an unprecedented influx of short-term funding. Decision-makers may experience a natural tendency to use these stimulus dollars for one-time expenses such as instructional materials and educational technology. However, such materials – while useful for students and teachers – do not have the power to transform the experience that students have in school every day. Instead, there is a real opportunity to help equalize outcomes for groups of students most affected by the pandemic by making large-scale systemic investments in the most important school-based factor in student learning – highly-effective teachers.

Many potential investments could improve the skills and capacities of teachers in the building and promote student learning -- building more robust professional learning and evaluation systems, investing in leaders to develop stronger schools that support and retain teachers, and revamping teacher preparation programs to be more responsive to local needs. But there is also clear opportunity to build the foundation of our talent pipelines by investing systemically to improve teacher hiring.

In 2002, Ed Liu and Susan Moore Johnson wrote that teacher hiring in many school districts was “late, rushed, and information poor.” Twenty years later, this type of hiring persists – many teachers are hired after school starts, schools often face constraints on which teachers they can hire when, and most hiring happens quickly after just a cursory resume screen and interview. Evidence suggests that moving up hiring timelines, allowing schools to post positions on the open market

earlier, and having robust hiring processes that give schools a clear view of a prospective candidate (and vice versa) can have large benefits for teachers and students. These efforts can improve the effectiveness of new teachers, support districts in hiring more diverse candidates, and reduce the challenge of having to dismiss teachers who do not work out. Improving hiring can also improve the “fit” between an individual teacher and the school, an underappreciated part of teacher effectiveness and a key factor in whether teachers stay in the profession.

In this research summary, we draw on evidence from a range of recent policy activity and research, including two new papers from the Center for the Study of Educators at the Annenberg Institute. The brief aims to provide district-policy makers and advocates for students and teachers the information they need to make changes in three policy areas to help them get talented and diverse teachers into the classroom and keep them there:

- ▲ Early hiring: start and finish hiring processes in the spring and early summer before school starts
- ▲ Open hiring: enable school hiring teams to select from all available candidates for each position
- ▲ Robust hiring: design a comprehensive hiring process that does two things at once – provides applicants with information about each position and gives hiring teams critical information about candidates

This brief also provides examples of districts that have successfully implemented these approaches, often in collaboration with teachers unions, and seen benefits for teachers, schools, and students.

Early hiring

Defining the Issue

Late hiring is pervasive in urban school systems across the country. While many teachers begin looking for jobs early in the spring, most schools do not begin hiring external candidates until late spring or early summer. Many jobs are filled over the summer, closer to the start of the school year, and studies repeatedly find that nearly 20 percent of new teachers are hired after the school year starts.ⁱ While inefficient school district practices drive some late hiring, other factors are more structural in nature, more complicated to solve, and are related to processes within state and city budget timelines or collective bargaining agreements.

When hiring is done early, students and teachers benefit. In February and March, a larger, diverse pool of strong teachers is actively applying for jobs. Once these candidates receive an offer, they need to accept quickly and cannot wait for other schools to post positions. Additionally, early hiring affords time for schools to conduct better screening, for candidates to get a better sense of the school and its culture, for onboarding of the new position to start earlier, and for newly hired teachers to prepare for the start of the school year.

What the research says

As a result, early hiring leads to better hiring outcomes and better teacher-school matches. Studies show that hiring early:

- ▲ *Increases student learning:* Students whose teachers are hired after the start of the school year learn less than those whose teachers are hired early – one study found that late teacher hiring directly reduces student achievement by three to five weeks of learning because teachers hired late are, on average, less effective than those hired earlier and because of the disruption caused by the late hire itself.ⁱⁱ
- ▲ *Increases teacher diversity:* Teachers hired early in the season are more likely to be teachers of color than teachers hired later in the season. Faced with a majority-white teacher workforce and mounting evidence that students benefit from teachers who reflect their diversity,ⁱⁱⁱ districts can increase the

diversity of teachers hired by moving up hiring timelines.

- ▲ *Increases retention rates:* Hiring delays and rushed, information-poor processes are bad for teachers. In addition to being less effective in general, teachers hired without a clear job preview are less likely to find a good job match, leading them to be poor fits with their organizations and less likely to have success. Teachers who feel successful in their classroom are happier and more likely to stay in teaching.^{iv} Teachers hired late tend to leave their schools at higher rates than their peers hired on time.^v

How have districts instituted early hiring?

