

Teachers’ Views on No Child Left Behind: Support for the Principles, Concerns about the Practices

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“**W**hat can we do to make Adequate Yearly Progress?” “What will happen if we fail to make AYP again?” These questions are dominant topics of conversation in teacher lunchrooms across the nation. They illustrate the influence that the No Child Left Behind legislation (NCLB) has had on the work of millions of public school teachers in the United States. The legislation, which took effect in 2002, requires that each state administer annual tests in mathematics and English Language Arts in grades 3 through 8 and once again in high school. (Science testing requirements took effect in 2008–09.) The legislation mandates that all students be “proficient,” as defined by the state, by 2014 and that every school must make Adequate Yearly Progress towards meeting this goal, not only overall, but for a number of demographic subgroups within each school. Schools that do not make Adequate Yearly Progress for several years face increasingly stringent sanctions. In addition, schools must comply with several other requirements, including the provision that all teachers must be “highly qualified,” as defined by the state.

In this article, we describe teachers’ views of the behavioral responses the No Child Left Behind legislation has elicited and the extent to which research reveals evidence of these responses and their effects on the distribution of student achievement. We begin with two broad warnings about any attempts to characterize the views of teachers as a group: No Child Left Behind has played out very differently in different states, and studies of teacher opinions typically suffer from selection bias. We then focus on teachers’ reactions to three aspects of NCLB that are particularly

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relevant to them: 1) the testing requirements and the rules determining Adequate Yearly Progress; 2) the sanctions imposed on schools that fail to meet AYP; and 3) the requirement that all teachers of core academic subjects be “highly qualified” in their areas of teaching assignment.

Overall, we find that teachers overwhelmingly support the principles underlying the No Child Left Behind legislation, including that schools should be held accountable for educating all children well. However, teachers are concerned that the incentives created by some provisions of the law have elicited unintended responses that reduce the quality of education provided to at least some children. These behavioral responses vary widely across settings and depend on the quality of a state’s standards and assessments, the amount of support school districts provide for instructional improvement, and the quality of leadership in schools.

Difficulties in Determining Teachers’ Views of No Child Left Behind

Any attempt to characterize the beliefs of teachers as a group about the No Child Left Behind legislation faces several difficulties. First, there is substantial heterogeneity across states in their existing test-based accountability policies and their implementation of the law. Within states, there is also a great deal of variation in school policies and resources, which may lead teachers to experience the legislation in different ways. Second, many efforts to evaluate teachers’ opinions suffer from various kinds of sample selection bias—the schools and teachers who participate in these studies are not necessarily representative of schools and teachers across the country.

Variation across and within States

The No Child Left Behind legislation overlaid federal law and regulations on state standards-based accountability systems. Some states, including Texas, Massachusetts, Kentucky, and Florida, had developed comprehensive test-based accountability systems well before the passage of NCLB. In fact, the Texas school accountability program served as one model for NCLB legislation. Other states began the process of developing these systems as a result of the federal mandate. None of the teachers in our focus groups could differentiate between NCLB and their state accountability system, and almost all attributed their concerns about test-based accountability to NCLB. However, in many states, concerns about dysfunctional responses to test-based accountability antedate NCLB and would still be present if NCLB were repealed.

The federal legislation provides considerable discretion to states in implementing their accountability provisions. In particular, states can develop their own academic content standards, choose the tests they will administer, and specify the minimum scores students must obtain to be declared “proficient.” Some states, such as Massachusetts, have invested in the development of quite rigorous examinations that are closely aligned with detailed and demanding academic standards. Other states have chosen off-the-shelf tests that are only loosely aligned with academic standards, or

have specified relatively low requirements for students to be deemed “proficient.” The variation in proficiency requirements is illustrated in Figure 1, which shows the mathematics proficiency standards across states, as measured on the scale used to assess skill on the nationally representative National Assessment of Educational Progress (NAEP) mathematics examination (methods for these comparisons are described in *Bandeira de Mello, Blankenship, and McLaughlin, 2009*).

As Figure 1 shows, the proficiency standards in some states are higher than the score of 299 that the National Assessment of Educational Progress designates as proficient for grade 8, while the proficiency standards in other states are considerably below the NAEP standard. For example, the Massachusetts standard is at 302 points on the NAEP scale, but the Tennessee standard is 234 points. This pattern reflects both the rigor of standards and the degree of score inflation over time on the state test (which will be discussed below). This variation across states in content standards, assessments, and proficiency standards is problematic. Many teachers are critical of pressure to improve students’ scores on tests they feel are not well aligned with academic standards respected by the teachers and that do not reflect mastery of skills students need to thrive in twenty-first century America.

