

WORKING P A P E R

Superintendent, Principal, and Teacher Understanding of and Attitudes about Accountability

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Preface

This paper was presented as part of the symposium, “Implementing No Child Left Behind: New Evidence from Three States” at the annual meeting of the American Educational Research Association in San Francisco, California, April 10, 2006.

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Introduction

The effects of the No Child Left Behind (NCLB) legislation will depend in large part on whether educators understand and support the standards-based accountability model and its various components. This paper examines these issues by addressing the following broad research question: What is the level of perceived validity and reported impact of NCLB policies in districts and schools? To answer this question, we draw on two years of survey data from superintendents, principals, and teachers in three states as well as qualitative data gathered from school site visits. In particular, we examine the extent to which the educators' reports have changed over this two-year period and differences that exist among educators across states, levels of schooling (elementary vs. middle school), school characteristics, and disciplines (math vs. science).

This paper is one in the symposium "Implementing No Child Left Behind: New Evidence from Three States" and draws on findings from RAND's *Implementing Standards-Based Accountability* (ISBA) study on the implementation of these requirements, with a focus on mathematics and science, in California, Georgia, and Pennsylvania.

Background

While NCLB raises the accountability stakes for states, districts, schools, its focus on standards and assessments is not new. In 1989, the nation's governors issued a call for "world-class" standards to guide educational practice in response to the poor performance of U.S. students on international comparative assessments (McKnight et al., 1987; National Governors Association, 1989; Travers and Westbury, 1989). Since that time, state policymakers have steadily moved toward standards-based accountability (SBA) systems that emphasize explicit content and performance standards, systematic standardized testing, and consequences for results. The National Research Council (1999, pp. 2–3) described the rationale for such a system:

The centerpiece of the system is a set of challenging standards. By setting these standards for all students, states would hold high expectations for performance; these expectations would be the same regardless of students' backgrounds or where they attended school. Aligned assessments to the standards would allow

students, parents, and teachers to monitor student performance against the standards. Providing flexibility to schools would permit them to make the instructional and structural changes needed for their students to reach the standards. And holding schools accountable for meeting the standards would create incentives to redesign instruction toward the standards and provide appropriate assistance to schools that need extra help.

NCLB requires states to adopt content standards in English language arts, mathematics, and science and to test all children annually in reading and math, in grades 3, 4, 5, 6, 7, 8, and at one grade in high school by 2005-06. By 2007–08, states must test students in science at least once in grades 3–5, 6–9, and 10–12. States must establish goals for performance on the assessments and track performance of all students and subgroups of students (e.g., racial/ethnic groups, students with disabilities, migrant students) against these goals. By the end of 12 years, all schools should have reached 100 percent proficiency—that is, all children in every school must pass the state test. Schools where students perform well on the assessments may be rewarded to reinforce good practice. Schools where students perform poorly will be sanctioned¹ and offered assistance in order to lead them to change practice and improve their services to students. While all states must adopt these basic components, they can be and are operationalized in many different ways.

In fact, research has shown that there is considerable variation among states in how the elements of standards-based accountability are implemented. For instance, several national organizations have reviewed existing state standards and reported wide variation in rigor and specificity of standards (Rothman et al., 2002; Education Week, 2002; Finn & Petrilli, 2000). Difficulty of state assessments also varies—both in content and proficiency cut-scores (Kingbury et al, 2003; McCombs & Kirby, et al., 2004). States have also taken different approaches to meet the highly qualified teacher requirements of NCLB for veteran teachers (National Council for Teacher Quality, 2004; EdWeek, 2004). These differences are likely to affect how SBA is implemented in schools and its potential impact on student performance. For example, lack of

¹ Schools that fail to make adequate yearly progress face escalating sanctions over time, such as being required to offer school choice or supplemental services and may include, among others, decreased decisionmaking; reconstituting the school staff; instituting a new curriculum based on scientifically based research; extending the school year or school day; and appointing an outside expert to advise the school.

specificity in published standards may exacerbate the tendencies of many teachers to pay more attention to state tests than to standards (Stecher et al., 2000). In addition, perceptions regarding the quality of the standards and assessments throughout the system will impact how districts, principals, and teachers react.

Data and Methods

The results presented in this paper primarily rely on the superintendent, principal, and teacher survey reports from the 2004-05 school year. In a few cases, we supplement survey data with information gained from interviews with principals and teachers that we conducted in a small set of case study schools. For the surveys, state-specific weights were generated to make the responses representative of the state as a whole. The weights reflect both the sample design for each state and the patterns of survey non-response. As a result, the statistics reported here represent estimates of the responses of superintendents, principals and teachers statewide.

Table 1 provides the sample sizes for the estimates reported. In California, a larger percentage of districts declined to participate than in Georgia or Pennsylvania, so we supplemented the sample. As a result, the number of districts in the California sample was higher than the other two states. Note that due to the nested sampling strategy employed by the study (in which teachers and principals are nested within schools and schools are nested within districts) the number of responses grows progressively smaller as we move from teachers to principals to superintendents. As a result, the summary statistics based on teacher responses are more precise than those based on principal responses, which in turn are more precise than those based on superintendent responses. Throughout the paper we include standard errors in tables presenting the survey results. For further detail regarding the methods and data used in the ISBA study, please refer to the introductory paper in this symposium.

Table 1.
Sample Sizes for Each State

	California	Georgia	Pennsylvania
Districts			
Sampled	56	37	39
Agreed to participate in the study	31	30	31
Superintendents responding to survey	24	24	19
Schools			
Sampled	122	124	107
Agreed to participate in the study	91	111	99
Principals responding to survey	78	95	87
Teachers sampled within cooperating schools	1013	1605	1050
Teachers responding to survey	826	1409	938

Research Questions

This paper addresses the following descriptive questions about how superintendents, principals, and teachers view standards, assessments, and states' systems of accountability:

- To what extent are principals and teachers familiar with state content standards? To what extent do they find them useful?
- What are superintendents', principals', and teachers' views regarding the state assessments?
- What are superintendents', principals', and teachers' views about the state's accountability system as a whole—including standards, assessments, adequate yearly progress (AYP) targets, rewards, and sanctions?

Where applicable, we discuss differences in responses based on school- or district-level characteristics such as AYP status or Title I status and present differences over time.

Content Standards

Content and performance standards define the goals for the educational system. Schools are expected to use these statements about “what students should know and be able to do” to establish policies regarding curriculum, professional development, and other school functions, and teachers are expected to use them to guide instructional planning. Like the majority of states, California, Georgia, and Pennsylvania had already adopted content standards in certain grades and subjects prior to NCLB. However, these states differ in standards coverage by grades in each subject (Table 2).

