

No Child Left Behind and the Reduction of the Achievement Gap

Sociological Perspectives on Federal Educational Policy

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Professionalism under Siege

Teachers' Views of NCLB¹

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One important set of voices has been all but completely left out of public debate and discussion on NCLB—that of the teachers themselves. This is particularly unfortunate because teachers are on the front lines of change. Their everyday experiences with NCLB provide a window onto key issues: how the legislation is influencing teachers' work and the organization of schools; how teachers feel about the strong and weak points of the legislation; and whether NCLB has had unintended consequences.

In this paper, we draw on survey responses from 300 Southern California teachers and in-depth interviews with 28 of these teachers to bring the experiences of educators themselves into an assessment of the strengths and weaknesses of NCLB.

Thus far, only one large-scale study has been conducted of teachers' views of NCLB. Sunderman et al. (2004) found that nearly half of 580 elementary school teachers surveyed in Richmond, VA said that the overall effect of NCLB was negative. Nearly two-fifths of the teachers said the effect was positive, and the remainder said that it had no effect. Answers did not vary significantly between teachers whose schools were making adequate yearly progress and those whose schools were in program improvement status. In this study, teachers criticized NCLB most often for creating pressures that contributed to poor performance in the classroom and lower morale. Teachers said the most important unintended consequence of NCLB had been a narrowing of the curriculum so that subject areas not tested were deemphasized or neglected. This view was held somewhat more often among teachers in schools identified as making adequate yearly

progress. A pilot study of 160 teachers in Southern California, also conducted in 2004, also showed about half of teachers favoring NCLB and half opposing (Valencia et al. 2005).

One other study, by the Center on Educational Policy (CEP; 2006), surveyed district and school officials and collected information on the characteristics of program improvement schools. This study showed that officials in several of the 38 case study districts believed the law had increased pressure on teachers to a stressful level and had a negative effect on morale. More than 70 percent of survey respondents reported that instructional time in their schools had been reduced in at least one subject to add time for reading and mathematics, the two core subjects tested for NCLB purposes. Findings of increased teacher stress due to NCLB were reported also by Kauffman et al. (2002) for a small sample of new teachers.²

Sunderman et al. (2004) and Valencia et al. (2005) collected data in spring 2004, just two-and-one-half years after passage of the legislation. Our data, from early 2006, indicate that teachers' views of NCLB may have become significantly more negative over the last two years. Only one out of every five teachers in our sample reported a favorable assessment of NCLB. The primary criticisms of the Act may also have changed from the years immediately following passage of NCLB. Teachers continue to think that NCLB sets unrealistic goals, but the teachers in our sample also expressed particular concern about a loss of creativity in the classroom and the failure of NCLB to take advantage of teachers' skills and experiences. Teachers said they were afraid that "scripted learning" approaches following the designs of powerful textbook companies will lead teaching to become a technician's job rather than a profession. They believe this will lead to lower quality in public education, as schools ignore the social and emotional development of children, cut out important untested subjects (such as art, music, and physical education), and fail to develop critical thinking skills and the capacity for depth in children who are taught exclusively to multiple choice tests.

In addition to the advantage of a longer elapse of time between the passage of NCLB and our work in the field, our study is distinguished from previous research by the wider range of questions in our survey instrument, by the inclusion of middle- and high-school teachers in the sample, and by the incorporation of interview data as a complement to the survey data. At the same time, it is important to note that our sample is smaller than that of Sunderman et al. (2004), and the data is limited to teachers working in one region of the country.

In California, content standards exist for virtually every subject taught in school, including music and art, but testing focuses on language arts, mathematics, and science. California accountability testing measures school performance based on an Academic Performance Index (API). Each school's API is based on a composite of students' test results in the major subjects tested. The API for every school is posted on the state education website and school comparisons

are also published every year in local newspapers. API scores are consequently of great interest, because the community's reputation for quality education (and therefore, at least indirectly, also its property values) are connected to each year's test results. The tests used to construct API are also used to measure adequate yearly progress for NCLB purposes.³

DATA AND METHODS

The study is based on cluster sampling of teachers in five school districts. The school districts vary in student composition from two predominantly low-income and minority districts to one relatively affluent and predominantly white district. The two other districts have sizable low-income populations, but also have significant middle-income populations. We asked superintendents in the five districts to allow us to conduct surveys in three elementary schools, one middle school, and one high school. We were able to obtain the cooperation of all districts, but high schools in one district declined to participate. We substituted a high school from a nearby area, one whose sociodemographic profile closely paralleled the high schools in the target district.

We requested that at least two of the elementary schools and the middle school closely parallel the overall socioeconomic and racial-ethnic composition of the district. (Most of the districts had only one high school.) In consultation with designated officials of the school district, we chose schools that fit our criteria. Some principals from selected schools declined to participate, and these schools were replaced by comparable schools whose principals were willing to participate. We were able to obtain samples from schools varying considerably in both socioeconomic and racial-ethnic composition. As Table 7.1 indicates, schools in our sample ranged from under 33 percent to more than 90 percent minority. They ranged from under 12 percent to over 85 percent of children on free or reduced lunch. Eleven of the 20 elementary and middle schools were "program improvement" schools.

