



From Qualifications to Results

Promoting Teacher Effectiveness Through Federal Policy

Robin Chait January 2009

Center for American Progress



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The Center for American Progress thanks The Bill & Melinda Gates Foundation for generously providing support for this paper.

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Introduction and summary

“One piece of No Child Left Behind calls for highly qualified teachers, but those qualifications are ... front-end qualifications—does the person have this certificate or this degree? And I believe we have to move away from the front-end inputs to looking at highly effective teachers. If you can produce results in the classroom, that makes you effective, and you can stay in the classroom. And it really shouldn’t matter whether or not you have your Ph.D. or your master’s.”

- Michelle Rhee, Superintendent of D.C. Public Schools, “Charlie Rose,” July 14, 2008.

Michelle Rhee captures a widely held view: Federal law should stop focusing on “quality,” as measured by front-end qualifications, and start focusing on “effectiveness,” as measured by whether teachers have actually helped students learn. Research now shows that most qualifications only weakly predict whether teachers will succeed in the classroom, and one of the best predictors of future performance is past performance.¹ This means that increasing the share of teachers who are high performers will be a straighter path to improving student achievement than focusing on credentials.

What is not so clear is how the transition to a performance focus can work on the ground. This paper briefly explains why a focus on effectiveness is needed and how it might work, and it describes current federal policy related to teacher quality. It then provides some new ideas about how federal policy can stimulate change at the state and local level to help states and districts move from a qualifications focus to an effectiveness focus: That is, a focus on a teacher’s ability to improve student learning as measured by both value-added measures and other measures.

If an effectiveness approach is going to succeed, three things must be in place:

- State and district capacity to collect and use high-quality data
- Knowledge about how to use these data to inform human capital policies
- The political will to focus on teacher effectiveness

Therefore, this paper proposes federal investments in the following:

- The infrastructure (data, assessment, and evaluation systems) needed to evaluate teachers and their ability to improve student performance
- A state and district grant program to incentivize reforms that focus on teacher effectiveness
- An alternative certification grant program to expand the pool of talented teachers, particularly for high-poverty schools
- A pilot state grant program to explore a pathway toward teacher certification that focuses on teacher effectiveness

These investments would make sense as part of the reauthorization of the Elementary and Secondary Education Act of 1965, currently titled No Child Left Behind. ESEA/NCLB is the main federal education law that supports elementary and secondary students.

Investment in infrastructure: Data, assessment, and teacher evaluation systems

States and districts need the capacity to collect and use high-quality data to make accurate and fair determinations about teacher effectiveness. This capacity requires strong infrastructure, such as data systems that track students and teachers, high-quality student assessment systems, and rigorous teacher evaluation systems. The federal government should be investing heavily, now, to put these prerequisites into place.

Federal investments should help all states complete the development of longitudinal data systems and develop data verification processes and training for key personnel on how to use the data. In the area of assessments, federal investments should fund research and development that would answer important substantive and technical questions about the best ways to measure student learning, develop high-quality national assessments that states could choose to adopt, and develop model assessments in currently untested subject areas.

State and district teacher effectiveness grants

But building infrastructure is not enough. Some of the important challenges ahead for effectiveness are challenges of implementation—how to structure new pay systems, how to design rigorous evaluation systems and ensure that meaningful consequences and supports are attached to them, and how to make a rigorous tenure system both fair and effective.

Therefore, in addition to proposing a new investment in infrastructure, this paper proposes a grant program that would provide seed money for states and districts to implement a range of reforms that focus on teacher effectiveness. In the proposed grant program, states

and districts would apply to implement a menu of reforms, which may include changes to compensation systems, tenure systems, and teacher evaluation systems to reflect an effectiveness approach.

While states and districts don't currently have the knowledge and the tools they need to make a wholesale shift from a qualifications focus to an effectiveness focus, federal money can invest in building these tools and spur experimentation, without which this shift is not likely to occur.

Alternative certification grants

If states and districts are to implement an effectiveness approach, they will need access to a much wider pool of teaching talent. Alternative certification programs are one critical strategy for expanding the pool of talented teaching candidates. Alternative certification grants could fund non-profit organizations, charter management organizations, both two- and four-year colleges, and universities that have a potentially scalable model of alternative recruitment, preparation, and certification. The programs would be designed to recruit effective teachers to high-needs schools and to expand rigorous but streamlined alternative routes to certification. Programs would be required to meet a set of indicators of quality developed by the U.S. Department of Education based on the work of independent organizations like the National Council on Teacher Quality and others.

Pilot state grant program: An effectiveness pathway toward certification

One critical way to help states move toward a focus on teacher effectiveness is to help them set up a second path to certification for teachers: In addition to their traditional certification requirements, states could establish a pathway based on effectiveness. Teachers would be certified through the effectiveness pathway by having a bachelor's degree, demonstrating subject matter knowledge, and indicating that they have met their state's effectiveness criterion for certification. The effectiveness criterion would have to be based on a rigorous evaluation system that includes value-added and other measures of teacher performance. These teachers would also be considered highly qualified according to the requirements in Title I of ESEA/NCLB.

It might make sense to invest in a pilot program for a few states to try out this effectiveness pathway and then evaluate it before expanding it further. If the effectiveness pathway works well, the federal government might consider allowing some states—those who have the capacity and a rigorous system in place—to replace the qualifications pathway with the effectiveness pathway.

Other incentives to adopt an effectiveness approach

If enough money isn't available to buy states' and districts' participation in effectiveness initiatives, a potentially promising approach is to give districts adopting rigorous effectiveness systems relief from remedial requirements currently imposed on schools not making adequate yearly progress, or AYP, under ESEA/NCLB. For example, current law requires these schools to implement supplemental educational services, or tutoring, after two years of not meeting AYP. Federal law could allow districts to bypass this requirement if they put into place strong systems for attracting highly effective teachers to schools in need of improvement and for removing ineffective teachers from these schools. That teacher-focused policy seems far more likely to yield results than the current supplemental educational services, or SES, programs.

Alternatively, states could be allowed to adopt an effectiveness framework as a corrective action for schools in need of improvement. Improving the quality of teachers and teaching in the school is just as likely—if not more likely—to improve school performance than the other strategies specified in ESEA/NCLB.

Finally, some of the primary obstacles to the use of effectiveness data are political. A number of states have passed laws preventing value-added data from being used to inform specific policies.

It is likely that federal incentives could grease the wheels of reform, and help states and districts overcome some of these political obstacles.

Why focus on effectiveness and how would it work?

