

**FROM HIGHLY QUALIFIED TO HIGH  
QUALITY: AN IMPERATIVE FOR  
POLICY AND RESEARCH TO  
RECAST THE TEACHER MOLD**

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**INTRODUCTION**

One of the most enduring and compelling issues that has attracted the attention of education researchers and policy makers is the issue of how best to invest in teacher quality. In fact, approximately one-third of the papers presented at the 2007 American Education Finance Association (AEFA) conference were dedicated to research on teacher issues. The attention given to teachers as an education input is not surprising. We know that teachers are the single most expensive *and* the single most important resource provided to students. A quality teacher in every classroom is clearly a cornerstone for providing an adequate education for all students. However, not all students have access to effective teachers, and the current distribution of teachers poses serious problems for the equity, adequacy, and effectiveness of public education. In particular, urban schools serving large concentrations of high-poverty and low-achieving students face serious challenges with respect to staffing: they experience higher rates of turnover than their nonurban counterparts; the teachers they lose tend to have better qualifications than those who stay; and the teachers hired to fill the vacancies tend to be less experienced and less qualified than those they are replacing (Ingersoll 2001; Lankford, Loeb, and Wyckoff 2002). In the end, these schools find themselves serving some of the highest need students with many of the lowest qualified teachers.

Policy makers and researchers are eager to identify policy, practices, and resources that will address staffing deficiencies and ultimately improve student outcomes, particularly in chronically low-performing schools.<sup>1</sup>

Efforts to identify ways to enhance teacher quality and improve the distribution of teachers across schools and districts have potentially profound implications for the efficiency and equity of the education system. The importance of these issues has put teachers at the center of debates about funding adequacy and at the heart of many education policy initiatives, most notably the federal No Child Left Behind (NCLB) Act, introduced in 2001 to increase student achievement and narrow persistent achievement gaps. As members of AEFA continue to grapple with questions about how to use public resources in ways that promote goals of efficiency and equity, it stands to reason that many of us have chosen to focus our efforts on teachers as one of the most critical resources in the education production process.

Research has made important strides toward understanding this complicated input. For instance, we have made good progress estimating the effects (or lack thereof) of various teacher qualifications common in salary schedules (Goldhaber 2007) and identifying how teachers are distributed across districts and schools (Boyd et al. 2003; Hanushek, Kain, and Rivkin 2004; Lankford, Loeb, and Wyckoff 2002). However, we still have much to learn about what it will take—in terms of policies, practices, and resources—if we are serious about staffing all schools with high-quality teachers. Empirical evidence is still needed to inform a raft of critical policy questions. What makes a “quality” teacher? Are hiring and compensation policies that reward certain qualifications the equivalent of investing in teacher quality? What should states and districts think about as they struggle to comply with NCLB requirements regarding “highly qualified” teachers? What investments can and should states make toward improving teacher quality? How should teacher resources be distributed across states, districts, and schools to achieve equity and adequacy goals? While even the best studies often take a back seat to political interests in policy-making arenas, the absence of solid evidence leaves policy makers with little choice but to forge ahead without the guidance of research.

The teacher reform discourse has been characterized as a bipolar debate with those seeking to professionalize teaching on one side and those pushing for deregulation of the profession on the other (Cochran-Smith and Fries

1. See Rice et al. (2008) for a typology of teacher policy that captures the multidimensional nature of the problem (supply, recruitment, distribution, and retention) and the multiple policy responses in play (economic incentives, avenues into the profession, hiring strategies, professional development, and working conditions).

2001). While both sides of this argument have their merits, neither has the empirical evidence needed to be persuasive. Current “highly qualified teacher” requirements in the federal NCLB legislation encompass aspects of both positions. NCLB stipulates criteria for being designated a highly qualified teacher but leaves a great deal of discretion to states in terms of interpretation and implementation. NCLB reflects the assumptions that qualified teachers are quality teachers, that states and districts have the capacity to staff all schools with qualified teachers, and that doing so will promote higher levels of student achievement (not to mention the other goals of public education).

In this essay, I argue for a clearer distinction between qualifications and quality in the teacher policy discourse. I draw on the voices of teachers and administrators from a set of multilevel case studies to consider how high-stakes accountability policies that emphasize qualifications may actually undermine efforts to staff all schools with high-quality teachers.<sup>2</sup> I conclude the essay by discussing how the findings from this relatively small sample of administrators, principals, and teachers suggest that education policy and research may need to recast how we think about and invest in teachers.

