This fourth annual report by the Education Commission of the States (ECS) examines the status of efforts to improve the public education system. Nine sections provide overviews of major trends in policy and practice: (1) "Standards, Assessment and Accountability" explores the transition over the last decade toward a standards-based system by examining the quality of content standards, student assessment, and promoting accountability; (2) "School Finance and Facilities Funding" looks at the use of private-sector style data management and new approaches to assessing statewide needs; (3) "Public School Choice" looks at vouchers, home schooling, and charter schools as examples of market-style reforms; (4) "Teacher Education and Professional Development" discusses state-wide initiatives affecting all aspects of teaching and offers research-based principles for improving professional development; (5) "Technology" considers the pressures on educators to demonstrate that investments in technology and telecommunications raise student achievement and improve the overall learning environment; (6) "Early Childhood Care and Education" focuses on statewide initiatives aimed at promoting healthy development of infants, toddlers, and young children, and augmenting services to disadvantaged children; (7) "K-12/Postsecondary Collaboration" looks at how these two systems work together to improve student achievement and access to college; (8) "Comprehensive School Reform" takes a critical look at whole-school reform and offers some lessons learned from New American Schools; and (9) "Governance" comments upon the current trend toward decentralization and the applicability of state intervention when necessary. Contains relevant websites, telephone phone numbers, and ECS publications. (RIB)
The Progress of Education Reform 1998

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Executive Summary

The Progress of Education Reform 1998 is the fourth annual report by the Education Commission of the States (ECS) on the status of efforts to improve the quality and performance of America's public education system.

This year's report draws on a wide range of sources of information, research and analysis to examine progress on various fronts. Sections provide overviews of major trends in policy and practice; syntheses of recent research and analysis; examples of what states are doing; and references to reports, studies, articles, surveys and/or World Wide Web sites that will be useful to policymakers interested in exploring various aspects of an issue in greater depth.

Here are some of the highlights of this year's report:

- **Standards, assessment and accountability.**
  All but a handful of states have established academic standards for students, and some have begun redesigning their assessment systems around those standards. But while setting clear expectations for students, and measuring whether or not students are reaching those expectations, are necessary, they are insufficient to ensure improved learning. A gap remains between what students are learning, or failing to learn, and what the other components in the system do to support that learning.

- **School finance and facilities funding.**
  Creating a new school finance structure more aligned with standards-based education reform is a crucial next step for policymakers at the state and district levels. An important new tool in this effort is private-sector-style data management, which can provide a meaningful basis for the analysis of the return on education investments. In the area of facilities funding, some states are trying new approaches, such as assuming a larger share of the burden for school construction and renovation, and taking a more active role in assessing statewide needs.

- **Public school choice.**
  Most states have adopted choice programs that feature a mix of inter- and intradistrict enrollment options, charter schools and home schooling. Several states also are experimenting with or considering vouchers or tax credits on a limited basis. But while interest in and support for the idea of using market-style reforms to improve the performance of public schools are growing, Americans remain closely divided on the issue of whether to open the education system to all-out competition between public schools and private schools.
Teacher education and professional development.
In a growing number of states, the issue of how to improve teacher quality has moved to the top of the reform agenda. States have undertaken a wide range of initiatives affecting all aspects of teaching – from preservice education and induction to evaluation, licensing, compensation and ongoing training. But, particularly in the area of teacher professional development, a significant gap continues between what is known to be effective in improving teacher quality and what is practiced at the school and district levels.

Technology.
The presence of up-to-date technology and telecommunications in America’s schools continues to increase dramatically. But as public spending on school technology grows – an estimated $5 billion a year nationwide – so does the pressure on educators, schools and districts to demonstrate that the investment is paying off. What little research has been done suggests that classroom technology can raise student achievement and even improve the overall learning environment in schools – but only when it is placed in the right hands and used in the right ways.

Early childhood care and education.
Increased interest in neuroscience research and its implications for early childhood care and education has spawned a variety of state initiatives focused on promoting the healthy development of infants, toddlers and young children. Some states are spending money not only to augment early childhood services for disadvantaged children, but, in some cases, to expand them to include all children, regardless of family income. But will state leaders – many in states with budget surpluses – be willing and able to sustain such initiatives over the long term?

K-12/postsecondary collaboration.
Formal partnerships between K-12 schools and postsecondary institutions have emerged as a promising new approach to systemic reform. By working together, the two systems may be able to accomplish what neither has been able to accomplish alone during the past decade of reform: significantly improved student achievement, better access to and preparation for college, and increased financial productivity in both sectors.
Comprehensive school reform.
As schools struggle to find new ways to help students achieve at higher levels, many are discarding the old ways in favor of approaches that focus on reorganizing and revitalizing the entire school from the ground up. Currently, more than 3,000 schools across the nation are using such "whole" or "comprehensive" school reform designs, and that number is expected to double over the next several years as the result of new federal legislation. Maximizing the potential of this approach to reform, however, will require careful planning and monitoring on the part of state and district policymakers.

Governance.
The issue of education governance – who makes what decisions and in what manner – is receiving increased attention from policymakers. The primary vehicles for governance reform continue to be school-based management and other forms of decentralization, expanded public school choice, and state intervention in the operation and management of chronically underperforming schools and districts.
After more than a decade of intensive efforts to improve public schools, most states are implementing a reform strategy characterized by the following efforts:

- Establishing high academic standards
- Aligning curriculum, instructional materials and strategies, assessment and teacher professional development with standards
- Restructuring the systems that support teaching and learning—governance, accountability and finance—so educators, schools and districts have the capacity, incentives and tools they need to help students learn to the standards.

The transition to a standards-based system is an undertaking of enormous complexity, and progress varies widely from state to state. A brief overview of some major issues states are grappling with on these three fronts follows.

**Judging the Quality of Content Standards**

Over the past decade, all but a handful of states have established standards for students in English, science, mathematics, history and geography. In most states, standards are the linchpin of large-scale reform initiatives aimed at upgrading curriculum and strengthening accountability.