Moving hiring timelines up in districts requires working through a number of district policies and practices as well as sometimes influencing change in the city government or with union partners.^{vi} Districts such as Boston that have successfully worked to move up hiring timelines have worked to identify the central barriers and made changes in one or more of these areas:

- ▲ By working within the **human resources office** to incentivize teachers to announce retirements earlier, streamline application processes and candidate management, hire pools of candidates in high-needs areas before specific vacancies are known, and accelerate approvals once schools select candidates.

Stimulus funding presents opportunities to continue to push for early hiring. For example, additional incentives to encourage teachers to announce earlier that they are leaving will facilitate earlier postings. In addition, districts have predictable staffing needs year after year (e.g., 10 secondary mathematics teachers) even when they do not know which specific positions will be open. Having a pool of funds to hire teachers in high-needs areas can support securing top candidates early so that schools can interview when they know specific position openings. Finally, additional dollars can be used in contract negotiations to support administrative priorities that benefit teachers and students, such as early hiring.

- ▲ By collaborating with **other central offices**, such as the finance team, to complete enrollment and budget projections earlier.
- ▲ By asking **government offices** (city or state, depending on funding structures) to provide the school system's budget earlier in the year, or enable flexible funding structures.
- ▲ By collaborating with the **teachers union** to change the collective bargaining agreement to allow early open posting for external candidates or finding existing language that enables hiring to be done earlier.

Open hiring

Defining the issue

Every year, schools must fill a large number of open positions – teachers move across schools or retire, and enrollment growth or program changes lead to new staffing needs. In many districts, tenured teachers already employed in the district get first choice of these open positions. School-based hiring teams are often required to hire from among the pool of internal candidates who apply. In some districts, teachers who have been displaced from their jobs because of reductions in a school's enrollment or changes in instructional needs are placed administratively in any remaining open position.

These processes have some advantages for district staffing. They reward more veteran employees with opportunities to move to positions they prefer. They also ensure that tenured teachers who have been displaced get a position, avoiding financial costs to the district of paying for teachers without a teaching job. However, these processes can also be harmful. Schools do not get to choose candidates who they feel will be most effective and best fit with their needs. As a result, teachers hired may not be able to provide as strong a learning environment for students.

Over the past two decades, however, several districts have begun moving towards an open hiring process – sometimes called “mutual consent” hiring – that enables schools to choose the candidate they want, internal or external, for any open position. In other words, principals and school-based hiring committees must decide that they want to hire a given candidate, and the candidate

must agree that she wants to teach in the school. Allowing open hiring facilitates early hiring, avoids forced placements of teachers, and prevents schools from having to hire teachers they do not want. It also prevents principals from engaging in counter-productive behaviors, such as artificially delaying postings until after the internal transfer window closes or failing to evaluate accurately existing teachers because they fear being forced to take another teacher.

Ensuring a strong “fit” for a job means that the hiring team and the teacher are able to consider key criteria specific to a school or a position, such as second language proficiency, experience teaching specific curricula or specific subjects, or a match between the school's philosophy and the teacher. Open hiring processes must be carefully structured so that school-based hiring teams engage in robust screening and promote diversity (see below) and the process is not used by capricious principals to create homogenous school staffs.

What the research says

Recent analyses of open hiring policies in New York City and Boston suggest that they can benefit both teachers and students. Surveys of New York City teachers conducted shortly after the district moved to open hiring found that most teachers valued the policy. Even displaced teachers reported that they did not want to work in schools that did not want to have them.^{vii}

More directly, in 2014 Boston Public Schools moved to a full open hiring policy district-wide. An analysis found that this policy change moved up the hiring timeline by nearly two months, enabling schools to fill positions much more quickly and cutting late hiring in half. It also had large benefits on teachers and students.^{viii} The combination of early and open hiring:

- ▲ *Increased teacher effectiveness* and student achievement, particularly for new hires. The impacts on the effectiveness of new hires were quite large (0.20 standard deviations), suggesting that the reforms allowed schools to hire teachers with significantly higher first-year performance than they could before the reform.
- ▲ *Improved teacher retention*. Hiring reforms reduced turnover rates for new hires by 10 percentage points

in the first year and an additional 8 percentage points for new hires who stayed in their position for a second year.

