This report provides a brief overview of efforts to establish standards, assess those standards, hold schools and students accountable for meeting the standards, and provide interventions to students who do not meet the standards. It argues that holding students accountable for passing standards' assessments is premature, that teachers should be trained to teach new standards-based curricula, and that interventions should be in place to help students who fail the assessments of the standards. The report suggests that standards-based reform is doomed to failure unless states place the horses before the cart. States should use their newly established, more rigorous standards to develop interventions when the standards are not met. The following sections of the report are a synthesis of articles from newspapers, sources found on the world wide web, and other resources that address the prevalent issues of the standards-based reform movement. (Contains 63 references.) (DFR)
**DO WE HAVE THE CART BEFORE THE HORSES?**

by Patricia Cloud Duttweiler  
and Undine McEvoy

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**INTRODUCTION**

This *Special Report* is the first of a series of four syntheses on the standards-based reform that is sweeping the country. Newspapers and journals across the nation are publishing articles about educational standards and their impact on schools and students. In most of the articles, the issue of higher standards is invariably coupled with (a) the necessity for assessing students' achievement to determine if they are meeting the higher standards and (b) developing ways to hold students, schools, teachers, and principals accountable for meeting the standards. Trailing behind the standards cart full of weighty assessment and accountability requirements is a team of intervention horses called Professional Development and Student Academic Support. These interventions, designed to prepare teachers to teach and to provide learning opportunities to help students achieve the higher standards, are rarely mentioned before assessment and accountability and are usually not part of the picture at all. For example, an article in *Education Week on the WEB* (Olson, 1998) described accountability as “the third side of an education triangle that also includes standards and assessments,” completely ignoring the critical prior role of interventions.

This paper suggests that standards-based reform is doomed to failure unless states place the horses before the cart. States should use their newly established, more rigorous standards to develop interventions that provide teachers with the skills and knowledge required to teach to the higher standards and students with additional opportunities to achieve the higher standards. These interventions should be in place for a sufficient time before accountability measures are enforced. The following sections are a synthesis of articles from newspapers, sources found on the world wide web, and other resources that address the prevalent issues of the standards-based reform movement: establishing standards, assessing those standards, holding schools and students accountable for meeting the standards, teaching to the standards, and providing interventions to students who do not meet the standards.
Standards-Based Reform

The push for standards-based school reform is the predominant issue facing today's public schools. At the 1996 National Education Summit, 44 governors and 50 corporate CEOs joined together with a commitment to the following set of priorities fundamental to achieving excellence in the nation's system of K-12 education (Achieve, 1998):

- High academic standards and expectations for all students.
- Tests that are more rigorous and more challenging, to measure whether students are meeting those standards.
- Accountability systems that provide incentives and rewards for educators, students, and parents to work together to help students reach these standards.

In 1996, only 14 states had developed content standards in all four of the core curriculum areas (mathematics, English, science, and history/social studies). By 1998, almost every state had implemented, or was in the early stages of implementing, academic standards for their students in math and reading.

Reasons for Establishing Standards

Three negative perceptions have had a major influence in the move to establish state standards in core subject areas: the lack of accountability for students and schools, the poor showing of students on national assessments and international comparisons, and inequity within the educational system in the quality of education offered to students.

Lack of Accountability—Studies on the relationship between school finances and test scores have shown the lack of a systematic link between spending and improved achievement. In spite of tremendous increases in public school funding, it has become increasingly evident that the typical high school graduate lacks the skills needed to succeed in work or college. About half the new freshman entering California State University (CSU) at all 22 campuses needed remedial help in math and English according to an article in the San Francisco Chronicle (Olszewski & Hamburg, 1998). The number of students needing remedial help was the highest since 1989 when CSU started gathering and reporting this data. This situation is echoed in the findings of a new survey from Public Agenda that indicated 68% of a sample of employers and 52% of a sample of college professors believe the typical high school graduate lacks the skills needed to succeed in work or college (Public survey, 1998). If financial inputs are to be more effective in improving student learning than they have been in the past, many believe the nation's public schools must be held accountable for higher standards and higher expectations (Betts, 1998).

Poor Showing on Assessments—The National Goals Report: Building a Nation of Learners (National Education Goals Panel, 1998), suggests another major reason for the standards movement. On the 1996 National Assessment of Educational Progress (NAEP, 1998), the percentage of eighth-grade students who met the mathematics and science standards fell well below the 50% level. In Minnesota, the highest performing state on the mathematics assessment, only 34% of the students achieved the Goals Panel's standard of proficient or above. In Maine, the highest performing state on the science assessment, only 41% of the students met the Goals Panel's standard. The situation is even worse in the 14 southern states monitored by the Southern Regional Education Board (Cooney, 1998) where fewer than 25% of eighth-grade students scored at the proficient or above level in mathematics.

Comparisons on mathematics and science from the 1991 International Assessment of Educational Progress (IAEP, 1998), revealed that the average scores of U.S. 13-year-olds were significantly lower in both mathematics and science than those of students in nine other countries. In 1995, the Third International Mathematics and Science Study (TIMSS, 1998) tested half a million students in 41 countries, including six of the United States' chief economic competitors or trading partners: Japan, Germany, Canada, Korea, Singapore, and Hong Kong. Although U.S. eighth-graders scored above the international average in science, students in 13 other countries had higher average scores. In mathematics, U.S. eighth-graders scored higher than students in seven countries, not significantly different than students in 13 countries, and lower than students in 20 coun-

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(Amended: 2023-03-28)
tries. The students of five nations outperformed U.S. students in both mathematics and science (The National Goals Panel, 1997).

