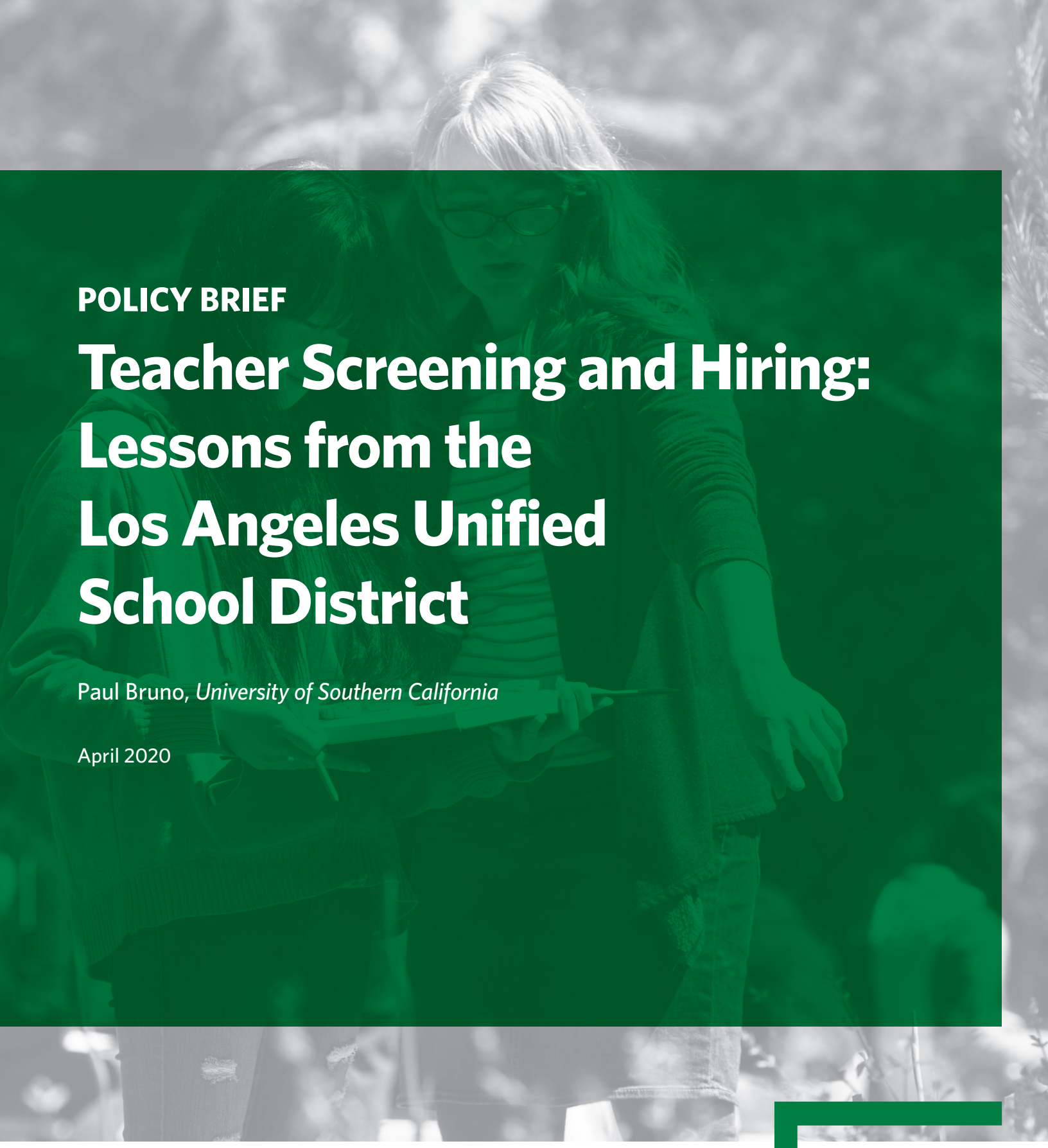

POLICY BRIEF

Teacher Screening and Hiring: Lessons from the Los Angeles Unified School District

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April 2020

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DISCLAIMER

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By Paul Bruno

BACKGROUND

Teacher hiring is one of the most important responsibilities school leaders face because some teachers are much more effective than others, and because some may remain in the classroom much longer than others once hired.[1] The initial selection of qualified teacher candidates can put better teachers in front of students sooner, and may avoid staffing difficulties associated with placing weaker teachers in classes or the cost in time and resources of developing or removing them later on. Research has so far provided little guidance to school leaders as they navigate the hiring process. This policy brief describes a study of the Multiple Measures Teacher Selection Process (MMTSP), a screening system the Los Angeles Unified School District uses to hire teachers.[2] Results from this study suggest that many school systems could benefit from screening prospective teachers more carefully and rigorously. There are trade-offs to these screening processes, however, and decision-makers must weigh these trade-offs as they consider prospective teacher candidates. Although this brief focuses on a program based in Los Angeles, the results have implications for teacher hiring across the country, especially in large urban areas and in Michigan, where EPIC is based.