Much of our knowledge of teacher effectiveness comes from research in recent decades using “value-added measures.” These measures seek to isolate the effects of teachers on student year-end test scores by “controlling for” factors outside the teachers’ control, such as students’ starting test scores and their demographic characteristics. This research consistently finds that teachers have a large impact on student achievement and that there is great variation in effectiveness between teachers. Studies find the difference between the most and least effective teachers to be as much as a full year’s worth of learning.²

In addition, research also suggests that a teacher’s effectiveness can be predicted to only a limited degree by qualifications, such as certification, having an advanced degree, or attending a selective college.³ Some characteristics seem to matter slightly more than others, but overall they have a negligible impact.

For example, findings regarding teachers’ scores on college entrance exams or licensure tests are generally positive, although the effects are small.⁴ Studies evaluating measures of a teacher’s formal education such as undergraduate GPA, graduate study, and the selectivity of undergraduate institution have yielded conflicting findings. Where the findings are positive, they are generally small as well.⁵ The only qualification that seems to have a consistent and significant effect on student achievement is years of teaching experience, through the first few years of teaching.⁶ But even the variation in teacher effectiveness based on experience is dwarfed by the variation among teachers at any level of experience.

Several researchers have looked at groups of qualifications and have found they are slightly more predictive than individual qualifications alone, but still pale in comparison to using measures of effectiveness.⁷ In an analysis of the impact of teacher characteristics on student achievement using a nationally representative sample of tenth grade students, Dan Goldhaber and colleagues found that a combination of measurable statistics (including teacher experience, education level, and licensure status) explained only 3 percent of the variation in student achievement that was attributed to teachers.⁸

Today, studies suggest that ineffective teachers—as identified using value-added measures—are more likely to leave the teaching profession and particular schools than are effective teachers, but ineffective teachers continue to stay at high rates.⁹ Moreover, high-poverty schools have difficulty attracting effective teachers in the first place. This suggests potentially enormous value from an approach that selects among teachers, seeking both

to retain effective teachers and to help ineffective teachers improve their skills—or find another profession if they are unable to become better educators. Since we define teacher effectiveness as a teacher’s ability to improve student learning as measured both by value-added measures and other measures, a focus on effectiveness would entail assessing teachers’ performance using a variety of measures and using the measures to inform policy.

Retention incentives might include increases in pay, such as performance pay, and in responsibility, such as career ladders that provide teachers with additional responsibilities as they become more effective. And efforts to improve or replace ineffective teachers can take multiple forms—from teacher-led initiatives such as peer review, to rigorous evaluation systems that identify teachers who need additional support, to heightened standards for tenure or changes in tenure systems.

This focus on effectiveness does not preclude a focus on programs that aim to improve the performance of all teachers, including professional development initiatives. Indeed, a focus on individual performance could help leverage major improvements in professional development: If we know Ms. Smith is helping her students learn, we can look at what Ms. Smith does in the classroom and see what works for her. We then can seek to help other teachers learn about her successful practices.

In our view, any initiative using effectiveness approaches should include professional development. For one thing, it is reasonable to want to ease teachers into a new world focused on effectiveness, and teachers need to begin to see the potential power of data to improve their own practice. In addition, any time a district talks about using data to inform decisions about removing teachers, the district must also—as a matter of fairness and common sense—make the same data helpful to the teachers in trouble, giving them a real opportunity to improve themselves before the final decision is made.

The problem with focusing exclusively on professional development is that at this point, we cannot be confident that professional development is yielding major gains in student achievement. The empirical evidence on the effectiveness of professional development is very limited,¹⁰ and data-driven professional development has not yet been adequately tried on a large scale and evaluated. A recent review of 1,300 studies conducted by researchers at the Southwest Regional Educational Laboratory found only nine studies that were sufficiently rigorous to include in their analysis. While it is clear that these nine studies are not representative of most of the programs implemented nationally, most of these nine studies found positive effects.

In contrast, a recent random assignment study evaluating the impact of two professional development programs focused on early reading instruction found that while the programs did improve teacher knowledge, they had no statistically significant impact on second grade students’ reading test scores.¹¹ This study is only one evaluation of two programs in 90 schools after one year of implementation, and perhaps later years of implementation will lead to greater dividends. The research is noteworthy, however, because

it was a rigorous study of two high-quality professional development programs, and one would have expected some measurable effects in the first year.¹²

Very few rigorous, large-scale evaluations of professional development programs are available to inform decisions about how the programs should be designed. This dearth of evidence about how to design effective professional development programs suggests that while using data for professional development is important, it cannot be a substitute for using data to inform decisions about retaining effective teachers and discontinuing ineffective ones. We need to pursue both approaches and use them in combination, not employ just one or the other.

ESEA/NCLB and teacher quality

No Child Left Behind is the most recent reauthorization of the Elementary and Secondary Education Act of 1965, the primary federal education law supporting elementary and secondary students. Its purpose is to “close the achievement gap with accountability, flexibility, and choice, so that no child is left behind.” The authors of the law understood that improving teacher quality was essential to achieving that goal.

While there are other sources of funding for professional development and improving teacher quality throughout ESEA/NCLB, the law’s primary vehicles for improving teacher quality are Title II—funding for teacher preparation, training, and recruitment—and the highly qualified provisions in Title I. President Barack Obama has said that he would increase funding for ESEA/NCLB. When the Elementary and Secondary Education Act is reauthorized, an investment within Title II to help states and districts focus on teacher effectiveness would be a very wise use of additional funding—and an investment that would likely pay dividends in increased student achievement.

The current Title II, Part A program provides funding that can be used for an enormous array of activities to improve teacher qualifications and quality. Most of the funding is currently used for professional development and class size reduction.¹³ No evidence indicates that these dollars are leveraging meaningful improvements in the effectiveness of the teacher workforce.¹⁴

The law initially required states to ensure by 2005-06 that all teachers were “highly qualified,” though states were given an additional year to meet that requirement. In an effort to provide poor students with better teachers, the law also required states to make certain that “low-income and minority students are not taught at higher rates than other students” by teachers who were not highly qualified or experienced.

To be deemed highly qualified, teachers must be state-certified, have a bachelor’s degree, and demonstrate knowledge of the subjects they teach. To meet the requirement regarding subject matter knowledge, new teachers must pass a state assessment or have a major in the subject they teach. Veteran teachers—those who were teaching before the law was enacted—were allowed to follow a state-designed process to demonstrate their subject matter expertise, called High Objective Uniform State Standard of Evaluation or HOUSSSE. In many states, the HOUSSSE process was not very rigorous and did little to make sure that vet-

eran teachers were qualified. States and local education agencies are also required to report the percentage of their teachers who aren't highly qualified and their progress in making certain that all teachers are highly qualified. School districts are required to notify parents with children in schools receiving Title I funds about the qualifications of their children's teacher and must notify parents if the teacher is not highly qualified.