Table 2.
Content Standards in English Language Arts, Mathematics, and Science,
by State and Grade Level

State	English Language Arts	Mathematics	Science
California	K-12	K-12	K-12
Georgia	K-8, High school	K-8, High school	K-8, High school
Pennsylvania	3, 5, 8, and 11	3, 5, 8, and 11	4, 7, 8, and 12

California’s content standards outline the skills, knowledge, and abilities that all students should master at each grade level of their public schooling for a number of content areas, including (among others) English/language arts, mathematics, science, history and social science, and visual and performing arts. Georgia’s state standards (Quality Core Curriculum, or QCC) outline the skills and knowledge that students should possess in English language arts, mathematics, science, social studies, foreign languages, fine arts, health, physical education, technology/career education, and agriculture. The QCC contains grade-by-grade standards for grades K–8 and grade cluster standards for 9–12. Georgia recently revised the QCC, as officials were concerned that the standards covered too much content and in not enough depth. Georgia’s new standards—the Georgia Performance Standards—are being phased in starting in 2004-05. Pennsylvania’s academic standards define what students should know and be able to do in reading, writing, speaking, listening, and mathematics in grades 3, 5, 8, and 11 (which are tested grades) and science in grades 4, 7, 8, and 12. In 2004-05, Pennsylvania rolled out assessment anchors, which were designed to reduce the content coverage and allow teachers to focus on

tested material. For each tested grade, the assessment anchors specify what students should know and be able to do in language arts, mathematics and science. In addition, each assessment anchor references the accompanying state standard(s), the depth to which students should be expected to master content, and includes sample PSSA questions. The state is currently in the process of expanding the standards to cover all tested grades and subjects required by NCLB.

In addition to the reach of the standards across grade levels, a number of factors will influence the degree to which content standards influence classroom instruction including principals' and teachers' familiarity with the standards and their perceptions regarding the quality and usefulness of the standards.

Familiarity with Standards. Nearly all principals reported being at least familiar with the content standards in mathematics. In fact, the majority of principals in all three states reported a thorough understanding of the content standards in this subject (Table 3). Nearly all principals in California and Georgia also reported at least being familiar with standards in science, with slightly fewer reporting familiarity with science standards in Pennsylvania (90 percent). However, we found differences among the percentage of principals reporting a thorough understanding of the science standards. Seventy-two percent of principals in Georgia reported having a thorough understanding of science standards, compared with 29 percent in California and 38 percent in Pennsylvania. The fact that principals in Georgia tended to report having a more thorough understanding of the science standards than their colleagues in California and Pennsylvania may be related to the fact that Georgia has included science in state assessments for several years while California and Georgia have only recently included science in state tests.

Similar to the principals, almost all teachers who taught a given subject reported being at least familiar with that subjects' content standards. However, we found differences among the percentage of teachers who reported having a thorough understanding of the content standards (Table 4). In Georgia, over 75 percent of mathematics and science teachers reported having a thorough understanding of content standards in their subject. The majority of teachers in California also reported having a thorough understanding of content standards in their subject. However, elementary science teachers in California were least likely to report having this level of familiarity—only 52 percent of elementary science teachers reported having a thorough understanding of science content standards, compared with over 70 percent of middle school

science teachers, elementary school mathematics teachers, and middle school mathematics teachers.

Table 3.
Percentage of Principals Reporting a Thorough Understanding of Content and Performance Standards

	California	Georgia	Pennsylvania
Mathematics content standards	64 (7)	77 (6)	69 (8)
Science content standards	29 (8)	72(6)	38 (7)

Notes:

Standard errors are in parentheses.

Response options included never heard of them, heard of them but don't know much about them; familiar with the main points but not the details; and have a thorough understanding of them.

Table 4.
Percentage of Teachers Reporting Having a Thorough Understanding of Content Standards

	California		Georgia		Pennsylvania	
	Elementary	Middle	Elementary	Middle	Elementary	Middle
Mathematics content standards	76 (3)	79 (2)	85 (2)	76 (3)	48 (3)	50 (9)
Science content standards	52 (4)	71 (6)	80 (2)	84 (2)	16 (2)	38 (11)

Notes:

Standard errors are in parentheses.

Percentages reflect only teachers who taught the given subject.

Response options included never heard of them, heard of them but don't know much about them; familiar with the main points but not the details; and have a thorough understanding of them.

Compared with teachers in California and Georgia, teachers in Pennsylvania were least likely to report having a thorough understanding of content standards. In Pennsylvania, middle school teachers were more likely to report this level of familiarity than elementary school teachers in science (38 percent compared with 16 percent). These findings are not surprising, given that Pennsylvania's science standards only cover a few grades, cover more middle school grades than elementary grades, and have not yet been subject to the state assessment.

Quality and Usefulness of Standards. Even if most educators are familiar with their state's standards, teachers' and principals' ability to make effective use of those standards will depend in large part on the quality of the standards. We asked teachers several questions that

address concerns that are commonly raised about standards and teachers and principals about the usefulness of standards.

Majorities of teachers reported that the standards cover more content than they can address in a year (Table 5). This is the case even for Pennsylvania where this question focused on the Assessment Anchors that were designed to reduce the content coverage and allow teachers to focus on tested material. Fewer teachers thought the standards omitted important material (19-37 percent across states, subjects, and grade levels). In California and Pennsylvania, middle school science teachers were more likely than elementary school science teachers to report important omissions.

**Table 5.
Percentage of Teachers Agreeing with Statements Regarding
the Quality of Content Standards**

	California		Georgia		Pennsylvania	
	Elementary	Middle	Elementary	Middle	Elementary	Middle
Mathematics standards include more content than can be covered adequately in the school year	81 (3)	85 (3)	68 (3)	72 (3)	64 (4)	74 (6)
Mathematics standards do not cover some important content areas	20 (3)	21 (4)	21 (2)	24 (2)	22 (2)	35 (5)
Mathematics standards are useful for planning my lessons	90 (2)	83 (4)	88 (1)	87 (2)	75 (3)	51 (6)
Science standards include more content than can be covered adequately in the school year	65 (4)	79 (3)	54 (3)	78 (3)	55 (4)	62 (6)
Science standards do not cover some important content areas	19 (3)	37 (4)	36 (2)	34 (4)	22 (4)	37 (9)
Science standards are useful for planning my lessons	83 (3)	91 (1)	84 (3)	88 (2)	39 (3)	55 (6)

Notes:

Standard errors are in parentheses.

Percentages reflect only teachers who taught a given subject.

Response options included strongly disagree, disagree, agree, strongly agree, and I don't know.

The vast majority of teachers in California and Georgia found the standards useful for planning (over 80 percent). However, teachers in Pennsylvania, particularly science teachers, were less likely than comparable teachers in other states to find the standards useful for planning.

Only 39 percent of elementary science teachers and 55 percent of middle school teachers in Pennsylvania agreed that the science standards were useful for planning. While not shown in Table 5, the percentage of science teachers in Pennsylvania reporting that they “did not know” to the questions about the science standards was quite high across both grade levels—20 percent for middle school and 42 percent for elementary school. Again, this is likely due to the fact that Pennsylvania has only adopted science standards in grades 4, 7, 8, and 12 and did not administer a science assessment in 2004-05.