Inequity Among Schools—As the Christian Science Monitor (McLaughlin, 1998) pointed out, a noble aspect of the standards movement is that it aims to ensure all students reach high goals. Too often there are inequities between schools in both funding and academic resources, even between those within the same district. This means that some students have the advantage of good teachers, rigorous curriculum, new technology, and well-maintained buildings while other students suffer disadvantages within their schools over and above any they may experience outside the school. Until recently, most schools and school districts enjoyed considerable autonomy in creating their own curriculum. State curriculum guides were vague to the point of confusion, and schools could argue that standardized tests assessed material that was not part of the schools’ curriculum while the tests failed to capture what was taught in their classrooms. Interschool and interdistrict variations in curriculum content created real hardship for students who moved from one school to another, especially for those students from lower socioeconomic families who tend to have a higher mobility rate than other students (Betts, 1998).

For example, according to an article in The Oregonian (Hammond, 1998b), “school districts in the Portland area differ markedly in the level of standardization and academic rigor in their middle schools.” Oregon’s new benchmarks are intended to raise standards to equip each student with essential skills. Among a host of imminent requirements is one that will require every student to gain proficiency in a second language. Many of Portland’s middle schools, however, have not been offering any second-language instruction. Portland school district officials boasted during the summer that twelve of Portland’s middle schools would teach Spanish or another language to some of their students the 1998-99 academic year. This leaves five middle schools in the city in which the students will not have an opportunity to take a foreign language needed to meet Oregon’s new benchmark. A similar situation exists with offering algebra in the middle schools. As the director of student achievement for Portland middle schools Peter Hamilton said, “By the very nature of standards, we are being asked to bring some commonality to our schools...if we have standards that require kids to be exposed to higher-level math, then we don’t want to offer higher-level math only in some schools but not in others.”

Difficulties in Establishing Standards

The difficulties in establishing academic standards are illustrated by the results of appraisals of states’ standards by three national organizations: the American Federation of Teachers (AFT, 1998), the Council for Basic Education (CBE), and the Thomas B. Fordham Foundation. The three nonprofit organizations reviewed state standards and issued grades based on their reviews. The reviews differed, in some cases markedly, in regard to which state’s standards were clear, concise, applicable, and based on good practice. This has led to some confusion among state education officials who wonder exactly how useful their state’s standards are.

The reason for the confusion is that the reports graded different aspects using different sets of criteria. The AFT graded the clarity and specificity of the standards, not the overall quality or rigor of the content; Fordham and CBE made judgements, often contradictory, about rigor. In addition, the underlying values of the appraisals differed. CBE preferred standards organized around grade clusters, while the AFT stated a preference for standards for each grade. While the CBE gave a high rating to standards that required students to relate literary texts to their own lives, Fordham deducted points for this. Both CBE and AFT required that standards define expectations for all students, Fordham did not include such a requirement. In addition, who reviewed the standards made a difference. CBE developed models of standards using national documents, advisory councils, and trained teams of teachers to determine how faithfully the states’ standards matched the CBE benchmarks. Fordham used a few content experts for each discipline to summarize basic strengths and weaknesses of state documents (Pimentel & Arsht, 1998).

A report commissioned by the National Education Goals Panel (Archbald, 1998) compared and contrasted the evaluation methods and findings from the three reviewing organizations. The report found the following differences between the reviews: (1) there is no standard language or model for content standards, (2) there is a lack of consensus for how state standards should be organized, (3) there is no agreement on how specific state standards should be, and (4) there is no common
understanding of how standards are supposed to transform instruction.

Despite these differences, there were some general similarities found between the reviews. All reviews noted that the quality of state standards varied greatly from state to state. Regardless of the criteria used for determining quality, standards differed so much that all three reviews gave some states A's and other's F's. All reviewers said that most states need to improve their standards, and each report singled out some states as having model standards that should be duplicated. In addition, all reviews were concerned with the extent to which the standards were clear and specific enough to embody a core of academic content. The similarities notwithstanding, the differences in the appraisals among the three are enough “to make state leaders either throw up their hands in utter bewilderment or embrace a high mark and ignore the others,” according to Education Week on the WEB (Pimentel & Arsht, 1998).

Assessing Standards

Many states and districts in the country are implementing and linking assessments to the standards to determine if students and schools are meeting them. States vary in the grades they test and in the methods of assessment. According to the AFT Making Standards Matter 1998, 27 states rely on commercially developed standardized tests to measure and report on student achievement; some states are creating their own assessments to test the standards. While Texas administers its Texas Assessment of Academic Skills (TAAS) to grades 3, 4, 5, 6, 7, 8, and 10, most states restrict their testing program to fewer grades. For example, Maryland and Virginia test grades 3, 5, and 8. Pennsylvania tests math and reading in grades 5, 8, and 11 and writing in grades 6 and 9. Nevada tests students in grades 4, 8, and 10 in English, math, and science; writing at grade 8; and reading, writing, and math at grade 11 (AFT, 1998).

States rely primarily on two types of standardized tests: norm-referenced and criterion-referenced. Norm-referenced tests, such as the Iowa Test of Basic Skills, the California Achievement Test, and the Metropolitan Achievement Test, are designed to produce a rank order of students along a continuum of achievement from high to low. Student scores are compared to an original norm-referenced group in order to come up with a rank score. Criterion-referenced tests, on the other hand, report on how well students are doing relative to a predetermined performance level on a specified set of educational goals or outcomes included in the school, district, or state curriculum (Bond 1996). Some states have also added written short answer and essay tests; while some use portfolios to assess student achievement.