- ▲ *Improved teacher diversity.* Early and open hiring enabled the district to hire a more diverse pool of teachers – more than 100 additional Black and Hispanic teachers in four years than would have occurred otherwise.

Although open hiring has not been studied rigorously in other settings, these results suggest that the policy allowed schools to better attract the teachers they wanted and to hire teachers who were better fits with the school and position.

How have districts instituted open hiring?

Several districts across the country, including New York and Boston, have moved to open hiring.^{ix} One key challenge is that the district must pay salaries for displaced tenured teachers who are not in classrooms. These teachers are guaranteed jobs in the district. In order to control costs, these districts refined their strategies for ensuring that effective displaced teachers were hired by schools through open hiring and identifying (and evaluating out) any displaced teachers who were indeed ineffective.

In Boston, for example, the district leveraged a provision in the collective bargaining agreement that allowed schools to open post positions if they included an additional stipend. The district agreed to pay these stipends for all new positions, effectively allowing district-wide open posting. The full open hiring policy was agreed to in the next contract. Displaced teachers were used in new roles and their performance was evaluated. The district actively helped teachers with strong performance ratings find positions and worked to remove teachers who did not demonstrate effective performance even after receiving support.

As with other human capital reforms, open hiring works best when instituted with strong onboarding, hiring, evaluation and professional development practices. When hiring is done at the school-site, the potential for pay-off is great. But districts must place appropriate guardrails on the process, ensuring that hiring processes are robust (see below), that effective tenured teachers are supported in securing positions they want, and that open hiring does not substitute for thorough and fair evaluation policies.

Stimulus funds can be leveraged to support open hiring, either by helping to bargain for such policies or by providing funds for the district to continue to employ teachers in roles where they are supporting student learning but are not teachers of record. Here, the need to support unfinished learning and accelerate student progress as a result of the pandemic provides clear opportunities. For example, districts could use displaced teachers who cannot secure a full-time position as support teachers to work with individual students or small groups to master critical content.

Screening and selection

Defining the issue

The early and open hiring practices described in this brief are only effective if schools hire effectively. By and large, hiring committees do not do a good job of identifying the most promising candidates, largely because they do not engage in a robust and information-rich process. Limited hiring processes also fail to give prospective teachers a good job preview, leaving them without a strong understanding of expectations for teaching in the school or what their colleagues and principal will be like to work with. This leads to worse matches for teachers, making them more likely to then leave the position and leading to adverse effects for students and the school.

Information-poor screening and hiring practices increase the role of implicit bias in hiring. Without multiple agreed-upon data points used in hiring processes, hiring decision-makers tend to rely on “gut” decisions to determine how well candidates fit with the position. Such processes can disadvantage teachers of color and short-circuit efforts to improve the diversity of the teaching workforce.

What the research says

The good news is that improving hiring practices - which involves some effort and resources in the form of time, training and systems building - is relatively low-lift and low risk, and can lead to improved outcomes for students and teachers alike. School-based hiring teams should first define the criteria for the position and then carefully screen candidates in multiple ways.

Step 1. Determining selection criteria. In general, schools will look to hire teachers who have strong instructional practices and will best support the academic and socio-emotional development of their students. Hiring committees should define what this looks like in a given school, and should develop criteria for other factors such as whether the candidate will be a productive and supportive colleague. In addition, schools that hire effectively take a critical first step, developing a strong sense of the school’s “mission, culture, norms, and pedagogy.” Hiring teachers who are a good fit requires a deep understanding of the types of candidates who would thrive in the school.^x

Step 2. Robust initial screening of paper materials.

Evidence suggests that the following types of information predict teacher effectiveness.