KEY FINDINGS INCLUDE:

- **It pays to hire teachers early.** Teachers screened after the school year has begun are significantly less effective (as measured by screening performance) than those screened at other times of the year.
- **Screening can have important implications for the supply of teachers.** More rigorous screening may reduce the number of teachers available to hire. This might be especially concerning for positions that are already difficult to staff.
- **Screening performance is predictive of a range of teacher outcomes.** Applicants who receive higher scores in the MMTSP tend to have better attendance at work, receive higher evaluation ratings, and make larger contributions to student achievement. They are also more likely to remain at their schools.

- **Districts need to carefully consider which teacher attributes to screen for, and how to screen for them.** Different assessments in the MMTSP predict different teacher outcomes, and some assessments of the MMTSP do not reliably predict teacher outcomes at all. Screening systems can be difficult to design, and the right system might depend on schools' needs.

TEACHER HIRING IN LOS ANGELES

In the Los Angeles Unified School District (LAUSD), a district of approximately 600,000 students and 32,000 teachers during the timeframe covered in this brief, all prospective teachers apply centrally to the district office, where they must be screened before they are eligible for school administrators to hire. This district-level screening process is known as the Multiple Measures Teacher Selection Process (MMTSP). The MMTSP consists of eight separate assessments that district hiring specialists score applicants on before they can be hired. These assessments are summarized in Table 1. They include an interview, professional references, a sample lesson demonstration, and a writing sample. Applicants also receive scores for their undergraduate GPA and subject matter preparation and can receive a small number of "background" or "preparation" points for meeting any of a variety of other miscellaneous criteria that the district considers desirable.

TABLE 1. Assessments in the Multiple Measures Teacher Selection Process

Criterion	Description	Minimum Points Possible	Maximum Points Possible	Minimum Passing Score
Interview	Structured, conducted by one HR specialist.	0	25	20
Professional References	From student teaching or other professional experience.	0	20	16
Sample Lesson	Delivered to and evaluated by two HR specialists.	0	15	11
Writing Sample	Responses to hypothetical student-related scenarios.	1	15	11
GPA	Scored based on verified undergraduate GPA.	1	10	N/A
Subject Matter	Based on licensure test scores or, if waived, GPA score.	8	10	N/A
Background	For any of: certain prior LAUSD experience, prior leadership (e.g., military experience), possession of a graduate degree, or Teach for America experience.	0	2	N/A
Preparation	For any of: attendance at school highly-ranked by U.S. News & World Report, evidence of prior teaching effectiveness, or major in credential subject field.	0	3	N/A
Overall		**10**	**100**	**80**

These assessments are worth up to 100 points in total, and applicants typically must receive a total score of at least 80, as well as minimum scores on several of the individual assessments, to be placed on the "eligibility list." The eligibility list is given to principals who have open positions, and principals must hire from the list. However, while all applicants must be fully screened, both principals and district screeners can grant exceptions to candidates who were disqualified by low scores, adding them to the final eligibility list.

HOW THIS ANALYSIS WAS CONDUCTED

We began our analysis with MMTSP scores for roughly 6,000 prospective teachers who had applied to the district and advanced to the eligibility list between July 2014 and June 2017. We then linked MMTSP scores to other district records on teachers and their students for applicants who were eventually hired. This allowed us to analyze whether teachers who performed better on the MMTSP, or on specific MMTSP assessments, had better outcomes after they were hired.

Specifically, we considered several teacher outcomes, including:

- value-added measures (VAMs) of contributions to student gains on standardized tests in math and English/language arts (ELA), accounting for students' prior achievement and other characteristics;[3]
- classroom observation-based evaluations, including average ratings teachers received across every standard they were evaluated on and whether they received a satisfactory overall final evaluation rating;
- teacher attendance at work, measured as the percentage of scheduled work hours for which the teacher was present; and
- teachers' retention in their schools.