Florida adopted its “Sunshine Standards” in 1996 that spelled out what students should know at each grade level. School districts discovered that trying to integrate complicated benchmark standards into the curriculum was not an easy task, especially when new standards mean a change in the way student performance is reported. In Broward County, Florida, for example, new report cards for kindergarten through second grade evaluate students on a 1-3 scale on how well students master as many as 11 specific skills and concepts within each subject area. Middle school students receive both a letter grade and a notation from their teachers on whether students are achieving at, below, or above grade level for all courses (Reinhard, 1998).

Virginia initiated the Standards of Learning exams, which are the centerpiece of the new state curriculum, and tested 375,000 public school children in the spring of 1998. The Virginia Board of Education set passing marks for the 27 Standards of Learning exams that appear to be high in comparison with the performance of students who took the tests for the first time. On 10 of the 27 exams, the statewide average score among students tested was lower than the state’s passing mark. State and local school officials are questioning the reason for the poor performance. Some suggest that the tests are too hard, but many believe the first group of test-takers was simply poorly prepared and being tested, in some cases, on material they had not been taught. In some subjects, teachers are being asked to cover completely new material (Benning, 1998).

In the spring of 1998, most of the ninth graders in Chicago’s 74 high schools and nine transition centers participated in a pilot test of the Chicago Academic Standards Exams. The results showed that most of the ninth graders failed three out of four multiple-choice tests and would not meet new proposed promotion standards. While 75.8% of the students passed the English test, correctly answering half or more of the questions, only 42.7% passed the world history exams; 35.5% passed the biology test; and 25% passed the algebra exam (Martinez, 1998). In Massachusetts, which administers
some of the toughest tests in the country, Boston student test results released in the fall of 1998 revealed that 50% of the 10th-graders flunked the state math test and 40% of the eighth-graders failed the science portion (McLaughlin, 1998).

The Maryland School Performance Assessment Program (MSPAP) is unusual in that it measures not only what students know, but also how well they can apply that knowledge. The program is unusual in another way: it is designed to measure a school’s effectiveness rather than an individual student’s ability. The results of the 1998 MSPAP identified a continuing problem with progress in the state’s middle schools, especially in reading where only 25.5% of the students reached satisfactory (Maushard, 1998).

A number of studies have found that poor and minority students are performing worse than white, affluent students. In the largest standardized testing program in the nation, California administered tests to more than 4 million students in the spring of 1998. On this test, student achievement results in the four-county Sacramento area generally reflected the students’ socioeconomic status and English language abilities (DeFao & Engellenner, 1998). Using data from the National Assessment of Educational Progress, American College Test, Scholastic Aptitude Test, college enrollment, high school graduation rates, and other data, the Education Trust issued a report that revealed only 5% of the eighth-graders in high poverty schools were proficient in mathematics (Davidson & Toomer-Cook, 1998). In Massachusetts, failure rates on the state’s tough new standardized exams were disappointing high, but students in the wealthiest school districts performed best (Hart, 1998). Maryland has noted the generally lower performance of minority students and the wide gulf between students in high-poverty schools and students in more affluent schools (Maryland State Department of Education, 1998).

Accountability

Increasingly, states are holding schools accountable for educating all their students to measure up to the new, more rigorous standards. According to Quality Counts ’98: Make Performance Count (Education Week, 1998), at least 32 states and 34 urban districts now have accountability systems that provide rewards or sanctions for schools based, in part, on test scores. Tests have become a universal measure of success in public schools. Principals and teachers have received bonuses or been fired, students have been promoted or retained in their current grade, and high school students have graduated or been denied a diploma based on test results.

In California, the State Department of Education has proposed paying cash rewards of 5% to 10% of teachers’ annual salaries to schools with high or much improved scores. Schools that fail to do well could have their entire staffs transferred or face closure. In Washington, D.C., principals who do not raise their schools’ scores significantly have been told they may lose their jobs. Students who do not improve have been required to attend summer school or been retained in their current grade (Mathews, 1998). The Texas Assessment of Academic Skills (TAAS) is used to annually rate Texas public schools and districts as exemplary, recognized, acceptable, or low performing. Teachers’ evaluations are based, in part, on students’ TAAS results, and students who do not pass the test can be denied their diplomas (Brooks, 1998).

As part of one of the more aggressive reform efforts in the country, Maryland has been putting schools with lagging test scores on probationary status for the past five years. Eighty-nine schools are being monitored and in danger of being taken over by the state if they don’t show enough improvement. The threat of takeover, however, has carried little weight up to this point, as state officials only began in the fall of 1998 to draw up guidelines for when and how takeovers could happen (Argetsinger, 1998).

In North Carolina, 15 principals of struggling schools were threatened with suspension in 1997. In Cincinnati, principals’ pay is linked to school results, and in Kentucky, educators stand to gain financially when students do well on state tests, but face sanctions if they do not (Keller, 1998). Chicago has fired or transferred the entire staff of teachers, administrators, and counselors in about 100 schools with under-performance and hired all new educators. By 2004, Virginia will require students to pass six of 11 high-school tests in order to graduate (McLaughlin, 1998). This is the most recent piece in the state’s four year effort to raise academic standards and make schools more accountable for their students’ performance. This accountability effort includes linking a school’s accreditation to its test scores (Benning, 1998).
Portland, Oregon, has put the responsibility for student academic performance almost exclusively on the principals. At stake are their reputations, thousands of dollars in pay, and, in extreme cases, their jobs. This summer for the first time, every principal in the city had to state in exacting detail what specific student achievement gains their schools would deliver by the end of the 1998-99 school year. In addition, Portland also plans to link principals' base pay to student performance (Hammond, 1998a).

