



Promoting More Equitable Access to Effective Teachers

Problem and Root Causes

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Introduction

In July 2014, the U.S. Department of Education (the Department) announced that it would require all 50 States to develop equity plans to ensure that all students have access to excellent educators.¹ These plans must analyze and define the problem of inequitable access to effective teachers and outline strategies to address identified equity gaps. This is a document that State and local leaders can use to complete the components of the equity plan that require States to define the problem of inequitable access to effective teachers and establish its root causes. As they read it, leaders should refer to its companion piece: "**Promoting More Equitable Access to Effective Teachers: Strategic Options for States to Improve Placement and Movement.**"² The companion piece provides strategies that States and districts can employ to address their identified root causes of inequitable access.

Root causes are not superficial explanations. Rather, they are the underlying systemic causes in both policy and practice that sometimes interact with and compound each other to leave low-income students and students of color without the effective teaching that they need.

¹ U.S. Department of Education, November 2014, State Plans to Ensure Equitable Access to Excellent Educators: Frequently Asked Questions, <http://www2.ed.gov/programs/titleiparta/equitable/eafaq2014.doc>

Teachers are the single most important school-based factor affecting student achievement.² In many places, however, the most effective teachers are not working with the students who need them the most. On average, disadvantaged students have less access to effective teaching than other students. Low-income students and students of color are disproportionately located in the lowest performing schools, which have half as many highly effective and 1.5 times as many ineffective teachers as high-performing schools.³ Policy leaders and practitioners have referred to this set of concerns as students' *inequitable access to effective teachers*, a term that we will shorten to *inequitable access* for the purposes of this paper.

Inequitable access exacerbates the gap in performance between low-income students and students of color. Among fourth-graders who scored below the 25th percentile on the National

² Aaronson, Daniel, Lisa Barrow, and William Sander, 2007, "Teachers and Student Achievement in the Chicago Public High Schools." *Journal of Labor Economics* 25(1): 95–135; Kane, Thomas, Jonah Rockoff, and Douglas Staiger, 2006. *What does certification tell us about teacher effectiveness? Evidence from New York City* (NBER Working Paper No. W12155) (Cambridge, MA: National Bureau of Economic Research); Rockoff, Jonah E., 2004, "The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data." *American Economic Review* 94(2): 247–52; Rivkin, Steven G., Eric A. Hanushek, and John F. Kain, 2005, "Teachers, Schools, and Academic Achievement." *Econometrica* 73(2): 417–58.

³ TNTP, 2012, "The Irreplaceables: Understanding the Real Retention Crisis in America's Urban Schools," <http://tntp.org/publications/view/the-irreplaceables-understanding-the-real-retention-crisis>

The Reform Support Network, sponsored by the U.S. Department of Education, supports the Race to the Top grantees as they implement reforms in education policy and practice, learn from each other, and build their capacity to sustain these reforms, while sharing these promising practices and lessons learned with other States attempting to implement similarly bold education reform initiatives.

Assessment of Education Progress (NAEP) in 2011, 74 percent were eligible for free or reduced-price lunch (FRPL), and 60 percent were black or Hispanic. Among those who scored above the 75th percentile, only 23 percent were eligible for FRPL and only 18 percent were black or Hispanic.⁴

This paper will explore strategies to provide high-need students with equitable access to effective teachers that States and districts can use to close these achievement gaps.⁵ Given that highly effective teachers can make up for the typical deficits in the preparation of students from low-income backgrounds, it should be an urgent priority for States to ensure that high-need students have access to highly effective teachers.⁶

Defining the Problem of Inequitable Access

Defining Excellent Educators

Before States and districts can examine the issue of inequitable access across and within districts, they must first identify the teachers who consistently demonstrate effectiveness in the classroom. The Department considers excellent educators to be those who are fully able to support students in getting and remaining on track to graduate from high school and getting ready for college or careers. States are attempting to define effectiveness using a variety of measures of teaching and learning. How States

measure effectiveness will depend on the metrics available to them. These metrics may include both the observable characteristics of a teacher's experience and credentials (for example, years of experience or advanced degrees) and measures of teacher practice and impact on student learning (for example, evidence from classroom observations or student growth data).