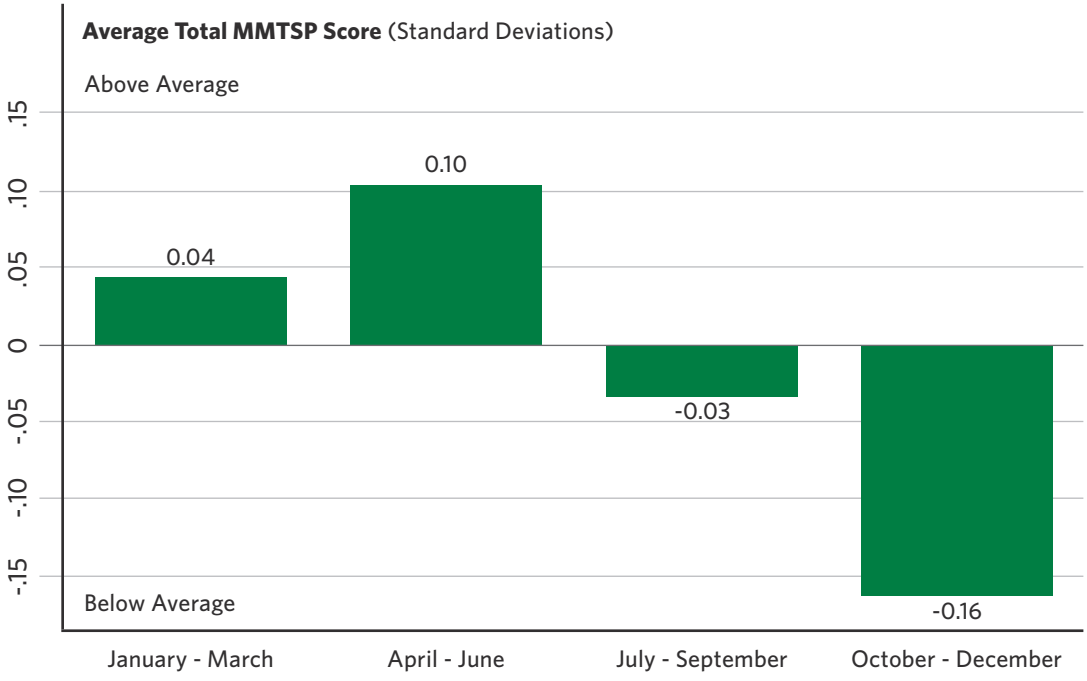
MMTSP scores and teacher outcomes are measured in different ways. This can make them hard to understand or to compare to one another. A common practice in education research is to standardize different measures, so that they are expressed as consistent units. To make the results easier to interpret, we often present MMTSP scores and teacher outcomes after converting the different measures to have a mean of zero and a standard deviation of one across teachers.

FINDINGS

IT PAYS TO HIRE TEACHERS EARLY

Figure 1 shows applicants' average scores broken out by the time of year that they were placed on the eligibility list (approximately the time that they were screened). As discussed above, these scores have been standardized. The numbers included are standard deviations above or below the average score on the eligibility list; positive numbers are above average, and negative numbers are below average.

FIGURE 1. MMTSP Scores by First Month Eligible to be Hired



Note: Mean total MMTSP scores by month entering the eligibility list. Scores are standardized to have a mean of zero and a standard deviation of one.

Previous work has found that teachers hired after the school year has begun, tend to be less effective.[4] MMTSP scores indicate that this is likely to be true in Los Angeles as well. Applicants entering the eligibility list in October through December have overall MMTSP scores that are 16% of a standard deviation below the average on the eligibility list. That's roughly the difference between an applicant at the 50th percentile – an "average" applicant – and one at the 60th percentile.