We randomly chose respondents from lists provided by the principals or school districts. Each respondent was assigned a unique identifier. We sampled 18 teachers from each elementary and middle school, and 36 teachers from each high school. We replaced teachers who we discovered were on leave or had left the school. In high schools, we sampled only teachers in core subjects, excluding physical education, vocational education, and other areas falling outside the purview of state accountability testing. We set a target of a two-thirds response rate from each school: 12 responses from each elementary and middle school and 24 responses from each high school. Our final response rate, after an initial distribution and two follow-ups, was 56 percent. The responses ranged between 6 and 15 from the elementary and middle schools and between 12 and 24 from the high schools. In all, we received responses from 301 teachers. Teachers from

Table 7.1 Community and school context variables

Sample N	301			
<i>City size</i>				
City (over 200,000)	12%			
Small city (50,000–200,000)	52%			
Town (under 50,000)	36%			
<i>School type</i>				
Elementary	53%			
Middle school	21%			
High-school	26%			
<i>AYP status</i> (Elementary and middle schools only)				
Achieving AYP	47%			
Program improvement school	53%			
<i>Percent free/reduced lunch</i>				
Min.	Max.	Mean	S.D.	
11.6%	87.1%	51.3%	25.7%	
<i>Percent racial/ethnic minority</i>				
Min.	Max.	Mean	S.D.	
33.5%	97.5%	73.3%	19.3%	

12 of the 25 schools met our two-thirds response goal. Teachers from three of the 25 schools returned eight or fewer surveys.

The survey instrument asked teachers to describe ways that teaching at their schools had changed due to NCLB; how their own teaching had changed; and what their schools were doing to meet AYP. The survey also asked teachers for their assessments of the strong and weak points of NCLB; the unintended consequences of NCLB; and whether after-school tutoring programs were working. It asked teachers for their views of the ways in which NCLB would change the teaching profession. We also asked for their overall assessment of NCLB. We collected basic demographic information (years of experience, grades taught, subjects taught, gender, and ethnicity). We subsequently coded school site information (percent of students on free or reduced lunch, percent minority students, and program improvement status). We coded city size from census data. Frequencies for community and school context variables are reported in Table 7.1.

All questions were close-ended, though we offered an open-ended "other" option for those unsatisfied with the close-ended choices. In multiple response questions, teachers were asked to limit their responses to five items only. For example, our question on the strong points of NCLB included 15 possible answers,

from which teachers were asked to choose no more than five.⁴ We balanced all multiple response questions with an equal number of positive affect and negative affect options.

Teachers were asked at the end of the survey if they wished to volunteer for a longer interview. The interviews explored a wider range of issues surrounding NCLB. These issues included: changes in the teachers' preparation time; changes in the teachers' ability to individualize instruction; changes in student behavior due to accountability testing; and teachers' views of the types of students most and least affected by NCLB. We conducted these longer interviews with 28 teachers. The interviews lasted between 45 and 90 minutes.

RESULTS

We will first report frequency distributions on key dependent variables and statistics on selected bivariate associations. The main part of the analysis is based on logistic regression of overall favorability scores with fixed effects for school sites. We also use logistic regression to look into the causes of school context effects. We use quotes from the interviews to illustrate themes from the survey analysis and to introduce important themes that the survey questionnaire did not fully capture.

Univariate Statistics

Perhaps the most important finding of our research is the high level of dissatisfaction teachers in our sample reported with NCLB. Four out of five of the teachers expressed an overall unfavorable attitude toward NCLB. This level of dissatisfaction is much higher than that reported by Sunderman et al. (2004) or Valencia et al. (2005), based on surveys two and one-half years after enactment.

NCLB has led to four major changes in teachers' practices, according to our respondents: First it has led to more teaching to the test. Fully 91 percent of teachers mentioned this change when asked to select no more than five choices from 15 options. Other changes frequently mentioned by teachers included less creativity in the classroom (79% mentioning), more scripted learning (61%), and a more single-minded focus on core subjects (53%). Teachers were less likely to say that NCLB had led to changes in their *own* practices. Nevertheless, three-quarters of the teachers said they personally taught more to tests, and two-thirds said their classrooms were less creative because of NCLB. Smaller proportions said that NCLB had introduced more scripting into their own classrooms (46%), that they now required students to work more intensively (43%), and that they focused more on core subjects than they had in the past (39%).

More than 50 percent of teachers cited three weak points of NCLB: that it sets unrealistic goals (76% mentioning), that it leads to diminished creativity in the

classroom (60%), and that it is based on an overly narrow concept of education (53%). Sizable proportions of teachers also mentioned increased stress either for themselves (44%) or for their students (28%). Teachers found fewer strong points in NCLB than weak points. However, substantial minorities of teachers mentioned three strong points of NCLB: the intent to bring greater accountability to public schools (37% mentioning), the effort to bring more qualified teachers into the profession (23%), and the clear performance focus for teachers (21%). One-quarter of the teachers surveyed found no strong points in NCLB, compared to just 1 percent of teachers who found no weak points in the law.

Many of the positive changes legislators hoped would result from NCLB have not been realized, according to the teachers in our sample. Only very small minorities of our respondents mentioned such changes as improved student performance (8% mentioning), more help for disadvantaged students (6%), more equality in educational achievement (4%), and more parental involvement in the schools (2%).

The two most frequently mentioned unintended consequences of NCLB were less creativity in the classroom (78% mentioning) and increased time demands on teachers (75%). Nearly half of the teachers said that students lose interest in education because of NCLB (46%) and that textbook companies have increased influence because they design materials closely aligned to state standards and manuals about how to teach these materials successfully (44%). Two out of five teachers cited as unintended consequences an exodus of teachers from the profession (39%) and the treatment of students "as numbers" (38%). These responses suggest that many teachers feel threatened by the prospect of a system of formal education under the control of state bureaucrats and textbook publishers, and insufficiently engaging to retain either teacher or student interest.

The same concerns about the consequences of an externally controlled form of education were apparent in teachers' responses to our question about how NCLB would change the teaching profession. Four out of five said that teachers would focus on tests to the detriment of other aspects of education (81% mentioning). Nearly half said that scripted learning would replace teaching (46%) and another 30% said teaching would become a less skilled occupation. Only about one-fifth (22%) said that teachers would develop more effective techniques for teaching because of NCLB, and fewer still said that teachers would focus on tests to the benefit of education (13%) and that teaching would become a more skilled occupation (6%).