Some observable characteristics have shown a positive correlation to student achievement. These include years of experience (although the effect plateaus at 3–5 years),⁷ attainment of advanced degrees (particularly for high school mathematics teachers),⁸ and content knowledge as measured by the number of college courses a teacher took in his or her content area.⁹ However, effective teaching is perhaps best described through multiple measures of teacher practice and impact on student learning. These include value-added measures (VAM), which estimate teacher effectiveness against expected student growth on standardized tests, controlling for various student- and school-based factors. Using VAM, researchers found that teacher effectiveness is portable across different school settings. For example, among teachers who switched between schools with substantially different poverty levels or academic performance levels, there was no change in those teachers' measured effectiveness. This pattern holds regardless of the direction of the school change (low to high performing or high to low performing).¹⁰

States and districts can also measure effective teaching through classroom observation. During classroom observation, observers assess a teacher's

⁴Institute of Education Sciences, National Center for Education Statistics, U.S. Department of Education, 2011, "Reading 2011: National Assessment of Educational Progress at Grades 4 and 8," <http://nces.ed.gov/nationsreportcard/pdf/main2011/2012457.pdf>

⁵*High-need students* refers to students at risk of educational failure or otherwise in need of special assistance and support, such as students who are living in poverty, who attend high-minority schools, who are far below grade level, who have left school before receiving a regular high school diploma, who are at risk of not graduating with a diploma on time, who are homeless, who are in foster care, who have been incarcerated, who have disabilities, or who are English language learners.

⁶Hanushek, Eric, 2002, "Teacher Quality," *Teacher Quality*. (Palo Alto, CA: Hoover Press).

⁷Grissmer, David, et al., 2000, "Improving Student Achievement: What State NAEP Test Scores Tell Us" (Santa Monica, CA: RAND).

⁸Goldhaber, Dan, and Dominic Brewer, 1996, "Evaluating the Effect of Teacher Degree Level on Educational Performance" (Washington, DC: National Center for Education Statistics, U.S. Department of Education).

⁹Goldhaber and Brewer, 1996.

¹⁰Xu, Zeyu, et al., 2012, "Portability of Teacher Effectiveness Across School Settings" (Washington, DC: National Center for Analysis of Longitudinal Data in Education Research).

use of instructional practices that produce positive student outcomes. These can include, but are not limited to, teaching content clearly, differentiating instruction to meet student needs, and maintaining a positive and organized classroom culture. Combining multiple measures such as observation scores and teacher impact on student growth can better predict a teacher's student achievement gains with another group of students than can graduate degrees or years of teaching experience.¹¹

A State education agency (SEA) has discretion regarding whether and how to define excellent teachers for the purpose of its equity plan. However, the Department encourages SEAs to define an excellent educator as an educator who has been rated effective or higher by high-quality educator evaluation and support systems.¹²

The Placement and Development of Effective Teachers

Findings from several recent studies suggest that students in high-need schools have less access to the most effective teachers and more access to the least effective teachers.¹³ For example, a 2009 study showed that high-performing teachers made up 15.4 percent of the teaching staff in high-poverty, high-minority schools in Tennessee, but made up 20 percent of the teaching staff in the State's low-poverty, low-minority schools. Low-performing teachers made up 19.6 percent of the teaching staff in high-poverty, high-minority schools; in low-poverty, low-minority schools, they made up 13.2 percent of the teaching staff.¹⁴ In

¹¹ MET Project, 2012, "Gathering Feedback for Teaching: Combining High-Quality Observations with Student Surveys and Achievement Gains" (Seattle, Washington: Bill & Melinda Gates Foundation).

¹² U.S. Department of Education, November 2014, State Plans to Ensure Equitable Access to Excellent Educators: Frequently Asked Questions, <http://www2.ed.gov/programs/titleiparta/equitable/eafaq2014.doc>

¹³ The "most effective" teachers had teacher effectiveness scores that were strongly positive (at least 1.5 standard errors above zero). The "least effective" teachers had teacher effectiveness scores that were strongly negative (at least 1.5 standard errors below zero).

¹⁴ Tennessee Department of Education, 2009, *Distribution of Effective Teachers in Tennessee Schools*.