- ▶ **Prior evidence of effectiveness** with students – including from state and district teacher evaluation systems – is the strongest predictor of future effectiveness, and schools have used these measures effectively in hiring.^{xi} **Markers of instructional quality** such as certification from the National Board for Professional Teaching Standards also predict effectiveness.^{xii} Recommendations from current or former principals can also yield helpful information, especially if they are confidential.^{xiii}
- ▶ **Traditional and non-traditional screening metrics** also can help identify teachers who are more likely to be effective. Screening ratings of resumes, writing samples, and paper credentials (e.g., college GPAs and standardized test scores) have been shown to predict effectiveness.^{xiv} Less standard screening measures, such as assessments of teachers’ content knowledge, pedagogical content knowledge, and aptitude for teaching, have also been used successfully. While few measures on their own predict which teachers will succeed in the classroom, combining multiple measures can provide important information.^{xv}
- ▶ Although **years of teaching experience** do not determine effectiveness, on average teachers improve throughout their careers and those with experience in the content area or grade level are likely to be more effective than novices.^{xvi}

▶ Recent studies examining the effect of the **quality of preparation programs** that candidates complete have shown only small differences in the outcomes of graduates. However, some outlier programs consistently provide strong candidates (or weak ones). Be aware of the strength of programs in the area, particularly those with pedagogies that align with the school’s approach.

While none of these measures should be used alone to screen in or out candidates, together they can provide a reasonably robust picture of a candidate’s background to identify promising candidates for interviews.

Step 3: Rigorous and detailed interviews. Interviews provide hiring teams a great deal of information that cannot be gathered from the paper screen. Interviews should be structured to gather information that will indicate quality and scored carefully. In particular, interviews can effectively screen for personal attributes such as positivity, pedagogical orientation, and beliefs/expectations to assess fit between candidate and school.^{xvii} Conducting these interviews during the school year, when candidates can talk with prospective colleagues, observe students, and see the school in action can facilitate strong job previews and further promote strong fit.^{xviii}

However, interviews alone are rather unreliable measures of teacher effectiveness and instructional practice.^{xix} In particular, interviewers tend to focus more heavily on applicants’ human relations skills and pay less attention to their teaching skills.^{xx} Thus, observing teachers in action is key to a successful hire.

Step 4: Specific and relevant demonstration lessons. Observing lessons will enable hiring teams to gauge evidence of effective teaching practices in the content area and evidence of classroom management techniques that indicate that the teacher both knows strong teaching and has a repertoire of management and engagement techniques. In addition, some districts have successfully built in feedback conversations in which the hiring team observes a demonstration lesson and then provides feedback to the candidate, assessing how well the candidate responds to and incorporates feedback after receiving it.

In all of these processes, districts and hiring committees must attend to equity and bias to ensure that diverse candidates receive fair consideration. Hiring practices have historically been rife with bias, explicit and implicit, and uncritical consideration of hiring criteria can disadvantage applicants of color. Instead, hiring committees must use screening tools appropriately and ensure that they build checks along the way to ensure that diverse candidate pools are represented equally at the interview stage and in hiring rates. Furthermore, having strong, equitable hiring practices focused on hiring teachers of color is only the first step. Building a diverse teacher workforce also requires that districts and schools focus on providing robust induction and mentoring, ensuring equitable evaluation practices, and developing supportive conditions in schools where all teachers can thrive.^{xxi}

How have districts instituted better screening?

Developing better screening procedures requires providing school-based hiring teams with the time, training, and support to do this intensive work. A key question districts face is where screening should happen – at the school-level or in the central office? While teacher hiring decisions have been increasingly shifted from central offices to schools,^{xxii} initial screenings can be done centrally or by school-based hiring committees. There is variation in practice, with districts taking different approaches to providing this support, typically by conducting some central screening at first.

In Washington, DC, the central office collects applicant materials and conducts several layers of screening. First, applicants' background information such as licensure, employment experience, and education, etc. are assessed and scored. Those above the threshold proceed to a written assessment of their pedagogical content knowledge, then an interview, and a teaching demonstration. After a candidate passes all of these stages, their information is available to principals to use in the hiring process. Principals are also permitted to hire candidates who do not pass the screening if they prefer.^{xxiii}

In Los Angeles, the hiring process screens centrally many of the same materials as in DC. Applications that meet minimum requirements are evaluated on eight assessments according to rubrics aligned to the district's teaching and learning framework or with

background characteristics valued by the district such as GPA, scores on licensure exams, prior experience, competitiveness of undergraduate institution, a major in the subject they will teach, professional references, and a writing sample. Candidates who exceed the threshold after this stage are invited for an interview and teaching demonstration.^{xxiv}