We asked principals to rate the degree to which standards are useful for guiding decisions about the school’s curriculum. Almost all principals reported that content standards were at least moderately useful for guiding decisions about the school’s curriculum. In fact, majorities of principals in all three states reported that content standards are very useful in informing curricular decisions (Table 6), with the exception of the science standards in Pennsylvania (46 percent). Principals in California were most likely to deem content standards useful. Across states, principals viewed the mathematics standards more favorably than the science standards. This may be due to the fact that science is not part of AYP calculations in these states and is not yet being tested in Pennsylvania.

Also interesting to note is that principals in Georgia rated performance standards in mathematics and science more useful than content standards in each area. This may relate to the recent implementation of the Georgia Performance Standards (GPS) and the state’s heavy emphasis on training schools to use the new performance standards. Each GPS incorporates the content standard, which simply tells the teacher what students are expected to know, but expands upon it by providing three additional items: suggested tasks, sample student work, and teacher commentary on that work. In addition, the state reports that the scope of the curriculum has been narrowed through the adoption of the GPS (Georgia Department of Education).

Table 6.
Percentage of Principals Reporting that Content and Performance Standards
are Very Useful for Guiding Decisions about Their School's Curriculum

	California	Georgia	Pennsylvania
Mathematics content standards	92 (4)	57 (6)	73 (6)
Mathematics performance standards	N/A	71 (5)	67 (7)
Science content standards	87 (4)	60 (5)	46 (7)
Science performance standards	N/A	66 (5)	N/A
English / Language Arts content standards	92 (4)	59 (6)	74 (6)
English / Language Arts performance standards	N/A	80 (3)	67 (8)

Notes:

Standard errors are in parentheses.

Response options: not at all useful; minimally useful; moderately useful; very useful; I don't know.

State Assessments

As with content standards, the three states differ in the number of grades and subjects in which state standards-based assessments are administered (Table 7). California administers the California Standards Tests (CST) to students in grades 3-11 in mathematics and English language arts. Students in grade 5 take a science assessment, and high school students in grades 9-11 take end-of-course science assessments. Students in grades 8, 10, and 11 are tested in history and social science. In addition, the state administers the California High School Exit Examination, a criterion-referenced assessment that the state reports as aligned with state standards, for students in grade 10 or higher. Passage of this high school exit exam will be required for graduation starting in 2006. The testing system was authorized in 1997, so it has been in place for a number of years.

Georgia administers the Criterion Referenced Competency Tests (CRCT) to students in grades 1-8 in reading, English/language arts and mathematics, while students in grades 3-8 also take the CRCT in science and social studies. Georgia is phasing in promotion gates based on the CRCTs in certain grades. In 2003-04, third-grade students were required to pass the reading CRCT in order to be promoted to fourth grade, and in 2004-05, fifth-grade students were required to pass the mathematics CRCT to advance to sixth grade. Georgia also has a high school graduation test.

Table 7.
State Criterion-Referenced Assessments English Language Arts, Mathematics, and Science, by State and Grade Level

State	English Language Arts	Mathematics	Science
California	3-11	3-11	5, High school end-of-course assessments (9-11)
Georgia	1-8, High school end-of-course assessments	1-8, High school end-of-course assessments	3-8, High school end-of-course assessments
Pennsylvania	3, 5, 8, and 11	3, 5, 8, and 11	

In 2004-05, Pennsylvania administered the Pennsylvania System of School Assessment (PSSA) in reading and mathematics to students in grades 3, 5, 8 and 11 and the PSSA in writing to students in grades 6, 9 and 11. In 2005-06, Pennsylvania will begin testing students in reading and mathematics in grades 3 through 8 and 11. Currently, Pennsylvania does not test in science, but will begin officially testing science in 2008.

Perceptions of Validity. Overall, superintendents were positive about the validity of state tests. Most superintendents believe state tests are a good measure of students' progress toward mastering standards (Table 8). Similarly, most report that state test scores accurately reflect the achievement of students in their district, with the exception of superintendents in Pennsylvania who were somewhat less likely to support the validity of state test scores. In California, elementary school principals were less likely to view scores as accurate reflections of student achievement when compared to middle school principals and superintendents. On the contrary, elementary school principals in Georgia and Pennsylvania were somewhat more likely to view test scores favorably than their middle school colleagues or superintendents in their state.

The data indicate some relationship between administrators' views on the validity of state tests and district AYP status (Table 9). In each state, superintendents who reported that their district met AYP targets were more likely to agree with the validity of test results compared to those who reported not making AYP. For instance, in California, 71 percent of superintendents in districts that made AYP agreed that test scores accurately reflected the achievement of students in the district, compared with 18 percent of superintendents of districts that did not make AYP. Principals' views on the validity of state tests follow a similar pattern, although the reported differences between schools that met AYP and those that did not are not as large as evidenced among superintendents. It seems natural that administrators in schools/districts that

are deemed more successful based on state test scores would be more likely to have a favorable view of the validity of these tests. However, superintendents’ views on whether or not state tests are good measures of student progress towards mastering standards are less dependent on their AYP status.

**Table 8.
Percentages of Superintendents and Principals Agreeing with Statements about
the Validity of State Test Results**

	California	Georgia	Pennsylvania
State tests are a good measure of students’ progress toward making standards			
Superintendents	68 (12)	72 (13)	72 (12)
State test scores accurately reflect the achievement of students in my district.			
Superintendents	65 (12)	68 (13)	49 (15)
Middle School Principals	64 (11)	64 (8)	40 (13)
Elementary School Principals	34 (10)	75 (6)	56 (10)

Notes:

Standard errors are in parentheses.

Response options included strongly agree, agree, disagree, and strongly disagree.

Table entries are percentages responding “agree” or “strongly agree.”

Teachers were asked the same question as superintendents—to what extent is the state assessment a good measure of students’ mastery of content standards? Teachers were not as positive as superintendents in their responses (Table 10). Note that Table 10 reports percentages of teachers who teach a tested grade. In California, only 38-42 percent of mathematics teachers reported that the assessment was a good measure of students’ mastery of the content standards. In Pennsylvania, of the mathematics teachers who taught a tested grade, 45-50 percent believed that the PSSA was a good measure of students’ mastery of Pennsylvania’s assessment anchors. Teachers in Georgia were more positive about the state assessments. Over half of the mathematics teachers in Georgia (57-60 percent) reported the CRCT was a good measure of standards.