ESEA/NCLB's focus on improving teacher qualifications has likely led to some improvements in teacher qualifications. Most notably, a reduction occurred in teaching out of field at the secondary school level, which was a major barrier to high-quality instruction before ESEA/NCLB. The law's focus on qualifications has also led to changes in state and district behaviors that have fostered modest improvements in teacher quality.

Partly as a result of the highly qualified teacher provisions, a number of districts have shifted away from emergency recruitment of teachers. Historically, many teachers with emergency certification have had low achievement test scores and poor training. Districts have aggressively sought instead to recruit a higher-quality training pool and use alternative recruitment and training programs such as Teach For America and the New Teacher Project.

Studies from New York City and Chicago have found that changes in district policy have led to improved teacher qualifications in high-poverty schools and a narrowing gap in teacher qualifications between high- and low-poverty schools.¹⁵ For example, in New York City, the gap narrowed according to a number of qualification measures, including the percent of teachers failing the Liberal Arts and Sciences Test, or LAST, a state teacher certification exam that measures general knowledge; years of teaching experience; SAT verbal and math scores; and the percentage of teachers who attended the least-competitive colleges.¹⁶ Data from Boston show the same pattern of a narrowing gap in qualifications.¹⁷ Similar patterns likely exist in other large urban districts, since they are employing similar strategies.

These changes in qualifications have likely led to some gains in student achievement, but the gains have been modest. For example, in a recent analysis of the distribution of teacher qualifications across schools in New York City, researchers found that improving a set of teacher qualifications (including licensure scores, certification, SAT scores, and competitiveness of undergraduate institutions) would only result in an improvement in student achievement that is half the effect of having a first-year teacher stay an additional year.¹⁸ These modest gains are generally consistent with other research finding that most teacher qualifications make a small difference in student achievement.¹⁹

However, the mandates driving these improvements risk reinforcing burdensome state requirements that keep people out of teaching. Using regulation, the U.S. Department of Education has defined the "full State certification... including alternative routes" to include teachers who are participating in an alternative program, even if they have not yet completed that program.

A number of grassroots and legal advocacy organizations—including California ACORN, Californians for Justice, Goodwin Proctor, and Public Advocates—have gone to court arguing that the regulation violates ESEA/NCLB’s definition of highly qualified teachers. Although a Northern California U.S. district court judge dismissed the lawsuit in June of 2008, the organizations have appealed.²⁰ If the suit prevails upon appeal, it will effectively mean that ESEA/NCLB would prevent thousands of talented young people from entering teaching until they complete state alternative certification programs with requirements that are often highly burdensome and not linked to student achievement.²¹

Since research finds that prior performance is one of the best predictors of future performance, a focus on teacher effectiveness is likely to produce the greatest gain in the quality of the teaching force. So how could federal policy promote this shift? The federal government has a variety of incentives it could use to encourage the development of policies focused on effectiveness.

Current proposals for reform

Two approaches to reform seem to us clearly ineffective. With a minimum of pressure on states and localities, the federal government can simply provide formula funding to all states and districts that may be used for a wide range of activities, including programs that incorporate effectiveness data, such as rigorous evaluation and tenure systems. Title II currently takes this approach of providing very flexible funding.

This tactic makes sense if we do not consider teacher effectiveness a priority or if we are confident states and localities will embrace it on their own. Both these ideas are wrong. Focusing on teacher effectiveness is one of the most promising strategies we have to lift student achievement. At the same time, competing local priorities and outright local opposition often prevent districts from focusing on this priority. Simply allowing districts to use their federal money for this purpose does not give effectiveness the weight it requires. For example, districts currently use 27 percent of Title II funds to reduce class size, a questionable use of resources.²²

At the other extreme, the federal government could mandate the use of effectiveness data to make judgments about who may be a teacher. The federal government could require states to use a measure of effectiveness in determining which teachers are highly qualified. The Aspen Institute Commission took this approach on No Child Left Behind.²³ The commission advocated a requirement for Highly Qualified Effective Teachers, or HQET. It proposed requiring states to develop value-added systems for evaluating teachers and to use these evaluations as 50 percent of the determination of HQET status. Given the limited experience with the emphasis on effectiveness, the status of states' data systems, the challenges of accurately evaluating teachers in untested subjects, and political realities, this recommendation seems too aggressive.

The House Committee on Education and Labor's discussion draft for ESEA/NCLB reauthorization took a middle-ground approach—incentive funding for districts and states that undertake specific reforms. The discussion draft did not change the HQT definition, but removed the HQT alternative for veteran teachers—the HOUSSSE option. The draft focused on recruiting and retaining effective teachers through several reform proposals that had been part of the TEACH Act, introduced in the spring of 2007 by Representative George Miller (D-CA) in the House and Senator Edward Kennedy (D-MA) in the Senate.²⁴ These included a federal grant program to support performance pay programs

in high-needs schools and a career ladder program also targeted to high-needs districts. The draft also included a new teacher residency grant program and other smaller grant programs focused on teacher recruitment, retention, teacher and principal preparation, and certification.

Finally, the discussion draft retained a formula grant program to support professional development activities but encouraged states to ensure that teachers are distributed equitably by making all Title II funding contingent upon states taking steps to guarantee an equitable distribution of highly qualified teachers. The House discussion draft contained many important reform elements. However, it did not include a focus on increasing the rigor of the tenure decision and the identification of “highly qualified teachers” based on data about teacher effectiveness.

A number of education advocates have offered other promising federal policy reform proposals to improve teacher quality, particularly for students in poverty. This paper draws from many of these good ideas in formulating recommendations.

Many of these reforms offer promising ideas, but as in any legislative proposal the details will matter.