Until recently, the quality of state content standards had received little critical scrutiny. In 1995, the American Federation of Teachers became the first organization to undertake a systematic, state-by-state evaluation of content standards. Similar studies were conducted by the Council for Basic Education (CBE) in 1997, and the Fordham Foundation in 1998.

While the methodology and specific findings of these studies have differed, all reach roughly the same conclusion, according to the University of Delaware’s Douglas A. Archbald who recently reviewed the studies for the National Education Goals Panel: A significant number of states have established standards that are models of clarity and rigor, but a troubling large number of state content standards are vague, shapeless and “of inadequate quality.”

Several options are available to help states continuously evaluate and improve their content standards. For example, the Education Commission of the States, the Council of Chief State School Officers (CCSSO) and several other organizations have formed the State Educa-
tion Improvement Partnership to offer assistance to states interested in assessing the quality and effectiveness of their standards.

Another growing source of assistance is Achieve, an independent, bipartisan organization created at the 1996 National Education Summit. Achieve is focusing its resources on helping states benchmark their academic standards and assessments against the best in the country and the world. Also, in collaboration with the Mid-Continent Regional Educational Laboratory, Achieve is serving as a national clearinghouse on standards, assessment, accountability and technology use.

As states continue to grapple with the challenges of implementing content standards, they also are under a deadline to develop performance standards, or proficiency levels, linked to their content standards. The Improving America’s Schools Act, federal legislation enacted in 1994, links Title 1 activities to student proficiency on state standards. States are required to develop and operate “comprehensive assessment systems” capable of reporting student performance at three levels (proficient, advanced and partially proficient) and of assessing whether individual students and school programs are making “adequate yearly progress.”

**Trends in Student Assessment**

More and more states are diversifying their student-testing programs, blending traditional multiple-choice formats with nontraditional assessments (short-answer, extended response and performance assessments). While 45 states report using norm-referenced and/or criterion-referenced multiple-choice items as part of their state assessment program, only six continue to rely exclusively on conventional multiple-choice tests.

“States are embracing new forms of assessment and looking for ways to make them work,” concludes a recent CCSSO report on state assessment trends. “In spite of the difficulties states have experienced in implementing non-traditional assessment programs, it is clear that strictly traditional programs are becoming uncommon, and that a blended assessment program will continue to be the preferred model.”

The CCSSO report noted that states’ efforts to redesign their assessment programs have been slowed – and in some cases stymied – by time and cost constraints, technical-quality issues and resistance to change on the part of parents, teachers and students.
How To Make the Link Between Standards, Assessments and Real Student Achievement explores the essential role of standards and assessments in improving student learning. It is available on the New American Schools (NAS) Web site at www.naschools.org or by calling NAS at 703-908-9500.

The Tools for Accountability Project, part of the Annenberg Institute for School Reform at Brown University, collects, evaluates and disseminates accountability strategies and materials. Web site: www.aisr.brown.edu/tools

ECS' report, Designing and Implementing Standards-Based Accountability Systems, provides an in-depth look at 10 key policy issues involved in designing and using standards-based accountability systems. Copies of the report (#AN-98-1) are available for $10 plus $3 postage and handling by calling the ECS Distribution Center at 303-299-3692.

A number of states have created or are creating assessments that test students' knowledge of academic standards. Seven states – Arkansas, Florida, Louisiana, New Mexico, North Carolina, South Carolina and West Virginia – require districts and schools to use state standards and assessments as a factor in determining whether elementary school students should be promoted into certain grades. Twenty states have or plan to have high school graduation exams aligned with their standards.

Another approach states are taking is to require remediation for students who do not meet the standards. In Virginia, for example, students who do not pass the state assessment at the 9th-grade level do not receive a "literacy passport" and are required to participate in summer school or after-school remediation programs. Ohio requires districts to provide remediation for all 5th graders who fail a 4th-grade assessment in one or more core subjects. The state provides assistance, including a list of suggested intervention programs.

Using Standards to Promote Accountability

One of the most important lessons of the past decade of school reform is that setting clear expectations for students, and measuring whether or not students reach those expectations, are necessary but insufficient to ensure improved learning. A gap remains between what students are learning, or failing to learn, and what the system does to support that learning.

A standards-led strategy creates an opportunity for decisions to be made differently. By providing better information about the desired results of schooling, this strategy allows decisionmakers at all levels – from teachers to state legislators – to focus on how the choices they make can increase student progress toward high academic standards.

The challenge facing decisionmakers is how to use the information about student, school and system performance more effectively to do the following:

- Document improved student learning
- Improve teaching practice
- Facilitate opportunities to learn from experimentation with different types of schools
- Establish an understandable public accountability system
- Increase the efficiency of decisionmaking and the effectiveness of learning across education systems.
FOCUSING ON RESULTS: THE TEXAS SCHOOL RATING SYSTEM

Texas assigns all its public schools an overall rating based on three criteria: dropout rates, attendance rates and the percentage of students in grades 3-8 and 10 passing each of the reading, writing and math portions of the annual Texas Assessment of Academic Skills (TAAS). The state considers the performance not only of the school's entire student body, but also of three racial and economic subgroups. The ratings are "exemplary," "recognized," "acceptable" and "low performing."

Texas has the usual set of rewards and sanctions, from small cash awards for high ratings to wholesale layoffs at the state's worst schools. But the accountability system's real power seems to rest within the ratings themselves. Spotlighting the performance of individual schools and districts provides strong incentives to deliver results, and, thus far, they have been remarkable.

Since 1995, the number of Texas schools ranked "low performing" has fallen from 257 (4.3%) to 57 (.09%), even though the bar has been raised incrementally each year and the percentage of students taking the state tests has gone up. During the same period, the number of schools ranked "exemplary" rose from 67 to 683, and the number ranked as "recognized" increased from 516 to 1,617.

Student achievement across the board and in all subgroups has increased substantially, too. In 1994, for example, barely half of all Texas students passed the TAAS math exam. By last year, the proportion had climbed to 80%. What's more, the share of black and Hispanic children who passed the test doubled during that time to 64% and 72%, respectively.
School Finance: Equity and Adequacy

While equity issues have dominated the school finance debate for more than two decades, this debate increasingly is focusing on the question of adequacy as a primary criterion in examining the effectiveness of state school finance systems.