Table 9.
Superintendents’ and Principals’ Views on Test Validity
Disaggregated by District AYP Status

	California		Georgia		Pennsylvania	
	Met AYP	Did not meet AYP	Met AYP	Did not meet AYP	Met AYP	Did not meet AYP
State tests are a good measure of students’ progress towards mastering standards						
Superintendents	67 (13)	75 (19)	89 (8)	60 (17)	82 (12)	51 (28)
State test scores accurately reflect the achievement of students in my district/school						
Superintendents	71 (13)	18 (17)	93 (6)	51 (16)	70 (15)	6 (7)
Principals	47 (11)	29 (10)	73 (6)	61 (10)	56 (8)	16 (12)

Notes:

Standard errors are given in parentheses.

Response options included strongly agree, agree, disagree, and strongly disagree.

The percentages in the table represent the combined responses, agree, strongly agree.

Science teachers in California and Georgia were less likely to report that the assessment was a good measure of mastery of standards than were the mathematics teachers in their state. In Georgia, 46-47 percent of science teachers reported this. However, science teachers in Georgia were more likely to report believing the assessment was a good measure of student mastery of standards than science teachers in California (21-30 percent).

One reason why teachers may believe the state assessments are not good measures of students’ mastery of content standards is because they believe that the state assessment is too difficult for the majority of their students. Middle school teachers were more likely to report this than elementary school teachers. For example, in California 65 percent of middle school mathematics teachers reported that the test was too difficult for the majority of their students compared with 47 percent of elementary mathematics teachers.

Another reason why teachers may not believe an assessment to be a good measure of students’ mastery is that they believe the assessment is not well aligned with the curriculum—either including too much content that is not in the curriculum or omitting important content that is in the curriculum. In California, approximately one-third of elementary and middle school mathematics teachers reported that the test included considerable content not in the curriculum and a third reported that the test omitted important content. California science teachers in a

tested grade were more likely to report that the test covered additional material (44-54 percent) than omitted material (28-36 percent).

Table 10.
Percentage of Teachers Agreeing to Statements Regarding
the Quality of the State Assessments

	California		Georgia		Pennsylvania	
	Elementary	Middle	Elementary	Middle	Elementary	Middle
<i>The mathematics assessment:</i>						
Is a good measure of students' mastery of content standards	42 (4)	38 (4)	60 (3)	57 (3)	45 (4)	50 (5)
Is too difficult for the majority of my students	47 (5)	65 (4)	31 (3)	46 (3)	47 (4)	64 (4)
Includes considerable content that is not in our curriculum	33 (3)	32 (4)	24 (2)	27 (3)	25 (3)	43 (6)
Omits considerable content that is in our curriculum	35 (3)	30 (3)	26 (2)	37 (3)	27 (3)	49 (5)
<i>The science assessment:</i>						
Is a good measure of students' mastery of content standards	21 (8)	30 (10)	46 (3)	47 (4)	NA	NA
Is too difficult for the majority of my students	64 (7)	73 (18)	43 (3)	45 (3)	NA	NA
Includes considerable content that is not in our curriculum	44 (7)	54 (11)	34 (3)	39 (3)	NA	NA
Omits considerable content that is in our curriculum	36 (7)	28 (10)	28 (2)	45 (3)	NA	NA

Notes:

Standard errors are in parentheses

Table reports percentages of teachers in a tested grade.

Response options included strongly disagree, disagree, agree, strongly agree, and I don't know.

Table entries are percentages responding "agree" or "strongly agree."

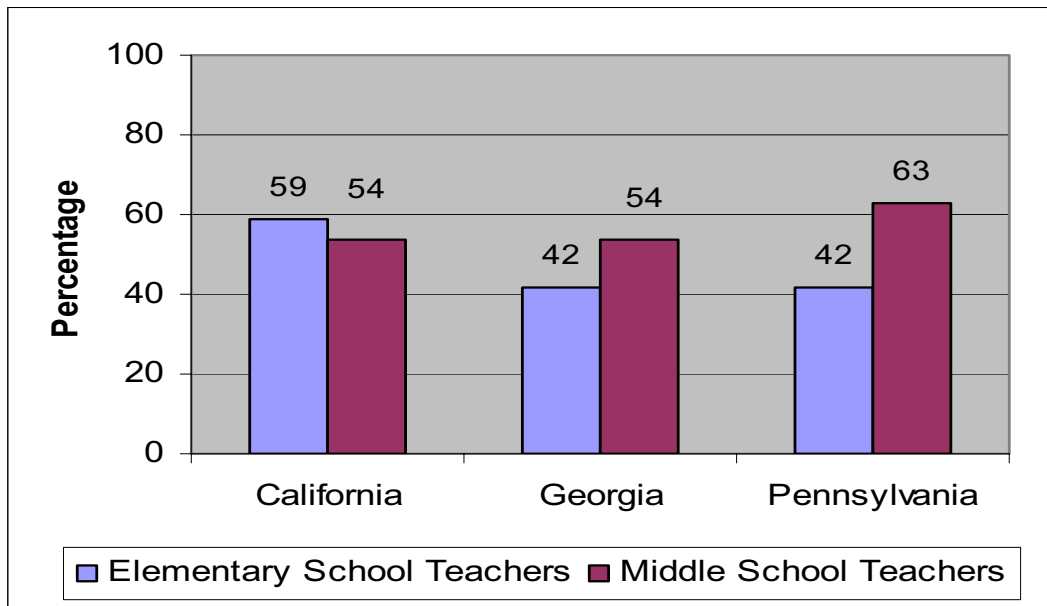
Approximately one-quarter of elementary or middle school mathematics teachers in Georgia reported that the mathematics CRCT included considerable content not in the curriculum. Only slightly higher percentages (26 in elementary schools and 37 percent in middle schools) reported that the test omitted considerable content. In science, the percentage of teachers reporting additional inclusions and omissions was slightly higher, compared with mathematics.

In Pennsylvania, middle school mathematics teachers were more likely than elementary school mathematics teachers to believe that the test covered content not in the curriculum (43

percent compared with 25 percent) or excluded content that is in the curriculum (49 percent compared with 27 percent).

With the exception of elementary mathematics teachers in Georgia, majorities of teachers reported some sort of misalignment (defined as either including content not in the curriculum or excluding important content in the curriculum) between the assessment and the curriculum. Figure 1 shows the percentage of teachers who reported any misalignment between the curriculum and the assessment in mathematics. The percentage of science teachers reporting misalignment was a bit higher, 71-74 percent in California and 53-63 percent in Georgia.

Figure 1.
Percentage of Mathematics Teachers Reporting Some Misalignment
between the Curriculum and the State Assessment



Usefulness of Assessment Results. In order for educators to use state test results and other indicators from accountability systems to inform decisions about school and district policy, leaders must receive information that is clear and comprehensible.² The vast majority of superintendents reported that the information they receive from the state about their district's

² Teachers' use of assessment results is discussed in another paper in this symposium.

performance is clear and easy to understand. In particular, superintendents in Pennsylvania were more likely this year to report receiving understandable information (83 percent) than last year (58 percent).