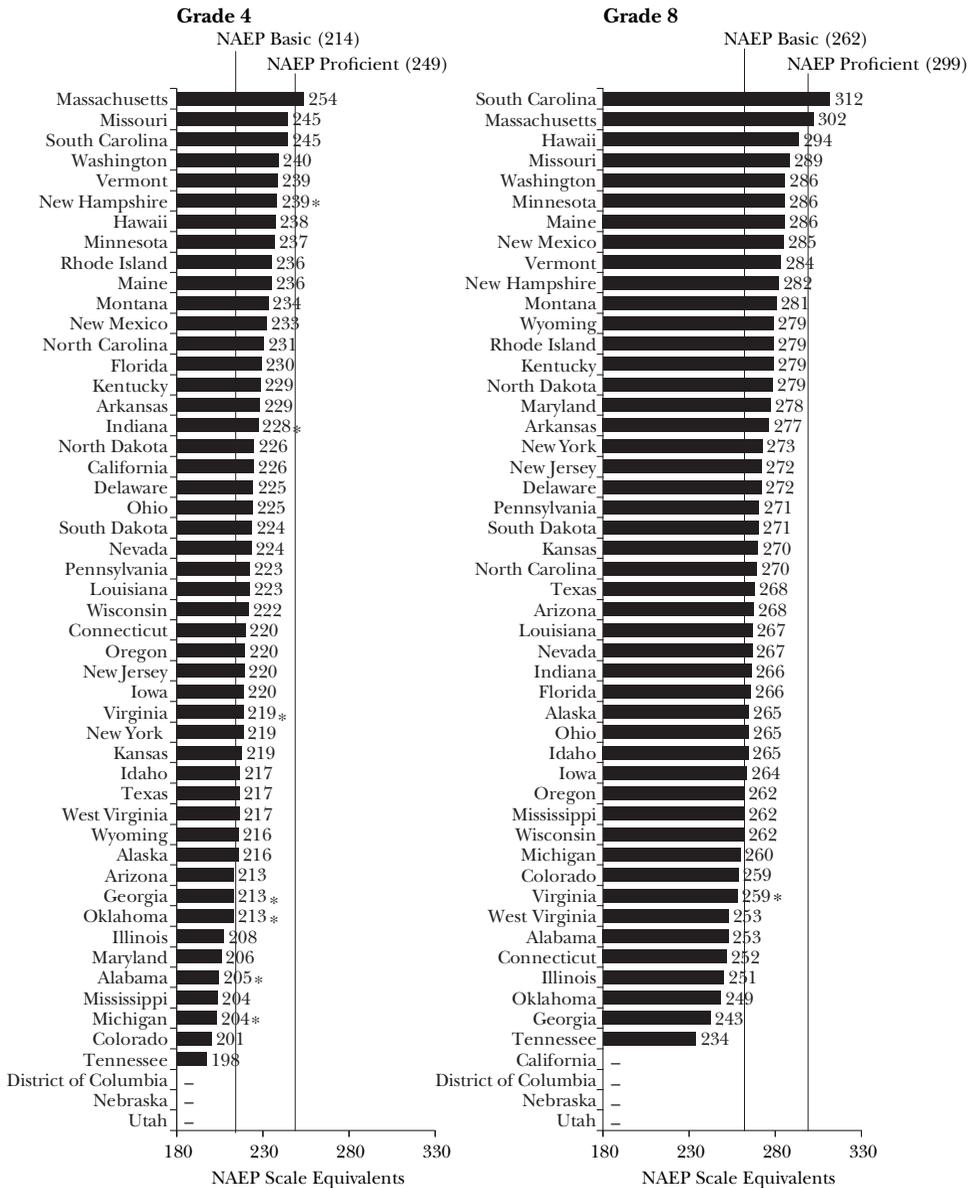
Within states, the challenges that school districts and particular schools face in meeting the Adequate Yearly Progress provisions of the No Child Left Behind legislation also vary widely, even among schools facing the same academic standards. Schools serving significant numbers of economically disadvantaged children, children with limited English proficiency, and those with special needs find it especially difficult to make AYP. The human and financial resources available to meet the accountability challenges posed by NCLB vary widely across schools and districts. For teachers in some schools, AYP is a challenge they have, to date, been able to meet with consistently good teaching. For teachers in other schools, even Herculean efforts to improve teaching will not produce test scores that satisfy AYP requirements. For teachers in the first group of schools, NCLB may be an annoyance, but no more. For teachers in the second group of schools, especially those teaching grades 3–8 (in which student testing is mandatory), NCLB may threaten their jobs.