A review of school finance litigation during the 1990s shows that courts are expanding their scrutiny of funding systems to include not only the principle of equity, but also that of adequacy. In 1997 and 1998 alone, courts in New Hampshire, New Jersey, Ohio and Vermont invalidated their states' school finance systems, in each case ruling a minimum education is inadequate and, therefore, unconstitutional.

Although it is expected that adequacy increasingly will be used as a criterion in evaluating state school finance systems, the term remains elusive in its definition and application. Many policymakers are uncertain about the meaning or basis of adequacy and how – through policy – they can build a system that will withstand legal challenge.

A recent report by the National Conference of State Legislatures (NCSL) describes the building blocks of an adequate school finance system as the following: (1) articulating education objectives for students, (2) identifying and acknowledging the education capacity needed to accomplish those objectives and (3) supporting that capacity with sufficient funding.

Such a system, the NCSL report said, requires an alignment of education policies “that typically has not been considered by state policymakers when making decisions about school finance.” It requires policymakers to “think beyond the traditional political negotiation process about who gets how much money,” the report said, to building a funding system that is “driven by educational objectives, an emphasis on effective practices and the assurance of meaningful opportunity for every student.”

Maximizing the Return on Investment: Data-Driven Decisionmaking

With education resources unlikely to increase substantially and taxpayers demanding greater accountability, it is more important than ever to maximize the public investment in the education system. Policymakers must do a better job of deciding which programs work and which do not and put more money into those that do.
Private-sector experience has demonstrated the potential for using information to monitor, refine and sustain improvement efforts over time. The application of such data-management tools in the education arena may provide the missing link between the promise of current reform efforts and measurable improvements in teaching and learning. The key is transforming data into useful information and providing it to educators and policymakers in a form that helps them see more clearly the relationship between inputs and outcomes, recognize and understand trends, and assist them in making truly informed choices.

For example:

- Longitudinal reports on the performance of students who attended a certain school, or who were taught by the same teacher, can reveal gaps in the curriculum and strengths or weaknesses in instructional strategies.
- Classroom-level student performance data can help to identify the most successful educators so they can be used more effectively to mentor new teachers or support other veteran teachers who need assistance.
- Comparisons of student performance at one school to that of other schools serving similar student populations can help identify programs that are most effective in serving different kinds of students.
- Cross-district or cross-state data about student performance on specific learning objectives, or the distribution of scores by grade level, may reveal curricular or program weaknesses that cut across entire districts or states.

The combination of aggregated student performance data with financial expenditure data provides a meaningful basis for analyzing the return on education investments. Such an analysis can help the broader education community, including parents, legislators and business leaders, understand their contribution to education in concrete terms and form the basis for more meaningful relationships between public schools and the communities they serve. By providing the means to measure the results of different allocation strategies, it also has the potential to increase substantially the efficiency of education expenditures.

**Facilities Funding: Sharing the Burden**

The condition of school facilities is declining nationwide. Many schools are old and in need of renovation.
Student enrollment shifts have triggered a need for new school buildings and/or created a situation in which buildings are being used inefficiently. Education reform initiatives, such as class-size reduction and technology, have put added pressure on states and school districts to upgrade or expand school facilities.

Much of the declining physical condition of schools can be attributed to the school and district practice of deferring maintenance. School districts with lower taxing abilities – those with the least ability to pay for repairs – often have the highest levels of deferred maintenance. Compounding the problem, nearly 30% of all school buildings in the United States are approaching the end of their useful life (approximately 50 years), and about half are nearly three-quarters through it.

The U.S. General Accounting Office (GAO) estimated in 1995 that $112 billion was needed at that time to meet the nation’s needs for repairing and upgrading schools. If the trend of deferring maintenance continues, the GAO report said, that amount likely will exceed $150 billion by the year 2000.

School facilities may be funded through state or local sources or a combination of the two. The level and type of support states provide vary dramatically – much more so than for school operations. Some states, such as North Carolina, attempt to fund the building and renovation of school facilities fully, while others, such as Louisiana, provide no state aid for this purpose.

Increasingly, states and local communities are sharing this responsibility, as in Delaware, where the state funds at least 60% of the capital outlay and local districts pay for the remainder.

Recent court decisions in several states, including Arizona and Ohio, suggest a trend toward increased state involvement in facilities funding. These rulings established that as part of their constitutional responsibility to provide a “thorough-and-uniform” education, states also must provide adequate school facilities.
Creating a new school finance structure that is more aligned with standards-based education reform is an important next step for policymakers at the state and district levels. Research shows making a shift from equity- to adequacy-based financing can help schools achieve the higher performance necessary to raise student achievement levels.

According to a recent analysis by the Consortium for Policy Research in Education (CPRE), this shift involves a number of changes in state-to-district financing. These changes include the following:

- A foundation program providing an adequate base level of per-pupil revenues, sufficient for the average school to teach the average child to high performance standards
- Additional funds for students from low-income backgrounds, with disabilities or limited English proficiency to support the extra services needed to have these students learn to high standards
- Price adjustments to ensure equal purchasing power of the education dollar across geographical areas.

Changes also are required in district financing policies, including the following:

- Formulas to budget the bulk of district dollars to schools in a lump sum, so they can deploy their resources to maximum advantage
- Changes in teacher compensation to include knowledge- and skill-based elements in teacher salary schedules
- School-based performance incentives that reward teachers and schools for meeting or exceeding challenging performance-improvement targets.

Creating School Finance Policies That Facilitate New Goals, a September 1998 CPRE policy brief, is available online at www.upenn.edu/gse/cpre/ or by calling 215-573-0700.
The school-choice movement continues to gain momentum, fueled by greater willingness on the part of elected officials, policymakers and the public to consider market-oriented approaches to education reform. School-choice proposals range from the fairly uncontroversial idea of letting children transfer to other public schools in their district to what may be the single most divisive topic in education today: vouchers for public money that can be used to enroll children in private schools.

Proponents of school choice contend that interdistrict enrollment, charter schools and other choice programs will bring about change and improvement by forcing public schools to compete for students, and by expanding and diversifying the range of educational opportunities and environments available to students.