The vast majority of superintendents in all three states believed that state test results are at least moderately useful in making decisions such as changing the district’s curriculum and instructional materials, developing district and school improvement plans, and focusing principal and/or teacher professional development. Superintendents were less likely to agree that state test results were useful for making policies about how much time is spent on each academic subject, identifying specific instructional strategies, and allocating resources among schools.

Majorities of principals in all three states reported receiving test results for students in their school. Results are widely available to principals for both students attending their school the previous year and those attending the current school year. In addition, the vast majority of principals reported that test results are at least moderately useful in guiding instruction and school improvement (Table 11). Majorities also reported that test results summarized by student subgroup and those disaggregated by subtopics were available and at least moderately useful.

Table 11.
Percentage of Principals Reporting that Assessments Results Are Available and Moderately or Very Useful in Guiding Instruction and School Improvement

	California	Georgia	Pennsylvania
Reports of last year’s test results for the students at your school last year	76 (7)	91 (3)	84 (7)
Reports of last year’s test results for the students at your school this year	86 (7)	96 (2)	89 (4)
Test results summarized for each student subgroup	77 (8)	91 (3)	60 (8)
Test results disaggregated by subtopic or skill	72 (9)	93 (3)	83 (6)

Notes:

Standard errors are in parentheses.

Response options included not at all useful, somewhat useful, moderately useful, and very useful.

Accountability

While standards and assessments have been widely used by states for the last two decades in an effort to provide more coherence to the instructional programs offered in schools, No Child Left Behind went beyond specification of standards and assessments to include accountability

mechanisms. Annual yearly progress targets are set by states and specify the percentage of students in each school that must meet proficiency in each tested content area. Schools that consistently meet AYP targets may be subject to rewards, and while those that do not meet targets face sanctions. After several years of consistent failure to meet AYP standards, schools can be subject to reconstitution or closure.

In order to better understand the impact of the AYP targets and accompanying rewards and sanctions, we asked superintendents, principals, and teachers a number of questions about their perceptions of AYP and the impact of their state's accountability system. For these questions, we found little to no differences among elementary and middle school teachers. Consequently, our tables in this section report on all teachers in these groups.

Reported Confidence in Meeting AYP. We asked superintendents and principals about their confidence in making future AYP targets. Majorities of district and school administrators reported feeling confident that they would meet their AYP targets for 2004-05. Among superintendents in the three sample states, superintendents in California were most confident that their district would attain its AYP targets in 2004-05 (Table 12). Interestingly, principals were more likely to report confidence in meeting 2004-05 AYP targets in Georgia and Pennsylvania than in California. In all three states, elementary school principals were more confident they could meet AYP targets than their middle school colleagues.

Despite high levels of confidence that they could meet short-term goals, only approximately one-third of superintendents in all three states believed they could attain their AYP targets for the next five years. This is not surprising given the fact that schools in all three states face sharp increases in the percentage of students required to be proficient in coming years (Figures 2 and 3). Similarly, fewer principals in all three states reported confidence in meeting future AYP targets compared to the current-year targets. However, they tended to be more confident than superintendents in their state.

Other survey questions as well as our case study interviews with administrators provide some insight into why most administrators are skeptical that they will meet future AYP targets. The vast majority of administrators expressed confidence that they could meet mandatory test participation rates and their states' "additional indicator." Therefore, concerns about meeting future AYP targets are likely attributable to administrator skepticism about their ability to meet

student proficiency targets, including requirements that students in special education and English learners meet the same targets as their grade-level peers.

Table 12.
Percentage of Superintendents and Principals Agreeing to Statements of Confidence in Meeting AYP

	California	Georgia	Pennsylvania
My district/school can attain the AYP targets in the 2004-2005 school year			
Superintendents	88 (6)	69 (11)	58 (15)
Middle School Principals	66 (10)	93 (4)	74 (17)
Elementary School Principals	72 (9)	100	93 (4)
My district/school can attain the AYP targets for the next five years			
Superintendents	29 (12)	35 (13)	39 (15)
Middle School Principals	44 (10)	71 (8)	49 (15)
Elementary School Principals	44 (11)	87 (6)	51 (10)

Notes:

Standard errors are given in parentheses.

Response options included strongly agree, agree, disagree, and strongly disagree.

The percentages in the table represent the combined responses, agree, strongly agree.

Figure 2.
Annual Measurable Objectives for Reading/ELA, by State (2002-2014)

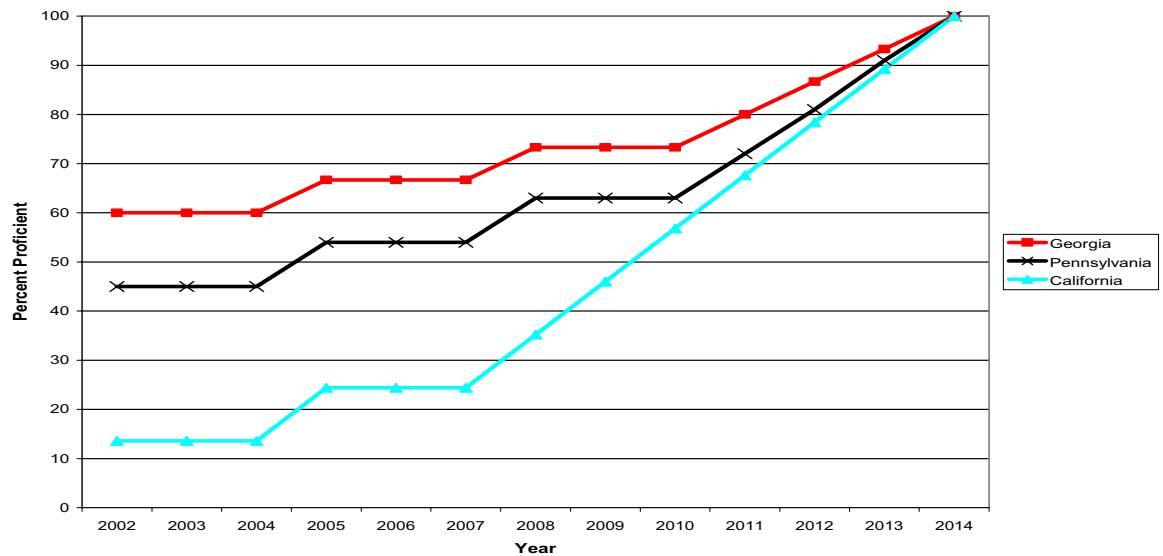
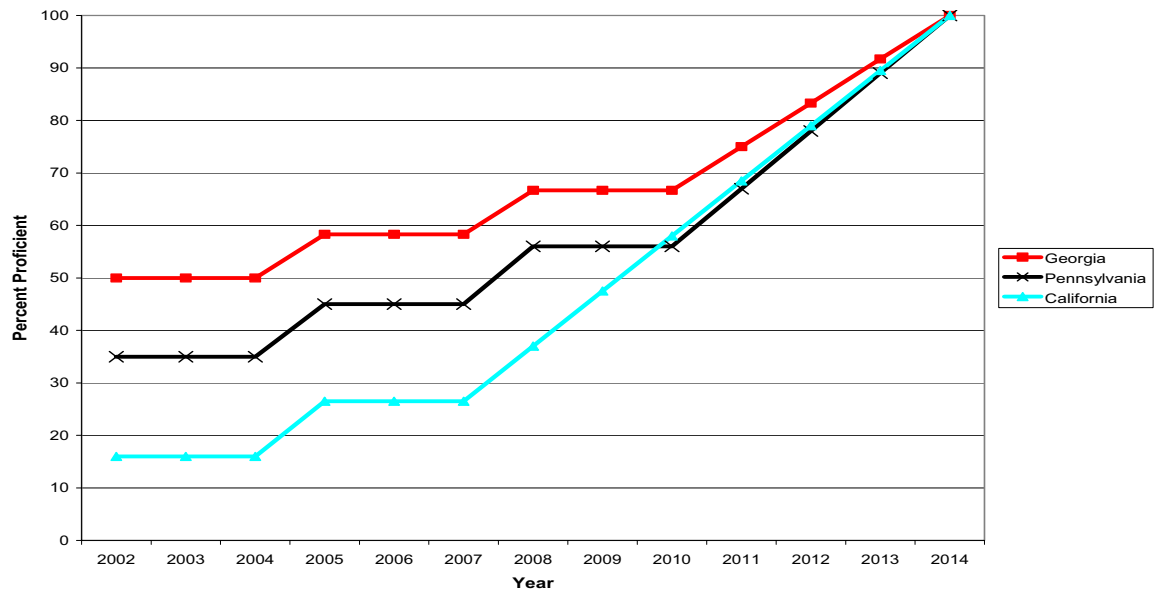