Teaching to Standards

While establishing and holding districts, schools, and teachers to clear and rigorous standards is appropriate, it is unrealistic to hold students accountable before teachers are prepared to teach to high standards. Some interesting results have been uncovered by the Tennessee Value-Added Assessment System (TVAAS), a statistical method of determining the effectiveness of school systems, schools, and teachers in sustaining academic growth for students (Sanders, 1998). Coupled with a statewide testing system in which students in grades 2-8 are tested each year in five subjects—mathematics, reading, language arts, science, and social studies—the TVAAS aggregates the student test data and provides a measure of the effects of the system, the school, and the individual teachers on the academic progress of student populations. The TVAAS—along with measures relating to promotion, attendance, and dropout rates at individual schools—was adopted as the basis for the state's new educational accountability system.

In addition to using the TVAAS database for assessment and evaluation purposes, it has been used to address a multitude of research questions. Some important findings include the following (Sanders, 1998):

- When populations of students change buildings, the expected loss in academic gain the first year after the change is large (averaging 15% to 30% across the state).
- Data has shown that some schools consistently show normal, and sometimes exceptional, academic progress for students of all academic abilities, indicating that those schools have successfully addressed the needs of all students.
- The single largest factor affecting the academic growth of students is the differences in the effectiveness of individual classroom teachers.

Sanders suggested that this last finding dwarfs the other factors. In a study on the effects of teacher effectiveness on later student academic achievement, the following startling results were found (Sanders, 1998):

- The effects of former teachers were measurable on subsequent academic achievement—the effects of third-grade teachers on students' fifth-grade mathematics scores was measurable.
- The effects of teachers appeared to be cumulative—at the extreme, a sequence of highly effective teachers for three years resulted in more than a 50% higher score in students’ fifth-grade mathematics achievement compared with three years of low-effectiveness teachers.
- As the level of teacher effectiveness increased, students of lower-achievement were the first to benefit, and only teachers of the highest effectiveness generally were effective with all students.
- Black students were overrepresented in the least effective teachers' classroom by about 10% and were underrepresented in the most effective teachers’ classrooms by a similar amount.

Along these same lines, a study of Texas school districts found that teacher preparation accounted for about 40% of the differences in students' reading and math achievement in all grades. The National Commission on Teaching and America's Future issued a report substantiating the Tennessee study (TVAAS), concluding that students learn more when their teacher knows more. The Commission strongly criticized the teaching profession, describing flawed preparation, unenforced standards, slipshod recruitment, unfocused professional development, and a system in which new teachers sink or swim on their own (Houtz, 1998). For example, although Colorado is considered a leader in rigorous testing and literacy requirements, the state's educators worry that teachers are not getting the training to teach the standards or to analyze the tests so they can help individual students meet the standards (Scanlon, 1998).

The importance of effective, well-trained teachers cannot be overstated, yet, teacher preparation and certification are not producing teachers with the ability to teach to the new, high standards. In the spring of 1998, 59% of Massachusetts aspiring teachers failed a new
mandatory test of their basic skills and subject matter knowledge. One-third of these college graduates failed a basic-skills section that state officials said could be passed by a reasonably well-educated 10th-grader (Houtz, 1998). In South Carolina, new teachers can enter teaching if they meet one of the easiest certification requirements in the country. Of 27 states using the National Teachers Exam, South Carolina’s requirement for passing the basic certification standard is lower than every state’s except Missouri and New Mexico. Teachers are allowed to teach with a score that is better than only the bottom five percent nationally (Barnett, 1998).

Compounding the problem of inadequate preparation, certification, and professional development, teachers’ attitudes have a serious effect on student learning. Harvard University Sociologist Christopher Jencks contends that while poverty is a factor in the achievement gap between white and black students, it is a modest one. A contributor to the gap is low teacher expectations for black students (Toch, 1998). Montgomery County, Maryland, school administrators believe that differing teacher expectations account for the gap in math scores between the county’s white and Asian students on the one hand and the county’s Hispanic and black students on the other. Yale University psychologist Edmund W. Gordon identified the need to change teacher expectations in Montgomery County back in 1990. He noted there was a pervasive perception that the attitudes and behaviors of some teachers were influenced by bias (Nakashima, 1998). Many teachers in Greenville, South Carolina, apparently share this bias. They are quoted as believing most of the lag in student test scores can be attributed to shortages of money and other circumstances beyond their control such as their students’ backgrounds (Barnett, 1998). Unfortunately, teachers’ beliefs that family background can inhibit learning lead to lowered expectations for some students.

What Happens to Students Who Fail?

Although attaching high stake results such as retention, remedial education, and graduation to new, mandated tests has become politically popular, the ability of such policies to improve the quality of education is still unclear and could ultimately do more harm than good without the proper supports in place for children (Archer, 1998). For example, in an article printed in the Federal Reserve Bank of New York Economic Policy Review (Betts, 1998), Julian Betts stated that “...far and away the most important determinant of how quickly students learn is the effort of students themselves.” Unfortunately, instead of looking at classroom or school practices when students are not achieving, this perspective places the blame for poor performance on the child rather than on the schooling he or she has encountered (Darling-Hammond, 1998).