Finally, teachers’ views of No Child Left Behind are sensitive to the school context and, in particular, to the quality of school-site leadership. In fact, some teachers in schools serving large numbers of disadvantaged students expressed concerns about pressure from administrators to raise student test scores without clear guidance about how to do so in a way that benefits students. Other teachers, though, reported that external pressures were not a serious burden because teachers in their school already held each other accountable for student performance (*Szczesiul, 2009*). Thus, differences in the challenges that teachers face and the resources available to them contribute to the variation in teachers’ views of NCLB.

Self-Selection of Respondents

We collected evidence of teachers’ views about the No Child Left Behind legislation in three ways, each of which is informative, but each of which also has distinct limitations. First, we gathered information from past surveys of teachers drawn

Figure 1
National Assessment of Educational Progress (NAEP) Scale Equivalent Scores for Grades 4 and 8 Mathematics Standards for Proficient Performance, by State: 2007



Source: Reproduced from Bandeira de Mello, Blankenship, and McLaughlin (2009). Data from U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Mathematics Assessments, U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, EDFocus SY2006–07, Washington, DC, 2008. The National Longitudinal School-Level State Assessment Score Database (NLSLSASD) 2008. – State assessment data not available.
 * Relative error greater than .5.

from well-specified sampling frames. Most of these surveys focused on teachers' views of test-based accountability, rather than specifically on NCLB. An example is the National Survey on State Testing Programs (Pedulla, Abrams, Madaus, Russell, Ramos, and Miao, 2003). One strength of this approach is that, in principle, it is possible to generalize the results to a broader population. However, this strength is undercut by the relatively low response rate in most national studies: for example, only 35 percent of teachers surveyed responded to the National Survey on State Testing Programs. Other surveys have higher response rates, but they typically focus on individual districts or states as part of a larger, in-depth analysis. As a result, the districts that agree to participate in such studies may not be representative.

Studies in which researchers interviewed in-depth samples of teachers provide a second source of data. For example, RAND examined the experiences of teachers with No Child Left Behind in California, Georgia, and Pennsylvania (Hamilton et al., 2007). An advantage of data drawn from studies of this type is that they typically provide a great deal of information about the context in which the reporting teachers work. However, these studies also tend to suffer from self-selection, in that teachers with strong views about NCLB are more likely to take the time for in-depth interviews.

Finally, we conducted focus groups in which we asked teachers to share their views of the No Child Left Behind legislation. We conducted four focus groups with approximately 25 participants. One strength of this type of data collection is that participants often disagreed, and we could probe the sources of the divergent views. Again, however, self-selection is a problem in that teachers with strong views about NCLB were the most likely to volunteer to participate in the focus groups. We included teachers at schools across the country, most of whom had experience in urban education. However, our respondents were either current teachers in Massachusetts school districts, teachers attending summer professional development at the Harvard Graduate School of Education, or current graduate students at Harvard who had taught in U.S. public schools in the previous year. Thus, our results do not generalize to the full teaching population.

Testing and Accountability

Many teachers believe that No Child Left Behind has increased pressure on states to develop rigorous content standards and curriculum along with tests that align with those standards. They applaud this response. For example, expert teachers interviewed by Barnett Berry (2007) "believe that NCLB and its accountability measures have set clearer expectations for what students need to learn and what teachers need to teach." One large national survey of teachers conducted by MetLife found that 53 percent of teachers in 2008 reported that their school had "excellent" academic standards, up from just 26 percent in 1984 (Markow and Cooper, 2008). In a study of educators in California, Georgia, and Pennsylvania, RAND researchers found that "teachers reported an increased focus on student achievement in their schools as a result of NCLB, as well as increased curriculum

coordination and increased rigor of the school's curriculum" (Hamilton et al., 2007). Thus, teachers credit NCLB with sparking the development of academic content standards and focusing attention on academic achievement for all students.