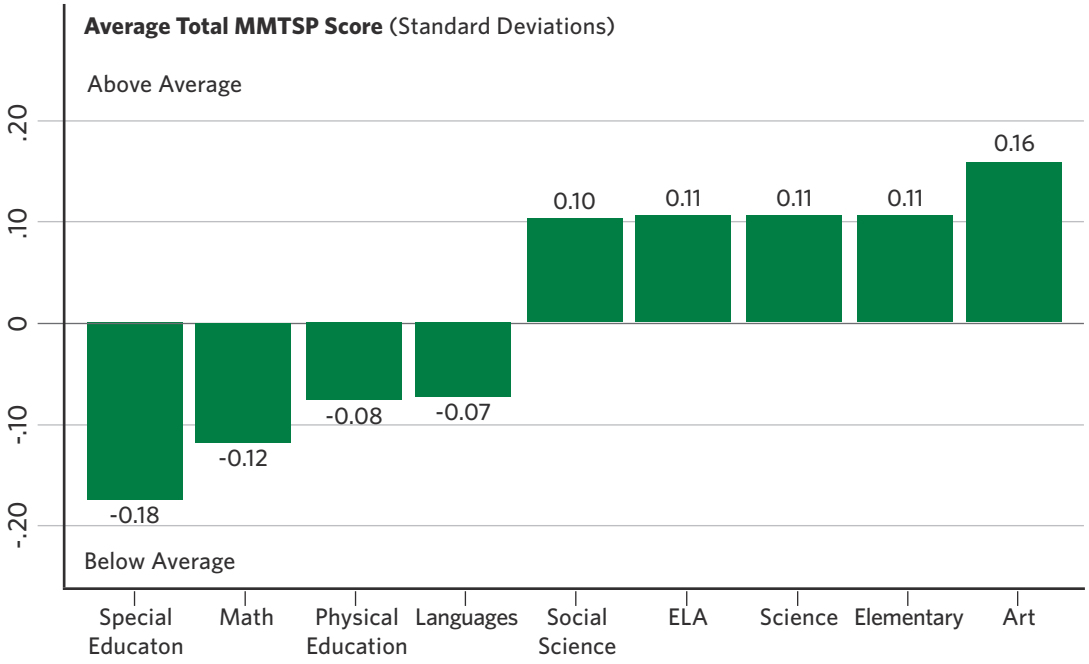
Teachers screened earlier tend to have higher MMTSP scores. Those entering the eligibility list from July through September have scores much closer to average, and those entering in April through June score well above average, by about 10% of a standard deviation. As discussed below, MMTSP scores predict a range of outcomes for hired teachers. This suggests that districts that hire later in the cycle may end up with less effective teachers.

SCREENING CAN HAVE IMPORTANT IMPLICATIONS FOR THE SUPPLY OF TEACHERS

Screening teachers more rigorously may help to improve the quality of teachers who are eventually hired, but it may also reduce the quantity of teachers available to hire if applicants are unable or unwilling to complete the screening process. This may be a particularly serious concern if the supply of certain kinds of teachers is already low.

For example, Figure 2 shows average MMTSP scores for applicants with different kinds of teaching authorizations. The lowest-scoring applicants in the MMTSP are special education and math teachers. These teachers still have average scores well above 80 – the cutoff for most teachers to be eligible to be hired – but they have scores that are 12% to 18% of a standard deviation below average. This suggests that there may be many more of these applicants who are excluded from eligibility due to their scores.

FIGURE 2. MMTSP Scores by Subject Area



Note: Mean total MMTSP scores by subject area authorization for applicants on the eligibility list. Scores are standardized to have a mean of zero and standard deviation of one.

Since special education and math are often areas where teacher shortages are most severe, excluding more of these applicants from the hiring pool may worsen staffing challenges for schools. Indeed, in Los Angeles, special education and math teachers are more likely than higher-scoring elementary teachers to have received an exception to normal screening score requirements, which may indicate that it is harder to hire enough of these teachers.