Our last set of questions asked teachers what their schools were doing to achieve adequate yearly progress. Most said their schools were engaging in collaborative planning (75% mentioning), after-school tutoring programs (66%),⁵ and targeting particular students for improvement (59%). The latter approach typically means focusing not on low performing students, but on students that are close to reaching the levels of proficiency mandated by the state. Other

approaches included providing coaches for teachers (33%), group discussions about pedagogy (32%), training students for testing (18%), small-group activities (17%), new grouping patterns (11%), and material incentives to motivate teachers (11%). Although scripted learning emerged as a major concern of teachers, only 17 percent of the teachers said that their own schools had adopted scripted learning programs as an approach to meeting AYP.

Bivariate Associations

It is clear from the bivariate associations that teachers' overall assessment of NCLB is influenced by their school context. At four of our schools, all responding teachers were opposed to NCLB. At two of the schools, more than 50 percent of teachers were in favor of NCLB. Some other schools showed substantial minorities in favor of NCLB or very large majorities opposed. School context captures everything about a school that can lead teachers to have more similar positions than we would expect on the basis of their individual demographic characteristics or their individual attitudes alone. Different sources of staff similarity may be at play in different schools: the recruitment of like-minded teachers by principals; the development of a group culture even among philosophically dissimilar teachers; the force of the principals' leadership as a proponent or opponent of NCLB; or resistance among teachers to the principals' leadership.

One of the most important findings of the study is that teachers who said that their schools were not making adequate yearly progress were *more likely* to be favorable toward NCLB than teachers who said their schools were making adequate yearly progress. This result is surprising; we expected that teachers in low-performing schools, who are frequently under intense pressure to perform, would be less likely than others to embrace the Act. Some teachers at program improvement schools may find the clear focus, narrowed curriculum, and repetition encouraged by NCLB well suited to the epistemic level of their students. They may also feel pressure to identify with the goals of NCLB, if they wish to hold onto their jobs. By contrast, teachers who say their schools are making adequate yearly progress may feel both more confidence in their students' abilities and less pressured to identify with the goals of NCLB.⁶

Demographic characteristics of teachers were also associated with variation in assessments of NCLB. Less experienced teachers (less than 8 years of teaching) and minority teachers were more favorable toward NCLB, as were high-school teachers who taught core subjects tested by NCLB at lower levels of education. Less experienced teachers have been socialized under the assumptions of the accountability era and trained for teaching to standards during their credentialing. Unlike new teachers who have been trained for a culture based on high-stakes testing, experienced teachers can compare schooling before and after accountability legislation like NCLB. Teachers say they are more critical because they

experienced the possibilities of schooling during a different era. The greater support of minority teachers for NCLB may be due to the law's explicit goal to equalize achievement across all groups, and its explicit attention to social class and ethnicity in test reporting. Rod Paige, the Houston schools superintendent who later became Secretary of Education, often spoke of the need for improvement in minority schools, and the intent of NCLB to ensure that improvement.

Many other demographic and context variables showed insignificant bivariate associations with overall favorability. Neither gender nor grades taught showed significant bivariate associations with overall favorability. Nor did the schools' free and reduced lunch quartile, the ethnic composition of the school, or the size of the city in which the school was located.

Specific attitudes of teachers were, however, significantly and strongly related to opposition to NCLB. Attitudes consistent with the tenets of progressive pedagogy were evident in these responses; so too were responses to reduced workplace autonomy. The strongest bivariate relationships were between negative views of NCLB and teachers who said NCLB leads to a focus on tests to the detriment of other aspects of education ($\phi = .26$); that NCLB is based on unrealistic goals ($\phi = .25$); that NCLB leads to less creativity in the classroom ($\phi = .25$); that NCLB fails to take advantage of teachers' skills and experience ($\phi = .22$); that students lose interest in education because of NCLB ($\phi = .19$); that teaching will become a deskilled occupation ($\phi = .16$) and that NCLB increases the influence of textbook companies ($\phi = .15$).

Specific teachers' attitudes were also significantly and strongly related to more favorable attitudes toward NCLB. Attitudes consistent with the tenets of traditional pedagogy were evident in these favorable responses. The strongest bivariate relationships were between positive views of NCLB and teachers who said NCLB brings more accountability to schools ($\phi = -.34$); that NCLB leads to improved student performance ($\phi = -.30$); that NCLB brings a clear focus for schools ($\phi = -.20$); that teachers focus on tests to the benefit of education ($\phi = -.16$); and that NCLB leads to more qualified teachers in the profession ($\phi = -.16$).

Multivariate Models

Multivariate analysis is necessary to determine which factors most strongly influence teachers' overall assessment of NCLB: teachers' demographic characteristics; their school context; their community context; their commitments to the tenets of traditional or progressive pedagogy; or their concerns about the erosion of workplace autonomy due to NCLB.

Table 7.2 provides information on the variables used in our multivariate analyses.

Table 7.2 Variables in the multivariate analyses

I. Dependent variable	
<i>Overall favorability</i>	
Favorable	21%
Unfavorable	79%
II. Independent variables	
<i>Teaching experience</i>	
Less than 8 years	33%
8 years or more	67%
<i>Racial-ethnic identity</i>	
Minority ^a	21%
White	79%
<i>Attitudes</i>	
Weak points of NCLB: It sets unrealistic goals	
Yes	76%
No	24%
Weak points of NCLB: It fails to make use of teachers' professional skills/experience	
Yes	33%
No	67%
Unintended consequences of NCLB: It has led to less creativity in schools	
Yes:	78%
No:	22%
Unintended consequences of NCLB: It has led students to lose interest in learning	
Yes	46%
No	54%
Strong points of NCLB: It leads to more accountability in the schools	
Yes	37%
No	63%
Strong points of NCLB: It leads to improvement in students' academic performance	
Yes	8%
No	92%

Note: ^aMinority includes: African-American, Latino/a, Asian-American/Pacific Islander, and Native American.

