This product is part of the RAND Corporation monograph series. RAND monographs present major research findings that address the challenges facing the public and private sectors. All RAND monographs undergo rigorous peer review to ensure high standards for research quality and objectivity.
Standards-Based Accountability Under No Child Left Behind
Experiences of Teachers and Administrators in Three States

Laura S. Hamilton, Brian M. Stecher, Julie A. Marsh,
Jennifer Sloan McCombs, Abby Robyn, Jennifer Lin Russell,
Scott Naftel, Heather Barney

Sponsored by the National Science Foundation
The research described in this report was sponsored by the National Science Foundation and was conducted by RAND Education, a unit of the RAND Corporation.

Library of Congress Cataloging-in-Publication Data
Standards-based accountability under no child left behind : experiences of teachers and administrators in three states / Laura S. Hamilton ... [et al.].
  p. cm.
  Includes bibliographical references.
  ISBN 978-0-8330-4149-4 (pbk.)

LB2806.22.S73 2007
379.1’580973—dc22
2007008952
Since 2001–2002, the work of public school teachers and administrators in the United States has been shaped by the standards-based accountability (SBA) provisions of the No Child Left Behind Act of 2001. NCLB requires each state to develop content and achievement standards in several subjects, administer tests to measure students’ progress toward these standards, develop targets for performance on these tests, and impose a series of interventions on schools and districts that do not meet the targets. Together, the standards, assessments, and consequences constitute an SBA system. Many states had such systems in place before NCLB took effect, but, since 2001–2002, every state in the United States has had to develop and implement an SBA system that met the requirements of the law, and its provisions have affected every public school and district in the nation.

In 2002, researchers at the RAND Corporation launched ISBA to gather information on how teachers, principals, and district superintendents are responding to the accountability systems that states have adopted in the wake of NCLB. The study was designed to identify factors that enhance the implementation of SBA systems, foster changes in school and classroom practice, and promote improved student achievement. This monograph provides descriptive information from the 2003–2004 and 2004–2005 academic years to shed light on how accountability policies have been translated into attitudes and actions at the district, school, and classroom levels. Future publications will present results of analyses to identify relationships between these responses and student achievement.

Study Methods

The ISBA study is being conducted in three states: California, Georgia, and Pennsylvania. These states were selected to represent a range of approaches to SBA and to provide some geographic and demographic diversity. The study uses a combination of large-scale, quantitative data collection and small-scale case studies to examine NCLB implementation at the state, district, school, and classroom levels. It focuses on elementary and middle school science and mathematics and is longitudinal in nature with
three waves of data collection, 2003–2004, 2004–2005, and 2005–2006. Data were collected using a combination of paper-and-pencil surveys, telephone interviews, and in-person visits. This monograph is based on results from descriptive analyses of survey and case study data collected in the spring of the 2004–2005 school year, with some reference to data collected in the previous school year.

At the state level, we conducted in-person interviews with education department staff and other state-level policymakers, and we gathered documents such as state content standards and technical reports on test quality. A representative sample of 27 districts was selected in each state in 2003–2004, and we gathered information from superintendents using both semistructured telephone interviews and surveys. In each state, 125 elementary and middle schools were randomly selected from the participating districts, and the principals as well as all teachers who taught mathematics or science to students in grades three, four, five, seven, or eight received paper-and-pencil surveys in the spring of each study year. In addition, we conducted site visits at 14 schools during the 2003–2004 year and 16 during the 2004–2005 year to gather richer information from teachers, principals, other school staff, and parents. The survey results presented are weighted to be representative of all districts and schools in each state. In this way, the monograph sheds light on the frequency of various responses, many of which have been observed anecdotally but not studied in a systematic way.

Findings

SBA is, of necessity, a top-down reform, and our findings provide information about educators’ responses at each level of the system.