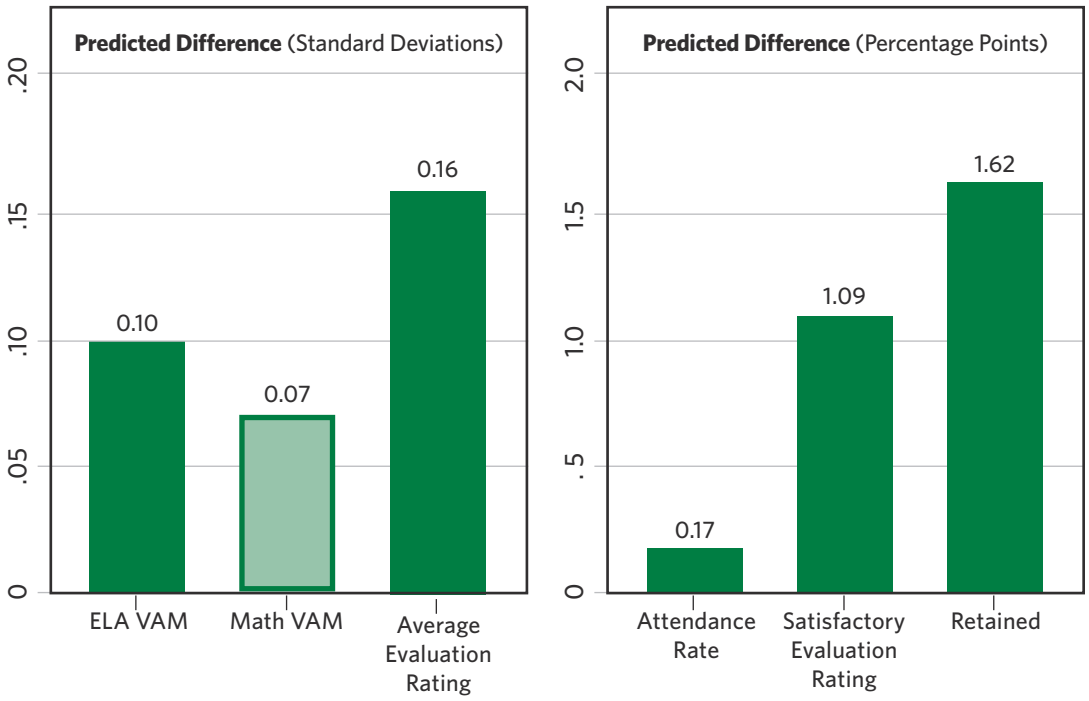
Schools adopting more rigorous screening protocols for teachers may want to use different requirements for different types of teacher. Given that MMTSP performance predicts later teacher effectiveness, schools may be better off having slightly lower standards for high-need teachers than granting exceptions to applicants who perform very poorly during screening.

As discussed below, screening performance does meaningfully predict teacher outcomes, so abandoning screening or lowering screening standards may be unwise. Nevertheless, these data highlight the fact that school administrators should carefully consider trade-offs between the rigor of screening and the supply of teachers.

SCREENING PERFORMANCE PREDICTS A RANGE OF TEACHER OUTCOMES

In LAUSD, teachers who receive better scores in the MMTSP have better outcomes after they are hired. This suggests that the MMTSP screening assessments capture useful information about applicants that can inform better hiring decisions. Figure 3 shows how much better a teacher's outcomes are predicted to be for each increase of one standard deviation in her total MMTSP score. Teacher VAMs and average evaluation ratings are in teacher-level standard deviations as well

FIGURE 3. Overall MMTSP Scores and Teacher Outcomes



Note: Differences in teacher outcomes predicted for a one standard deviation increase in total MMTSP score. Value-added measures (VAMs) and average evaluation ratings are in standard deviation units. Other outcomes are average percentage point changes. ***Solid bars indicate results that are statistically significant at at least the 10% level.***

As shown by their teachers' math VAMs, students do not make significantly faster growth on math tests when their teachers have higher total MMTSP scores. However, a teacher who scores one standard deviation higher in the MMTSP is predicted to help students make larger test score gains in English/Language Arts (ELA) by about 10% of a teacher-level standard deviation. That's roughly the amount a teacher would be expected to improve between her first and third years in the classroom.

That teacher is also predicted to have average ratings on her evaluation that are higher by 16% of a standard deviation, about half the improvement made by teachers between their first and second years. By the end of the year, she is 1.1 percentage points more likely to receive a satisfactory overall evaluation rating, from an average of about 97%.

She is also predicted to attend 0.17 percentage points more of her scheduled work hours, about an additional one-quarter of a day of work in a typical year. That standard deviation increase in total MMTSP score is also associated with a 1.6 percentage point increase in the probability she will stay at her school after the year is over (from an average of about 80%).