Figure 3.
Annual Measurable Objectives for Mathematics, by State (2002-2014)



When interviewed, many administrators in our case study schools expressed skepticism that high percentages of students with special needs could meet AYP targets. Not surprisingly, the vast majority of superintendents believe that special education students should not be included in AYP calculations. Similarly, the vast majority of principals reported that the system of accountability does not allow sufficient flexibility for meeting the needs of students in special education programs and English language learners (Table 13).

Perceptions Regarding Validity of AYP. Superintendents and principals were asked whether or not they agreed that their district's or school's AYP status accurately reflects the overall performance of their students (Table 14). Responses varied by state: more superintendents in California (60 percent) believed AYP status accurately reflected students' performance, compared to superintendents in Georgia (44 percent) and Pennsylvania (30 percent). Among principals, responses varied by school level. In each state, elementary school principals were more sanguine about the validity of AYP status than their middle school peers.

Table 13.
Percentage of Superintendents and Principals Agreeing to Statements about the Inclusion of Students with Special Needs in AYP Calculations

	California	Georgia	Pennsylvania
Special education students should not be included in AYP calculations			
Superintendents	83 (10)	92 (4)	99 (2)
The system of accountability does not allow sufficient flexibility for meeting the needs of special education students			
Principals	82 (6)	85 (4)	91 (4)
The system of accountability does not allow sufficient flexibility for meeting the needs of English learners			
Principals	94 (3)	87 (4)	84 (6)

Notes:

Standard errors are given in parentheses.

Response options included strongly agree, agree, disagree, and strongly disagree.

The percentages in the table represent the combined responses, agree, strongly agree.

Table 14.
Percentage of Superintendents and Principals Agreeing that District/School AYP Status Accurately Reflects Overall Performance of Students

	California	Georgia	Pennsylvania
Superintendents	60 (12)	44 (14)	30 (14)
Middle School Principals	55 (12)	46 (8)	43 (13)
Elementary School Principals	63 (10)	77 (6)	62 (10)

Notes:

Standard errors are given in parentheses.

Response options included strongly disagree, disagree, agree, and strongly agree.

Administrator's responses at both level varied based on the AYP status of their school or district (Table 15). Principals of schools that met AYP were more likely to report that their AYP status accurately reflected the overall performance of their school. This was reflected in the responses of principals in California where 67 percent of principals whose schools met AYP supported the validity of their AYP status compared to 47 percent that did not meet AYP, and was especially true in Georgia (80 percent compared with 2 percent) and in Pennsylvania (61 percent compared with 0 percent). Similarly, more superintendents of districts that met AYP

targets believed that AYP reflected the overall performance of their students than did superintendents in districts that failed to meet AYP targets.

Table 15.
Superintendents’ and Principals’ Views on the Validity of Their AYP Status Disaggregated by District/School AYP Status

	California		Georgia		Pennsylvania	
	Met AYP	Did not meet AYP	Met AYP	Did not meet AYP	Met AYP	Did not meet AYP
Superintendents	68 (12)	0	93 (6)	12 (7)	45 (18)	0
Principals	67 (12)	47 (16)	80 (5)	2 (2)	61 (8)	0

Notes:

Standard errors are given in parentheses.

Response options included strongly agree, agree, disagree, and strongly disagree.

The percentages in the table represent the combined responses, agree, strongly agree.

Compared to survey responses from the previous year, there seemed to be a general trend toward increased support for the validity of AYP status among administrators at the district and school level. And while last year’s survey results revealed a sharp contrast between the administrators’ perceptions of the validity of state test scores compared to AYP status (administrators consistently reported that test scores were more valid than AYP status) this contrast was less apparent in this year’s data.

Responses to NCLB Incentives. We asked district and school administrators whether they are focusing more on improving student achievement due to pressure to meet AYP targets. Overall, most administrators reported that pressure to make AYP caused them to focus more on improving student achievement; although administrators in California were less likely to report increased attention than their colleagues in Georgia and Pennsylvania (Table 16). This variation between states may be due to the fact that California instituted an accountability system prior to the passage of NCLB. As a result, AYP may not have had such an immediate effect on staff attention to issues of student achievement.

Similarly, we asked teachers whether they are focusing more on improving student achievement due to pressure to meet the AYP target and whether they considered rewards or sanctions for their school to be a strong personal motivator. In all three states, over 75 percent of teachers reported that they are focusing more on improving student achievement due to AYP pressure, particularly in Georgia where 84 percent of teachers reported this (Table 17). Many

teachers did not consider school rewards and sanctions to be strong motivators—approximately one-third of teachers in Pennsylvania and California agreed that rewards and sanctions motivated them.

Table 16.
Percentage of Superintendents and Principals Agreeing That Pressure to Make AYP Focuses Attention on Improving Student Achievement

	California	Georgia	Pennsylvania
Superintendents	43 (12)	67 (13)	84 (9)
Middle School Principals	44 (10)	73 (8)	53 (14)
Elementary School Principals	58 (11)	58 (9)	68 (10)

Notes:

Standard errors are given in parentheses.

Response options included strongly disagree, disagree, agree, and strongly agree.

