

## September 2011 Research Brief - All Eyes on Teachers: The Rise of Teacher Effectiveness as a Critical Education Reform Strategy

The spotlight has been shining brightly on teachers these past couple of years. High-profile documentaries (e.g., “Waiting for Superman”, “The Lottery”, “American Teacher”) and influential education leaders (e.g., Arne Duncan, Michelle Rhee, Joel Klein) have put teachers front and center in the policy debate about how to improve America’s schools. This focus on teachers is absolutely necessary. After all, any education reform effort that does not address the recruitment, retention, training and ongoing support of teachers is bound to have a limited effect on improving student achievement. Research shows that the quality of a student’s teacher is the single most important in-school factor to impact student achievement. “With effective teachers, students achieve about three times the academic gains they make with less effective teachers, regardless of their backgrounds. That means that, in one school year, students get about one and a half years’ worth of learning from the strongest teachers and only about a half a year’s worth from the weakest.”<sup>1</sup> Providing students with effective teachers several years in a row not only accelerates learning (studies have shown that students who have three effective teachers in a row outperform their peers with ineffective teachers by up to 50 percentage points<sup>2</sup>), but some researchers have estimated that the achievement gains produced by having several effective teachers in a row are great enough to close the achievement gap between advantaged and disadvantaged students.<sup>3</sup> It is increasingly clear that effective teachers can advance students’ learning by leaps and bounds, but there are still questions as to how to predict, evaluate and develop teacher effectiveness and how best to recruit, train and retain effective teachers. This brief is the first in a series of three research briefs focused on the issue of teacher effectiveness. This first research brief will focus on the social and political context in which teacher effectiveness has emerged as a key strategy to improve America’s schools.

### Fast Fact:

Students with the most effective teachers make academic gains at three times the rate of students with the least effective teachers.

### Why is teacher effectiveness a high-priority issue?

Though teacher quality has been on the reform agenda for many years and was a key part of No Child Left Behind (NCLB), NCLB’s definition of a “high-quality teacher” focused primarily on inputs: 1) whether a teacher is fully certified/licensed; 2) whether a teacher holds a bachelor’s degree and 3) whether a

<sup>1</sup> Hanushek, E. (2010) "The Difference is Teacher Quality." In *Waiting for Superman: How We Can Save America’s Failing Public Schools*. As cited in Center for Analysis of Longitudinal Education Research (2010) Fact Sheet: The Evidence Behind *Waiting for Superman*.

<sup>2</sup> Carey, K. (2004). *If good teachers matter, why don't we act like it?* Thinking K-16. Education Trust.

<sup>3</sup> Gordon, R., Kane, T., and Staiger, D. (2006) *Identifying Effective Teachers Using Performance on the Job*. Washington, D.C.: The Brookings Institution.

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teacher demonstrates competence in the academic subjects they teach. All of these qualifications did not, however, automatically translate into being an *effective* teacher, as measured by outcomes. In the past few years, however, there have been a number of factors which have pushed teacher *effectiveness* to the top of the policy agenda. One of the important policy levers has been the Race to the Top competitive grant program introduced in 2009 which asked states to focus on four reforms, one of which was “recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most.”<sup>4</sup> States’ applications for Race to the Top funding were evaluated in part on states’ plans to improve “teacher and principal *effectiveness based on performance*”<sup>5</sup> States who were awarded Race to the Top grants are now beginning to implement plans to meet their ambitious goals around improved teacher evaluation systems and are facing some obstacles, including challenges from teachers unions and logistical challenges related to how best to balance using state test results with other less quantitative assessments. How states deal with these challenges and the outcomes of their improved teacher evaluation systems will be closely watched by the education reform community.<sup>6</sup>

In addition to incentives in the form of Race to the Top grants, the push to measure and improve teacher effectiveness has also been advanced by greater availability of data on the impact of teachers on students’ learning. Having several years of standardized test data (a result of NCLB mandates) enabled researchers to quantify the impact of teachers on student learning through the use of value-added models.<sup>7</sup> Value-added analysis was pioneered by William Sanders and Sandra Horn in Tennessee in the late 1990s and defines the “impact on student learning” as the ability to produce gains on standardized tests.<sup>8</sup> In recent years, the greater availability of data and heightened interest from researchers and policymakers has propelled the use of value-added models to spread to districts and states across the country, attracting controversy and media attention along the way. The Los Angeles Times first published value-added data for all of Los Angeles Unified School District’s third through fifth grade teachers in the summer of 2010. The LA Times analysis placed individual teachers on a continuum from “least effective” to “most effective” and made these individual teacher results publicly available. This

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<sup>4</sup> U.S. Department of Education Race to the Top website - <http://www2.ed.gov/programs/racetothetop/index.html>

<sup>5</sup> U.S. Department of Education (November 2009) Race to the Top Program Executive Summary

<sup>6</sup> *Education Week*, September 14, 2011, “Race to Top Winners Feel Heat on Teacher Evaluations”, [http://www.edweek.org/ew/articles/2011/09/14/03evaluation\\_ep.h31.html?qs=race+to+the+top](http://www.edweek.org/ew/articles/2011/09/14/03evaluation_ep.h31.html?qs=race+to+the+top)

<sup>7</sup> “Value-added models” employ a statistical methodology which attempts to control for student background and typically uses several years of student test scores to determine whether students make greater than expected gains on standardized tests. When students make greater than expected gains, these gains are attributed to the value added by the student’s teacher.