Another benefit of the No Child Left Behind legislation that many teachers report is greater attention to identifying the specific skill deficiencies of low-achieving children in mathematics and English Language Arts and to developing strategies to enhance these skills. One of the most common strategies has been to increase the amount of time in the school day devoted to English Language Arts and mathematics instruction. For example, according to teacher reports in the Schools and Staffing Survey (a nationally representative survey carried out periodically by the U.S. Department of Education), the amount of time devoted to teaching mathematics in U.S. elementary schools increased by 40 percent between 2000 and 2003 (Hannaway and Hamilton, 2008).

There is some evidence that students' performances on national tests have improved as a result of this focus, although the extent to which the score increases can be attributed to No Child Left Behind is less clear. Dee and Jacob (2009) find that NCLB led to a modest improvement in scores of eighth graders in all parts of the achievement distribution on the National Assessment of Educational Progress mathematics examination, but no improvement in scores in any part of the achievement distribution on the National Assessment of Educational Progress eighth grade examination of reading skills.

Score Inflation

While teachers applaud the attention that No Child Left Behind has brought to the importance of developing all students' skills in English Language Arts and mathematics, they often express concern about pressures to focus instructional time on preparation for the state tests, or "test prep." Many teachers express the belief that while test prep may increase students' scores on these tests, it does not provide students with skills and knowledge that they can apply to other tasks. Teachers report that score inflation—an improvement in students' test scores with no improvement in their underlying proficiency—is rampant, a consequence of focusing instruction on preparation for a particular test. According to a national survey, 40 percent of all teachers "reported that they had found ways to raise state test scores without really improving learning" (Abrams, 2004). Many teachers resent taking time away from activities they believe are valuable to students to focus attention so directly on a single test. This belief contributes to teachers' perceptions that increases in student scores on the state tests do not reflect actual increases in students' human capital. For example, in a survey of Texas reading teachers, half of the respondents reported that the state's rapid improvement on the Texas reading test did not "reflect increased learning and higher quality teaching" (Hoffman, Assaf, and Paris, 2001).

A growing body of evidence supports these teacher perceptions. For example, Jacob (2007) examined four states and found much faster growth trends on the state tests than on the National Assessment of Educational Progress (NAEP), even in cases where the state tests were supposed to reflect the same level of difficulty from year to

year. Other researchers have found similar results in individual states (for example, Klein, Hamilton, McCaffrey, and Stecher, 2000; Koretz and Barron, 1998). Some of this pattern stems from a focus on test preparation. Some of it also stems from strategic but dysfunctional responses to the pressure to increase the percentage of test-takers whose scores meet the proficiency standard. For example, Figlio (2006) found that schools in Florida disciplined students differently based on their likely performance on an upcoming state test; students with lower test scores were much more likely to be suspended from school than their peers with higher test scores around the time of the year when the state administered the accountability test. The evidence that increases in scores on high-stakes tests do not reflect increases in skills and knowledge that students can demonstrate on other assessments is, in our view, the most compelling evidence supporting teachers' criticisms of test-based accountability. Koretz (2008) offers a clear statement of the test score inflation argument.

Focusing on “Bubble Kids”

Another concern stems from the Adequate Yearly Progress formula, which is based on the percentage of students in each subgroup who meet the proficiency standard, not on the amount of academic progress students make during a school year. Teachers report pressure to focus attention on “bubble kids,” those close to the proficiency threshold, at the expense of the most academically able students who will meet the proficiency standard in any case and the especially low-achieving students who are unlikely to meet the proficiency standard even if given a great amount of attention (Booher-Jennings, 2005).

Several studies provide evidence showing that the incentives implicit in the Adequate Yearly Progress formula did change the shape of the distribution of student achievement as measured by scores on particular tests. For example, Neal and Schanzenbach (forthcoming) find that the combination of No Child Left Behind and similar reforms introduced by the Chicago Public School District in 1996 resulted in an improvement in scores on the state-mandated reading and mathematics tests for students in the middle of the achievement distribution, but not for students at the bottom of the distribution and not consistently for students at the top. Krieg (2008) reports similar results using data from Washington State. However, using data from North Carolina, Ladd and Lauen (2009) report that NCLB resulted in an increase in the achievement of low-performing students—both those near the proficiency cut score and those well below it—at the expense of the achievement of high-performing students. This difference in findings may arise because North Carolina has a comprehensive state-based accountability system focused on student achievement growth in addition to NCLB requirements or, as the authors suggest, because the proficiency standard in North Carolina is relatively low.