New York City Public Schools, students in high-poverty schools were more than three times as likely to be taught by a teacher rated "unsatisfactory" as students in low-poverty schools.¹⁵

The gap between teacher effectiveness in low- and high-poverty schools widens because of the relatively poor performance of the least effective teachers in high-poverty schools. One study shows that while the most effective teachers in high-poverty schools are just as effective as their counterparts in low-poverty schools, the least effective teachers in high-poverty schools are much less effective than their counterparts in lower poverty schools.¹⁶

As many district leaders will attest, the challenge of placing effective teachers with the students who need them the most begins with recruitment and hiring. This problem is especially pronounced in rural districts, where a shortage of candidates limits the choices that district hiring managers have regarding who they hire. In addition to a smaller overall pool of candidates, evidence shows that the pool of candidates in rural areas may be less well prepared than their counterparts in urban areas. For example, researchers consistently find that teachers in rural areas have comparatively low educational attainment, are half as likely to have graduated from top-ranked colleges or universities than those in urban areas,¹⁷ and are less likely to have graduate degrees and more likely to have majored in education with less content coursework.¹⁸

Although the problem of inequitable access may begin with the supply of teachers, it compounds over time as new teachers develop their skills. In low-

¹⁵ StudentsFirstNY, 2013, "Unsatisfactory: The Distribution of Teacher Quality in New York City," http://d3n8a8pro7vhmx.cloudfront.net/studentsfirstny/legacy_url/176/SFNY-Unsatisfactory-Report.pdf?1414014398.

¹⁶ Sass, Tim, et al., 2010, "Value Added of Teachers in High-Poverty and Lower-Poverty Schools" (Washington, DC: National Center for Analysis of Longitudinal Data in Education Research).

¹⁷ Gibbs, Robert M., 2000, "The Challenge Ahead for Rural Schools," *Forum for Applied Research and Public Policy* 15, no. 1, 82–87.

¹⁸ Carlsen, William S., and David H. Monk, 1992, "Differences Between Rural and Nonrural Secondary Science Teachers: Evidence from the Longitudinal Study of American Youth," *Journal of Research in Rural Education* 8, no. 2, 1–10.

poverty, low-minority schools, teachers develop more quickly and improve over a longer period of time more often than in high-poverty, high-minority schools.¹⁹ In low-poverty schools, teacher effectiveness increases with experience, particularly from years 6 to 12, whereas teacher effectiveness plateaus in high-poverty schools after 5 years of teaching.²⁰

Teacher Mobility and Attrition

Student access to effective and ineffective teachers is heavily influenced by mobility and attrition. Mobility is when teachers opt to transfer within or across districts. Attrition is when teachers opt to leave the classroom for reasons such as retirement or employment outside the education sector. Teacher attrition represents an absolute loss to the teacher workforce, whereas teacher mobility represents a potential shift in teacher effectiveness within the system.

The reasons for teacher mobility differ. A teacher may move within a district to seek better working conditions, opting to receive the same salary for work in a different school. A teacher may move to another district to seek changes in working conditions and salary. The likelihood that teachers will move and the patterns of teacher movement vary by degree of teacher effectiveness and school characteristics. The most effective teachers in low-performing schools are most likely to transfer to other schools within the same district. However, teachers across the effectiveness distribution are more likely to leave high-poverty, high-minority schools than low-poverty, low-minority schools.²¹

On average, ineffective teachers leave the classroom at higher rates than effective teachers.²² Teachers who exit the profession (attrition) are, on average, less effective than those who either move (mobility) or stay in their assignments. Although ineffective teachers leave teaching at higher rates, those who stay in the

profession simply transfer within the district if they are counseled out of their positions, usually moving to lower-performing schools.²³

The loss of highly effective teachers from – and the retention of low-performing teachers at – high-need schools exacerbate inequitable access to effective teachers. Approximately 10,000 highly effective teachers leave the 50 largest school districts across the country each year, while 100,000 low-performing teachers stay.²⁴ Few ineffective teachers currently self-select out of the profession. Seventy-five percent stay at the same school each year, and 50 percent say that they intend to remain a teacher for at least 10 more years.

Increases in enrollment, the concentration of low-income students, and the concentration of African American students all correspond with increases in the odds of teachers exiting the classroom. Teacher attrition is problematic because high levels of teacher turnover usually result in higher levels of teachers with little or no experience, who are, on average, less effective than their peers with at least 3 years of experience.