In Spokane, WA, application materials are screened twice – initially on a 21-point general screening tool conducted by the central office and then on a 60-point job-specific screening tool at the school level. The highest-scoring applicants are then offered interviews.^{xxv}

Regardless of the screening process and who does it, improvements in screening and selection largely rest on training, support, and capacity for school-based hiring teams. Here, again, stimulus funding can help schools and school systems develop much more robust processes by offering principals and hiring teams professional development around best practices in equitable hiring, by freeing up district personnel to help support these screening efforts, and by providing stipends or additional time for teachers and school-based staff to participate intensively in the hiring process.

Conclusion

Districts across the country have successfully moved towards open and early hiring with intensive screening. Research suggests these efforts can generate clear rewards, improving teacher retention, diversifying the teacher workforce, and boosting teacher effectiveness and student learning. That said, these efforts do not come without costs, particularly in the short term. Early and open hiring require districts to carry existing tenured teachers who cannot find a position on payroll. Improving screening efforts requires training and a substantial investment of time from central office staff and school-based hiring committees.

The influx of stimulus funding might provide opportunities for districts to invest in developing these policies and practices for the future. One-time investments in improving human capital systems can pay great rewards because they can be used to change processes, not just

invest in things that might not last. For example, these funds can support districts in offering promising candidates early contracts before vacancies are announced, can help facilitate open hiring by providing the financial means to pay displaced teachers to work in supplemental positions to support unfinished learning from the pandemic, and can be used to develop more robust and equitable hiring practices.

Investing in hiring is important on its own: hiring provides teachers with the first preview of their work in the school and serves the critical task of bringing in teachers who will fit the school’s mission and culture. In this regard, it also helps support other efforts to improve teacher effectiveness, such as investments in professional development or new curricular materials. Focusing on hiring in conjunction with other human capital levers – especially strong recruitment, onboarding, evaluation and professional development - can amplify the impact of work done to ensure that school systems have a diverse, effective teacher workforce.

ⁱ Liu, E., & Johnson, S. M. (2006). New teachers’ experiences of hiring: Late, rushed, and information-poor. *Educational Administration Quarterly*, 42, 324-360; Engel, M. (2012). The timing of teacher hires and teacher qualifications: Is there an association? *Teachers College Record*, 114; Papay, J.P. & Kraft, M.A. (2016). The Productivity Costs of Inefficient Hiring Practices: Evidence from Late Teacher Hiring. *Journal of Policy Analysis and Management*, 35(4), 791-817.

ⁱⁱ Papay & Kraft (2016).

ⁱⁱⁱ Dee, T. (2004). Teachers, race and student achievement in a randomized experiment. *The Review of Economics and Statistics*, 86(1), 195-210; Gershenson, S., Hansen, M., & Lindsay, C. (2021). *Passing with Flying Colors: How promoting racial diversity in teaching benefits all students*. Harvard Education Press.

^{iv} Johnson, S.M., Birkeland, S.E. (2003). Pursuing a “sense of success”: New teachers explain their career decisions. *American Educational Research Journal*, 40, 581–617.

^v Papay and Kraft (2016).

^{vi} Levin, J., Mulhern, J., & Schunck, J. (2005). Unintended consequences: The case for reforming the staffing rules in urban teachers union contracts. New York, NY: The New Teacher Project; Levin, J., & Quinn, M. (2003). Missed opportunities: How we keep high-quality teachers out of urban classrooms. New York, NY: The New Teacher Project.

^{vii} Daly, T., Keeling, D., Grainger, R., & Grundies, A. (2008). Mutual benefits: New York City’s shift to mutual consent in teacher hiring. New York, NY: The New Teacher Project.

^{viii} Kraft, M.A., Papay, J.P., Wedenoja, L., & Jones, N. (2021). The Benefits of Early and Unconstrained Hiring: Evidence from Teacher Labor Markets. Working Paper.

^{ix} Sawchuck, S. (2010). “Mutual consent” teacher placement gains ground. Education Week.