## **THE CRUX OF THE MATTER: TEACHER QUALITY VERSUS TEACHER QUALIFICATIONS**

### **Defining Teacher Quality**

A critical step in resolving the debate over how to improve teacher quality requires gaining greater clarity about what teacher quality is. Education leaders and the general public have long recognized the importance of having good teachers, and these convictions are supported by evidence demonstrating teachers as one of the most important school-related factors influencing

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2. This essay draws on findings from multilevel case studies of teacher policy in three states: Maryland, New York, and Connecticut. For more information on this work, see Rice, Roellke, and Sparks 2006 and Rice et al. 2008. This study of teacher policy goes directly to the source—administrators and teachers—to understand what we are doing and what we need to be doing to staff all schools with high-quality teachers. Since teacher policy is designed and implemented at multiple levels of the education system, we conducted nested case studies of teacher policy. These multilevel case studies examined teachers within schools, schools within districts, and districts within states. We selected districts and schools that face challenges with respect to teacher staffing and that are perceived by leaders in the system as employing interesting or promising strategies with respect to staffing. Four sources of data informed the analysis: (1) documents providing information on teacher recruitment and retention policies and investments in those policies at the state, district, and school levels; (2) extant data on teacher staffing patterns in the selected schools and districts; (3) interviews with state, district, and school administrators about their views of the teacher quality challenge and the kinds of investments they are making in policies to staff schools with quality teachers; and (4) focus groups with teachers in selected schools to understand the critical issues related to their decisions about where to work and to assess their perceptions of the impact of policies and practices on teacher recruitment and retention.

student achievement (Darling-Hammond 2000; Rivkin, Hanushek, and Kain 1998; Sanders 1998). However, establishing a concrete definition of what constitutes a good teacher has been tricky at best. Taken together, the volumes of research on the impact of various teacher qualifications yield what appear to be inconsistent and inconclusive findings (see Hanushek 1997). While more recent efforts to carefully and comprehensively make sense of the existing evidence have found that some teacher qualifications matter (e.g., measures that account for teachers' knowledge and abilities relative to the subjects they teach), there is clearly still much to be learned about the attributes that make a good teacher (Rice 2003).

Simply put, teacher quality is a teacher's ability to realize desired outcomes—that is, to effectively educate his or her students. This implies a wide range of outcomes that reflect the broad goals of public education: to produce individuals who can contribute to the economic, political, civic, social, and cultural institutions in our society. We expect high school graduates to have acquired a wide range of competencies, skills, and personal qualities that “contribute to a successful life and a well-functioning society” (Rychen and Salganik 2003). However, measuring the effectiveness of education investments, including teachers, has typically focused on a narrow set of indicators driven, in large part, by the quantity, quality, and accessibility of available data. In the current policy context of high-stakes accountability, the dominant measures of school and teacher performance are student test scores.

Measures of *teacher quality* are limited in that they typically focus on a narrow set of outcomes, are not widely trusted by teachers, are often contextually dependent, and are retrospective based on what a teacher has done. Consequently, teacher hiring and, in most cases, compensation policies have relied heavily on *teacher qualifications* such as experience, degree, and certification as proxies for teacher quality (Odden and Kelley 2002). However, empirical research has not found these qualifications to be strong predictors of teacher effectiveness (Goldhaber 2007; Rice 2003). Even when they are statistically significant predictors of teacher performance, they explain only a small proportion of the variability in student achievement attributable to variation in teacher quality. In other words, while teacher qualifications may have something to do with teacher quality, other more elusive teacher characteristics may be more important predictors of teacher effectiveness. Further, these teacher characteristics may well vary for different kinds of students and school communities. Since teacher quality involves context-specific criteria related to a teacher's potential to be effective in a particular school and teaching assignment, compared with teacher qualifications that are more widely applicable across school settings, it follows that externally imposed minimum qualifications are easier to legislate.