However, the percentage of teachers in Georgia that found rewards and sanctions to be a strong motivator was significantly higher than in the other states—53 percent. The high teacher response we found in Georgia may in part be because Georgia is providing rewards for schools that consistently make AYP and sanctioning non-Title I schools that are identified for improvement. In Georgia, students in non-Title I schools identified for improvement are eligible to transfer schools, though transportation is likely not required to be provided by the district and schools can deny a transfer based on capacity. Further, non-Title I schools in the second year of needs improvement status are required to offer some sort of tutoring or extended time, although the districts do not have to provide the option of allowing students to receive assistance from an outside (i.e. non-district) provider. In contrast, California and Pennsylvania only sanction Title I schools.

We investigated whether teachers in Title I schools were responding more to AYP and rewards/sanction than teachers in non-Title I schools (Table 18). Teachers in Title I schools were more likely to report a greater focus on student achievement due to AYP than teachers in non-Title I schools in California and Georgia. Similarly, teachers in Title I schools were more likely to agree that rewards or sanctions is a strong personal motivator than teachers in non-Title I schools in California and Georgia.

Table 17.
Percent of Teachers Agreeing or Strongly Agreeing with Statements about Accountability Pressures

	California	Georgia	Pennsylvania
Because of pressure to meet the AYP target, I am focusing more on improving student achievement at my school	77 (3)	84 (2)	79 (2)
The possibility of my school receiving rewards or sanctions is a very strong motivator for me	29 (3)	53 (2)	33 (3)

Notes:

Standard errors are given in parentheses.

Response options included strongly disagree, disagree, agree, and strongly agree.

Table 18.
Percentage of Teachers Agreeing or Strongly Agreeing with Statements about Accountability Pressures, by School Title I Status

	California		Georgia		Pennsylvania	
	Title I	Non-Title I	Title I	Non-Title I	Title I	Non-Title I
Because of pressure to meet the AYP target, I am focusing more on improving student achievement at my school	82 (3)	64 (4)	87 (2)	79 (3)	80 (3)	78 (5)
The possibility of my school receiving rewards or sanctions is a very strong motivator for me	33 (3)	20 (5)	57 (2)	47 (3)	33 (3)	31 (7)

Notes:

Standard errors shown in parentheses.

Response options included strongly disagree, disagree, agree, and strongly agree.

Perceptions of Impact. We asked superintendents, principals, and teachers a number of questions regarding whether the state’s accountability system changed a variety of factors at their district or school for the better, the worse, or not at all (Table 19). Principals and administrators were overwhelmingly positive in their reports of accountability’s effects on several important changes related to teaching and learning. Both district and school leaders reported positive changes related to staff focus on student learning, students’ learning of important skills, the academic rigor of the curriculum, and coordination of mathematics curriculum across grades. Over 50 percent of principals in all three states (59 percent in Georgia, 73 percent in California, and 65 percent in Pennsylvania) reported that the state accountability system had been beneficial for students in their school. We also asked about changes related to relationships between

teachers and students (or principals and teachers), parent involvement, and the coordination of science curriculum across grades. In each of these cases the majority of administrators reported no change.

In contrast, the majority of district and school leaders reported that staff morale had changed for the worse due to the state’s accountability system, with the exception of principals in Georgia who were less likely to report negative effects on staff morale. Superintendents were particularly likely to report negative changes in principal morale.

Table 19.
Percentage of Administrators Reporting Positive Changes in Their School/District as a Result of the State’s Accountability System

	California		Georgia		Pennsylvania	
	Changed for better	Changed for worse	Changed for better	Changed for worse	Changed for better	Changed for worse
Staff focus on student learning						
Superintendents	68 (12)	0	84 (8)	0	87 (8)	12 (8)
Principals	80 (7)	2 (1)	76 (5)	2 (2)	67 (6)	6 (2)
Students’ learning of important skills ³						
Principals	63 (9)	2 (1)	67 (7)	0	50 (7)	9 (4)
Academic rigor of the curriculum						
Superintendents	61 (12)	2 (2)	76 (10)	0	61 (15)	9 (8)
Principals	64 (9)	10 (5)	55 (11)	1 (1)	61 (7)	2 (2)
Coordination of mathematics curriculum across grades						
Superintendents	74 (10)	0	50 (14)	2 (2)	76 (14)	2 (2)
Principals	54 (8)	0	50 (8)	0	78 (6)	1 (1)
Morale of the district/ school staff						
Superintendents	0	77 (11)	12 (11)	76 (13)	10 (9)	77 (12)
Principals	12 (4)	55 (10)	19 (5)	32 (4)	9 (5)	52 (8)

Notes:

Standard errors are given in parentheses.

Response options included changed for the worse, did not change due to accountability system, and changed for the better.

³ Superintendents were not asked this question.

Teachers were also asked many of the same questions about the impact of the state’s accountability system on their school and their teaching (Table 20). Teachers were less likely to report positive changes to the state’s accountability system than were superintendents and principals. However, many reported positive changes due to accountability.

Table 20.
Percentage of Teachers Indicating Various Changes in Their School
as a Result of the State’s Accountability System

	California		Georgia		Pennsylvania	
	Changed for better	Changed for worse	Changed for better	Changed for worse	Changed for better	Changed for worse
The principal’s effectiveness as an instructional leader	31 (4)	11 (2)	45 (2)	9 (1)	63 (3)	11 (2)
Teachers’ general focus on student learning	46 (4)	10 (2)	60 (3)	5 (1)	42 (3)	9 (2)
Teachers’ relationships with their students	23 (3)	14 (3)	34 (3)	7 (1)	15 (2)	10 (2)
Morale of the school staff	11 (2)	48 (4)	19 (2)	42 (3)	6 (1)	64 (3)
Students’ learning of important skills and knowledge	37 (4)	8 (2)	45 (2)	6 (1)	29 (3)	9 (1)
Students’ focus on school work	23 (3)	9 (2)	32 (2)	8 (1)	14 (2)	10 (2)
Academic rigor of the curriculum	43 (4)	15 (3)	45 (2)	12 (1)	30 (3)	24 (3)
My own teaching practice	44 (4)	9 (2)	58 (3)	4 (1)	38 (3)	10 (2)

Notes:

Standard errors shown in parentheses

Response options included changed for the worse, did not change due to accountability system, and changed for the better.

In general, teachers in Georgia were most likely to attribute positive changes to the state’s accountability system compared to teachers in California and Pennsylvania. For instance, sixty percent of teachers in Georgia reported the state accountability system changed teachers’ focus on student learning for the better, compared with 42 percent of teachers in Pennsylvania and 46 percent in California. Over half of teachers in Georgia reported that their own teaching practice had changed for the better due to the state accountability system, compared with 38 percent of teachers in Pennsylvania and 44 percent in California. However, the majority of teachers in Pennsylvania (63 percent) reported that the state accountability system had improved their principal’s effectiveness as an instructional leader, compared with 45 percent in Georgia and 31 percent in California.