Key elements of federal policy reform proposals that address teacher quality

Policymakers can draw from these ideas to formulate recommendations

Organization	HQT/HET	Use of effectiveness data	High-needs component	Tenure	Evaluation	Compensation	Certification	New Funding
Alliance for Excellent Education		States should develop a need index using indicators such as highly qualified status, measures of teacher effectiveness, teacher and principal turnover, teacher attendance, and working conditions in order to assess the distribution of teachers.	Title II funds should be targeted to schools with greatest need, defined by a need index (described in the prior column). Funds should be further targeted in those schools for comprehensive recruitment and retention activities, such as financial incentives to work in struggling schools and induction and mentoring for new teachers. Amend the Title I comparability loophole that excludes teacher salaries from comparability requirements by including the actual salaries of teachers in comparisons of school equity.			Title II funds should be used for comprehensive recruitment and retention activities, such as financial incentives to work in struggling schools.		None specified
Aspen Commission on No Child Left Behind	Mandates HOET. Teachers who fall in the top 75 percent of producing learning gains in the state and receive positive evaluations would receive HOET status.	Requires effectiveness data be used for no less than 50 percent of determining HOET status.	Requires Title I and non-Title I schools to have similar expenditures for teacher salaries and comparable numbers of HOETs.	States are required to implement evaluation systems for teachers that incorporate value-added methodology, as well as principal evaluations or teacher peer reviews.				None specified
Education Sector		Requires a greater set aside of Title II funds to be used for competitive grants that would support reform activities, some of which would use teacher effectiveness data. Cites incentives, performance pay, and investments in state capacity to gather and use data about teacher effectiveness.	Priorities for competitive grants include investments in recruitment and retention incentives in hard-to-staff schools and investments for ongoing rewards for teachers who work in challenging schools or teach in shortage subjects.	Priorities for competitive grants include investments in rigorous and data-informed peer-review or value-added evaluation systems that identify effective teachers and remediate or remove low performers.		Priorities for competitive grants include investments to create school- or teacher-based reward systems for outstanding performance.	Priorities for competitive grants include investments in alternative and charter colleges of education run by school districts and non-profit organizations.	Recommends new funding for competitive grants, but doesn't specify amount.
Education Trust	Clarifies new teachers are all teachers employed in a given state after enactment of the law. No teacher who is new to the profession can demonstrate content knowledge through HOUSSE provisions.	Provides funding for states to develop statewide longitudinal data systems that link teachers and students. An SEA or LEA may report an equitable distribution of teachers by demonstrating an equitable share of teachers who demonstrate effectiveness in producing learning gains.	Requires state Title II plan that includes goals for achieving equity in teacher distribution. Requires states to report on their plans annually. Requires the education secretary to withhold Title II funds from states not making progress toward the goals of their plan. Requires districts to conduct a teacher quality needs assessment and address identified inequities in teacher distribution using Title II funds. Recommends the comparability provisions of Title I be amended to require that school districts participating in Title I provide evidence that non-federal funds, including those for teacher salaries, are distributed equitably across schools.	States that receive teacher evaluation grants would have to reform tenure policies.	Establishes a competitive grant fund to support states in implementing teacher evaluation systems that incorporate objective measures of student growth. Systems must be used to evaluate professional development, reform teacher compensation, assignment, and tenure policies.	States that receive teacher evaluation grants would have to reform compensation policies. When districts identify inequities in teacher distribution, 40 percent of Title II funds must be used for salary/incentives, differential pay, or other financial incentives.		\$100 million per year for data systems. The new state grant program would be funded at \$500 million in the first year and would grow by \$100 million each year through the fifth year.

Key elements of federal policy reform proposals that address teacher quality (continued)

Organization	HQT/HET	Use of effectiveness data	High-needs component	Tenure	Evaluation	Compensation	Certification	New Funding
Gordon, Kane, and Staiger*	New teachers would still be required to have a BA and demonstrate content knowledge, but would not need to be certified to be deemed highly qualified. Any new teacher scoring above the 50th percentile on the scale of teacher effectiveness at the end of two years would be deemed highly qualified, regardless of certification status.	Supports all states in developing longitudinal data systems that link teachers and students. Effectiveness data would be used in the following ways: to provide a performance-based option to certification; to identify the least effective teachers and potentially deny them tenure; to provide bonuses to the most effective teachers; and to be used as part of a system of teacher evaluation.	Provides bonuses to highly effective teachers willing to teach in schools with a high proportion of low-income students.	States should establish a presumption that teachers in the bottom quartile of effectiveness after two years should not qualify for tenure and shouldn't be allowed to continue teaching.	States receiving grants would develop a teacher evaluation system using a variety of measures of performance on the job.	Provides bonuses to highly effective teachers willing to teach in schools with a high proportion of low-income students.	Provides a performance-based option to certification.	\$200 million in start up costs and \$100 million annually for data systems. Phase one state grants: \$600 million per year.
House Discussion Draft	Eliminates the HOUSE provision.	Requires use of effectiveness data in addition to other measures in rewarding teachers through the performance pay program.	Performance pay and career ladder programs are targeted to high-needs districts. Creates a residency program to recruit and train new teachers for high-needs schools and requires participants to commit to five years of teaching in a high-needs school. Makes all Title II funding contingent upon each state demonstrating that it is taking steps to ensure an equitable distribution of highly qualified teachers to poor and minority students.	Allows states receiving Title II grants to reform tenure systems and requires districts receiving Title II subgrants to reform tenure systems.	Districts receiving performance pay grants would have to evaluate teachers using multiple measures of success including student learning gains, principal evaluations, and master teacher evaluations. Evaluations would need to be based on objective criteria.	Provides new performance pay and career ladder programs targeted to high-needs districts.	Requires development of a model performance-based assessment that accurately evaluates teaching skills and allows the portability of credentials between states.	Not finalized
Obama administration	Requires all new elementary teachers to pass a test in scientifically based reading instruction. Allow middle school teachers to be considered highly qualified if they complete a minor and attain a passing score on a licensing test. Disallow the use of generalist exams that cover all subjects as the basis for granting highly qualified status to teachers of grades 7 and 8.	Requires states to develop value-added data systems linking teachers to students and provide funding for them. Requires states to set a minimum percentage of low-performing probationary teachers that districts must identify every year. Districts must use multiple years of data and should use some objective learning data. Top performers could be identified as well.	Creates new Teacher Service Scholarships, which will support four years of undergraduate or two years of graduate teacher education, including high-quality alternative programs in exchange for teaching for at least four years in a high-need field or location. Creates a residency program to recruit and train new teachers for high-needs schools.	Creates a voluntary national performance assessment for new teachers.	Creates district programs that provide extra pay for mentoring teachers, working in underserved places like rural areas and inner cities, and excelling in the classroom.	Has recommended an increase in funding, but hasn't offered a specific amount.	Congress should establish a national commission to set recommended scores on state licensing tests, and states must report on whether their teachers are meeting them.	
National Council on Teacher Quality								

*Robert Gordon, Thomas J. Kane, Douglas O. Staiger, "Identifying Effective Teachers Using Performance on the Job" (Washington: Brookings Institution, 2006)

Specific recommendations for federal policy

To improve student achievement through an effectiveness approach, the federal government should:

- Invest in creating the infrastructure that would allow states and districts to move toward an effectiveness framework, including data systems, state assessments, and teacher evaluation systems
- Provide incentives for states and districts to focus teacher policies on effectiveness, including evaluation systems, alternative certification, performance pay, career ladders, and rigorous tenure systems that are informed by value-added data and other measures of student learning. It might make sense to require states to provide matching funds for either of these two types of grants to ensure they are invested in the projects and are building their own capacity to innovate in these areas

While not the purpose of this paper, policymakers will have to figure out how to strengthen the existing Title II program and the activities it supports, and where to include the funding for the new investments described in this paper. Many of these activities could be supported through changes to both Title I and Title II of ESEA/NCLB. Some of the investments in infrastructure might also be supported through additions to the statute reauthorizing the Institute for Education Sciences.