We built a model based first on teachers' demographic characteristics only. We then added school context.⁷ We modeled school context using fixed effects for each of the 25 schools in the sample. We next built models based on positive and negative attitudes only, and added teacher demographics and school context to these models. We then developed a final model that included school

context, and both positive and negative attitudes. (Demographic variables were insignificant in models including both school context and teacher attitudes.) As a last step in the analysis, we investigated the sources of differences in school sites that were more and less opposed to NCLB.

Teachers' Overall Assessment of NCLB

The results of our regression analysis are summarized in Table 7.3. In each case, overall favorability is the dependent variable. The measure is dichotomized as "favorable/unfavorable." Favorable includes "very favorable" (1% of respondents) and "somewhat favorable" (20%). Unfavorable includes "somewhat unfavorable" (39%) and "very unfavorable" (40%).

As Model 1 shows, demographic variables alone were weak predictors of teachers' overall assessments of NCLB. In so far as demography matters, teachers' experience and ethnicity were the most important influences. As the bivariate associations suggest, less experienced teachers and minority teachers were more supportive of NCLB.

Model 2 shows that school site was a stronger predictor of teachers' attitudes toward NCLB than demographic characteristics. Coefficients for the 25 schools are not reported because, by definition, they sum to 0. (Confidentiality guarantees do not permit us to name the schools.) In Model 3, which includes both fixed school effects and teacher demographics, teacher demographics were statistically insignificant. Teacher demographics remain insignificant in all other tests, and we consequently do not report teacher demographics for other models.

Four criticisms of NCLB were strong and significant predictors of unfavorable attitudes toward NCLB. These criticisms are: (1) NCLB has unrealistic goals; (2) it fails to take advantage of teachers' professional skills and experience; (3) it leads to less creativity in the classroom; and (4) it leads students lose interest in learning.

The criticism that NCLB sets unrealistic goals has received widespread attention in the press and on NCLB websites. In a widely reported analogy, the educational psychologist Robert Linn observed that bringing all students to proficiency in math and reading by 2014 would be equivalent to requiring the big automobile manufacturers to produce engines averaging 288 miles per gallon by 2014 (Linn, quoted in Bracey 2003). Teachers in our interviews developed similar analogies. One said that bringing all students to proficiency by 2014 would be equivalent to the police eliminating all crime over the next eight years. Another said it would be like requiring all students to run five-minute miles by 2014.

One of the most important findings of this study is the conflict we have discovered between teacher professionalism and the "deskilled" character of teaching work under NCLB. The other major criticisms are related to tenets of progressive pedagogy that teachers find unsupported by NCLB: the importance of creativity

Table 7.3 Logistic regressions on overall attitude toward NCLB: Unfavorable

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	
	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)	
School site (fixed effects)	No	Yes	Yes	No	Yes	
8 yrs. + Experience	.76* (.32)	.32 (.38)				
White/Euro-American	.66* (.35)	.44 (.43)				
Unrealistic goals				1.36** (.50)		
Unused professional skills/experience				1.79** (.62)	1.77* (.82)	
Less creativity in classrooms				1.06* (.48)	3.68*** (1.04)	
Students lose interest				1.14* (.48)	1.83** (.71)	
More accountability in classrooms						
Improved student performance						
N	260	289	260	169	180	
Cox-Snell R ²	.040	.175	.215	.165	.358	
Nagelkerke R ²	.063	.274	.337	.275	.597	
				Model 6	Model 7	Model 8
Variable				B (S.E.)	B (S.E.)	B (S.E.)
School site (fixed effects)				No	Yes	Yes
8 yrs. + experience						
White/Euro-American						
Unrealistic goals						
Unused professional skills/experience					1.70* (.84)	
Less creativity in classrooms					3.63*** (1.07)	
Students lose interest						
More accountability in classrooms				-1.91*** (.51)	-1.67** (.63)	-2.39*** (.66)
Improved student performance				-1.60*** (.33)	-2.06*** (.40)	
N				286	286	179
Cox-Snell R ²				.150	.293	.391
Nagelkerke R ²				.234	.457	.649

Model 4 shows that teacher criticisms and school site context are approximately equivalent predictors of overall favorability. When school context is added to teacher criticisms (in Model 5), the power of the prediction increases dramatically—from under 30 percent of the variance explained to nearly 60 percent of the variance explained. As indicated in Model 6, two features of NCLB are particularly important for those teachers who had favorable attitudes: the capacity of standardized subject-matter tests to improve accountability and student performance. Two other variables approached statistical significance in regressions controlling for accountability and performance: the clear focus provided by NCLB and the capacity of NCLB to use standardized testing to the benefit of education. Taken together, these findings reinforce our view that tenets of traditional pedagogy—structure, focus, repetition, testing, and feedback—are strongly associated with support for NCLB. Again, the addition of school context to these positive features of NCLB improved the prediction substantially.

Our best prediction, Model 8, included one perceived strong point of NCLB (greater accountability), two criticisms of NCLB (failure to draw on teachers' professional skills and experience and lower creativity in the classroom), plus the school context variable. This model explained nearly two-thirds of the variance in overall favorability. Teacher attitudes were somewhat more important in this prediction than school context. Of the 65 percent of the variance we can explain, slightly less than two-fifths (38%) was due to teacher attitudes and slightly more than one-quarter (27%) was due to school context. The results show clearly that teachers' views of NCLB reflect a culture clash in education, between partisans of traditional and progressive pedagogy, as well as the influence of school context.

School Context Effects

Our ability to explain school context effects is limited by the variety of factors that may be at work in any given school setting. However, it is clear from our data that better-performing schools employing more experienced teachers are more likely to develop a climate that is critical of NCLB, while low-performing schools employing less experienced teachers who are coached on how to improve test results are more likely to develop a climate that is relatively supportive of NCLB. This counterintuitive finding suggests that fear of the erosion of privilege is a potent force in opposition to NCLB, while inexperience and institutional pressures to raise scores may strengthen the identification of teachers with NCLB.