### **No Child Left Behind and “Highly Qualified Teachers”**

Even in the context of limited information about what constitutes a good teacher, federal, state, and district policies continue to rely heavily on teacher qualifications as indicators of teacher quality.<sup>3</sup> Most recently, educators at all levels have responded to the highly qualified teacher provision of NCLB. Acknowledging teacher quality as one of the most powerful strategies available for boosting student achievement, policy makers emphasized raising the quality of the teacher workforce as a necessary requirement for improving student achievement and narrowing the achievement gap (Jennings 2003). Consequently, federal policy makers placed new requirements on states and local school districts to ensure a basic level of qualifications for teachers in their classrooms. These requirements responded to growing evidence that teacher quality is one of the most important school-related factors influencing student achievement and that persistent inequities in the distribution of qualified teachers further disadvantage students most at risk of academic failure.

NCLB’s architects intended to improve teacher quality by establishing a definition for a highly qualified teacher, a standard that applies to teachers who instruct students in core academic subjects.<sup>4</sup> In broad terms, NCLB defines a highly qualified teacher as one who has a bachelor’s degree, full state certification and licensure, and content knowledge in each subject taught.<sup>5</sup> While NCLB provides clear guidelines regarding what counts as a highly qualified teacher, states are granted much discretion in determining specific certification and licensure requirements, minimum standards for subject matter knowledge, and requirements for evaluating existing teachers’ credentials through “high objective uniform state standard of evaluation” (HOUSSE) provisions.<sup>6</sup>

### **NCLB AND THE TEACHER QUALITY CHALLENGE: VOICES FROM THE FIELD**

Evidence suggests that despite its stated goals, NCLB and other high-stakes accountability policies may exacerbate the staffing challenges in districts

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3. This section draws heavily from Kolbe and Rice (2008).
  4. The “highly qualified teacher” requirement applies to elementary and secondary school teachers who teach in one or more core academic subjects, including English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography.
  5. Arguably, this set of qualifications can be seen as a floor. In fact, some have argued that the qualifications identified in the NCLB legislation are more reflective of a minimally qualified teacher than a highly qualified teacher.
  6. HOUSSE is a state-developed assessment that may be used to verify a veteran teacher’s competency if the teacher has not met either the content or testing requirement in a specific core academic area. The standard must be one that “provides objective coherent information about the teacher’s attainment of core content knowledge in the academic subjects in which the teacher teaches.” The law gives states the latitude to develop an evaluation process of subject matter competency for veteran teachers as long as the process meets six criteria specified in the law.

that have an inadequate supply of qualified teachers and chronically low-performing schools. Case study data (to which I will refer throughout this essay) in Rice, Roellke, and Sparks (2006) and Rice et al. (2008) suggest three explanations for this problematic consequence of the law, and each has important implications for policy. First, NCLB prioritizes measures of teacher qualifications over matters of teacher quality, resulting in some schools bypassing candidates deemed to be of high quality in order to hire teachers with the documented qualifications required by the law. Second, some teachers who meet the highly qualified standard are not high quality, given the contextual factors of the school. Third, the emphasis of NCLB on standardization and a narrow set of performance measures often repel teachers from low-performing schools.

### **Prioritizing Qualifications over Quality**

The federal government's "highly qualified teacher" standard assumes that a college degree, state certification, and subject matter expertise—regardless of the state, district, or school in which a teacher works—constitute the set of qualifications needed to raise student achievement and close achievement gaps. The law's emphasis on this set of teacher qualifications, however, has not been without controversy. The empirical literature studying the relationship between teacher qualifications and student achievement has found that these qualifications are, at best, weak predictors of teacher performance.

The importance of distinguishing between teacher quality and teacher qualifications was apparent in the districts and schools in our case studies. In particular, we found that the highly qualified teacher requirement prioritizes qualifications over quality and effectiveness, and this emphasis on qualifications was most dramatic and had the most profound effects in low-performing and difficult-to-staff schools and districts. We found that more attractive districts with a surplus of qualified teachers had the luxury of emphasizing policies that enhance *teacher quality* (i.e., effectiveness) based on internally determined criteria that take into consideration the strengths and needs of the school community. In contrast, districts with an undersupply of qualified teachers were forced to focus on externally imposed *teacher qualifications* (e.g., federal and state criteria), paying little attention to other teacher characteristics that might be more likely to improve student performance.