State Accountability Systems Enacted in Response to NCLB Differed Across the Three States

All three states had developed and implemented accountability systems to comply with NCLB, but the details of these systems varied. Systems differed with respect to the content of the academic standards, the difficulty level of their performance standards, their choice of additional indicators, their methods for calculating adequate yearly progress (AYP) and their AYP trajectories, and their school and district support and technical assistance mechanisms, just to name a few areas. Many of the differences were related to pre-NCLB contextual factors, including the degree to which the state had already been engaged in SBA efforts prior to NCLB. For example, California, which had a preexisting accountability system that used a school-level measure of growth, chose to incorporate indicators from that system into AYP calculations, unlike the other states. Differences among the states were greater in terms of science standards and assessments than in mathematics.
Districts and Schools Responded to the New State Accountability Systems Actively and in Broadly Similar Ways, Despite State Differences

In all three states, majorities of school and district administrators described similar types of school-improvement activities. Most district superintendents reported aligning curricula with standards, providing technical assistance to help schools improve and offering a variety of professional development (PD) opportunities for principals and teachers. Principals also said that they took steps to ensure that instruction was aligned with state standards and with state assessments, and large numbers reported providing extra learning opportunities for low-performing students. Other common improvement strategies included promoting the use of student test results for instructional planning, implementing test preparation activities, and adopting interim or progress tests to provide more frequent assessment information. A relatively small number of schools increased instructional time on reading and mathematics. Georgia districts and schools were especially active in promoting science instruction and in adopting interim assessment systems compared with districts or schools in California and Pennsylvania. The emphasis on science instruction is consistent with the fact that, of the three states, only Georgia had in place a comprehensive system of science standards and assessments.

Of all the school-improvement activities reported by superintendents, three were described as the most important: aligning curriculum with state standards and assessments, using data for decisionmaking, and providing extra support to low-performing students. All of these responses, but particularly the first two, suggest that district actions are likely to be influenced by the specific content and features of the state standards and assessments.

Reported Changes at the Classroom Level Included Both Desirable and Undesirable Responses

Teachers noted a variety of ways in which NCLB influenced their instruction. Some of the reported changes, such as efforts to align instruction with standards and efforts to improve their own practices, suggest that NCLB has had some beneficial effects. At the same time, teachers described a number of responses that would probably be considered less desirable. For example, the reported changes included a narrowing of curriculum and instruction toward tested topics and even toward certain problem styles or formats. Teachers also reported focusing more on students near the proficient cut score (i.e., “bubble kids”) and expressed concerns about negative effects of the accountability requirements on the learning opportunities given to high-achieving students.

Educators Expressed Support for NCLB Goals but Had Concerns About Specific Features and Effects

Most superintendents, principals, and teachers expressed support for the idea of SBA, but, on average, the groups held different opinions about specific features of these
systems. For instance, most administrators thought that state test scores accurately reflected student achievement, a sentiment that only a small minority of teachers shared. Similarly, administrators were more likely than teachers to think that accountability pressures led to improvement in curriculum and student learning. Teachers were particularly attuned to lack of consistency between state accountability requirements and local resources and programs. Teachers associated the implementation of SBA with reduced morale and expressed concerns about negative effects on their teaching. Still, teachers’ reports suggested that the emphasis on state standards and assessments has led to some beneficial outcomes. Teachers reported an increased focus on student achievement in their schools as a result of NCLB, as well as increased curriculum coordination and increased rigor of the school’s curriculum.

Several Perceived Hindrances May Stand in the Way of Effective Implementation of NCLB

Both teachers and administrators identified a variety of factors that they believed adversely affected their efforts to meet NCLB goals. Most administrators thought that inadequate funding was hampering their school-improvement efforts, and many said that they did not have adequate numbers of highly qualified teachers in mathematics or science. Administrators and teachers alike saw insufficient instructional time and insufficient planning time as barriers. In addition, teachers reported that students’ lack of basic skills, inadequate support from parents, and student absenteeism and tardiness hampered their efforts. One of the underlying principles of NCLB is that educators are expected to promote high levels of achievement despite these conditions, but our findings suggest that large numbers of educators consider this expectation unrealistic.