Table 7.4 divides schools into polar types: those in which 100 percent of responding teachers opposed NCLB and those in which 50 percent or more of responding teachers favored NCLB. The differences among these schools are clear. The schools in which teachers were unified against NCLB had significantly more experienced teachers. Teachers in these schools were more likely to say they

Table 7.4 Characteristics of polarized schools (+=100% favorable)

Variable	B (S.E.)
8 yrs. + Experience	2.85* (1.22)
School is described as failing to meet AYP	-2.55* (1.10)
School provides coaching to improve test performance	-3.17** (1.20)
N	64
Cox-Snell R ²	.567
Nagelkerke R ²	.787

* p<.05 ** p<.01 *** p<.001

were meeting their AYP goals. They also said they were not receiving coaching on how to improve student test performance.

The schools in which teachers were more favorable toward NCLB had the opposite characteristics: more inexperienced teachers, teachers who said they were not meeting their AYP goals or were in program improvement status, and teachers who said their schools provided coaching on how to improve student test performance. We were able to explain 80 percent of the variance of school location using these three variables. Teachers' race was nearly significant in this analysis as well; favorable schools had more minority teachers, while oppositional schools had more white teachers. This finding, too, lends support to our interpretation that teachers who oppose NCLB may be unified by the fear of erosion of privileges related to professionalism.

Interview Themes

Frequently voiced sentiments in the interviews provide a window into teachers' thinking that the survey questions cannot fully capture. In this section, we will discuss interview themes that are directly related to the quantitative analysis and provide texture and more specific content to the quantitative findings.

Like the surveys, the interviews yielded some positive assessments of NCLB. Many teachers endorsed the idea of accountability and said they wanted to be held accountable for their work in the classroom. (Some qualified this support by saying they should be most accountable to teachers in the higher grades.) Several teachers said they liked the uniform content and pacing introduced by NCLB: "The standards are good in that everybody is on the same page. It's uniform across the board" (kindergarten teacher). Some teachers said that NCLB had encouraged more staff discussion, because teachers are working on the same lessons. "The sharing between teachers is the most positive thing that has come out of it" (4th grade teacher). One teacher said that she was getting to know

her students better because of NCLB. “The students that are quiet and tend to get lost—now I’m getting to know those students (better), as well as my (more vocal) students” (8th grade teacher). Another teacher said that students at her school were becoming more comfortable with testing situations. “(Because of practice testing), it seems that we had a better response this year.... They were a little less agitated...” (middle school teacher).

However, as in the surveys, the majority of teachers we interviewed were critical of NCLB. The interviews provided specific, targeted criticisms of NCLB. In particular, teachers we interviewed said the state had included too many curriculum standards to cover well. They said that some state standards were developmentally inappropriate for the grade level of the students being tested. They also emphasized that important features of a well-rounded and engaging education were being sacrificed to the regimen of high-stakes testing.

Perhaps the most frequent sentiment expressed in the interviews was frustration with the number of standards—and the pace required of teachers to cover these standards. One teacher spoke of having the equivalent of three-quarters of a year to cover a full year’s worth of work. “You do fall behind, because it’s practically impossible to teach all of (the standards) in the amount of time that you have” (kindergarten teacher). The number of standards affects how well they are covered. “The fact that there are so many standards to be covered, we’re not reaching mastery because our goal is just to get through things and get them tested” (middle school teacher). Another teacher spoke of sacrificing hands-on projects because of time constraints: “(I have) less time for labs, because labs usually take a little bit longer.... Instead of making sure that everyone gets the concept, it’s more like, okay, let’s cover this now because in a few weeks it’s going to be testing time...” (middle school teacher).

Several teachers stated flatly that some content standards were “developmentally inappropriate.” “What students are expected to know at each level is too high. In second grade, my students are already learning division, word problems with division, and how to calculate fractions” (2nd grade teacher). Another said, “There are things that I was expected to teach my students in third grade that, when I was in school, I didn’t learn until 4th or 5th grade, or sometimes even 6th grade” (3rd grade teacher). “When we look at Piaget and his developmental stages, some of the 5th grade math standards (are not appropriate).... Their brains aren’t...ready for this” (middle school teacher). “The expectation for understanding is grade levels beyond what it used to be 10 years ago. Many of the materials introduced at a higher grade are being introduced to kids too quickly at the lower grade levels. You must introduce it to them (at the right age) so that they are not afraid to try” (2nd grade teacher).

The pace required to keep up with standards leads to fewer “creative detours” that can enhance understanding: “I used to take creative detours and explore more. Since implementation of NCLB, school districts want a tight adherence to

the guides the publishers have laid out. There are a lot of things I cannot go into very deeply” (2nd grade teacher). Another said, “In order to raise our test scores, we really need to drill, and so a lot of my teaching has changed into drilling” (8th grade teacher). The interviews also underlined previous findings that nontested subjects are crowded out of the curriculum so that teachers can concentrate on standards in tested subjects: “You start cutting other things, you start cutting the other things that make well-rounded kids. You start cutting the social studies project that we were going to work on in small groups this afternoon, so that we can get through the language arts things we didn’t get through. You find yourself cutting music or poetry, or, you know, PE” (3rd grade teacher). Some teachers fear that even recess is on the chopping block. “Someone said to me that (in one district) they were thinking of doing away with recess. And I said, ‘Isn’t that legally mandated?’” (kindergarten teacher).

According to the teachers we interviewed, the pace required to keep up with state standards—combined with the absence of “fun” activities and “creative detours”—may lead some children to become alienated from schooling at an early age. “The kids get...frustrated. They can’t keep up and have no passion... They have so many tests, they don’t care anymore” (Middle school teacher). Teachers see the loss of untested subjects as influencing students’ interest in learning. “I miss the direction and excitement that science and the arts put toward learning. Students are less likely to want to learn” (2nd grade teacher). Another added, “Students are just tired of testing, testing, testing! Some even refuse to take the tests or don’t show up to school on test day” (8th grade teacher). “You do see the number of absences increase (during testing).... (Y)ou can tell the kids (are thinking), ‘Well, if I’m not there...you can’t tell me I failed’” (middle school teacher).