Critics of school choice, on the other hand, argue that using marketplace reforms in the education arena treats learning as a commodity and has the potential to jeopardize the cherished American ideal of providing a quality education to all children.

Whatever the pros and cons, the school-choice movement continues to gain ground. Since the late 1980s, for example, 39 states and the District of Columbia have enacted laws providing for some type of enrollment choice. In 13 of these states, families have the right to choose not only from among the public schools in their own district, but also from schools in any district in the state, tuition free.

In a growing number of states, choice programs now include a mix of inter- and intradistrict enrollment options, charter schools and home schooling. Several states also are experimenting with or considering vouchers or tax credits on a limited basis.

**Charter Schools**

Since 1991, when Minnesota passed the first charter-school legislation, 32 other states, the District of Columbia and Puerto Rico have followed suit. Some 786 charter schools are in operation across the United States, with a combined enrollment of 166,000 students. An additional 429 charter schools have been approved but are not yet in operation. President Clinton has called for quadrupling the number of charter schools by the year 2002.

The dramatic growth of the charter-school movement has spawned a wave of reports and studies tracking the progress of this new brand of school reform. Among the early findings are the following:

The U.S. Department of Education's latest report on charter schools is available online at www.ed.gov/pubs/studies or by calling 202-401-1576. A wide variety of other information about charter schools is available at www.uscharterschools.org.
Demand for charter schools has grown, but the schools continue to face such obstacles as inadequate facilities and a lack of start-up funds.

In the face of such obstacles, most charter schools have shown considerable staying power. Fewer than one in 20 has closed voluntarily, merged with others or been shut down.

While most charter schools are similar to their districts in the racial and economic backgrounds of their students, about one-third are more likely to serve poor and minority students.

Charter schools operate in environments that afford varying mixtures of autonomy, assistance and accountability, and this mix is a strong influence on the schools’ abilities to create and sustain themselves as learning communities.

Much of the research on charter schools is only now getting under way, and the most fundamental issue—what impact charter schools have had on student achievement and on public education as a whole—remains unclear.

What little research has been done so far suggests that charter schools can be both better and worse than regular public schools. Recent studies by the University of Minnesota’s Center for School Change and the Center for Education Reform documented improvements in student achievement in a significant number of charter schools in 12 states. In some of these schools, students gained on average more than a year of academic growth annually.

On the other hand, a recently published analysis by U.S. News & World Report of charter schools in Arizona and Michigan—which together account for nearly half of the total number of charters in the nation—found that some charter schools in those states were beset with significant problems, including weak curricula, below-quality teaching, substandard buildings and financial abuses.

But only a handful of charter schools have had their charters revoked or have gotten into some kind of trouble that could lead to revocation, noted a recent report by the Center for Education Reform. “A few bad apples shouldn’t sour the public on the promising charter school movement . . . and its potential for real innovation and transformation of the school system,” the report concluded.
Vouchers

While there is growing interest in and support for the idea of using market forces to improve the performance of public schools, Americans remain closely divided on the issue of whether to open the education system to all-out competition between public schools and private schools.

The latest Phi Delta Kappa/Gallup Poll of the Public's Attitude Toward the Public Schools, released in August 1998, showed a 50-50 split among survey respondents on the question of allowing students and parents to choose a private school to attend at public expense. But the poll also showed that the gap between Americans who oppose vouchers or tax credits and those who favor them has narrowed considerably since 1993, when opponents outnumbered supporters by roughly three to one.

Currently, Arizona, Iowa, Minnesota, Ohio, Wisconsin and Puerto Rico have either tax credit, tax deduction or voucher programs, and limited voucher programs are being debated in Vermont and Pennsylvania. A tuition tax-credit proposal on the November ballot in Colorado, however, was overwhelmingly rejected by voters, the second time a statewide voucher initiative has been defeated there since 1993.

Home Schooling

In 1993, after years of court battles, it became legal in all 50 states for parents to take charge of their children's education from kindergarten through college. While there are no national statistics, researchers who study home schooling estimate that as many as 1.5 million youngsters are being taught at home—a fivefold increase since 1988.

Nearly every state has a home-schooling coordinator, and some, such as Iowa and Washington, have established resource centers for parents. Several states also have adopted policies allowing home schoolers to use public school libraries and computer rooms, sign up for certain courses or participate in extracurricular activities.

While there are no reliable studies, advocates say home schoolers generally do as well as other children on standardized tests, and some are accepted into the most elite colleges. In 1998, the average ACT score for homeschooled students was 23 (of 36), two points higher than the average for traditionally schooled students.
The nation's classroom teachers face unprecedented challenges, including the following:

- Responding to the vigorous emphasis on higher student standards
- Learning to teach with new and ever-evolving technologies
- Taking advantage of recent research on brain development and learning theory
- Teaching successfully to an increasingly diverse student population.

In a growing number of states, the issue of how to equip teachers better for these new challenges and new demands has moved to the top of the reform agenda.

One of the most ambitious teacher-quality initiatives in the nation is North Carolina's Excellent Schools Act of 1997. This act increases salaries by an average of 33% over four years; creates a three-tiered, performance-based licensing system for initial, continuing and advanced certification; establishes salary incentives for such things as passing tenure review or obtaining National Board of Professional Teaching Standards certification; provides funds to train and pay mentor teachers; and funds professional development tied to student standards.

North Carolina is one of 12 partner states working with the National Commission on Teaching and America's Future to implement recommendations of the commission's landmark 1997 report, What Matters Most: Teaching for America's Future. These states are in the process of comprehensively redesigning programs and policies affecting all aspects of teaching—recruitment, preservice education, induction, licensing, evaluation, compensation and professional development.

"While there is a long way to go, important progress is being made," the commission observed in its 1998 follow-up report, Doing What Matters Most: Investing in Quality Teaching. Besides the widening array of state efforts focused on improving teacher quality, the commission noted the recent passage of several federal initiatives providing increased support for teacher recruitment and preparation, and the emergence of higher levels of interest and support from a variety of national, state and local organizations. "Americans seem ready to work on this agenda," the report concluded.