As described earlier, it is likely that existing Title II dollars are having little impact, specifically for high-poverty schools. Andy Rotherham, co-director of the Education Sector, has proposed one potential way to redesign Title II to ensure a greater proportion of funds are spent on high-impact activities. He proposes maintaining a formula-based component for Title II but including a large set-aside for competitively allocated grants for reform projects.

Another idea would be to maintain Title II Part A as a formula grant program focused on professional development, but reduce funds allotted to it and require that it be more narrowly targeted to high-poverty schools and toward high-impact activities. Then another part of Title I or II might fund the infrastructure investments described here and another component of Title II might fund the state and district grant programs to provide incentives for implementing key components of an effectiveness framework.

Effectiveness data in action: South Carolina Teacher Advancement Program²⁵

Program provides opportunities for teachers to advance professionally

A primary goal of the South Carolina Teacher Advancement Program is to “develop policies, practices, and procedures regarding evaluation, certification, and teacher quality, which will be implemented in South Carolina’s public schools.”²⁶ The program is based on the Teacher Advancement Program Model. The TAP model, created by the Milken family foundation and operated by the National Institute for Excellence in Teaching, provides teachers with opportunities for career advancement, ongoing professional development, an accountability system, and performance pay. In South Carolina, 45 schools currently participate in SCTAP and many are high-needs schools.

Through the SCTAP program, teachers can pursue a number of career paths with increased responsibilities and compensation—they may be career, mentor, lead, or master teachers depending on their interests and skills. They may also earn performance-based compensation, based upon the following allocation: 40 percent of their bonus is based on teacher

evaluations; 30 percent is based on classroom, value-added achievement growth on the state assessment in tested grades and on the Measures of Academic Progress and end-of-course tests in other grades; and 30 percent is based on schoolwide, value-added achievement growth on the state assessment in tested grades and on the Measures of Academic Progress and end-of-course tests in other grades. Rewards vary by district but range from \$500 to \$9,000. Reduced-rate housing is also available to participating teachers.

Teachers also participate in ongoing, applied professional growth during the school day, meet in cluster groups with other teachers who have similar assignments, and develop individual growth plans. Principals and school leaders evaluate teachers several times each year using a research-based framework. The program is supported by federal funds, including the Teacher Incentive Fund and Title II of the No Child Left Behind Act, district funds, and foundation grants.

Infrastructure: Data systems

A federal investment in data infrastructure is critical, both because the infrastructure is so important and because it provides a flexible platform on which state and local policymakers can undertake a wide range of reform activities. Unlike investment in school operations (such as through Title I), which affect only students at the funded schools, investment in infrastructure can benefit all students across districts and states. And value-added data can be used for ends other than improving teacher effectiveness—for example, for implementing more nuanced approaches to determining school effectiveness.

The federal government should provide all states with the resources necessary to develop or refine their statewide longitudinal data systems, which are necessary for value-added analyses. Federal grants will also need to support the development of data verification processes and training for key personnel on how to use the data. Without these key components, inaccurate data and weak capacity could plague efforts to use value-added information. States will need to develop systems and processes districts can use to ensure data are accurate—for example, that data systems correctly assign teachers to students at the school level.²⁷ States will also need professional development for key personnel that will be involved in using the data, and they will need to be able to train district personnel on the data’s use as well. Without this training, the information will not be used well.

Since many states are already fairly far along in developing the systems themselves, all states could be required to have the systems and support processes in place within three years of receiving funds. The Data Quality Campaign, a national collaboration that supports state policymakers in the use of education data, reports that six states have all 10 of the essential elements they have identified as necessary components of a comprehensive data system to track student progress from preschool through college.²⁸ They find that 48 states have at least half the necessary elements.

The federal government is already investing in the development of longitudinal data systems through the Statewide Longitudinal Data Systems grant program, or SLDS. This program was created through the Educational Technical Assistance Act of 2002, Title II of the statute that created the Institute of Education Sciences. It has provided grants of between \$1.5 million and \$6 million to 27 states to help them build their data systems. The program is intended to complement state investments to accelerate the pace of the development of these systems. A third cohort was funded in September, and the budget for the program has been increasing—\$62.2 million in grants were awarded in 2007.

The federal government should increase funding for SLDS to enable all states to move quickly to finish developing their statewide longitudinal data systems and to develop data verification processes, training, and technical assistance procedures. The Data Quality Campaign's 10 essential elements could be a starting point in designing the grant program. Grant amounts would vary depending on a state's needs and the status of its system.

Infrastructure: State assessments

As a variety of reports have demonstrated, the quality and rigor of state assessments vary tremendously. While some states have assessments that evaluate students' critical thinking and problem-solving skills, others are nothing more than basic skills tests. Since assessment frequently drives instruction, this inconsistency is problematic and further exacerbates the differences in the quality of instruction among states. States need help developing high-quality assessments that measure the skills and knowledge that students need to be prepared for college and career. While we will never have assessments that measure everything we want teachers to teach, assessments should represent our priorities for instruction and reflect the critical skills we want students to demonstrate.

Many substantive and technical questions need to be answered about the best ways to measure student learning. For instance, what types of assessments are predictive of the broader set of skills we want students to possess? Are open-ended or multiple choice questions better at measuring specific skills, and are there valid ways to construct assessments that can minimize teachers' ability to "teach to them" rather than prepare students for them? Also, how can tests be designed with the optimal psychometric properties to measure students' growth,²⁹ and how can tests be designed to better measure higher-order thinking skills?

In addition to addressing substantive and technical challenges, there is a need for new, high-quality assessments in currently untested grades and subjects. Right now, many states are only investing in the assessments they need to comply with ESEA/NCLB's accountability requirements. If direct measures of student learning are to be used as a component of teacher evaluations, states and districts will need access to high-quality assessments in a wider range of grades and subjects. Clearly, standardized tests in all subjects will not be appropriate—for instance, in early childhood classrooms or certain arts courses.

To address these issues of quality and technical sophistication in student assessment, the federal government should:

- Develop a national assessment based on national standards in reading and mathematics or even several national assessments that states could choose to adopt
- Support a research and development grant program to improve the quality and range of existing assessments

National assessments would vastly improve the quality of many states' assessments since the federal government has the unique capacity to learn from existing high-quality assessments and to tap into current expertise in the field of assessment. States would likely need incentives to ensure maximum participation.