The long-term goal of NCLB to bring all students to the level of “proficiency” by 2014 was dismissed by teachers who said that not all students have the home support or the intellectual interest to reach this level of achievement. “On the surface, the idea that all children will perform (at the level of) 80% and above is shocking and absurd” (2nd grade teacher). “If I could get one (message) to George Bush, (it would be) that schools are a mirror of society. If you have kids whose minds are damaged because their mothers took drugs or drank too much alcohol, or kids who were raised by a television, you aren’t going to be able to produce the same level of proficiency as you can for kids who had two loving parents who graduated from college and read to their kids from an early age” (1st grade teacher).

DISCUSSION

In this section, we will discuss the implications of our finding in relation to three important organizational changes in American public education related to

NCLB and the accountability movement generally: (1) the centrality of a culture of standardized testing; (2) the erosion of teacher professionalism; and (3) the “reindustrialization” of schooling. In discussing these themes, we will draw on both the quantitative and qualitative data from our study.

The Centrality of a Culture of Testing

High-stakes testing and preparation for high-stakes testing have taken up increasing amounts of time during the school year. Nearly every teacher in our sample said that teachers now “teach more to the test.” In addition to time devoted to district, state, and (in some cases) national tests, many schools spend time preparing students for testing through orientations and regular practice tests. “We did practice tests almost weekly and then we had our quarterly tests that we give them” (5th grade teacher). “A big chunk of our time is taken up with test prep, and it begins in September” (1st grade teacher). In some schools, testing has spread into daily classroom activities through the introduction of “openers” —tests that are given to open the school day as a way of preparing students for testing situations.

This test-based system of schooling has many consequences. One outcome, according to teachers, is the creation an atmosphere of anxiety as students approach test time. In some teachers’ minds, state tests loom over their classrooms like a menacing force: “There’s this ever-present...monster, lurking” (multigrade elementary school teacher). Furthermore, the mobilized energy of “gearing up” for testing encourages a let down after the test: “The day after the test, going into a math lesson, a student said, ‘The test is over. Do we really have to do this?’” (multigrade elementary school teacher).

Teachers’ relationships with students are impacted by test results and the strategies schools have adopted for improving test results. Some teachers begin to see their students in terms of their test numbers. “A lot of times a student can have a bad day, wasn’t comfortable with the test on that day, didn’t score well, and then a teacher has a negative view of that student, of where they’re at” (7th grade teacher). High scoring students can also suffer, because they have already reached the “proficiency” level the state wants, and nothing more is required of them. “In expecting every child to be ‘average’ we frustrate those who are not and hold back those who have more potential.” (kindergarten teacher)

State testing builds a particular conception of the world of knowledge as divided into “information bits” arranged in a multiple choice format with one right answer. “We have no open-ended questions anymore. Everything is factoids.” (1st grade teacher): The techniques used to help students acquire knowledge have also been affected by the format: “Being able to transfer it to paper and pencil has become much more important than it ever used to be. So now, to a large degree, we bypass the hands-on to go straight to the paper and pencil to

be sure that when the test comes, that’s the format that they’re used to. The process-project part has largely gone by the wayside” (3rd grade teacher). Hands-on and visually-based activities that helped some students understand materials are now given lower priority. “Read and draws’ are great for my students who need to learn how to visualize a scene in a story to understand and analyze the narrative. But it’s not going to help them on a test, so if I get behind I get rid of them” (middle school teacher).

The Erosion of Teacher Professionalism

NCLB was introduced, in part, as an effort to improve teacher professionalism. It is therefore important to consider whether teacher resistance to NCLB represents simply a desire to escape professional accountability. Teachers themselves have adopted a broader view of the meaning of professionalism. Accountability is one element of professionalism in this view, but it also includes the capacity to employ effectively a range of judgments and pedagogical skills.

Indeed, a widespread sense exists among the teachers we surveyed that teachers’ professionalism is under attack from state educational bureaucrats and textbook publishers. This sense is conveyed, most notably, by the strong and significant results of concerns about “diminished creativity” in the classroom and “unused professional skills and experience” in the explanation of teachers’ overall assessment of NCLB. Said one teacher, “I have said many times that you can take the janitor and he could follow the script and teach. There is no creativity. If you can follow a script, you can teach” (8th grade teacher). Another said, “(NCLB) mandates how you have to teach. You would never tell a doctor or a lawyer how to do their job” (high-school art teacher).

No other issue revealed as much anger among teachers: “I want to put my hands on my hips and stomp my foot and say, ‘How dare you? It’s a real slap in the face (coming from people)...who really don’t know how to do it or haven’t had any experience or (enough) education to say, ‘We know how to make it happen; here’s your recipe...’” (kindergarten teacher). Another suggested that schools were being held hostage to the vanity projects of politicians: “If the program continues to be played out by politicians’ ideas about...why California should have higher standards than other states...teachers who have the passion to teach are going to be driven away by...what NCLB is starting to become — more and more driven by numbers rather than by people” (7th grade teacher).

These comments convey, not only the frustrations many teachers feel in the face of external control, but the centrality of workplace autonomy for teaching professionals. Professions are distinguished from other occupations by the level of autonomy practitioners enjoy at work. This autonomy is based on the complexity of professionals’ workplace responsibilities, and the specialized training,

occupational skills, and experiences that allow professionals to exercise effective judgment in discharging these responsibilities (Freidson 1986).⁸

The sharply critical response of teachers to NCLB can be interpreted as a reaction to the erosion of professional autonomy in three areas over which teachers have traditionally exercised considerable control: materials, pacing, and techniques. As standards and test performance have become dominant features of schooling, textbook publishers have exercised increasing control over both the content and pace of instruction. Even where teaching is not scripted, many schools require teachers to follow scope and sequence plans designed by publishers. Teachers resent that they are discouraged from breaking scope and sequence guidelines, and many continue to bring in their own materials, even in the face of skepticism from colleagues.