**Teacher Education**

Improving the quality of postsecondary education programs that prepare teachers is a high-stakes issue. This is
especially true in states actively involved in implementing academic standards for elementary and secondary schools and their students. Schools that fail to reach standards run the risk of losing autonomy or being shut down. Students who are not successful may be held back a grade, denied a diploma or lose the opportunity to move on to postsecondary education. Many schools are changing curriculum and instruction to meet these heightened expectations for student achievement and will need teachers who can work effectively in these changed environments.

In a small but growing number of states, initiatives are under way to establish stronger links between standards for what students should know and be able to do and standards that set knowledge and performance expectations for teachers. For example, in Colorado, Georgia, Indiana, Louisiana, Maryland, Ohio and Oregon, higher education governing boards and state departments of education are working collaboratively to redesign teacher-preparation programs around K-12 academic standards.

A number of states are involved in national initiatives aimed at improving teacher education. For example, 41 states have entered into partnerships with the National Council for the Accreditation of Teacher Education (NCATE). NCATE has developed standards requiring colleges and universities to demonstrate how they are incorporating new knowledge about effective instructional practice into teacher-preparation programs. Nationwide, more than 500 teacher education institutions have received NCATE accreditation.

Recent data indicate that more new teachers are being prepared in redesigned teacher education programs that allow them to get a degree in their field while completing their training in education at the graduate level. Since 1991, the percentage of new teachers who were hired with a master’s degree has more than doubled, from 9% to about 20%.

On the other hand, the number of newly hired teachers entering the field without adequate training has not declined. Since 1991, the percentage of new teachers who had not completed license requirements in their main assignment field has risen slightly, in fact, from 25% to 27%.

**Teacher Professional Development**

Research over the past decade has produced a remarkable level of consensus about effective professional development for teachers (see sidebar on page 19).
But a significant gap continues to exist between the lessons of this research and programs and practices in schools and districts.

A 1996 50-state study by the Consortium for Policy Research in Education concluded professional development opportunities available in most of the nation's school districts have limited effects on teaching and student achievement. It cited the following reasons:

- Weak links between inservice content and teachers' needs, one inservice activity and the next, inservice training and supervision, and teachers' work assignments and the professional development courses they take.

- The lack of high-quality learning experiences. Inservice activities typically lack intensity, are of short duration and seldom provide opportunities for observation, practice and feedback.

- A lack of attention to teachers' subject-matter knowledge, especially that of elementary teachers.

- A lack of follow-up to help teachers put what they learn in inservice activities to good use in their classrooms.

The quality and availability of professional development continues to vary widely across states. In Kentucky, for example, more than 70% of teachers reported in 1996 that they had received specialized training in such areas as teaching methods, the uses of technology and student assessment. By contrast, only one-third of teachers in Arkansas and Nevada reported having had any opportunity to learn about technology. Only 10% of teachers in Illinois, New Mexico and Tennessee had had the chance to spend more than one day studying their subject area.

There are, however, promising signs of progress. Many local leaders are rethinking schools' use of time to enable teachers to engage in learning activities of their own. Block scheduling to create common teacher planning time or early-release days for students are among the changes. In some districts, community volunteers have been trained to teach mini-units in an academic subject so that teams of teachers can be released from their classrooms to work together.

Teacher networks and school-university collaboratives are helping to promote new ways of thinking about professional development. Teachers' unions are starting to play a larger role in advocating and providing for their members' ongoing learning and development. And the Internet, with its capacity for creating connections and sharing ideas, has been a vital new resource in the effort to enhance teachers' knowledge and skills.
IMPROVING PROFESSIONAL DEVELOPMENT: RESEARCH-BASED PRINCIPLES

Current research suggests teacher professional development activities that have the following characteristics are more likely to be effective than those that lack them:

- Based on analyses of the differences between actual student performance and established goals and standards for student learning
- Involve teachers in the identification of what they need to learn and in the development of the learning experiences in which they will be involved
- Primarily school-based and built into the day-to-day work of teaching
- Organized around collaborative problem solving
- Continuous and ongoing with support from external sources that can provide necessary resources and new perspectives
- Incorporate evaluation of multiple sources of information on student outcomes and on the various processes involved in implementing the lessons learned through professional development
- Provide opportunities to understand the theory underlying the knowledge and skills being learned
- Connected to a comprehensive change process focused on improving student learning.

The presence of up-to-date technology and telecommunications in America’s schools continues to increase dramatically. Today, three out of four classrooms have at least one computer designated for instructional use, and 85% of the nation’s schools are connected to the Internet.

But as public spending on school technology grows – an estimated $5 billion a year nationwide – so does the pressure on educators, schools and districts to demonstrate the investment is paying off.

“It is no longer enough for educators to simply report ... a better student-to-computer ratio or an increase in the number of wired classrooms,” noted a recent analysis by the Milken Exchange on Education Technology. “Policymakers want evidence that technology is being used to improve student learning.”

Assessing the value of education technology, however, is easier said than done. Most of the research done so far has been anecdotal, small-scale and, in many cases, based on measures not everyone agrees are the right ones to use – namely, standardized test scores. Such tests do not reflect the full range of benefits students can get from using technology.

The Milken report urges a broader, more balanced approach. It calls for a national research agenda focused on identifying the “essential conditions” for maximizing the potential of technology as a teaching and learning tool. It also offers a set of indicators states can use, in the interim, to help assess their progress.

**Student Achievement**

What little systematic research has been done suggests that classroom technology can raise student achievement and even improve the overall learning environment in schools – but only when it is placed in the right hands and used in the right ways. In fact, when used for the wrong purposes, computers can do more harm than good.

A newly published study by the Educational Testing Service (ETS) in Princeton, New Jersey, found that when used selectively by trained teachers, computers significantly enhanced the performance of middle school students in mathematics. But the study also found the value of computers in elementary school is far more limited and that, when used primarily for drills and practice at either level, computers can be counterproductive.
The ETS report, published in Education Week’s “Technology Counts ‘98” issue, is the first large-scale examination of the link between computer use and student achievement. The study draws on a national database of student test scores, classroom computer use and other information, including school climate. Among some of ETS’ findings are the following:

- Eighth-grade students whose teachers used computers for “simulations and applications,” rather than for “drill and practice,” outperformed their peers.
- Students whose teachers had professional development in computers outperformed - by more than one-third of a grade level - students whose teachers did not.
- Students who spent more time on computers in school did not score higher than their peers; in fact, they performed slightly worse.