Moreover, states are incurring duplicative costs for test development. National assessments would save money for individual states and allow the development of higher-quality assessments that often cost more to develop. The costs of developing and scoring assessments vary significantly, but in a recent paper examining the costs of standards, accountability, and assessments, researchers Doug Harris and Lori Taylor with others examined the costs of assessments in Florida, North Dakota, and Texas and found that the development and scoring of assessments ranged from \$25 per student to \$44 per student for tests in multiple subjects.³⁰ The highest-quality assessments, like Advanced Placement examinations, could cost as much as \$107 per exam for development and scoring for one subject.³¹ If there were only a few national exams, there would be no reason why the federal government couldn't support the development of very high-quality assessments.

There are a number of potential approaches to developing national assessments, but two promising approaches are for the federal government to appoint an independent commission to develop the assessments or to fund several state consortia to develop assessments.

A research and development grant program could support independent test developers and researchers in addressing technical challenges to improve the quality and validity of assessment methodologies and developing high-quality assessments in a wider range of grades and subjects than currently exists. A grant program could also target partnerships of testing companies or researchers and states or school districts to develop high-quality assessments in a range of subjects. These assessments would be used to inform instruction, professional development, and teacher evaluations which could be linked to tenure and pay decisions.

But tests alone can't be the basis for evaluating teacher effectiveness, for several reasons. First, a single test measure doesn't provide a timely enough basis for feedback to teachers about how they are doing. Second, reliance on this one measure alone creates too great a risk of triggering gaming and cheating. Third, because value-added measures aren't perfect, and because they can be affected by random events outside a teacher's control that aren't accounted for in the statistical model, value-added results need to be supplemented by other measures to reduce the risk of errors. And finally, not all teachers teach subjects for which there are standardized assessments.

Some supplements to tests may also be direct measures of student achievement—for example, portfolios of student work and performance assessments. These tools retain the focus on the real object of teaching—improving what students are able to do. But the challenge is to develop scoring systems that achieve objectivity and reliability across different classrooms and schools, and that appropriately model teachers' contributions rather than students' absolute achievements.

Effectiveness data in action: New Mexico's three-tiered licensure/performance evaluation system³²

Requires teachers to demonstrate student achievement and learning before advancing to licensure

New Mexico has a three-tiered licensure system that is informed by an annual performance evaluation process. New teachers must be highly qualified in order to be assigned to a core content area and all new teachers receive a mentor. In order to advance from level one to level two, teachers must participate in annual evaluations, have three successful evaluations at level one, and submit a professional development dossier documenting their progress. In order to advance from level two to level three, teachers must have completed three successful years at level two, earned a master's degree, and passed the professional development dossier.

The professional development dossier is a performance-based assessment organized around New Mexico's nine teaching competencies. Teachers gather documentation for their dossier that reflect the nine competencies and demonstrate student achievement and student learning. Indicators for each of the competencies reflect the skills teachers

are expected to demonstrate at each level. New Mexico's nine teacher competencies incorporate three evaluation strands: instruction, student learning, and professional growth. Sources of information to inform the dossier include:

- Previous annual evaluation
- Classroom observation notes
- Student achievement data
- Instructional artifacts
- School/district initiative(s)
- Parent and/or student surveys
- Teacher accomplishments

If a teacher is not promoted to level two within five years, his or her contract is not renewed. The teacher may work as a paraprofessional in the district, but must wait for three years before applying to be a regular teacher again. In 2005, 997 teachers submitted a professional development dossier. A total of 83.6 percent of teachers passed, 14.6 percent did not pass some of the components, and 1.6 percent did not receive school administrator approval.

Infrastructure: Evaluations

Because there are considerable logistical challenges in appropriately assessing teacher contributions, the federal government should invest in research and development to develop high-quality evaluation systems that can successfully identify effective teachers. Rubrics based on observations of teachers have the advantage of providing frameworks that teachers can use to alter their practice. Yet today, most teacher evaluations are superficial and unhelpful, and most teachers get satisfactory ratings under these systems.³³

The success of existing systems needs to be judged based on their relation to student achievement—that is, whether teachers who observers rate more highly actually achieve better results in the classroom. Few frameworks have been evaluated on this basis to date, and the existing research on this topic has generally found a small positive relationship or very little relationship between the ratings based on these frameworks and student achievement as measured by test scores.³⁴ Further research is needed to evaluate whether existing frameworks are accurately distinguishing between teachers who are more and less effective at improving student learning and to inform improvements to these frameworks.

In October, the Institute for Education Sciences accepted applications for a Center on Teacher Effectiveness to support a research program whose purposes are to distinguish between more and less effective teachers and to identify “specific practices and characteristics” that distinguish them. The center will be funded by a five-year, up to \$10 million grant. This center is an example of the kinds of research the federal government should continue to support. In addition, to build on the work of the center, the federal government might offer evaluation system grants to fund non-profit or research organizations to develop high-quality evaluation systems that are validated by student achievement data or to validate and improve existing frameworks so they have a stronger relationship with student achievement.

Effectiveness data in action: D.C.’s new licensure regulations³⁵

An Advanced Teaching Credential

The Office of the State Superintendent in the District of Columbia has recently published a regulation that would create an Advanced Teaching Credential. This credential would require teachers to demonstrate effectiveness in order to continue teaching in D.C. The regulation defining

effectiveness has not been developed yet, but the regulation states that expert research will be used in developing it and there will be a public comment period prior to adoption.

State and district teacher effectiveness grants

The core of any effort to shift systems toward a focus on effectiveness will be a grant program for which states and districts compete. States and districts need programs and systems that put information about teachers' performance to use. The combination of strong tenure protections, little attention to the tenure decision, the lockstep pay schedule, and weak professional development programs means that even if states and districts had the best data and assessment systems, they would not be positioned to use the information well.

A better system will require that several decisions be made based on a variety of sources of information about teacher performance. States and districts should work toward:

- Granting tenure only to teachers who are effective in the classroom
- Providing added pay and responsibility for the most effective teachers, as a means to retain them in the profession
- Providing differentiated professional development to teachers based on their strengths and weaknesses
- Creating incentives to ensure effective teachers are teaching in high-poverty schools

The Teacher Incentive Fund, created in an appropriations bill in 2006, provides a model for this approach. TIF has awarded over 30 grants to states, districts, and non-profit organizations to implement performance pay programs in high-poverty schools.

However, for reasons explained above the grant program should be broader and include support to states and districts for the use of effectiveness data to evaluate teachers, implement systems that remove ineffective teachers, and raise the bar for tenure. Districts might choose to provide a significant salary increase once teachers receive tenure through a rigorous process.

Grant funds would be used to pilot this idea, but districts would rework their salary schedule to ensure long-term sustainability. Funds could also be used to develop high-quality recruitment and alternative certification programs. States and districts should be encouraged to experiment with different combinations of strategies. Therefore, a sensible grant program might fund programs that include a range of strategies. The federal government might fund 10 five-year grants initially, then evaluate them and modify and expand the program to reach more states and districts.