Shrinking the Curriculum

While teachers value the increased attention to providing all students with solid reading and mathematical skills, many worry that the kind of accountability embodied in No Child Left Behind has led to a “shrinking curriculum” that does not

accurately represent the diversity of competencies and content areas that students should master. Evidence supporting this concern comes from several surveys of teachers in which they report that they have decreased the amount of time teaching nontested subjects (Sunderman, Tracey, Kim, and Orfield, 2004; Berry, 2007; Abrams, 2004; Hamilton et al., 2007). For example, the Center for Education Policy (2007) found that instructional time on subjects other than mathematics and reading in elementary schools fell by nearly one-third since NCLB became law. The reallocation of instructional time was more pronounced in districts that had at least one school identified for improvement under NCLB. In Table 1, we summarize these findings.

Of course, evidence indicating a reallocation of instructional time raises the question of whether an inadvertent effect of the No Child Left Behind legislation is a decline in American students' knowledge and skills in other subjects, such as science and social studies.¹ The evidence on this point is quite limited. Ballou and Springer (2009) report that this has not been the case in Virginia and South Carolina, where the average performance of students on statewide examinations in science and social studies has risen since 2003. However, the authors point out that science and social studies are part of the accountability systems in these states and that the results could be different in states in which teachers are not responsible for demonstrating student proficiency in these subject areas.

The best source of information about trends in American students' knowledge of science and social studies comes from the National Assessment of Educational Progress. Nationally, science test scores improved somewhat over the past decade for fourth-grade students, remained level for eighth graders, and fell for twelfth-grade students (Grigg, Lauko, and Brockway, 2006). Black–white and Hispanic–white achievement gaps narrowed slightly at the elementary level but remained stable or grew at the middle and high school levels. On the U.S. history assessment, the patterns were more positive (Lee and Weiss, 2007). At all levels, test performance improved between 2001 and 2006. However, racial achievement gaps did not narrow. Thus, the available evidence, which is weak because of the lack of a counterfactual, does not support the conclusion that responses to NCLB reduced students' skills in nontested subject areas. It would be interesting to know whether increases in reading and mathematics test scores came at the expense of knowledge of science and social studies in states where assessments of these subjects have not been part of the school accountability system, and whether the opportunity costs were greatest in schools that devoted the most time to reading and mathematics instruction; to our knowledge, there is no evidence bearing on these questions.

Misaligned Incentives

Perhaps the most common criticism teachers express about the rules governing Adequate Yearly Progress is that they do not provide a valid measure of the success of their school in improving the skills of students. Teachers offer several reasons for

¹ Because science tests were included in the No Child Left Behind requirements as of 2008–2009, many states began implementing test-based accountability in science over the past several years.

Table 1

Allocation of Instructional Time for Districts with and without Schools Identified for Improvement under No Child Left Behind

Subject area	Percentage of districts		Total minutes per week	Change in time (for districts that reported changing time)	
	Increasing time	Decreasing time		Minutes per week	Percent change
All districts					
English language arts	58%		503	141	28%
Mathematics	45%		323	89	28%
Social studies		36%	178	-76	-43%
Science		28%	178	-75	-42%
Art/Music		16%	110	-57	-52%
Physical education		9%	105	-40	-38%
Lunch		5%	142	-	-
Recess		20%	133	-50	-38%
Districts with no schools identified for improvement					
English language arts	52%		483	124	26%
Mathematics	41%		320	90	28%
Social studies		31%	181	-70	-39%
Science		23%	181	-67	-37%
Art/Music		12%	113	-55	-49%
Physical education		7%	106	-32	-30%
Lunch		6%	141	-	-
Recess		19%	134	-47	-35%
Districts with at least one school identified for improvement					
English language arts	77%		568	183	32%
Mathematics	56%		332	86	26%
Social studies		51%	167	-90	-54%
Science		43%	169	-94	-56%
Art/Music		30%	97	-61	-63%
Physical education		14%	103	-57	-55%
Lunch		4%	147	-	-
Recess		22%	129	-60	-47%

Source: Adapted from the Center for Education Progress (2007).