“What matters most,” the ETS study concluded, “are not the machines and the wiring, but what teachers and students do with them.”

**Teacher Training and Technical Support**

School systems seem to be paying greater attention to the important role played by teacher training. Survey results from the latest National Assessment of Educational Progress (NAEP) show that 81% of the nation’s 4th graders had teachers who had received professional development with computers within the past five years. Among 8th graders, 76% had mathematics teachers who had received such training within the past five years.

But while the vast majority of teachers have had some training in education technology, far fewer have had training in more sophisticated uses of technology. Forty percent of teachers, for example, report having had no formal training in using the Internet. And fewer than four in 10 schools report having either a full- or part-time technology coordinator to make sure computers are maintained and updated, purchase new software and provide technical support for teachers.

Thirty-eight states have technology requirements for teacher-preparation programs, but the requirements vary widely in rigor. In Massachusetts, for example, schools of education are required only to help prospective teachers learn to use “new technologies.” In Idaho, education schools must assess whether teaching candidates are proficient in technology.
ECS’ report, *Harnessing Technology for Teaching and Learning*, is a resource guide for policymakers on the issues of teacher training, classroom methods and materials, and infrastructure development. It is available online at www.ecs.org (see “chairman’s report” in the ECS section) or by calling the ECS Distribution Center at 303-299-3692. Ask for Publication #TH-98-2; $9.50 plus $3 postage and handling.

For further information, visit the Mathline Web site at www.mathline.pbs.org or TeachNet at www.teachnet.org.

National Education Technology Standards for Students is available from the International Society for Technology in Education, 480 Charnelton Street, Eugene, OR 97401 or by calling 800-336-5191.

States’ approaches to professional development in technology vary, too. While almost all states offer teachers opportunities for technology training, only Connecticut, New Hampshire and North Carolina require teachers to participate in such training as a condition for renewing their license.

One promising trend is the steady expansion of online professional development opportunities for teachers. These opportunities range from graduate-seminar style courses in specialized areas to more informal structures – networks, bulletin boards, help lines and resource banks.

As an example, more than 5,000 elementary, middle and high school teachers have signed up for Mathline, the largest technology-based professional development program for teachers. Sponsored in part by the U.S. Department of Education, Mathline offers video lessons, printed lesson guides and online discussions facilitated by experienced classroom teachers. Another example, TeachNet, a Web site maintained by Impact II – the Teachers Network, includes 500 teacher-designed classroom projects across all subject areas and a bulletin board with discussions on education policy and teacher leadership.

Technology Standards

Thirty-eight states have standards or graduation requirements pertaining to technology. Some states focus on the technology skills students should acquire, while others emphasize the history of technology or its role in society. Many states include technology as a strand within the standards for some other subject, most often science.

North Carolina is the farthest along of any state in requiring students to demonstrate technology skills. Beginning with the class of 2001, high school seniors will have to pass an assessment of technology competency before graduating.

The National Educational Technology Standards project recently released a suggested set of standards to be used in assessing students’ technology skills at various points in their schooling. The standards cover categories such as basic operations and concepts, productivity, research, communication, problem solving and decisionmaking.
TECHNOLOGY: A VERSATILE TOOL FOR REFORM AND IMPROVEMENT

In combination with standards and other education reforms, technology has the potential to play a major role in transforming America's public education system.

Under the right conditions, technology can do the following:

- **Accelerate, deepen and enrich the learning process.** The use of technology makes it possible for students to learn the academic basics with greater depth and understanding and to engage in learning practices that lead to new ways of thinking, constructing knowledge and communicating.

- **Strengthen teaching.** Technology adds a powerful tool to teachers' repertoire, enabling them to meet the individual needs, interests and learning styles of students more effectively. Network technology also serves to break down teachers' isolation, allowing them to connect with one another to exchange ideas, share resources and improve practice.

- **Improve communication.** Technology can be used to promote better communication within schools, between teachers and parents, and between schools and communities.

- **Foster continuous improvement.** Technology can be used to increase efficiency, streamline administration and provide data to inform and enhance decisionmaking, resource allocation and strategic planning.
The Families and Work Institute has published a report, *Rethinking the Brain: New Insights into Early Development*, exploring key findings of recent research on brain development. The report is available online (www.familiesandwork.org) or by calling the institute's publications office at 212-465-2044.

**Early Childhood Care & Education**

Increased interest in neuroscience research and its implications for early childhood care and education have spawned a variety of state initiatives focused on promoting the healthy development of infants, toddlers and young children. Some states not only are augmenting early childhood services for disadvantaged children—the population traditionally served by such programs—but, in some cases, expanding them to include all children, regardless of family income.

- More than two dozen states in 1997 and 1998 bolstered funding for Head Start, prekindergarten and kindergarten programs, and several states began moving toward universal access to preschool for 4- and 5-year-olds.

- In a growing number of states, efforts are under way to develop a continuum of services for children under the age of 5—hearing tests for newborns, parent counseling, home-visiting services, expanded child-care subsidies or tax credits, and full-day, year-round Head Start and other prekindergarten programs.

- More than a dozen states have launched initiatives aimed at strengthening the quality and comprehensiveness of child-care services for both preschool and school-age children, including improved training and compensation for child-care providers.

Policymakers' interest in early childhood initiatives has been fueled by strong public support and by a steady stream of research findings on the influence of the first few years of life on health, cognitive and emotional development, social adjustment and economic self-sufficiency. The rising interest in early childhood comes at a time when many states are experiencing budget surpluses, allowing more resources to be directed toward public programs for young children.