In many cases, the principals and teachers in the schools we studied made it clear that they hired teachers based on highly qualified teacher requirements of NCLB, when they would have preferred other candidates who, by their assessment, better met the needs of the school. These findings suggest that districts and schools that can hire from a surplus of teachers have a tremendous advantage over their difficult-to-staff counterparts because they have the

luxury of focusing on effectiveness rather than basic-level staffing issues. In other words, these surplus districts can focus their efforts on policies that will yield the highest quality teachers in terms of effectiveness, while schools and districts that face shortages are limited to hiring practices that will help staff schools with teachers who meet a set of externally imposed qualifications that are not strong predictors of effectiveness.

Several principals in our sample, particularly those working in the most disadvantaged schools, expressed great frustration with the NCLB highly qualified teacher requirement. A local instructional superintendent in the New York City public schools commented on this challenge that is particularly salient in the most difficult-to-staff schools:

So we are directed by the state and the city to hire only highly qualified teachers. The problem is that in district 7—which is demographically high poverty, lots of projects, poor working environment—it’s very hard to attract highly qualified teachers. . . . Our principals go to job fairs. . . . When we tell them we’re district 7, they don’t even drop an application off to us. . . . We can’t be extremely selective about who we hire simply because we don’t attract personnel here in district 7.

In some cases, school officials found themselves hiring teachers who had all the credentials needed to be designated highly qualified but were considered by principals to be less effective than others who did not meet the qualifications specified in federal requirements and state policy. As a result, these principals found themselves turning away some of the “best candidates” for their open positions, in favor of less promising teachers who met the highly qualified teacher requirements. As described by an assistant principal in a Maryland Title I elementary school:

We were only allowed to interview HQ [highly qualified] teachers. We did get a lot of calls from people who were already documented in personnel but they had not received a HQ rating or they hadn’t gone through the process. We were very interested in some of them but they were not eligible to come to our school because they did not meet the requirements of highly qualified. . . . Sometimes they seemed as if they would be good matches for us but they didn’t have the rating. . . . I remember one we were particularly interested in because of her skill set, but she was not going to be rated as highly qualified until she had more paper requirements met.

Our findings suggest that the impact of NCLB on teacher quality will be limited until all schools and school districts have an adequate supply of qualified teachers. State and district policy makers need to adopt more targeted policies that will improve the distribution of qualified teachers across schools within their boundaries. For instance, policies are needed that provide substantial incentives for teachers to accept positions in difficult-to-staff schools and teaching assignments, and more research is required to identify how large those incentives need to be. Our data suggest that these incentives need to be more substantial than the common \$1,000–\$3,000 signing bonuses that we observed and that they need to be sustained in order to retain those teachers over time. Further, given the high proportion of inexperienced teachers in low-performing schools, resources should also be allocated in ways that attract more experienced and accomplished teachers. For example, states could provide large incentives to teachers who have earned National Board Certification to work in economically and educationally disadvantaged schools. However, in most of the contexts we studied, state rewards for National Board Certification were not differentiated by the nature of the teaching assignment.

### **When Highly Qualified Is Not High Quality**

A second issue that undermines the goals of NCLB is that highly qualified teachers are not always high-quality teachers, and this disconnect is particularly apparent in some types of schools and teaching assignments. NCLB and other policies that define standards for teacher hiring must consider the context in which they will be teaching. In many cases, we spoke with teachers who, despite meeting the highly qualified teacher requirements, felt ill prepared to teach the diversity of students in low-performing schools. In some cases, this was due to language differences. In other cases, the students simply needed more instruction and remediation than the teachers had been prepared to give. This lack of context-specific preparation suggests that having the highly qualified teacher designation is insufficient to be a high-quality teacher in some schools and in some teaching assignments.

A veteran elementary teacher in a Maryland Title I school described the insufficient preparation of novice teachers entering the challenging teaching environment:

There is a disconnect between the teacher prep program and the real world. They are naive and come into, especially a Title I school, and don't understand the societal issues that impact the classroom. . . . The gap between teacher education and what is going on in the school has increased over the years.



A novice teacher in Maryland commented on her specific teaching assignment:

I wasn't prepared to teach a class where none of [the kids] can speak English. That is the one thing I struggle with. These kids were not on a second-grade level when they came to school. I teach a second-grade curriculum, but the kids are not on a second-grade level. They are very behind.