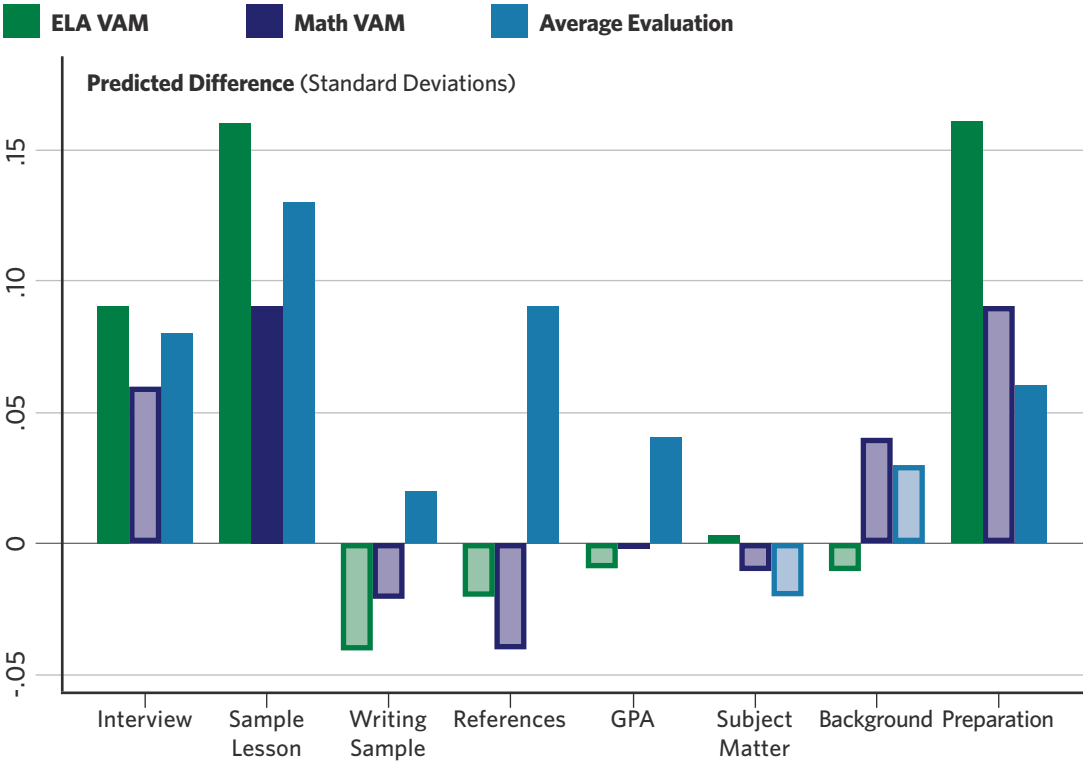
Importantly, it doesn't appear that higher-scoring teachers have better outcomes just because they have easier placements. Even when we compare teachers working in the same school in the same year, those who received higher scores in the MMTSP tend to have better outcomes on average.

Additionally, applicants who were hired despite not meeting MMTSP score requirements do not have outcomes that are any better than their overall screening scores would suggest. This may be surprising, because these applicants were singled out, typically by an administrator, to receive an exception to the normal score requirements. However, this is consistent with much of the research on hiring, which typically finds that screening systems that are very subjective or discretionary – like the granting of score exceptions – do not work as well as systems that are more objective and structured – like the other components of the MMTSP.[5]

DISTRICTS NEED TO CAREFULLY CONSIDER WHICH TEACHER ATTRIBUTES TO SCREEN FOR, AND HOW TO SCREEN FOR THEM

Figures 4 and 5 illustrate two additional facts. First, teachers' scores on individual MMTSP assessments are often much more – or less – predictive than their overall MMTSP scores. For example, while teachers with higher overall MMTSP scores have only slightly higher attendance rates, higher scores for undergraduate GPA or receiving the preparation points specifically predict larger differences in attendance. At the same time, teachers with higher interview or writing scores don't have better attendance than their peers.