To address the issue of inequitable access, States and districts also must understand the impact that initial placement has on a teacher's career and student learning, the amount of time he or she will stay in his or her initial placement, and the reasoning behind his or her decision to transfer to another school or district or to leave the profession entirely.

Now that we have explored *how* effective teachers move and how that movement exacerbates inequitable access, we will examine the reasons *why* they move. This will help States and districts understand the policy levers that can improve equitable access to effective teachers and potentially other educators.

¹⁹Tennessee Department of Education, 2009.

²⁰Sass, et al., 2010.

²¹Goldhaber, Dan, et al., 2009, "Teacher Career Paths, Teacher Quality, and Persistence in the Classroom: Are Public Schools Keeping Their Best?" (Washington, DC: National Center for Analysis of Longitudinal Data in Educational Research).

²²Goldhaber, Dan et al., 2009.

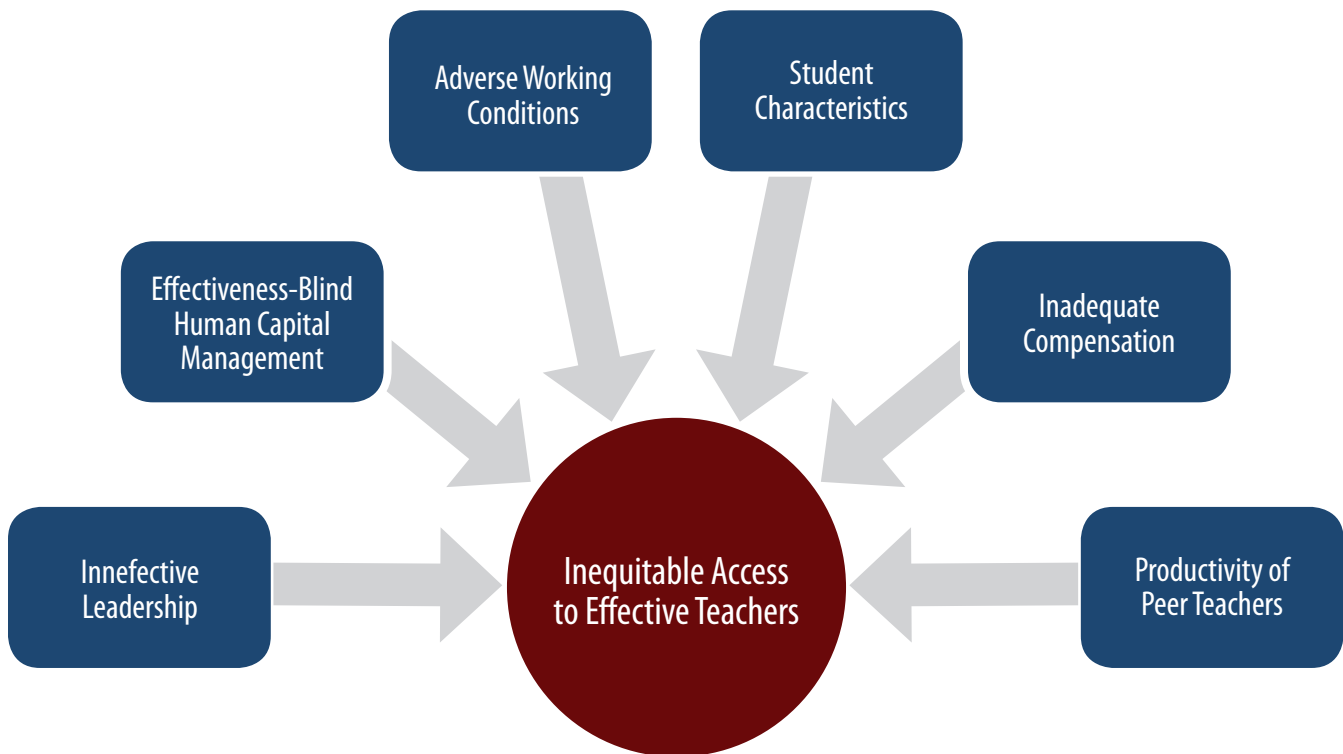
²³TNTP, 2012, "The Irreplaceables: Understanding the Real Retention Crisis in America's Urban Schools."