But states' expanding investment and growing involvement in early childhood programs have given rise to a number of crucial questions. For example:

**What should preschoolers be learning, and who is going to teach it to them?**

As more attention shifts to child care and early education and their potential to prepare children better for school, the responsibilities of teachers in those settings are increasing gradually. But the salary and benefits needed to attract a highly trained workforce are not. Child-care workers, about 40% of whom have no more than a high school diploma, make less than $14,000 a year on average.
Moreover, state requirements governing the care and education of young children vary widely. Fewer than 10% of the estimated 80,000 early childhood programs in the nation are accredited, and the ratio of children to teachers varies widely—from 35-to-1 in some states to the relatively few centers that follow the National Association for the Education of Young Children's recommendation of 10-to-1.

Earlier this year, the National Research Council released a report recommending that day-care workers and preschool teachers play a much larger role in early literacy. But the experts also acknowledge that those teachers are largely unprepared for the task. The report, Preventing Reading Difficulties in Young Children, urged more training for early childhood professionals in the fundamental literacy activities that prepare young children for learning.

What role should public schools play in serving the education needs of preschool-age children?

Most state initiatives to expand access to preschool call for services to be offered through a mix of public and private providers, in a variety of settings—private child-care centers, home-based programs, churches and public school classrooms.

A few states, however, are moving toward providing such services primarily through the public school system—an approach that has stirred debate over issues such as cost, program design and equity. In California, for example, the education department's recent report recommending state-subsidized preschool for all 3- and 4-year-olds within the next decade acknowledged that such a program would "essentially add two full grade levels to the public education system," at a cost of roughly $5 billion a year.

There is concern, too, about states' readiness to move beyond providing limited services for a targeted population—low-income children—to designing and implementing programs that are appropriate for children from a variety of backgrounds. Some critics of "universal access" contend that states have neither the resources nor the expertise to sustain such initiatives and that publicly financed programs should continue to focus on reaching children whose parents cannot afford private preschool.

In Not By Chance: Creating an Early Care and Education System for American Children, early childhood specialists address ways to improve program quality, the training of workers, regulation, financing and governance. The report is available from the Bush Center in Child Development and Social Policy at Yale University, 203-432-9931.

The National Research Council's report, Preventing Reading Difficulties in Young Children, is available online (www.nap.edu) or by writing National Academy Press, 2101 Constitution Avenue NW, Box 285, Washington, DC 20055.
Will early childhood programs that have proved effective on a small scale yield similar benefits when implemented on a larger scale?

A mid-1998 report by RAND concluded that certain intervention programs can benefit disadvantaged children and, in the long run, save money in other government programs, such as welfare, criminal justice and special education.

But the RAND report cautioned policymakers against jumping to the conclusion that such programs "will generate the same benefits and savings when implemented on a large scale." Nearly all of the model programs evaluated to date, the report noted, "have been undertaken in a more resource-intensive context than is likely to be achievable in full-scale programs."

The report's authors noted that while state investments in early childhood programs have been growing for the past several years, "it is unclear what will happen to these programs once the media spotlight moves on and budgets tighten."

The report concluded that policymakers' ability to make wise decisions about the funding and structure of early childhood programs will depend on better evaluation and research focused on why programs work. "Then, when budgets tighten again and choices need to be made, the value of these programs will be more clearly understood," the report said.

It is worth noting the federal government is funding several large research projects that will ultimately provide more information about the kinds of programs that best serve children in their earliest years, including a longitudinal study by the U.S. Department of Education following 23,000 children in 1,000 schools from kindergarten through 5th grade.
MEETING THE NEEDS OF PRESCHOOL-AGE CHILDREN: WHAT STATES ARE DOING

- **New York** plans to spend $500 million over the next four years to implement its new universal preschool program, which will eventually be open to any 4-year-old in the state.

- **New Jersey** is spending $288 million in 1998-99 to provide half-day preschool for 4-year-olds and full-day kindergarten in 125 of the state’s most disadvantaged districts. Within those districts, the programs are open to any child.

- In **Georgia**, the first state to provide universal access to preschool, nearly 63,000 4-year-olds are enrolled in the state’s full-day prekindergarten program.

- **Colorado** has established a pilot program in 12 communities providing a continuum of services – child care, prekindergarten classes, parent education, health screening and nutrition services – for disadvantaged children under age 5.

- **West Virginia** has created a Family Resource Network in each of its 55 counties. Each network develops a countywide plan to make support services available to families at a single intake point.

- Several states – including **Delaware, Michigan, Nebraska, Tennessee** and **Vermont** – have approved or are considering plans to extend health-insurance coverage to the children of families living in poverty.

- In **South Dakota**, the state has established five regional centers that provide ongoing training, consultation and resources for child-care providers.
Greater communication and interaction between the K-12 and higher education systems is a critical component of reform. By working together, K-12 schools and postsecondary institutions may be able to accomplish what neither has been able to accomplish alone during the past decade of reform: significantly improved student achievement, better access to and preparation for college, and increased financial productivity in both sectors.

**College Admissions Policies**

Over the past decade, concerns about students' preparation for college have led many states to adopt statewide admissions policies. These policies are based primarily on high school coursework requirements and performance criteria, including ACT/SAT scores, high school grade-point average and class rank. Currently, 28 states have statewide admissions requirements, and another six have some statewide involvement in setting admissions policies.

During the 1990s, competency-based admissions approaches increased, largely motivated by K-12 school reform efforts, but also tied to the increasing number of home-schooled students and students in nontraditional high schools. Eleven states are developing competency-based admissions policies, in most cases, not to replace traditional admissions practices, but rather to complement them.

While these initiatives are being developed in distinctive political and governance environments, all share similar motivations and many of the same goals. These include doing a better job of communicating to high school students what will be expected of them in college, recognizing competencies achieved across a broad array of settings (including applied-learning experiences and technology-based instruction) and encouraging students to take more responsibility for assessing their own performance.

Preliminary work on these initiatives includes developing competency standards in core academic areas, defining and designing assessment measures, and creating a common high school transcript to report student outcomes.

Two states – Oregon and Washington – plan to fully implement a competency-based admissions system within the next decade. Several other states, including Wisconsin and Colorado, plan to use competency-based admissions in tandem with traditional systems that rely on test scores and high school grades.
Remediation Policies

A critical question in every state is how to bridge the gap between what students are expected to learn in high school and what they must know and be able to do to succeed in college. In some states, as many as 50% of high school graduates going directly to college require remedial help as new freshmen.