Implications

These descriptive results suggest that NCLB is affecting the work of superintendents, principals, and teachers in a variety of ways, both positive and negative. The findings from this study suggest a need for clearer information about alignment, capacity-building efforts to help educators engage more effectively in school improvement, and more valid measures of teacher and school effectiveness.

Alignment Efforts at All Levels Need to Be Improved

The need for alignment among standards, assessments, and curriculum was a recurring theme among participants in this study. Teachers, in particular, expressed concerns that state assessments were not well aligned with state standards and described efforts to ensure that their own instructional efforts aligned with the assessments that the state had produced. Although all states have taken steps to measure alignment between tests and standards, evaluations of these efforts have suggested that most state tests fail to
capture all of the content in the standards, so teachers’ lack of confidence in the process is not surprising. States need to communicate to educators the ways in which tests do and do not capture what is in the standards and should take steps to promote better alignment. States and districts also need to assist teachers in their efforts to adopt instructional approaches that are well matched to the standards without leading to excessive test preparation. It is worth noting that many of the actions that superintendents, principals, and teachers reported are likely to lead to curriculum and instruction that reflect the particular features and content of the state standards and tests, so it is critical that states ensure that these elements of their accountability systems are of high quality and well suited to the purpose of guiding instructional improvement.

Teacher and Administrator Capacities for Improvement Need to Be Developed
Superintendents, principals, and teachers noted several areas in which they needed additional assistance. In particular, teachers expressed a need for guidance to help them improve their instruction of English language learners (ELLs) and students with special needs. Assistance designed to help teachers and other school and district staff use data for decisionmaking, devise strategies for improving the learning of low-performing students, and identify effective instructional practices would also be beneficial for improving the impact of SBA.

Better Methods for Measuring School and Student Performance Should Be Explored
The responses of teachers and principals in this study echo criticisms of NCLB’s method for measuring progress that a number of prominent individuals and groups have lodged. Educators at all levels reported that the 100-percent proficiency target was unrealistic. Many of the teachers whom we interviewed cited as unfair the fact that AYP is defined primarily in terms of status rather than progress over time, reflecting their view that it fails to give credit for all of the learning gains that teachers and other educators might promote. Moreover, the fact that AYP is defined in terms of proficiency creates incentives to change instruction in ways that might not be desirable, such as by focusing on students near the proficient cut score to the detriment of students performing below or above that level. As an alternative, states could be permitted to explore alternatives that rely on measuring growth and that take into account movement at all points along the score scale. Some states are already making progress toward such a change by experimenting with growth-based measures as part of a U.S. Department of Education pilot program, though that program still requires 100-percent proficiency by 2014 and requires status-based measures to continue to be used. States’ efforts to adopt growth measures should be supported but should also be carefully examined to ensure the quality of measurement and that the nature of incentives they create are consistent with the goals of improved student learning.
Teachers’ Concerns Should Be Examined and Addressed
In general, teachers expressed less support for NCLB than administrators did. Because the effects of NCLB are dependent on what occurs in the classroom, it is critical to ensure that teachers are responding to state accountability requirements in educationally productive ways. Teachers are in a unique position to see the effects of accountability policies on teaching and learning, and it is important to take their concerns seriously when considering revisions to those policies.

Conclusion
This monograph suggests reasons for both optimism and concern: States are nearing full implementation, but state-to-state differences in the specific features of each accountability system are substantial. SBA is leading to an emphasis on student achievement, and many educators laud this focus, but teacher and administrator responses suggest that a single-minded emphasis on student proficiency on tests has some potentially negative consequences such as a narrowing of curriculum and a decline in staff morale. One of the key challenges facing those who are responsible for designing, implementing, or responding to SBA systems is to identify ways to increase the prevalence of desirable responses and minimize the undesirable ones. Future reports from the ISBA project will provide additional information to help policymakers and educators make well-informed decisions about SBA system development and implementation.