²⁴Ibid.

The Root Causes of Inequitable Access

To improve access to effective teachers, States will need to employ strategies across the human capital management continuum—from supply to retention. This document’s companion piece, “[Promoting More Equitable Access to Effective Teachers: Strategic Options for States to Improve Placement and Movement](#),” outlines these strategies for States. It also provides a matrix that links strategies to the root

causes that this document is about to explore. While the root causes in this document focus on those that are at the heart of school and district practices, they nonetheless might be addressed by solutions related to supply as the matrix suggests. Readers of this document will be well served by reviewing the companion piece after exploring below the following root causes: ineffective leadership, effectiveness-blind human capital management, adverse working conditions, student characteristics, inadequate compensation, and the productivity of peer teachers.



Ineffective Leadership

Effective school leadership is vital to effective instruction, as good school leaders develop and retain highly effective teachers. However, low-performing schools are less likely to have these good school leaders. In one study of teachers in urban school districts, principals of schools that retained highly effective teachers longer (2–6 years longer than the average highly effective teacher) were more likely to communicate high expectations and make teachers feel supported. They were also less likely to tolerate ineffective teaching. Highly effective teachers whose principals implemented two or more of the following strategies planned to keep teaching at their schools nearly twice as long as teachers whose principals did not do so:

- Provide teachers with regular, positive feedback.
- Help teachers identify areas of development.
- Provide critical feedback about teacher performance in an informal manner.
- Publicly recognize teachers' accomplishments.
- Inform teachers that they are high performing.
- Identify opportunities or paths for teachers to take on leadership roles.
- Put teachers in charge of something important.
- Provide teachers with access to additional resources for the classroom.²⁵

Effectiveness-Blind Human Capital Management

The same study showed that schools retain their most effective and least effective teachers at similar rates, despite the fact that schools have a three in four chance of replacing a low-performing teacher with a new hire who will be more effective immediately.²⁶ This suggests that principals and school districts are not counseling out or removing ineffective teachers from their classrooms. Exacerbating this problem is the fact that many States and districts require

²⁵ TNTP, 2012, "The Irreplaceables: Understanding the Real Retention Crisis in America's Urban Schools."

²⁶ Ibid.

seniority-based layoffs, which are not correlated with teacher effectiveness. For instance, a recent study of the Los Angeles Unified School District showed that 45 percent of laid-off teachers were in the top two quartiles of teacher effectiveness.²⁷

Adverse Working Conditions

The field defines *working conditions* as a collection of factors, including teacher workload, parental involvement, student conduct, school safety, school location, and the quality of school leaders and colleagues.²⁸ Research shows that teachers are sensitive to working conditions.²⁹ Teachers at low-performing schools are much less satisfied with working conditions (32–45 percent) than their colleagues at high-achieving schools (70–82 percent).³⁰

Student Characteristics

Studies show that student characteristics, including race and socioeconomic status, are statistically correlated with teacher mobility. Teachers located in schools with relatively high concentrations of black students are more likely to transfer to new schools in the district.³¹ Black teachers tend to move to schools with higher black enrollment than the schools that they left. White and Hispanic teachers tend to move to schools with higher white enrollment than the schools that they left. Poverty also plays a role in teacher mobility. On average, teachers move to schools that have lower concentrations of poverty.³²

²⁷ Center for Education Policy Research, 2012, "Strategic Data Project Human Capital Diagnostic: Los Angeles Unified School District," <http://cepr.harvard.edu/cepr-resources/files/news-events/sdp-laUSD-hc.pdf>

²⁸ TNTP, 2012, "The Irreplaceables: Understanding the Real Retention Crisis in America's Urban Schools."

²⁹ Feng, Li, 2009. "Opportunity Wages, Classroom Characteristics, and Teacher Mobility." *Southern Economic Journal* 75(4): 1165–90; Ingersoll, R., and Thomas M. Smith, 2003, "The wrong solution to the teacher shortage," *Educational Leadership*, vol. 60, 30–33.

³⁰ Goldhaber, Dan, et al., 2009.