There are those who believe that standards-based school reform is on a collision course with reality (Wolk, 1998). Half the states hold schools accountable and apply sanctions to those whose students fail to meet the standards and over a third of the states require students to score at designated levels on tests to get promoted and/or to graduate. As Wolk points out, this places minority, poor, and/or urban students in a kind of double jeopardy: the system that failed to educate them adequately now is punishing them for not being educated. Kids who have not been exposed to high standards, high expectations, highly trained teachers, and the curriculum on which the standards are based, are being tested and held accountable for knowledge and skills they have not had an opportunity to acquire (Wolk, 1998). In light of the Tennessee Value-Added research findings about the importance of the effectiveness of teachers, this is grossly unfair to students. The question that needs to be answered is, “How can we help all students to be successful, especially when new, tough standards, assessments, and accountability policies are being put in place”?

**Interventions for Teachers and Students**

**What is Needed Before Accountability?**

In Making Standards Matter 1998 (American Federation of Teachers, 1998), the report’s recommendations for improving the usefulness and effectiveness of standards included two recommendations pertinent to this discussion: one that called for providing all teachers with easy access to standards and clarifying materials and one that called for identifying struggling students early in their school careers and providing targeted academic assistance. The report contended that with “clear and rigorous standards to guide them, educators and other stakeholders can focus their energies and resources on improving the academic performance of our students.” The report continued, “states and districts can help all stu-
students reach the standards by making necessary resources and assistance available to those students in danger of failing."

All of the AFT's recommendations warrant careful consideration, but especially those two dealing with assistance for teachers and students. However, the recommendation for teachers falls short of what this paper advocates. It is unfair to hold teachers accountable for teaching standards they are not familiar with, are not prepared to teach, and for which they do not have adequate resources. Teacher preparation, certification, and professional development must be redesigned to produce teachers with the skills and knowledge to effectively teach to the new standards. Funding for professional development and the time to revise the curriculum must be a part of the new standards-based reform movement. Without training and time, teachers cannot change the curriculum to match the standards, and if what is being taught does not change, students will suffer (Scanlon, 1998).

Developing Effective Teachers

Changing Teaching: The Next Frontier from the National Foundation for the Improvement of Education (Maeroff, 1993) stated that "systemic change in American education cannot take place without improved professional development opportunities that lead to self-renewal for teachers." Professional development is crucial for teachers to acquire the knowledge, skills, and attitudes necessary to become proficient in using new strategies more appropriate for teaching to higher standards. Professional development should increase teachers' ability to use effective instructional practices that adapt to students with different learning styles, cultural backgrounds, and economic circumstances and that encompass both basic and higher-order thinking skills.

A considerable body of research exists on successful professional development programs, and a number of components have been identified as critical to fostering change in participants' knowledge, skills, and attitudes (Dutweiler, 1995). High quality professional development, according to the National Staff Development Council's (1994) Standards for Staff Development, requires ongoing programs with intensive follow-up and support which include growth-producing processes such as study groups, action research, and peer coaching. As Lewis (1995) points out, "the silver bullet will no longer suffice," and providing a few scattered days during the year for professional development is irresponsible. Professional development that makes a difference in the classroom is consistent, ongoing, challenging, and inclusive.

Teacher attitudes that should be fostered through professional development include a commitment to raise expectations for all children and a belief that teachers can make a difference in students' achievement (Swanson & Finnan, 1996). Highly effective teachers tend to believe that every student has innate potential waiting to be unleashed. Research indicates that when a teacher believes all students can learn and feels capable of teaching any student, chances are good that students will succeed (Omotani & Omotani, 1996).

A number of states and districts recognize that addressing teachers' knowledge, skills, and attitudes is crucial to meeting the standards. In Maryland, the State Superintendent of Schools, Nancy Grasmick, recognized that the common ingredient to low student performance in the state's testing program was poverty, acknowledging that a wide gulf separates low- and high-performing school systems. She stated that aggressive measures, such as the School Accountability Fund for Excellence, are putting critical resources where they are needed most—in high-poverty schools (Maryland State Department of Education, 1998). In Montgomery County, MD, school officials are trying to change those aspects of schooling which are in their control: teacher classroom behavior and performance. For example, a new teacher evaluation system is being developed that may require teachers to show how they have adapted classroom instruction to meet the needs of the students in their class (Nakashima, 1998).

The El Paso community is one that has managed to put the team of horses in front of the cart. As Texas was gearing up in 1990 for its testing and accountability system, El Paso community and business leaders realized they had a problem. More than one-fourth of El Paso residents live below the poverty line, a fourth are foreign born, and an estimated 30% of the adults are functionally illiterate. Too many students were dropping out without the skills needed for productive employment, too many high school graduates were entering college needing remedial work, and too many teachers who graduated from the University of Texas at El Paso (UTEP) lacked the skills to teach high-level mathematics and science courses or to work in urban schools. In 1992, the city's leaders formed the El Paso Collaborative
for Academic Excellence to address the area’s problems. The collaborative formed a compact between the local school systems, UTEP, the community college, the mayor, and the region’s business and religious leaders to raise the academic achievement of the city’s youth and the skills of the teachers graduating from UTEP (Raise the bar, 1998).

With a grant from the National Science Foundation, the El Paso collaborative worked with districts to develop a more challenging and engaging mathematics curriculum and to train mentor teachers to work with the schools. Parents, educators, and community leaders worked together to specify what students should learn, and in 1996, the community adopted rigorous academic standards. The three local districts that serve the city have spent millions of dollars on professional development for teachers, invested in new curricula and teaching methods, and used data to track whether students are succeeding. UTEP has redesigned its teacher preparation program, placing emphases on developing prospective teachers’ command of academic subjects and having them spend more time in K-12 classrooms (Raise the bar, 1998).