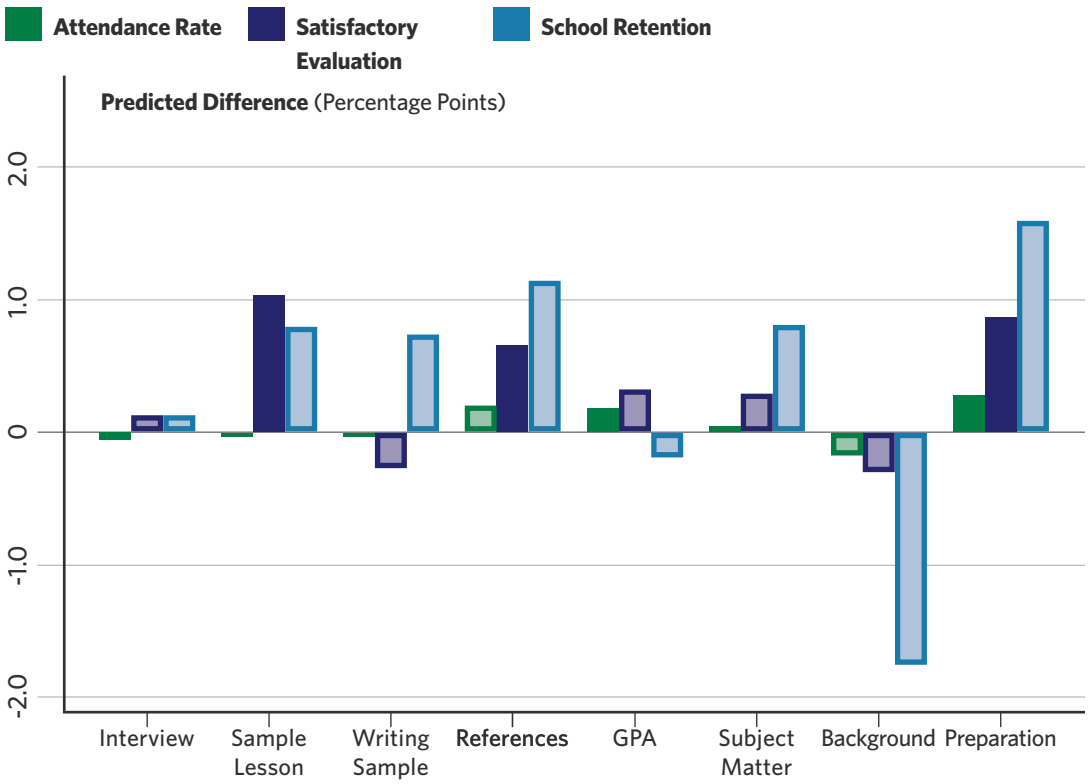
FIGURE 4. MMTSP Assessments and Teacher VAMs and Average Evaluation Ratings



Note: Differences in teacher outcomes predicted for a one standard deviation increase in score on each MMTSP assessment, except bars for background or preparation points are predicted differences for receiving those points for any reason. Value-added measures (VAMs) and average evaluation ratings are in standard deviation units. ***Solid bars indicate results that are statistically significant at at least the 10% level.***

Indeed, some MMTSP assessments, like the background points, don't seem to predict any outcomes for teachers. If they do not capture useful information about prospective teachers, these weakly-predictive assessments may not only make the screening process unnecessarily difficult, they may obscure the more highly predictive assessments when combined into an overall score.

FIGURE 5. MMTSP Assessments and Teacher Attendance, Final Evaluation Ratings, and Retention



Note: Differences in teacher outcomes predicted for a one standard deviation increase in score on each MMTSP assessment, except bars for background or preparation points are predicted differences for receiving those points for any reason. ***Solid bars indicate results that are statistically significant at at least the 10% level.***

In other words, in some cases, removing a screening assessment might make a screening system more efficient and effective. For example, we find that ignoring applicants' subject matter, writing, and background scores doesn't result in weaker relationships between total scores and teacher outcomes, because these assessments are not very predictive to begin with. In fact, total scores become more predictive of several outcomes after those assessments are removed. Moreover, because these assessments require some effort to implement from both applicants and administrators, dropping them may be more efficient.

Second, even when an individual MMTSP assessment predicts one teacher outcome, it doesn't necessarily predict others. For example, teachers who receive higher scores on their sample lesson demonstration have higher VAMs but not better attendance at work, but the reverse is true for applicants' undergraduate GPAs.

This is not entirely surprising, since teacher quality is a complex attribute.[6] However, this complexity can be easy to overlook, and it has important implications for new teacher screening. In particular, if schools try to screen applicant teachers more intensely for one characteristic – say, attendance – they may end up selecting teachers who are worse along some other dimension (e.g., because they don't contribute as much to student learning or are more likely to quit). Administrators should therefore think carefully about the teacher attributes they want to prioritize during the screening and hiring process and may want to collect many different pieces of information about applicants.

LESSONS FOR MICHIGAN AND BEYOND

Although the data from the MMTSP discussed in this brief were collected and analyzed in LAUSD, the results suggest that the MMSTP and similar programs may be useful to consider implementing in other contexts. Recent studies of screening programs in Washington state and Washington, D.C., for example, have also found that at least some aspects of teacher quality can be observed during the screening and hiring process.[7] Given the focus of the EPIC research partnership in Michigan, a note on specific implications for Michigan is warranted.