One piece of this puzzle is teacher preparation. We talked with many teachers who completed quick-entry alternative certification programs, and on completion felt unprepared for their teaching assignments. This is not to say that alternative certification programs are bad. In fact, research has found some to have had a positive effect on urban school systems (Johnson, Birkeland, and Peske 2005). Nor do we mean to suggest that traditional university-based teacher preparation is necessarily good. In fact, many of these programs are not tailored to the needs of teachers headed to struggling schools. Regardless of the source and type of their preparation, novice teachers entering these schools may need site-specific training, induction, and professional development that will prepare them to be effective in the particular environments in which they are teaching. Researchers and policy makers should work toward identifying and investing in high-quality, site-specific training for teachers working in particularly challenging environments.

In addition to adequate preparation specific to the students and communities they are serving, teachers with particularly challenging teaching assignments may need reduced teaching loads for class preparation or sabbaticals to provide the time they need for additional training. Given the hefty costs associated with these policies, research is needed to understand the effects of these sorts of highly targeted investments. In all cases, teachers in challenging schools need strong administrators and mentor teachers who can provide ongoing support to help them be effective. However, we know little about what makes principals effective or how to invest in the recruitment, distribution, and retention of good principals.

In sum, our case studies suggest that highly qualified teachers working in low-performing, high-intensity schools need additional resources to be high-quality teachers. Such provisions, including site-specific induction and professional development, sabbaticals, reduced teaching loads, and supportive master teachers and principals, may have the potential to offset more difficult assignments with workplace conditions that attract well-prepared teachers to these schools, make them more effective in their teaching assignments, and retain them in those positions over time.

### **A Broader Understanding of Professionalism and Performance**

A third concern about NCLB is that high-stakes accountability policies, in general, often drive good teachers away from low-performing schools, exacerbating the staffing challenges in these schools. Many teachers in our focus groups expressed great frustration with the high degree of standardization that has resulted from high-stakes accountability policies. Several argued that the implementation of uniform curricula has damaged the professionalism of teaching. One school principal in Maryland noted:

The teaching profession in the Title I world today is not the creative venture it used to be. There is still a little bit of latitude, but it is not nearly the latitude that was once allowed in previous years.

Putting aside questions surrounding the impact of such policies on equity and efficiency in public education, these sorts of threats to the autonomy and professionalism of teachers cause many to reconsider their career choices and may make the profession less attractive to potential teachers. This concern was expressed by a high school mathematics teacher in Connecticut:

What makes people want to teach is going to get lost, and the whole concept that we have to create end products and everybody has to be in the same box. They're trying to force fit this and then when it doesn't work, the blame comes back on us.

Adding to the difficulty, low-performing schools face greater challenges than other schools in meeting performance standards. High-stakes accountability policies, like NCLB, that hold teachers accountable for outcomes that are well beyond their control undermine staffing low-performing schools with qualified, let alone quality, teachers. Several teachers from urban schools in our sample described their frustration. A prekindergarten teacher in a Maryland Title I school commented:

You feel like you've done well and then someone tells you that you've not done enough. . . . I felt so thrilled with my kids' progress and then someone told me it wasn't good enough; I was devastated. My kids will be able to write their name next year and they are telling me that's not good enough.

The ultimate effect of high-stakes accountability, according to many teachers we spoke with, is high attrition in low-performing schools. One Maryland middle school teacher captured this well:

The biggest factor in my mind for retaining teachers is NCLB and standardized testing and its effect on each teacher and classroom. When the school doesn't have the means to increase the scores, then teachers' jobs are in jeopardy and teachers are discouraged. Teachers will go elsewhere or go to schools where meeting the tests are easier and they don't have to worry about outside factors, whether it's in other states or other districts because the tests are less rigorous.

High-stakes accountability policies are not inherently bad. In fact, equity demands that we hold schools accountable. However, to the extent that these policies drive good teachers away from low-performing schools, we have a serious problem. High-stakes accountability policies need to be designed in ways that draw the best teachers to the most challenging schools, provide support to help teachers be as effective as possible, and reward those teachers for staying there. This implies not only a greater targeting of resources to support teachers in those environments (as described above), but also a broader understanding and assessment of teacher quality. High-stakes accountability policies, like NCLB, must consider a broader set of indicators, beyond student achievement test scores, to monitor teacher and school performance. We found that the heavy reliance on the narrow set of outcomes captured by standardized testing is very frustrating to teachers and often discourages them from remaining in low-performing schools. A broader set of measures (including, for example, principal, peer, and parent evaluations and multiple measures of teachers' knowledge of students and teaching) may capture the many ways that effective teachers have an impact on students.