The results of this community-wide effort are encouraging. El Paso is the fifth-poorest major metropolitan area in the United States; the student enrollment of the three school districts is more than 85% Hispanic and two-thirds of the students qualify for federally subsidized school lunches. Yet nearly 60% of Hispanic students and 56% of African-American students passed all portions of the Texas Assessment of Academic Skills (TAAS). The number of schools identified as low-performing as a result of their students’ TAAS scores has fallen from 15 to zero, and the number of exemplary schools, in which more than 90% of the students pass the state tests, has gone from a handful to more than 30 (Raise the bar, 1998).

Pennsylvania is in the process of adopting rules on what public school students should know and be able to do in mathematics and language arts. Anticipating the need for teachers to change their instructional strategies, the state is sending 50,000 how-to packets on state academic standards to more than 3,000 public schools. The packets were developed by teachers throughout the state and include the standards in math, reading, and writing and ways to help students master those standards. A powerful resource, the kits contain new techniques for changing curricula to match the standards, suggested lesson plans, and methods for assessing how well students have learned the material (Chute, 1998).

Providing Academic Support for Students

At this time, 21 states require and fund academic intervention programs for students who are struggling to meet the standards (American Federation of Teachers, 1998). Instructional practices that include active learning, learning in context, and content which has meaning for students are more likely to produce positive academic performance in students in at-risk situations. Some of the curricular and instructional strategies being tried in schools across the country include whole language, interdisciplinary curriculum, adjusting for learning styles, cooperative learning, teaching to multiple intelligences, alternative assessment strategies, heterogeneous grouping, service learning, and using technology to accelerate the learning of students at risk. Other strategies that have proven especially effective with students in at-risk situations include mentoring, tutoring, after-school and Saturday programs, summer school, and year-round scheduling. In addition, programs that provide social support, increase parent involvement in the school, or include parenting training can have a significant effect on student learning (Duttweiler, 1995).

Research studies indicate that social support, especially that provided by parents and adult caretakers, is a major variable in improving student academic and behavioral adjustment and reducing delinquent behaviors that correlate highly with low school performance (Richman, Rosenfeld, & Bowen, 1998). Feeling socially supported appears to help students in at-risk situations develop academic resilience, achieve positive educational outcomes, and establish a buffer against stress (Clark, 1991). Parent/caretaker involvement in children’s learning has a direct, positive effect on children’s achievement (Williams & Saavedra, 1993).

Early intervention is important to prevent problems from compounding and students from falling too far behind. For standards to actually raise the academic performance of all students, schools must identify those students who are having trouble meeting the standards and give them the extra help they need to succeed. A recent survey of members of the New York State United Teachers, the state’s largest teachers union, found that nearly 75% of local leaders across the state indicated
that their districts have not implemented enough academic support programs, such as after-school or tutoring programs, to help students who are struggling to meet New York's new standards (Basler, 1998).

Anne Wheelock (1998) suggested that schools can best foster achievement by developing into a school with holding power. Schools with holding power offer a rich grade level curriculum, teachers knowledgeable in content and skillful at helping all children learn the content, positive teacher-student relationships, and a motivational climate that values achievement for all. Such schools have a schoolwide culture of high standards and offer students multiple opportunities for effective help throughout the school year. Wheelock offers the success experienced by Bluffton-Harrision Middle School in Indiana as an example. The school started early in the year giving students the support they needed. An after-school tutoring program was set up, a Saturday School was opened, a social worker met frequently with the students at risk of failing to help them with study skills and to visit their homes weekly. Learning contracts were developed with students to help them design a plan for improvement and parents received letters and phone calls about the positive things their children were doing. School staff met with failing students and offered any assistance they desired to help them pass their classes. By adopting a multifaceted strategy attending to both academic and social needs, the program reduced the number of students who could have failed from 70 to eight during its first year.

In Chicago, students who fail to score above a prescribed cutoff on nationally normed tests, those that flunk reading or math, or those that are excessively absent, are required to attend the Summer Bridge Program. The six-week (elementary) and seven-week (high school) remedial program spells out for teachers precisely what they should be teaching on a day-to-day basis (Hendrie, 1997). Students who fail to reach the Summer Bridge Program targets and are retained are required to attend an after-school program in the following year. For schools where a large number of students are retained, the district has lowered class sizes or provided small group tutoring by allotting an extra teacher to the school. The school board also provided monthly workshops on instructional strategies for lead teachers at schools with a large number of retainees. Other programs include Lighted School Houses—an after-hours program that combines tutoring, recreational activities, and a warm meal; special programs for pregnant teenagers; an intervention program at city hospitals for babies and toddlers; and 10,000 extra preschool slots (Pick, 1998).

In Long Beach, California, a task force of parents, teachers, administrators, and community members are concerned with ensuring that students are academically prepared to move from one grade level to another. The task force has wrestled with three critical areas:

- teaching all kids to read in a timely manner;
- deciding what to do with youngsters who consistently fail middle school courses and then move on, unprepared, to high school; and
- examining the entire area of K-8 promotion standards and deciding what additional checkpoints for student progress should be established.

The task force came up with some key points for the area of K-8 promotion standards. They decided that retention programs would not be a repeat of services but would provide a significantly different academic experience for retained children. Also, multiple measures, based on proficiency with content standards, would be used for retention criteria. Finally, interventions would be prescribed at key, non-retention grades to ensure that all children have every opportunity to attain grade-level standards. Each individual school will be responsible for developing programs that meet the needs of its student population. Program alternatives include: an extended day/week, such as Saturday school; one-on-one tutorials, including peer, cross-age, and Rotary/Rolling Readers; intensive 6-8 week reading clinics; intensive small group instruction by specially trained teachers; and adult mentors (De Vries & Cohn, 1998).