^x Johnson, S.M. (2019). *Where teachers thrive: Organizing schools for success*. Cambridge, MA: Harvard Education Press; Simon, N.S., Johnson, S.M., & Reinhorn, S.K. Making a match: How successful high-poverty schools hire teachers. EdWorkingPapers (<https://www.edworkingpapers.com/ai19-45>)

^{xi} Cannata, M., et al. (2017). Using Teacher Effectiveness Data for

Information-Rich Hiring. *Educational Administration Quarterly*, 53(2), 180-222; Boyd, D., Lankford, H., Loeb, S., Ronfeldt, M., & Wyckoff, J. (2011). The role of teacher quality in retention and hiring: Using applications to transfer to uncover preferences of teachers and schools. *Journal of Policy Analysis and Management*, 30(1), 88-110.

^{xii} Cantrell, S., Fullerton, J., Kane, T.J., & Staiger, D.O. (2008). National Board Certification and Teacher Effectiveness: Evidence from a Random Assignment Experiment. NBER Working Paper 14608; Cowan, J., & Goldhaber, D. (2016). National Board Certification and Teacher Effectiveness: Evidence from Washington State. *Journal of Research on Educational Effectiveness*, 9(3), 233-258.

^{xiii} Jacob, B. A., & Lefgren, L. (2005). Principals as Agents: Subjective Performance Measurement in Education. NBER Working Paper 11463; Goldhaber, D., Grout, C., Wolff, M., & Martinkova, M. (2021). Evidence on the Dimensionality and Reliability of Professional References’ Ratings of Teacher Applicants. *Economics of Education Review*, 83.

^{xiv} Jacob, B. A., Rockoff, J. E., Taylor, E. S., Lindy, B., & Rosen, R. (2018). Teacher Applicant Hiring and Teacher Performance: Evidence from DC Public Schools. *Journal of Public Economics*, 166, 81–97; Goldhaber, D., Grout, C., & Huntington-Klein, N. (2017). Screen Twice, Cut Once: Assessing the Predictive Validity of Teacher Selection Tools. *Education Finance and Policy*, 12(2), 197–223; Bruno, P. & Strunk, K.O. (2019). Making the Cut: The Effectiveness of Teacher Screening and Hiring in the Los Angeles Unified School District. *Educational Evaluation and Policy Analysis*, 41(4), 426-460.

^{xv} Rockoff, J. E., Jacob, B. A., Kane, T. J., & Staiger, D. O. (2011). Can You Recognize an Effective Teacher When You Recruit One? *Education Finance and Policy*, 6(1), 43–74.

^{xvi} Papay, J.P., & Kraft, M.A. (2015). Productivity Returns to Experience in the Teacher Labor Market: Methodological Challenges and New Evidence on Long-Term Career Growth. *Journal of Public Economics*, 130(October), 105-119; Atteberry, A., Loeb, S., & Wyckoff, J. (2015). Do First Impressions Matter? Predicting Early Career Teacher Effectiveness. *AERA Open*, 1(4); Harris, D. & Sass, T. (2011). Teacher training, teacher quality, and student achievement. *Journal of Public Economics*, 95, 798-812; Rockoff, J.E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *American Economic Review*, 94(2), 247-252.

^{xvii} Simon, Johnson, & Reinhorn (2019).

^{xviii} Simon, Johnson, & Reinhorn (2019).

^{xix} Engel, M. (2013). Problematic Preferences? A Mixed Method Examination of What Principals Look for when Hiring Teachers. *Educational Administration Quarterly*, 49(1), 52-91.

^{xx} Ralph, E.G., Kesten, C., Lang, H., & Smith, D. (1998). Hiring New Teachers: What Do School Districts Look For? *Journal of Teacher Education*, 49(1), 47-56.

^{xxi} Johnson (2021); Gershenson, Hansen, & Lindsay (2021).

^{xxii} Engel, M., Cannata, M., & Curran, C. (2018). Principal influence in teacher hiring: documenting decentralization over time. *Journal of Educational Administration*, 56(3), 277-296.

^{xxiii} Jacob et al. (2018).

^{xxiv} Bruno & Strunk (2019).

^{xxv} Goldhaber et al. (2017)