<sup>8</sup> See Sanders & Horn (1998) Research Findings from the Tennessee Value-Added Assessment System (TVAAS) Database: Implications for Educational Evaluation and Research

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very public grading of teachers sparked an immediate backlash from teacher unions and generated a huge amount of media coverage. Less than a year after the Los Angeles Times' publication of teachers' value-added rankings, the Los Angeles Unified School District did their own value-added analysis of student data and confidentially shared performance ratings with teachers. The Los Angeles Unified School District is now negotiating with the teachers union to include these performance ratings as part of their formal teacher evaluation process.

### **The debate over how to measure and improve teacher effectiveness**

Researchers, educators and advocates have been debating for years about how to measure and improve teacher effectiveness. One camp – those that believe in test-based, accountability-driven reform - assert that the education field lags far behind other professions in terms of using data to make decisions and drive improvement and that more accountability and greater use of data is the path towards more effective and equitable teaching and learning. An opposing camp – those that argue that non-school factors (e.g., poverty) exert a far greater influence on student learning and that teachers should be supported to address students' needs, not blamed for things outside of their control – questions the validity and reliability of value-added data and advocates for more comprehensive supports for both students and teachers (i.e., improvement in student achievement is more likely to occur when schools receive adequate funding, when students have access to wrap-around services, when teachers get actionable feedback that helps them improve their teaching, etc.). The best path is likely at the nexus of these two camps – using value-added analyses of student achievement data in a way that acknowledges its limitations, in combination with other teacher performance measures that provides useful information to guide the development of individual teachers. Though the debate over how to measure and improve teacher effectiveness is far from over, it's clear that the prominence of value-added data has focused attention on the issue of teacher effectiveness like nothing before.

### **Looking beyond individual teachers: systemic changes, experimentation and innovation**

The greater availability of data on teacher effectiveness has led to more intense scrutiny not just of teachers themselves, but also of the schools that train them. Louisiana, for example, has begun to use value-added data to assess the quality of their schools of education (i.e., to determine if their schools of education are producing teachers that have a measurable impact on student achievement).<sup>9</sup> While Louisiana is acting proactively to assess the effectiveness of their own teacher education programs, there is also a push nationwide to evaluate *all* teacher education programs and their ability to produce

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<sup>9</sup> See Louisiana's Value-Added Teacher Preparation Assessment Program - <http://regents.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=113>

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effective teachers. The National Council on Teacher Quality (NCTQ) is taking the lead in assessing the quality of the nation's education schools and will publish the results of their "Review of the Nation's Education Schools" research project in fall 2012.<sup>10</sup>

In addition to examining teacher education programs as they exist now, there is much interest in figuring out what innovations in teacher recruitment, training and support will produce a highly effective teaching force. In the past few years, researchers have studied the teacher recruitment and training practices of countries with the highest-performing students (e.g., Finland, Singapore, South Korea) to see what could be imported to America.<sup>11</sup> Some of these practices, such as paying for teacher training, competitive compensation and providing teachers with structured growth opportunities, may be easier to implement in the U.S. than other characteristics of high-performing countries, such as a deep cultural reverence for teachers. Learning from best practices of high-performing countries will be important, as will learning from innovations closer to home. In the past several decades, there has been widespread experimentation in the U.S. with alternative teacher recruitment and training programs (e.g., Teach for America, teacher residencies, etc.), alternative teacher compensation models (e.g., ProComp in Denver, the Equity Project charter school in New York City) and charter schools (e.g., KIPP, Uncommon Schools, MATCH charter schools, etc.), all of which have and will continue to yield some important evidence about what works. The lessons learned from these and other models will be discussed at further length in the third research brief in this series.

### Conclusion

All of the factors that have aligned to focus attention on teacher effectiveness (i.e., the Race to the Top grants' emphasis on improving teacher effectiveness; the availability of data on teacher impact; the publicity surrounding the release of teacher effectiveness data; the scrutiny of teacher education programs) are happening against a very important backdrop. It is estimated that in the next decade more than half of current teachers (approximately 1.8 million teachers) will be eligible for retirement.<sup>12</sup> Anticipated increases in student enrollments and continued high rates of teacher

#### Research briefs in the teacher effectiveness series:

- The rise of teacher effectiveness as a critical education reform strategy
- Evaluating teacher effectiveness
- Models & strategies to improve teacher effectiveness

<sup>10</sup> For more information, see NCTQ's website - <http://www.nctq.org/edschoolreports/national/>

<sup>11</sup> Darling-Hammond, L. & Rothman, R. eds. (2011). Teacher and leader effectiveness in high-performing education systems; McKinsey & Company (2010). Closing the talent gap: Attracting and retaining top-third graduates to careers in teaching; McKinsey & Company (2007). How the world's best-performing school systems come out on top;

<sup>12</sup> McKinsey & Company (2010) Closing the talent gap: Attracting and retaining top-third graduates to careers in teaching.

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turnover will likely exacerbate the looming teacher shortage. Instead of viewing this teacher shortage as a crisis, it should be viewed as a singular opportunity to create an exemplary teaching force. If the next generation of teachers, a huge number of which will be hired in the next decade, are recruited, trained and supported in ways that support effective teaching, we might finally be able to close achievement gaps and ensure that American children will be able to succeed in school and life. The next two research briefs in this series will shed light on the ways in which we can produce more effective teachers. The second brief of this series will explore in greater depth how teacher effectiveness can be predicted and evaluated and the third brief of this series will investigate what can be done to improve teacher effectiveness and will highlight the best available models for teacher recruitment, teacher training and support.

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