Schools across the nation are getting help from community organizations in helping students meet new standards. In Sacramento, the Rotary Club has become involved in student achievement. The program is known as the Sacramento Rotary Club Youth Incentive Program. Each year ten 7th graders are chosen from the area. These students are then paired with a responsible mentor who will accompany them, one-on-one, through high school graduation. A $10,000 college scholarship accompanies the successful graduate if the student graduates with college entry level grades and has a citizen record free of expulsions, drugs, or alcohol (Engellenner, 1998). In Seattle, the Seahawks Academy targets high-risk middle school students in an effort to get their education back
on track. The school offers carefully selected teachers, small class sizes, ample resources, tutors in every classroom, and incentives such as Seahawk football tickets. This school is just one of four NFL funded schools across the nation. The school district splits the costs with private organizations including the Seahawks, Costco, Boeing, United Airlines, Global Leisure, and Gatorade. To date, dropout, suspension, and expulsion rates are down and test scores on the Iowa Test of Basic Skills are up (Fitzpatrick, 1998).

The Philadelphia Board of Education has approved a set of the most demanding promotion and graduation requirements in Pennsylvania and, perhaps, in the nation (Jones, 1998). There is, however, a costly stipulation: none of the requirements will be enforced unless a series of academic supports are put into place. Beginning in June of 1999, the new requirements, called Reaching Higher, will be phased in over the next five years. The requirements include the following:

- an increase in credits—from 21.5 to 23.5—for graduation, including two years of a foreign language, an additional math course, and an extra science course;
- the completion of three interdisciplinary projects—one by fourth grade, one by eighth grade, and one by graduation; and
- the completion of three service learning projects by each of the above grades.

The academic support system, estimated to cost $400 million over the next five years, will include the following:

- three extra hours a week of instruction for 30% of the students;
- a class size of 17 for kindergarten through third grades;
- summer school for students in six key grades—three, four, seven, eight, 11, and 12;
- prekindergarten programs for three- and four-year-olds;
- year-round school and small classes for fourth and eighth graders who fall several years behind;
- a more extensive school-to-career program that would put most seniors in paid work experience; and
- starting foreign language instruction in the elementary grades.

The Philadelphia School Board will evaluate the support system each year to determine if the supports are in place. If the supports are not there, students will not be held to the requirements (Jones, 1998).

All public schools in Florida are required this year to draw up individual Student Performance Plans for students with severe math and reading problems. The plans outline what will be done to help the students improve. Recommendations could include tutoring, remedial classes, counseling, summer school, or retention at the end of the year (Farrell, 1998). In North Carolina, students must either pass the state’s end-of-grade exams or attend summer school. Yet, more than two-thirds of Durham, NC, eighth graders who attended summer school in 1998 did so poorly on standardized reading tests they were in danger of being retained in their current grade. Wake County, NC, schools dropped summer school in favor of tutoring in elementary and middle schools in order to address students’ deficiencies as soon as possible (Hover & Kurtz, 1998). Massachusetts has approved $20 million to help schools and districts improve their students’ scores. The money will go toward providing after-school, weekend, and summer programs (Estrin, 1998).

**AN EXAMPLE OF MIDDLE SCHOOL CHANGE**

Central East Middle School in Philadelphia serves as an example for ensuring that all the elements in standards-based reform are in place in the middle school. The school has set out to prove that every student can succeed in the middle grades by creating a school culture based on caring relationships and challenging learning opportunities. Central East has adopted the Talent Development Model that evolved from research by the Center for the Study of Students Placed at Risk (CRESPAR) (Wheelock, 1998). The model is driven by the belief that the talents of every student can be developed in schools where each student has access to an engaging standards-based curriculum; heterogeneous classrooms; and caring teachers and peers who encourage and help them improve their skills and increase their understanding (MacIver & Plank, 1996).

The school fosters positive relationships by organizing students and teachers into teams that remain together for the three middle school years. Classrooms are organized cooperatively through literacy approaches that include student team reading and writing where students receive encouragement from one another. Cen-
Central East also provides extra help to students who need it to succeed. For example, some students take two math classes that give them additional content and instruction so they can keep up with grade-level expectations. In addition, the school offers a homework club where teachers and peer tutors work one-on-one with students, re-teaching material and developing students’ study skills. While some students are urged by teachers to attend the after school club, others attend voluntarily. Teachers have observed that students pay better attention to their class work and that more students are getting their homework done (Wheelock, 1998).

Professional development is offered to ensure that teachers are competent in new and challenging curriculum: cooperative learning and literacy skills in a multicultural, literature-based curriculum for language arts teachers; the Chicago Mathematics curriculum for math teachers; and new National Science Foundation supported science materials for science teachers. Teachers have also received professional development to implement an advisory curriculum that helps students connect their own aspirations with such personal decisions as high school course selection (Wheelock, 1998).

The successful implementation of a school like Central East requires outside support, thoughtful and informed leadership, and committed teachers. In addition, it is essential that such schools have a supportive district context in which resources like Title 1 and professional development funds are focused on the development of a culture of high standards and research-based strategies designed to improve student achievement (Wheelock, 1998). Columbia University’s Darling-Hammond and Flack (1997) support the contention that standards, assessment, and accountability cannot stand alone. They note, “Issues of how students meet standards cannot be separated from issues of teaching, assessment, school organization, professional development, and funding.”

**Implications**

The focus of the National Dropout Prevention Center is on ensuring that students in at-risk situations are provided with effective opportunities to learn and achieve at the same level as their more fortunate peers so they can graduate from high school. Individuals who are denied educational opportunities that prepare them to pass assessments of standards have been discriminated against as surely as any disenfranchised group in the past. A high school diploma is a passport to a more rewarding life, to responsible citizenship, to higher education, to better jobs, to a more secure economic future.