A number of criteria for these grants seem important. First, teachers should be involved in designing programs that will affect them. Both states and districts should be required to involve teachers in developing grant proposals. Not only is their input invaluable, but their buy-in is needed to ensure successful implementation.

Second, priority should be given to grants that target high-poverty schools. Human capital challenges are most acute in schools serving large concentrations of students in poverty and an important federal role is to improve the quality of instruction these students receive.

Third, states and districts should be required to incorporate a communications and training component of any program. If teachers and administrators do not understand the program and do not know how to change their behavior to be successful within it, it cannot succeed.

Fourth, priority should be given to applications that have plans to sustain the program beyond the grant period (with adjustments based on evaluation). Potential grantees should be encouraged to think creatively about how to fund programs beyond the grant period. For example, in order to pay higher salaries to more effective teachers, they may want to reconsider the single-salary schedule as a whole or look at other major system costs.³⁶

Finally, districts applying for grants will need to gain the cooperation of their states in implementing some of the options. For instance, a district might need permission to opt out of a statewide salary schedule or evaluation system. Federal reviewers should consider whether state cooperation would be necessary or helpful to a potential district grantee.

Alternative certification grants

If states and districts are to implement an effectiveness approach, they will need access to a much wider pool of teaching talent. Alternative certification programs are one critical strategy for expanding the pool of talented teaching candidates. Yet currently many alternative certification programs combine a low level of selectivity with a high level of burdensome coursework.³⁷

Federal grants could spur innovation and enhance quality in alternative certification programs. The grants would fund non-profit organizations, charter management organizations, both two- and four-year colleges, and universities that have a potentially scalable model of alternative recruitment, preparation, and certification. Like the existing Transition to Teaching grant program, these new grants would focus on recruiting teachers for high-needs schools and encouraging the development and expansion of alternative routes to certification.

The grants could improve upon the existing program by significantly increasing the number of programs funded and focusing on models of rigorous but streamlined alternative recruitment, preparation, and certification.

Use of teacher effectiveness data in Guilford County, NC³⁸

County uses value-added data for programs and teaching

The Guilford County school system uses value-added data and other measures of teacher effectiveness to inform a variety of programs and decisions that affect teaching and learning.

Performance incentives

The county launched a program called Mission Possible to attract and retain effective teachers in struggling schools. The program began in 20 schools in the school year 2006-07, and eight schools were added in the 2007-08 school year with a Teacher Incentive Fund grant from the U.S. Department of Education. The program entails ongoing professional development, collaborative support, and smaller class sizes. Teachers are offered recruitment or retention incentives to work in Mission Possible schools and become eligible for performance incentives. Recruitment and retention incentive amounts vary by grade and subject level, but range from \$2,500 for teachers in grades K-5 to \$10,000 for teachers of Algebra I.

Teachers in grade levels and subjects that are part of the state and national accountability systems are eligible to receive performance incentives based on student performance on the state's assessments. These include teachers of third through fifth grade; sixth through eighth grade teachers of math, language arts, or reading; high school math and English I teachers; and curriculum facilitators and principals. To measure student growth, the district uses Dr. Bill Sander's Value Added Data model to produce value-added measures of student achievement for individual teachers. Teachers whose mean student growth is one standard error above the district mean receive a \$2,500 performance incentive, while those whose students' mean growth score is 1.5 standard errors above the district mean receive a \$4,000 incentive. Teachers in untested subjects are not eligible for performance incentives through the district's grant program, but are eligible to receive schoolwide incentives through the state's ABC accountability program.

An additional math pilot, titled Cumulative Effect, was started in the year 2007-08 to attract and retain talented mathematics teachers to four low-performing high schools in the district. The program includes financial incentives, intensive mentoring, and professional development. Mathematics teachers receive financial incentives of up to \$14,000 per year. And,

like Mission Possible teachers, they are eligible to receive performance bonuses of up to \$4,000 per year based on their students' growth on state assessments as measured by value-added data.

Interventions for teachers

Last year the district began using value-added data to identify teachers who needed additional support. Principals designed interventions for all teachers who performed one or more standard errors below the district mean for a year. The principal would meet with the teacher and come up with interventions to address his or her areas of weakness. Examples of the types of interventions selected included attending workshops, meeting regularly with a curriculum facilitator or lead teacher, observing master teachers, having frequent meetings with the principal to discuss progress, or submitting lesson plans for feedback.

Teacher assignments and dismissal

The district encourages principals to review value-added data when they are considering hiring a transfer teacher and when making decisions about teaching assignments. Principals can review the value-added data of teachers who apply to transfer to their schools and can refuse those who are low-performing. Principals are also encouraged not to reassign teachers to teach courses in which they have underperformed in the past.

Principals throughout the district are also encouraged to review value-added data in addition to other measures when making decisions about teacher dismissals. In Mission Possible schools, the policy is more explicit. If the teacher has two successive years of low performance (defined as two standard errors below the district mean), then the teacher is removed from the Mission Possible school and placed elsewhere. If the teacher is non-tenured, principals are strongly encouraged not to renew the teacher's contract. If the teacher is tenured, he or she is either coached into a different role, moved to a non-teaching position, or moved to a school that is a better match for the teacher's strengths. According to Amy Holcombe, executive director of talent development for the district, some teachers have been moved out of Mission Possible schools and been quite successful in other contexts.

The programs would be required to meet a set of indicators of quality developed by the U.S. Department of Education based on the work of independent organizations like the National Council on Teacher Quality and others. Funded programs should not be overly burdensome, but should focus on high-quality induction, mentoring, and on-the-job training. While little research finds that traditional teacher training improves teacher performance, a number of studies find that high-quality mentoring and induction does improve teacher retention.³⁹

Pilot state grant program: An effectiveness pathway toward certification

As proposed by Gordon, Kane, and Steiger, one critical way to help states move toward a focus on teacher effectiveness is to help them set up a second path to certification for teachers: In addition to their traditional certification requirements, states could establish a pathway based on effectiveness. Teachers would be certified through the effectiveness pathway by having a bachelor's degree, demonstrating subject matter knowledge, and indicating that they have met their state's effectiveness criterion for certification. The effectiveness criterion would have to be based on a rigorous evaluation system that includes value-added and other measures of teacher performance. These teachers would be considered highly qualified.

It might make sense to invest in a pilot program for a few states to try out this effectiveness pathway, and then evaluate it before expanding it further. If the effectiveness pathway works well, in the future the federal government might consider allowing some states, such as those who have the capacity and a rigorous system in place, to replace the qualifications pathway with the effectiveness pathway.