The introduction of a large number of tested standards at each grade level has also limited teachers' control over pace. Many feel that they are being asked to cover more material than their students can master. "I can see that my students are struggling...or these particular students are struggling...and I feel like this is a good way to handle it. Okay, but I can't do that because I need to cover what the state and federal government are telling me I need to cover" (8th grade teacher). Similarly, the centrality of high-stakes testing—with its very public penalties for failure to meet performance expectations—has led teachers to deemphasize instructional techniques they consider to be effective in order to concentrate on tested subjects in ways that prepare students for the testing experience. "Teachers do not have the option to do what experience has taught them is best for the 'whole child'" (kindergarten teacher).

Sociologists have sometimes categorized teaching as a "semiprofession," because it is set within a highly regulated bureaucratic context (e.g., Etzioni 1969). However, when the focus shifts to the classroom, it is clear that high-level teaching requires high-level professional skills and judgments. We can see this by looking at the range of skills and judgments teachers mentioned as part of professional practice in the pre-NCLB classroom. Teachers chose materials that they considered developmentally appropriate. They organized the pace of instruction so that materials could be not just understood and memorized, but mastered. They exercised judgment about when understanding was complete, rather than partial. They searched for supplementary projects that allowed for depth enhanced interest and learning. They implemented projects that allowed for depth as well as breadth of coverage. They recognized that education aimed to develop capacities for sustained, complex thinking and vivid expression, not only an increase in short-term retention of textbook materials. They consequently balanced the learning of factual content with the development of higher-order thinking skills. They remained attentive to differences among children in the ways they acquired knowledge and therefore used multiple modes of instruction. Finally, they maintained awareness that schooling has social and emotional as well as

cognitive objectives. In each of these areas, the narrow objectives and restricted performance evaluations of NCLB confront the broader objectives and larger repertoire of techniques used by competent teaching professionals.

Social scientists have recognized tendencies both in bureaucratic organization and corporate profit-seeking to rationalize production in efficient, quantifiable ways. These rationalizing projects have led to the "deskilling" of many occupations. In the process of deskilling, capacities once held by workers are transferred to machines, divided among narrower groups of specialists, organized for maximum efficiency, and focused on quantifiable contributions to production (Braverman 1974; Edwards 1979). Professionals have often successfully resisted deskilling by monopolizing access to occupations through rigorous educational programs and by convincing publics that the variation in the tasks they perform and the judgment required to perform these tasks require workplace autonomy. Our data reveal the strong emotions that have been aroused in the contemporary struggle of teaching professionals to resist what they perceive to be the deskilling of their occupation represented by the requirements and incentives of high-stakes testing.

The Reindustrialization of Schooling

In the 19th century, American public schools could properly be described as highly industrialized settings. Classrooms were organized not so much to stimulate the intellect as to create well-disciplined workers. Children were relentlessly taught to be obedient, regular, and precise in their habits. The phrase "toeing the line" still had a literal meaning. The journalist Joseph Rice (1893) visited hundreds of urban classrooms in the eastern United States to collect data for a book. During recitation periods, children were expected to stand on the line, perfectly motionless, their bodies erect, their knees and feet together, the tips of their shoes touching the edge of a board in the floor. The teachers, according to Rice, paid as much attention to the state of their students' toes and knees as to the words coming out of their mouths. "How can you learn anything?" one teacher asked, "with your knees and toes out of order?" The child study and progressive education movements of the late 19th and early 20th centuries were responses to the weaknesses of this form of education. They were intended to break the grip of drilling for industrial work discipline by making the classroom a more inviting space for children and one richer in educationally stimulating opportunities (Cremin 1961).

From a historical perspective, NCLB can be interpreted as part of a process of "reindustrializing" schooling. According to the teachers in our study, it frequently leads to outcomes similar to those found by Joseph Rice more than 100 years ago: classrooms organized around drilling for tests, great concern for

memorizing “bite-sized” pieces of knowledge, and perhaps also high levels of alienation among students who are at once fearful and bored.

Teachers are aware that students pass through distinct epistemic levels (King and Kitchener 1994; Mines et al. 1990). While basic skills must be mastered before higher order thinking skills become a predominant focus, cultivation of higher order skills can accompany and enrich work on basic skills, even (and perhaps especially) among younger children. By cutting out “creative detours” and exercises stimulating critical thinking, NCLB addresses basic skills acquisition in a form that can be deadening rather than enlivening for children.

Teachers’ concerns about the consequences of NCLB are closely tied to their concerns about the ultimate objectives of public schools. “There are way too many assessments. We don’t have time to develop social skills or a love of learning” (kindergarten teacher) “The intent of NCLB is admirable. The result, though, is a huge emphasis on test scores. Now...my incoming class has a much weaker understanding of material, though (some) can score well on standardized tests. I fear for their futures” (5th grade teacher). One teacher predicted that NCLB would have long-term effects on universities because of the style of learning it encouraged: “(Our) students are not able to look at things from multiple perspectives, where students...in my class just five years ago were still in the mindset of (the) creative thinker (who could do this). This generation has been tested, tested, tested, and (some) are going to really struggle when they have to think outside of the test format” (middle school teacher). Another added, “They have lost critical thinking skills, because those skills are not validated at school... Critical thinking could be the rallying cry, because that’s what’s left out of NCLB (1st grade teacher).