According to the National Center for Education Statistics (NCES, 1998), about half the population ages 25 through 29 in 1950 had a high school education, which ensured them some of the more rewarding career opportunities. By the early 1970s, a high school education still served as an entry to a number of promising career paths, and 83% to 84% of the population ages 18 through 24 had completed high school. Despite the increased importance of a high school education—technological advances in the workplace have increased the demand for skilled labor to the point where a high school education serves as a minimum requirement for entry into the labor force—the high school completion rate has remained relatively static for the past quarter century. It presently stands at about 86% (National Center for Education Statistics, 1998).

It is ethically impossible to argue with the need for higher standards and expectations for all students. It is easy to argue that the standards-based reform movement has put the cart before the horses. With an educational system that has increased its high school completion rate a mere 2% in the last 25 years, it seems more productive to begin such reform by addressing the causes of the problem rather than the symptoms. As the Tennessee study (TVAAS) and other research has clearly indicated, teachers’ effectiveness in helping students learn is a major factor in student achievement. Teachers’ expectations for student accomplishment affect the quality of student learning. When teachers are poorly prepared to teach, when states set low standards for admittance into the teaching profession, when there are minimal funds for professional development to upgrade teachers’ skills and knowledge, and when teachers hold attitudes that result in low expectations for minority, poor, non-English-speaking students, then measuring such students on higher standards will result in an even lower high school completion rate.

Sander’s (1998) finding—that when populations of students change buildings, the expected loss in academic gain the first year after the change is large (averaging 15% to 30%)—has important implications for middle schools. Strategies need to be implemented to modify the deleterious effects of changing from elemen-
tary school to middle school and from middle school to high school. With only three years in middle school, the cumulative effect on the academic performances of students, especially those who lack the resilience to cope with such change, may account, in part, for the faltering performances of middle school students and the large number of those who drop out before the tenth grade. Recommendations for changing the plight of middle school students in high-poverty areas from Education Trust director Kati Haycock included a four-point plan of improvement: hire highly-effective teachers, enroll all students in a rigorous curriculum, hold students to high standards of performance, and hold schools accountable for ensuring students’ high academic achievement (Davidson & Toomer-Cook).

The recommendations from the Education Trust are unusual in that they allude to the importance of highly-trained teachers and schools’ responsibility for ensuring students’ high academic achievement. Such recommendations recognize it is cruel and unjust to hold students accountable for mastering curriculum that teachers don’t teach and for achieving in schools that have yet to meet the needs of students with myriad problems. In 1995, Duttweiler summarized the conditions schools needed to take into consideration when planning the education of students from at-risk situations:

...more than one in five of the children in our schools live in poverty conditions which put them at risk of school failure. Too many of our children do not have the kind of family which serves as their protector, advocate, and moral anchor....more children suffer from mental and physical illnesses, substance abuse, child abuse, inadequate child care, and family disorganization. More students are entering public schools from single-parent families, from minority populations, and from non-English-speaking backgrounds. For too many children, their neighborhood is a place of menace, the street a place of violence. Too many children arrive at school hungry, dirty, and frightened. Too many children start school unable to meet the challenges of learning. (p. 7)

In 1992, Covington argued that the potential dangers in the present educational system were greater for the “failure-prone child, the underprepared, and those disenfranchised youngsters from underclass ghettos and barrios.” He asserted that it was imperative we create an enriching, culturally sensitive, relevant, and active environment for all children; that instead of writing vision statements that parrot the phrase, “All children can learn,” we must shape our classrooms, our schools, and our districts so that it becomes a reality.

Has so much changed in our homes, neighborhoods, public schools, and teacher colleges that we can now, with a clear conscience, hold students accountable to increasingly more stringent standards—without first changing the teachers and the schools? Without first providing the kinds of classrooms in which students are actively engaged? Without first offering students who are having difficulty additional opportunities to learn? Without first hitching the horses before the cart?

REFERENCES


Middle School Standards, Assessment, Accountability, and Interventions

This study of middle school standards, assessment, accountability, and interventions is funded by the Edna McConnell Clark Foundation

Goal of the Study

The goal of this study is to analyze the implementation of state and district mandated academic standards, assessment processes, accountability, and intervention strategies at the middle-school level in order to identify and describe those intervention strategies that are effective in increasing the ability of middle school students in at-risk situations to achieve state or district academic standards.

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The National Dropout Prevention Center and Network

The National Dropout Prevention Center (NDPC)—a research center within the College of Health, Education, and Human Development at Clemson University, Clemson, SC—was created to significantly reduce America’s dropout rate. It is committed to meeting the needs of youth in at-risk situations by shaping school environments which ensure that all youth receive the quality education to which they are entitled. The NDPC acts in concert with the National Dropout Prevention Network (NDPN)—a membership organization of more than 2,000 teachers, school administrators, state department of education staff, and community organization and business leaders who are concerned with education issues. The Center/Network partnership has emerged as a highly visible national resource on at-risk and dropout issues; it publishes the refereed Journal of At-Risk Issues, a quarterly newsletter, the research-based Solutions and Strategies series, and other publications. A web page (dropoutprevention.org), an e-mail listserver (ndpc@clemson.edu), and a nationally accessible computerized database, the FOCUS database, provides users with needed information and referrals quickly and easily through the Internet. The Center/Network partnership also provides professional development through its annual National Dropout Prevention Conference, annual America’s At-Risk Youth National Forum, and special regional conferences.

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