Educational growth in Michigan has been below the national average for much of the past decade. Even slight improvements in the 2019 National Assessment of Educational Progress (NAEP) — known as the Nation's Report Card — suggest that student outcomes for the state's nearly 1.5 million schoolchildren still lag many of those across the country.[8] Students in Detroit's public school system — while improving on the latest NAEP — are still learning at rates below every one of the nation's 27 largest urban districts for the sixth straight test administration. All of this points to the importance of improving the quality of Michigan's teaching force as one of many factors contributing to students' outcomes. Improvements to teacher hiring processes may be one way of achieving higher student achievement.

At the same time, Michigan has also seen declines in the teacher work force that may make more rigorous teacher screening challenging to implement. Since 2013-14, the number of teachers employed in Michigan has declined more than two percent — with the number of new teachers being certified to teach in Michigan public schools declining more than 23% during the same time period.[9] In the state's disadvantaged areas — those with the lowest test scores and highest drop-out rates, and those with the highest rates of students of color — such trends may have been exacerbated by the state's 2011 reforms to the teacher labor market, which increased requirements for teacher tenure, implemented new teacher evaluation systems, and reduced the scope of collective bargaining.[10] These declines in the supply of potential teachers mean that many districts will find it difficult to adopt screening and hiring procedures that further exclude teachers from working in their schools. For many positions in many districts, more rigorous teacher screening might be possible only if coupled with state or local efforts to recruit and prepare larger numbers of teachers.

Whether new or enhanced teacher recruitment programs might stem these declines or increase districts' ability to select effective teachers is an open question, but challenges are likely to remain — in part due to uncertainty over which teachers in high needs contexts will be most effective. In Michigan, the limited information on pre-teacher credentials suggests that where teachers attended their teacher preparation program is related to their placements in high needs contexts.

For example, teachers from programs with higher entry GPA requirements are more likely to teach in rural and geographically isolated areas, but less likely to teach in urban Title I schools. Conversely, programs that require more hours of pre-student and student teaching are less likely to place teachers in rural Title I schools.[11] These patterns suggest that pre-hire information about teachers can tell administrators something about those teachers' future trajectories, and point to potential value in teacher screening.

As important, teacher retention is particularly low in disadvantaged areas, especially among teachers who attended academically rigorous teacher preparation programs.[12] The results presented in this brief suggest that screening programs such as those used in Los Angeles and other cities may give additional information to Michigan school leaders looking to improve hiring and retention rates among effective teachers. Given longer-term declines in the number of available applicants, the results in this brief caution against imposing substantial additional screening requirements on teachers when their supply is already low. Yet, for teaching positions attracting multiple applicants, improved hiring processes may help administrators hire the teachers who are most likely to be effective and retained, issues with which many Michigan schools, particularly in disadvantaged areas, have historically struggled.[13]

SUMMARY

Teachers who perform better overall during the screening process in Los Angeles Unified School District have better outcomes once they are hired across a range of measures that we consider, all of which may be important to districts, schools, and students not only in Los Angeles, but across the country. Thus, the evidence from the MMTSP—and from similar studies on teacher hiring discussed above — indicates that many schools and districts might benefit from screening their teachers more carefully. The MMTSP is a particularly elaborate screening system, so investing in an identical system may not be possible or appropriate in every district. Nevertheless, there is evidence that existing teacher screening practices are often not very rigorous.[14] Even modest changes to these practices to make them more like the MMTSP — such as standardizing interview protocols or requiring applicants to give a teaching demonstration — may provide important additional information about applicant quality at little cost and may therefore be worthwhile for many districts.

At the same time, there are important trade-offs to consider. Screening teachers more rigorously may slow down the hiring process, which may result in a lower quality applicant pool. Additionally, if the supply of teachers, or some kinds of teachers, is already low, excluding more through the screening process may not be feasible or wise. The design of a screening system will also be complicated, as different screening assessments appear to discern different information about applicants, and to predict different outcomes for teachers (if they predict outcomes at all).

Nevertheless, many schools and districts could likely do more to identify more- and less-effective teachers during the hiring process. Selecting teachers during the hiring process may have substantial benefits and may be easier than removing ineffective teachers after they have been hired. Ours is one of a few recent studies indicating that screening applicant teachers may be both feasible and worthwhile in at least some contexts, including in Michigan. This research can guide that work.

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