High-stakes tests were first introduced in the 1980s because educators and business leaders feared that American students were underperforming in relation to their peers in other countries. This system led to improved achievement, particularly in math, for younger students (Loveless 2006). However, we are now reaching a point of diminishing returns, and of heightened student and teacher resistance. If we want our schools to employ teachers who have a passion for teaching, and if we want them to produce students who have an appetite for learning, the strategies developed over the last 20 years to address concerns about American competitiveness will need to be reconsidered. Already schools in some affluent communities are beginning to prioritize standards and to focus attention on a smaller number of “essential” standards, while reintroducing support for higher order thinking skills (see, e.g., CUSD 2006).⁹ No one should wish to jettison the gains attributable to the accountability movement, but we may be reaching a point of imbalance in our vision of schooling, one that can be corrected only by a broader and better balanced vision.

Notes

1. We would like to thank Daniel Amador, Chioma Chukwu, Shannon Fay, Ashley N. Koda, Monica Marquez, Linda McAnnally, Kelly R. Miller, Danielle Morad, Natasha Passerello, Richard Rangel, Erin Schultz, Noel Valencia, Eric Vega, Annette Webb, Sheritta Wells, and Scott Wilson for research assistance. We would like to thank Robert A. Hanneman for statistical advice and Patrick Guggino for helpful references on teacher professionalism.
2. In addition, a number of studies of teachers’ views of accountability exist from the pre-NCLB era. See Woody et al. (2003). Like ours, these studies suggest that nontested subjects are crowded out by tested subjects, and that teachers believe an overemphasis on standards-based testing has decreased their autonomy and effectiveness in the classroom.
3. AYP is not publicized as much as API. For this reason, many teachers and principals worry, as one teacher told us, “more about API than AYP.” Testing related to the construction of the Academic Performance Index is only one feature of California’s testing regime. High-school students are required to pass an exit examination, the California High-School Exit Examination (CHSEE) in language arts, writing, and mathematics. Many school districts also administer “benchmark” tests, and some administer the National Assessment of Educational Progress (NAEP).
4. A few teachers (depending on the question, between 1 and 6% of respondents) circled more than five responses on the multiple response questions. The majority of respondents choosing more than five responses chose either six or seven, but a few circled 10 or more responses. We were reluctant to eliminate these respondents from the data analysis because of our relatively small sample. In lieu of introducing a complex (and debatable) weighting system to adjust for the answers of this small number of respondents who chose more than five responses, we made a simplifying assumption: that had these teachers limited their choices to only five, they would have disproportionately chosen the items most frequently chosen by other teachers. Analysis of the choices of these teachers confirms that they were very likely to choose items frequently chosen by other teachers, and added items less often mentioned by other teachers. Infrequently chosen responses do not figure prominently in our analysis, and we therefore feel justified in including the responses of the few teachers who failed to follow our directions. However, we recognize that this procedure inevitably introduces a small amount of measurement error into our data analysis.
5. Nearly half of teachers said state-mandated tutoring programs helped students (43%). These teachers said the tutoring programs helped primarily because they provided extra attention (96%). Among those who said after-school tutoring did not help, the majority thought students were uninterested in tutoring and did not want it (64%). A few also said that group settings were not conducive to effectiveness, tutors were inexperienced, and tutoring methods were not effective.
6. Not all teachers accurately identified their schools as program improvement schools. Two-thirds of the teachers in the sample accurately identified their schools as making adequate yearly progress or as failing in at least some years to make adequately yearly progress. When we grouped teachers according to state designations of their schools’ program status, the teachers in program improvement schools continued to be more favorable to NCLB than teachers in schools making adequate yearly progress. However, the differences were not statistically significant.
7. Data were too sparse at a few schools to use hierarchical linear modeling. Using schools in fixed effects models provides an appropriate alternative approach to separating contextual and individual teacher effects.
8. No salaried professional has unlimited autonomy, and it is therefore useful to consider professional autonomy as multidimensional and variable across occupations. The four major dimensions of professional autonomy are control over: (1) the choice of clients, (2) resources, (3) work pace, and (4) techniques. Some professionals, such as university researchers, exercise control over the problems they address. Some professionals, such as self-employed physicians, exercise control over the resources they use to do their work. These forms of control are, however, far from universal among professionals. The great majority of professionals do control the techniques and methods they use to address problems related to their work responsibilities (Derber, Schwartz, and Magrass 1990). For teachers, see also Ingersoll (2003).

9. For an influential discussion of standards “overload,” see Marzano and Kendall (1998).

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8

Teacher Quality, Educational Inequality, and the Organization of Schools¹

Richard M. Ingersoll

Few educational problems have received more attention in recent times than the failure to ensure that elementary and secondary classrooms are all staffed with qualified teachers. Since the mid-1980s, dozens of studies, commissions, and national reports have drawn attention to the importance of the qualifications and quality of the teaching force. This concern is understandable. Teachers are a particularly important educational resource, the largest single component of the cost of education in any country is teacher compensation and student educational outcomes ultimately depend on the work of teachers.

Not surprisingly, the issue of teacher quality has also been at the heart of the ongoing national debate over equity in education. Among those concerned with issues of educational inequity, it is widely believed that students from disadvantaged backgrounds do not have equal access to qualified teachers. At least since James Coleman's seminal study, commentators, researchers, and policymakers have long held that the most needy students in the United States—especially those in schools serving poor, minority, and urban communities—are taught by the least qualified teachers (e.g., Coleman 1966; Darling-Hammond 1987; Dreeben and Gamoran 1986; Haycock 1998, 2000; National Commission on Excellence in Education 1983; Oakes 1990; Rosenbaum 1976). Disadvantaged school districts, these critics hold, are unable to match the salaries, benefits, and resources offered by more affluent schools and, hence, have difficulty competing for the more qualified teaching candidates. In turn, unequal access to qualified teachers and, hence, to quality teaching is considered a primary factor in the stratification of educational resources and opportunities to learn, and ultimately, unequal educational and occupational outcomes.