In California and Georgia, over 40 percent of teachers reported that the academic rigor of the curriculum had improved. Smaller percentage of teachers reported that the accountability system had an impact on students' focus on work. Teachers in Georgia were most likely to report a positive change on students' focus (32 percent, compared with 14-23 percent), perhaps because Georgia had adopted promotion gates for students (i.e., grades at which students must pass the state test to be promoted) as part of the accountability system.

More teachers reported positive changes than negative changes due to the accountability system, with one striking exception. Over 40 percent of teachers in all three states (42 percent in Georgia, 48 percent in California, and 64 percent in Pennsylvania) reported that the state accountability system had changed teachers' morale for the worse (similar to what we found with administrator reports). Interestingly, across all three states teachers in schools that made AYP were just as likely if not more likely to report this negative impact on morale compared with teachers in schools that did not make AYP.

While many teachers reported some important positive changes for students due to the state accountability system, it is interesting that relatively few agreed that overall the state's accountability system has been beneficial for their students—approximately one-third in California; 29 percent in Pennsylvania; and a little over half in Georgia (Table 21). In each state, teachers were substantially less likely to report that the system was beneficial for their students compared to principals. Many teachers also reported a disconnect between their personal approach to teaching and learning and the state accountability system. Only about 30 percent of teachers in Pennsylvania and California agreed that the state accountability system supported their personal approach to teaching. Teachers in Georgia tended to report higher levels of buy-in to the system—52 percent reported that the accountability system supported their personal approach.

Some reasons for some of these lower levels of support for the accountability system may be that a majority of teachers in the states (over 85 percent) believed that the state system leaves little time to teach content not on the test. A smaller but sizable proportion of teachers (43-51 percent) reported that high-achieving students are not receiving appropriately challenging curriculum and instruction due to the state's accountability system. In most of our case study schools, teachers expressed concern and frustration that special education students were being "blamed" for the school's failure to meet AYP and that it was negatively impacting those

students' self-esteem. As one teacher put it, *“every finger is pointing at Special Education.”* Many teachers in California also expressed concern about testing limited English proficient students. Further, in ten of our case study schools, we heard that testing was placing undue stress and pressure on students. Schools in Georgia, where students must pass the state assessment to be promoted at certain grades, were particularly likely to talk about additional pressure on students.

Table 21.
Percentage of Teachers Agreeing or Strongly Agreeing
with Statements about Accountability Pressures

	California	Georgia	Pennsylvania
The state's accountability system supports my personal approach to teaching and learning	29 (3)	52 (2)	30(3)
The state's accountability system leaves little time to teach content not on the state tests	89 (2)	86 (1)	88 (2)
Overall, the state's accountability system has been beneficial for students at my school	29 (3)	53 (2)	29 (3)
As a result of the state's accountability system, high-achieving students are not receiving appropriately challenging curriculum or instruction	51 (3)	50 (2)	43 (3)

Notes:

Standard errors shown in parentheses.

Response options included strongly disagree, disagree, agree, and strongly agree.

In sum, many teachers reported some positive outcomes of state accountability under NCLB – improvements in teachers' focus on student learning and their own teaching practices. However, they also reported problems with the system such as too much pressure (particularly on certain subgroups of students and their teachers) and too much focus on teaching to the test. One of our case study teachers noted:

I personally feel like there's a lot more pressure, lot more pressure to cover a certain amount of material, get the kids ready for a test, and I think the kids lose out a lot in teachable moments. I feel like I'm under the gun especially this time of year trying to get everything covered when I know there's no way I'm going to cover everything. I mean I know this and yet I continue to try to cover everything.

Conclusion

This paper has provided a descriptive overview of educators' opinions about their state's standards, assessments, and accountability system. Our data show generally positive responses regarding standards (though less so in Pennsylvania where standards do not cover all grades), some concern on the part of administrators regarding their ability to meet AYP goals in the future, and both positive and negative perceptions about assessments and the impact of the entire states' accountability system.

Familiarity with standards among principals and teachers tended to be high, though slightly more so in mathematics than in science. Educators generally reported standards to be a useful tool in guiding instructions, but teachers expressed concerns about the amount of content included in standards each year. However, in Pennsylvania familiarity and perceived usefulness of the science standards was relatively low. This may be due to the fact that Pennsylvania has only adopted science standards in certain grades, and unlike California and Georgia, does not yet administer a state assessment in science. It will be interesting to track how these responses change as additional standards are adopted and assessment are administered.

Most superintendents viewed state test results a valid indicator of student progress in mastering standards and an accurate reflection of the achievement of students in their district. However, superintendents in districts that made AYP were substantially more likely to agree that test scores accurately reflected the achievement of students in the district than superintendents of districts that did not make AYP. Among all administrators surveyed, elementary school principals in Georgia were the most likely to view state test scores as an accurate indicator of student achievement. Teachers in Georgia were also the most positive in their assessment of state tests. Some of the less favorable responses from teachers may be due to the fact that a sizeable number of teachers reported problems with alignment between tests and their curriculum.

In addition to finding state test results a valid indicator of student progress and achievement, most superintendents believed that state test results are at least moderately useful in making decisions about their district's curriculum and instructional materials as well as guiding school improvement. Similarly, the vast majority of principals reported that assessment results are at least moderately useful in guiding instruction and school improvement.

Regarding AYP targets, most district and school leaders expressed confidence that they would meet current-year AYP targets, but far fewer superintendents and principals reported confidence that they could attain AYP targets for the next five years. Concerns about meeting future targets are likely attributable to administrator skepticism about their ability to meet student proficiency targets, especially for students with special needs. Not surprisingly, the vast majority of superintendents and principals believed special education students should not be included in AYP calculations.

Most superintendents, principals, and teachers reported that pressure to make AYP causes them to focus more on improving student achievement. In California and Georgia, teachers in Title I schools were more likely to report greater focus on student achievement due to AYP than their colleagues in non-Title I schools.

Both district and school leaders reported important changes related to teaching and learning due to their state's accountability system including increased staff focus on students learning, more students learning important skills, improved academic rigor of the curriculum, and increased coordination of mathematics curriculum across the grades. Teachers were less likely to report positive changes to the state's accountability system than were superintendents and principals. However, many reported positive changes due to accountability such as increased focus on student learning and improvements in their own teaching practices. Teachers in Georgia were most likely to attribute positive changes to the state's accountability system when compared to teachers in California and Pennsylvania. More administrators and teachers reported positive changes than negative changes due to the accountability system, with one striking example. Larger percentages of administrators and teachers reported that the state accountability system had changed school staff morale for the worse.

When asked whether or not the system of accountability was beneficial for students, principals were significantly more likely to agree than teachers in each state. Teachers more general negative assessments may be associated with their reports that the state system leaves little time to teach content not on the test, and teachers' perceptions of negative effects of accountability pressures on students, particularly students with special needs.

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