### **DISCUSSION: RECASTING THE TEACHER MOLD**

This essay argues that we may need to recast the mold for teacher hiring and compensation decisions and readjust teacher policy investments to promote goals of equity and efficiency. To the extent that research can identify a set of teacher qualifications that are consistently related to teacher performance, those qualifications *should* be used as a floor for teacher employment. In other words, these criteria would set the bar for a "minimally qualified teacher." Beyond those basic qualifications, schools should be free to take into consideration contextually relevant factors to select the highest quality teachers available to them. Appreciating this distinction between teacher qualifications and teacher quality is essential if we are serious about improving student performance in all schools.

While this approach sounds reasonable, current policy is problematic on several grounds. First, in order to accept a set of state-specified teacher qualifications as a legitimate floor for teacher employment decisions, we must

assume that states have specified certification and subject matter competency in ways that have been empirically shown to predict teacher performance. Otherwise these qualification requirements limit the supply of teachers available to schools for no good reason. As noted previously, research on the relationship between teacher qualifications and teacher effectiveness has been plagued by inconsistent and inconclusive findings.

In addition, several issues surrounding the implementation of NCLB appear to be problematic, particularly for chronically low-performing schools that have an inadequate supply of qualified teachers. Most notably, NCLB's emphasis on teacher qualifications (i.e., externally imposed criteria for hiring) over teacher quality (i.e., context-specific criteria related to teachers' potential to be effective), the disconnect between highly qualified and high-quality teachers in some school contexts, and the standardization and narrow measures of performance associated with current accountability policies all contribute to serious staffing challenges. These challenges could be addressed through policies that provide additional resources and supports to teachers in low-performing schools, but these sorts of investments were insufficient in the districts and schools we studied.

Several policy implications follow. I have argued that the impact of NCLB on teacher quality will be limited until all schools and school districts have an adequate supply of qualified teachers. The policy implications include devoting more resources to highly targeted distributional policies at the state and district levels (including economic incentives and other resources to support teachers' work) that will increase the supply of qualified teachers to difficult-to-staff schools so that administrators in those schools can hire based on teacher quality considerations. In addition to distributional policies, we need to identify and invest in policies, practices, and resources that will attract well-prepared teachers, make them more effective in their teaching assignments, and retain them in those positions over time. These policies may require substantial investments in professional development, strong leadership, and supportive working conditions. Finally, policy makers need to reconsider the narrow set of indicators currently used to measure teacher quality. Without a broader understanding of teacher quality and a more comprehensive set of supports for teachers and students in chronically low-performing schools, high-stakes accountability policies run the risk of driving good teachers—who can find positions in other schools—out of the schools and classrooms that need them most.

These sets of policies can be thought of as policy packages wherein individual teacher policies implemented across levels of the education system interact in complex ways with one another. The data in Rice, Roellke, and Sparks (2006) and Rice et al. (2008) suggest that different levels of the educational system

have different resources, opportunities, and constraints that shape the kinds of policies they adopt. The goal should be to identify “coherent packages” of policies that are complementary and simultaneously address multiple dimensions of the teacher staffing problem to improve teacher quality. Further, these policy packages should be aligned with the specific dimensions of the problem that local systems are facing (e.g., supply, recruitment, distribution, retention). For example, if a district has a sufficient overall supply of qualified teachers but faces shortages in particular schools within the district, targeted policies that distribute teachers to those difficult-to-staff schools are necessary. If the problem is one of high teacher turnover in schools serving large concentrations of disadvantaged students, then the policy configuration might invest heavily in retention strategies aimed at those schools. Our study found that, in many cases, districts and states were using low-cost policies (e.g., signing bonuses) to address high-cost problems (e.g., retention).

More research is clearly needed to understand the impact of the various investments in teacher policy outlined in this essay. This work should consider the multiple dimensions of the staffing problem and the range of policy responses, with a goal of estimating the cost effectiveness of promising teacher policy packages. This is certainly a complex terrain that defies single research projects or even a single disciplinary perspective. The voices of teachers and administrators presented in this essay suggest that the most promising directions may be those that draw on findings from a variety of research traditions to recast how we think about and invest in teacher quality.

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