Notes: Data is from a nationally representative, random survey of 491 school districts (349 responded for a response rate of 71%). In English language arts and mathematics, we show the percentage of districts reporting increased instructional time (as opposed to no change or decreased time). In other subjects, we show the percentage of districts reporting decreased instructional time (as opposed to no change or increased time). In the last two columns, we show average change in time for districts that reported altering their instructional time.

this belief. First, the rules treat a school as “failed to meet AYP” if it fails to meet the standard for any single subgroup. Second, the AYP formula does not reward substantial improvements in the performances of very low-achieving children unless they manage to meet the proficiency standard. Third, many teachers believe that the formula does not adequately take into account that schools serving high concentrations of economically disadvantaged children, those with special needs, and those

who have limited English proficiency face greater challenges in making AYP than schools serving primarily middle-class, native-born children. Evidence in support of these concerns comes from comparisons of school performance as measured by metrics that give positive weight to student achievement gains and those that base performance solely on the percentage of students meeting proficiency thresholds. For example, Linn (2006) reports that more than half of the schools earning an “A” under Florida’s state accountability program did not meet AYP in 2004. He explains (p. 8) that, because of the structure of the AYP provisions, “it is not a surprise that large schools serving poor students from diverse backgrounds are less likely to make AYP than small schools or schools with homogeneous student characteristics.”

Many teachers in schools serving disadvantaged student populations express frustration that even sustained, coordinated efforts to increase the skills of all students have not resulted in their school making Adequate Yearly Progress (Sunderman, Tracey, Kim, and Orfield, 2004). In the words of a teacher in one of our focus groups whose school had failed AYP for five consecutive years: “Before the strategic staffing initiative we had failed in many different subgroups. With the strategic staffing initiative it was one subgroup. . . . A lot of the teachers in the school were so disgruntled and frustrated. We had worked so hard and made so much progress and because one tiny little subgroup did not make it, we failed again.”

Do these frustrations lead teachers to leave schools serving high concentrations of disadvantaged students? To leave teaching entirely? Some evidence suggests that the accountability provisions in place in at least some states do lead teachers to leave schools serving high concentrations of low-performing students. For example, Clotfelter, Ladd, Vigdor, and Diaz (2004) found that teachers were more likely to leave low-performing schools (but not high-performing schools) after the introduction of state-based accountability in 1996–97. While some degree of turnover in these low-performing schools may reflect positive effects of accountability, the authors conclude that the high turnover they observed contributes to organizational instability and consistent low performance. Sims (2009) found that failure to meet the Adequate Yearly Progress standards resulted in an increase in the proportion of novice teachers in California schools. It is not clear whether this pattern is a nationwide consequence of the AYP provision of No Child Left Behind, or whether it depends on the choices states make in implementing this provision of the law. In contrast to the evidence on teachers’ choices about where to teach, Loeb and Cunha (2007) find no evidence indicating that the introduction of strong accountability provisions has resulted in an increase in the rate at which teachers leave the profession. However, these authors also state that their analysis lacks the power to detect subtle effects.

Sanctions for Failure to Make Adequate Yearly Progress

Teachers see value in identifying which schools are making progress and which are not. Many also support the principles behind focusing attention on underperforming schools, namely that schools that have consistently failed to increase students’

learning should be provided support and required to demonstrate improvement. Again, though, teachers express concern about the types of supports provided and the sanctions imposed on schools that fail to meet Adequate Yearly Progress. Such schools face two main sanctions that can affect teachers substantially. First, schools that fail to meet AYP repeatedly are subject to “reconstitution,” in which existing teachers and administrators may need to reapply for their positions or be assigned to other schools. Second, these schools can be required to provide supplementary services, usually tutoring, to students from low-income families.

Several teachers with whom we spoke reported that reconstitution of their chronically failing schools brought new leadership and new resources that made a difference. They said that accountability pressures enabled the new leaders to implement a vision of school reform and choose the staff they wanted, which led to substantial improvements in student achievement. However, other teachers reported that restructuring brought more scrutiny and pressure but not better leadership or more effective instructional strategies. As a result, the newly reconstituted school embodied the same failed practices as the old school and student performance did not improve. To our knowledge, there is no evidence on the range of responses to schools’ chronic failure to make Adequate Yearly Progress or on the extent to which particular responses consistently lead to improved student achievement. However, it seems clear that a district’s capacity to attract effective school leaders and skilled teachers to fill positions will help determine the success of such policies.

Teachers have a number of concerns about the provision that low-income students in schools that have failed to make Adequate Yearly Progress for three consecutive years are entitled to supplementary educational services, which are increasingly being supplied by for-profit firms. One concern raised by teachers and supported by the research literature is that students often do not know about the availability of these services. In a 2006–07 survey, 40 percent of parents of eligible students reported that they had not received information about these services (Warkentien and Grady, 2009) and only 15 percent of eligible students utilized them (U.S. Department of Education, 2009).