While pilot states would have the burden of being required to maintain both their old certification system and a new system that they would need to develop, this approach might be helpful to states in dealing with teachers in rural areas and those teaching multiple subjects. Pilot states would also still be required to ensure an equitable distribution of teachers, although those teachers certified through the effectiveness pathway would count as certified.

While not many examples exist of states and districts reorienting their teacher policies and practices to focus on teacher effectiveness, and even fewer examples can be found of rigorous research evaluating whether these initiatives are working, there are some examples of the kinds of reforms that might be undertaken.

Tennessee's use of teacher effectiveness data⁴⁰

Several policies make effectiveness a priority

Tennessee has a variety of policies in place that are informed by teacher effectiveness data. The state is one of the earlier developers and users of value-added data at the school and teacher level. In Tennessee, teacher-effect scores are developed using value-added data—teachers are scored as no different than the average teacher in improving student achievement, below the mean, or above the mean. The state department of education provides all schools with teacher-effect scores for all teachers for which these data are available. Principals are encouraged to use the data to inform professional development and are asked to consider the information as part of teacher evaluations. Legislation requires that schools have three years of data on teachers in order to use them for evaluation purposes. The state department of education also provides training to districts on how to interpret their value-added and teacher-effect data.

The state's first venture in using these effect data was to use them to indicate whether veteran teachers are highly qualified through the High Objective Uniform State Standard of Evaluation. If teachers receive the "above the mean" rating, they may be considered highly qualified.

They have also used teacher-effect scores to analyze the distribution of teachers. After developing the teacher equity plan required by ESEA/NCLB, the state department of education conducted an analysis to look at the distribution of teachers across districts and schools using teacher-effect scores, teacher experience, and teachers with master's degrees. What they found was that distribution was in fact inequitable. For example, in high-poverty/high-

minority schools, teachers who fell into the "least effective" category made up 23.8 percent of the teaching staff, while in low-poverty/low-minority schools, these teachers comprised 16 percent of the teaching staffs. One interesting finding was that high-poverty schools employed many novice teachers who were extremely effective.

As a follow-up to this analysis, the state department of education convened teams from the six largest districts in the state—Memphis, Nashville, Hamilton, Knox, Jackson-Madison, and Shelby—to discuss strategies to address teacher equity. These were districts that together accounted for almost 40 percent of students in the state, and they also had significant disparities. The department provided technical assistance, information about the current research on strategies to address teacher equity, advice on how to use Title II Part A and school improvement funds, and provided time for the teams to learn from each other. Each district was then required to develop an individual teacher equity plan.

A statute passed in the 2007 legislative session moves the state further in its emphasis on teacher effectiveness. The state passed a statute requiring all school districts to come up with a differentiated pay plan that could include differential pay for subject shortage areas, high-needs schools, or performance pay. If districts do use performance pay, it must be based on teacher effect scores. That statute also required the state board of education to publish a report card on teacher training programs that had to use teacher effect data. The first report card was published on November 14, 2008.

Other incentives to adopt an effectiveness approach

If sufficient funds aren't available to buy states' and districts' participation in effectiveness initiatives, a potentially promising approach is to give districts adopting rigorous effectiveness systems relief from remedial requirements currently imposed on schools not making adequate yearly progress, or AYP. For example, current law requires these schools to implement supplemental educational services, or tutoring, after two years of failing to meet AYP.⁴¹ Federal law could allow districts to bypass this requirement if they put into place strong systems for attracting highly effective teachers to schools in need of improvement and for removing ineffective teachers from these schools. That teacher-focused policy seems far likelier to get results than the current supplemental education services programs.

Alternatively, states could be allowed to adopt an effectiveness framework as a corrective action for schools in need of improvement. Improving the quality of teachers and teaching in the school is just as likely—if not more likely—to improve school performance than the other strategies specified in ESEA/NCLB.

Political barriers to the use of effectiveness data

Finally, some of the primary barriers to the use of effectiveness data are political. Several states have passed laws barring the use of teacher effectiveness data. For example, California passed a law in 2006 preventing teacher identification data from being used for teacher pay, evaluation, or personnel decisions.⁴² In New York last year, the state legislature banned the use of value-added data to inform tenure decisions for two years.⁴³

And in Washington, D.C., at the time this paper is being written, Chancellor Michelle Rhee is engaged in embattled negotiations with the Washington Teacher's Union over a two-tiered contract for teachers. Teachers could choose whether to participate in the more traditional "red" tier and receive pay increases based on years of experience and educational attainment, or a "green" tier that would require them to give up tenure protections for one year, but would also allow them to earn bonuses based on student academic growth.⁴⁴ All new teachers would participate in the green tier and their probationary period would be extended from two to four years.⁴⁵ At the time this paper is being written it is unclear whether these proposals will be included in the final agreement.

It is likely that federal incentives could grease the wheels of reform, and help states and districts overcome some of these political obstacles. It seems that the Federal Teacher Incentive Fund, a \$99 million program that supports performance pay programs in high-poverty schools, has encouraged the growth of performance pay programs in the face of political opposition. The grant program proposed in this paper could have a similar impact.

Conclusion

It is clear that our current methods of assessing teacher quality are not leading to the improvements that we need. The daunting achievement gap between poor and minority students and other students demands reforms that have the potential to achieve dramatic results. Implementing a teacher effectiveness approach is one of the most promising education reforms, and one of the few strategies with the potential to dramatically improve student learning. And only a significant federal investment will lead to the development of better measures of teacher effectiveness and high-quality programs informed by measures of teacher effectiveness.

Moreover, it is likely that a federal investment is needed to generate the political will to move in this direction. As we have seen from some examples throughout the country, there are states and districts that are interested in focusing more on improving teacher effectiveness. Unfortunately, they often cannot generate the political will needed to implement the reforms or to raise the resources to support the reforms.

A significant federal investment in infrastructure (data, assessment systems, and teacher evaluation systems) in addition to incentives for states and districts to adopt reforms could hasten the development of policies and programs driven by a teacher effectiveness approach. Federal funding tied to specific needs can enable the development of high-quality tools and programs and is likely to alleviate some of the political and technical barriers to implementation. We cannot be sure that such a strategy will succeed. But, given all we know, it is clearly worth trying.

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Acknowledgements

The author would like to thank a number of individuals who were invaluable in the conceptualizing and drafting of this report. Robert Gordon and Cindy Brown of the Center for American Progress provided excellent advice and guidance through all stages of the report. Reagen Miller, also of CAP, provided expert technical advice. Sandi Jacobs of the National Council on Teacher Quality and Dan Goldhaber of the University of Washington's Bothell's Center on Reinventing Public Education offered insightful comments. Finally, Cory Curl, Aimee Guiderra, Doug Harris, Amy Holcombe, Julie McCargar, Mary Peters, and Matt Springer offered thoughtful input to specific sections of the report.

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