³¹ Ibid.

³² Hanushek, Eric, et al., 2004, "Why Public Schools Lose Teachers," *Journal of Human Resources* 39.2: 326–54.

Inadequate Compensation

Most teacher compensation systems are “lockstep,” rewarding years of experience and educational attainment while ignoring a teacher’s impact in the classroom. These compensation systems are the product of State and district policies or contracts collectively bargained by boards of education and teacher associations and unions. Nearly all of the nation’s salary schedules reward seniority over performance.

Compensation matters to highly effective teachers. In a survey of teachers in four major urban school districts, highly effective teachers were twice as likely as ineffective teachers to cite dissatisfaction with compensation as a reason for leaving.³³ They also identified compensation as one of the top three reasons that would cause them to leave the classroom. Fewer than half of highly effective teachers in these districts were satisfied with their current level of pay.³⁴ In Hillsborough, Florida, 47 percent of teachers said that they would not stay in their high-poverty schools without an increase in pay.³⁵

Productivity of Peer Teachers

The greater the gap between a teacher’s own productivity and the average quality of other teachers at his or her school, the more likely that teacher is to leave his or her initial placement. Teachers who move tend to go to a school where the average teacher quality is like their own. In other words, highly effective teachers seek out schools where the average teacher is high performing, while poor performers go to schools where the average teacher is low performing.³⁶ The

³³ TNTP, 2012, “The Irreplaceables: Understanding the Real Retention Crisis in America’s Urban Schools.”

³⁴ TNTP, 2012, “Keeping Irreplaceables in DC Public Schools: Lessons in Smart Teacher Retention,” <http://tntp.org/publications/view/keeping-irreplaceables-in-d.c.-public-schools-smart-teacher-retention>

³⁵ Lemke, Mariann, et al., 2012, “Providing Effective Teachers for All Students: Examples from Five Districts,” Washington, DC: U.S. Department of Education.

³⁶ Feng, Li, and Tim Sass, 2012, “Teacher Quality and Teacher Mobility,” <https://aefpweb.org/sites/default/files/webform/Feng%20and%20Sass%20Teacher%20Quality%20and%20Teacher%20Mobility%2002-12%20A%20clean.pdf>

most effective teachers who transfer schools tend to go to schools whose faculties are in the top quartile of teacher quality. Highly effective teachers who believe that their colleagues are mostly effective said they would remain at their schools for a longer period of time than highly effective teachers who believe that their colleagues are ineffective.³⁷

Next Steps for States and Districts

When States and districts commit to providing excellent teachers to all students, they likely will address a set of questions that help them to determine whether conditions exist to improve equitable access:

1. How do we currently define *effectiveness/quality*? Do we define effectiveness using multiple measures that include educator practice and capture the impact on student learning? If we do not, do we want to move and can we move in that direction?
2. Do we have in place systems that take into account these measures as we assess effectiveness?
3. Are we able to analyze effectiveness data to ensure that the measures are reliable?

Thinking about and addressing these conditions will help States take the next step in identifying the root causes of inequity and developing strategies to address those root causes. The Center on Great Teachers and Leaders has developed a [data review tool](#) to help States review and analyze their equitable access data, as well as a [root-cause analysis workbook](#) to help States identify the root causes of the problem. These tools will give States insight into which strategies will most likely address the specific issues they face. The research presented in this paper suggests that the strategies that are likely to have the highest impact

³⁷ TNTP, 2012, “The Irreplaceables: Understanding the Real Retention Crisis in America’s Urban Schools.”

will identify and reward highly effective teachers; promote an environment in which teachers can develop their skills over time; ensure that school leaders are equipped to identify effective teachers and make human capital decisions based on teacher effectiveness; reward school leaders for retaining highly effective teachers; and provide incentives to those teachers to serve in high-need schools.

No single strategy will solve the problem of inequitable access. Those committed to improving access will likely employ a combination of strategies to address

root causes. For specific recommendations about how States and districts can address the problem of inequitable access, see the RSN publication "[Promoting More Equitable Access to Effective Teachers: Strategic Options for States to Improve Placement and Movement](#)." This publication can help States and school districts explore possible strategies that address their identified root causes and take steps to close equity gaps that will work for them and their students.

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