Another concern is that many of the vendors do not provide high-quality tutoring programs. While No Child Left Behind requires states to withdraw approval from providers of supplementary educational services that fail for two years to increase student academic achievement, states and school districts typically lack the capacity to evaluate the effectiveness of the services these organizations provide (GAO, 2006). The research evidence is also mixed. Using data from the Milwaukee public schools, Heinrich, Meyer, and Whitten (forthcoming) find that use of supplementary educational services did not increase the average student achievement gain in mathematics or reading. In contrast, Springer, Pepper, and Ghosh-Dastidar (2009) report that use of supplemental educational services did increase achievement gains in mathematics but not in reading for students in one large school district. Finally, Zimmer and his colleagues (U.S. Department of Education, 2007) found positive, statistically significant effects of supplementary educational services on the achievement gains of students in five of seven large urban school districts they studied.

A third concern that teachers raise about the supplementary educational services provision of the No Child Left Behind act is that the providers, the majority of which are for-profit firms, are paid out of federal Title I funds that schools need to improve their instructional programs. (Title I provides more than \$12 billion to states and school districts annually for schools with high proportions of students from low-income families.) Districts can use up to 20 percent of their total Title I funding to pay for supplementary educational services. Of course, economists would like to compare the marginal benefit in terms of student achievement of a dollar devoted to supplementary educational services and a dollar allocated to schools, but the evidence needed for both sides of this comparison is lacking. In fact, there is no evidence on whether the benefit of an hour of tutoring from a supplementary educational services provider is related to the cost, which varies from \$25 to \$80 per hour (Heinrich, Meyer, and Whitten, forthcoming). Nor is there consensus on whether Title I funds generally have increased the achievement of students in recipient schools (see Weinstein, Stiefel, Schwartz, and Chalico, 2009, for a recent analysis). The lack of strong evidence is troubling, given the magnitude of Title I funding and that a diverse group of organizations increasingly dominated by large, for-profit firms competes for \$2.5 billion in supplementary educational services funds (Heinrich, Meyer, and Whitten, forthcoming).

All Teachers of Core Subjects Must Be Highly Qualified

Teachers support the principle that all students should be taught by “highly qualified” teachers. Many applaud this provision of the No Child Left Behind Act because it has helped to focus national attention on the need both to improve teacher quality and to create the incentives and conditions for skilled teachers to work in schools serving high percentages of disadvantaged students (Berry, 2007). However, according to the majority of teachers who responded to recent surveys, the responses to the “highly qualified” teacher requirement in NCLB have not produced consistent improvements in instructional quality (for example, Berry, 2007; Sunderman, Tracey, Kim, and Orfield, 2004). One reason is that NCLB gives states considerable discretion in defining “highly qualified.” States have responded by setting quite modest requirements, resulting in 94 percent of the teaching force declared to meet the “highly qualified” standard (U.S. Department of Education, 2009).

Furthermore, teachers say that the requirements, while not ensuring quality teaching, are sufficiently inflexible that they prevent some schools from staffing effectively. A group of high-performing teachers interviewed by Barnett Berry (2007) raised “concerns regarding the rigidity of the content requirements for teachers of multiple subjects (especially in small schools) and the inadequacy of supports for developing an adequate supply of teachers.” Evidence from school districts supports this assertion. Surveys of districts find that the changes resulting from these provisions have not helped them recruit and retain high-quality

teachers; in fact, “29% [of districts] concluded that the NCLB requirements have reduced their ability to recruit teachers” (Center for Education Policy, 2007).

There are several related reasons why the No Child Left Behind legislation has had a very limited impact on the distribution of teaching quality. First, states defined “highly qualified teachers” in a manner that granted this status to almost all incumbent teachers, without regard to their track record in enhancing students’ skills. Second, states typically specify that a new entrant to the teaching profession is “highly qualified” if that entrant has passed a test of content knowledge in the subject which that teacher will teach and has either completed a conventional certification program or entered an alternative certification program. None of these requirements is a very strong predictor of teaching skill as measured by student test score gains. For example, Clotfelter, Ladd, Vigdor, and Diaz (2004) report that a one-standard deviation difference in score on the North Carolina teacher licensure tests predicts only a 1 to 2 percent difference in student test score gains. Pointedly, no state adopted a definition of a “highly qualified teacher” that included a minimum amount of teaching experience even though a number of studies show that the performance of teachers improves markedly during their first two or three years in the classroom (Rockoff, 2004; Clotfelter, Ladd, and Vigdor, 2007). Consequently, schools staffed with high percentages of novice teachers, as many hard-to-staff schools are, can and do meet the “highly qualified teacher” requirement of NCLB.

At the same time, the “highly qualified teacher” requirement has led some urban school districts to alter recruitment and screening practices in ways that have closed the gap between the qualifications of teachers in high-poverty schools and those in low-poverty schools. For example, New York City increased the starting salary for teachers from \$33,186 in the year 2000 to \$39,000 in 2003. The city also dismissed recently hired uncertified teachers and replaced them with teachers from alternative certification programs who had strong academic backgrounds. These changes resulted in modest improvements in the achievement of students in high-poverty schools (Boyd, Lankford, Loeb, Rockoff, and Wycoff, 2008).

Teachers in our focus groups were critical of decisions by some urban districts to staff difficult-to-fill positions with long-term substitutes. Since substitute teachers are not subject to the “highly qualified teacher” requirement, these actions allow districts to satisfy the nominal requirements of this provision of No Child Left Behind while violating its spirit. Unfortunately, there is no evidence on the frequency with which districts employ this subterfuge, on the extent to which it disproportionately affects disadvantaged students, or on its effect on the achievement of affected students.

Conclusion

Teachers support the general principles underlying the No Child Left Behind legislation, especially the importance of improving the achievement of all children, including those from groups that have historically been neglected in many schools.

They also applaud the principle that strong action should be taken to improve the performance of failing schools. At the same time, teachers have a variety of concerns about the incentives implicit in NCLB and responses these incentives have evoked. The intensity of teachers' concerns about dysfunctional responses varies widely: some view NCLB as a positive, if awkward, instrument for improving American public education, while others see NCLB as dramatically damaging the quality of education provided to children, especially those attending schools under pressure to meet Adequate Yearly Progress. The variation in teachers' views is not surprising, given the different ways that states have implemented NCLB and the variation in the quality of resources—especially the quality of district- and school-based leaders—supporting teachers' efforts.

In this regard, teachers' views of No Child Left Behind mirror many of the findings of researchers who have studied the consequences of NCLB (and state-specific test-based accountability systems). The legislation has raised performance for some students in mathematics and English language arts, but it has also produced unintended consequences in some settings, many of which are dysfunctional. Teachers and researchers both recognize that the incentives embedded in NCLB have driven behavioral changes—that is, the incentives have produced responses. However, the question remains whether these changes are productive. Are all children, particularly those from previously neglected subgroups, better off as a result of the passage of No Child Left Behind?

In one sense, students are clearly better off because the law dramatically increased the attention many schools pay to academic achievement and to disadvantaged children, and Congress can build on this legacy as it debates how to improve the law. However, changes in the law are needed to address the concerns of teachers that are supported by evidence. First, pressure to increase the percentage of students who meet the proficiency threshold on state tests has led to significant score inflation, and this pressure is more pronounced in some states, districts, and schools than in others. As a result, the skills and knowledge of the subgroups of children that historically have not fared well in U.S. schools have not increased as rapidly under NCLB as trends on many state tests would suggest. Second, NCLB has increased the efforts of schools to raise the reading and mathematics scores of students on the “bubble” of achieving scores that meet the proficiency threshold. There is some evidence that the increase in attention to these groups has resulted in less growth in the skills of the most academically able students, although it is not clear whether this pattern is nationwide, or only is present in urban school districts in particular states. Third, Adequate Yearly Progress rules, at least as defined by some states, have increased the migration of experienced teachers out of schools serving high concentrations of low-performing students.

In our view, most people who enter the teaching profession do so because they want to improve the lives of children. From our focus groups and from reading survey responses, we learned that a significant number of teachers, particularly those working in under-resourced schools serving high concentrations of disadvantaged children, felt great conflict between what they were told to do to raise

test scores and what they felt they should do to best serve children. Reducing this conflict should be high on the agenda in amending No Child Left Behind.

Improvements in state data systems, especially the creation of student-specific longitudinal data systems, provide new opportunities to create accountability systems that provide better information about the success of schools in improving the skills of all children. Moreover, a growing awareness of the importance of incentives in determining where teachers work and how they allocate instructional time provides the potential to create compensation structures and recruitment and screening strategies that will attract the most effective teachers to the schools where they are most needed and enable them to work together to serve all students well. Of course, the policy challenge of getting the incentives right remains.

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