Postsecondary remediation traditionally has been dealt with by institutions. Recently, however, state higher education agencies and legislatures have become involved in addressing the remediation issue.

Much of this statewide interest stems from concerns about costs. For students who have just graduated high school (as opposed to adult students), remediation is seen as paying again for learning that should have occurred at the secondary level. On the other hand, remediation offers a second chance for students who may not have had opportunities to participate in high-quality precollegiate courses.

The problem of college-level remediation has spawned a wide array of state initiatives. Eleven states, for example, recently completed major studies of remedial education policies and practices. Several states have gone so far as to place caps on the percent of university students who can be admitted with remedial needs, to impose limits on which institutions or system sectors can offer remedial courses, and/or to limit the amount of public money that can be spent on remediation.

But such strategies are of questionable value, according to a recent report on statewide remediation policies by the State Higher Education Executive Officers and ACT Inc. “The main effect of these policies so far has been to move underprepared students around in the system, treating a highly visible symptom of system failure but not yet grappling with its root causes,” the report concluded.

Many states have developed collaborative programs between secondary and postsecondary education aimed at raising the level of student preparation for college. The most common approaches are early outreach programs, allowing high school students to take college courses for credit, providing feedback to high schools on how their graduates perform in college, and bringing high school and college faculty together to work on curriculum and standards.

Statewide Remedial Education Policies, by Edward Crowe, is available from the State Higher Education Executive Officers, 707 17th St., Suite 2700, Denver, CO 80202; phone: 303-299-3686. Free while supplies last.
K-16 Partnerships

K-16 partnerships have emerged as a promising new approach to remedial education concerns. State leaders have begun to realize it is impossible to deal with the underlying causes of remediation without a more systemic strategy involving both the K-12 and postsecondary systems.

Georgia, Maryland and Ohio are on the forefront of reform in this area. All three states are pursuing policy and practice changes focused on improving students' access to and success in postsecondary education. Among the key components of these states' K-16 initiatives are the following:

- The establishment of formal partnership councils or alliances aimed at facilitating high-level cooperation across education sectors
- The comprehensive redesign of teacher education curricula emphasizing academic disciplines, and the redesign of teacher certification and licensure requirements based on clearly defined standards of what teachers should know and be able to do
- The creation of a continuum of student assessment strategies focused on early detection and remediation of education deficiencies
- The establishment of stronger cross-system connections in areas such as curriculum development and data collection, analysis and reporting, and including links between college admissions standards and high school graduation requirements.
WHAT STATES ARE DOING: IMPROVING STUDENT PREPARATION FOR COLLEGE

- **Georgia**'s Postsecondary Readiness Enrichment Program offers supplemental programs for students in grades 7-12 that are designed to improve their access to and success in postsecondary education. Programs include mentoring, technology instruction, career exploration and college visitation opportunities for 7th graders.

- In **Arkansas**, the Academic Challenge Scholarship Program encourages high school students to take a full set of core academic courses. Since its inception in 1991, student enrollment in these courses has increased from 40% to 73%. Remediation levels have dropped from 60% of recent high school graduates needing postsecondary remediation to 49%.

- **Maryland**, **North Carolina** and **Oklahoma** provide school districts and/or high schools with information on the college performance of recent high school graduates, including grade-point averages and placement in remedial classes.

- In **New Mexico**, the statewide Mathematics, Engineering and Science Achievement (MESA) program provides tutoring, counseling and other assistance to minority middle- and high-school students interested in pursuing careers in those areas.
As schools struggle to find new ways to help students achieve at higher levels, many are discarding traditional approaches in favor of strategies that focus on reorganizing and revitalizing the entire school from the ground up. Some schools have turned to external partners for assistance in these efforts. These partners offer reform designs intended to improve all aspects of school operations—curriculum and instruction, teacher training, school management and resource use.

These "whole" or "comprehensive" school reforms are spreading rapidly. More than 2,100 schools are affiliated with either Robert Slavin's Success for All program, James Comer's School Development Project or Henry Levin's Accelerated Schools. Designs supported by New American Schools are used by more than 700 schools.

The number of schools embarked on such reforms is likely at least to double over the next several years as a result of new federal legislation. The Comprehensive School Reform Demonstration (CSRD) project, approved last year by Congress, provides schools with at least $50,000 to implement this kind of improvement strategy. Schools in all 50 states are eligible for the funding, which became available in July 1998.

The legislation allows schools to select from research-based, comprehensive school reform models or to develop their own programs. The legislation identifies criteria for what constitutes a comprehensive school reform model, but individual states have considerable leeway in determining which schools receive funding to implement which reform models.
Comprehensive school reform, and the CSRD program in particular, provides schools opportunities to make use of expert assistance to improve instruction. To maximize the potential of design-based assistance, careful planning and monitoring are needed. State and district policymakers have important roles to play in assuring wise matches and continuing productive relationships between schools and designs.

A recent Education Commission of the States (ECS) survey of national, state and district leaders identified a number of concerns about making comprehensive school reform work. The primary concerns center around the following issues:

- **Financing/resource allocation.** Much confusion exists at the state and local levels about what monies can be used to support comprehensive school reform and what kinds of accounting practices are needed to track the money.

- **Staff development.** Education leaders at all levels agree staff development is critical if reform efforts are to succeed, but districts and states typically spend little money on this function. Some states and districts have tackled this issue with noteworthy results. For example, in Texas, the San Antonio Independent School District was granted a state waiver to increase from two to 11 the number of days set aside for professional development and classroom preparation each year.

- **District-level support.** While research shows district involvement is critical in guiding and supporting comprehensive school reform, many states are not demanding a district role in their applications. There are, however, exceptions. Illinois, for example, mandates the district show how its resources will be used to support whole-school improvement efforts. In New York, all applications for CSRD funds have both district- and building-level sections, and districts are required to identify what resources it will commit to ensure the ongoing success of the reform program.

States and Districts and Comprehensive School Reform, a policy brief examining the roles and responsibilities of policymakers in helping schools implement reform designs, is available from the Consortium for Policy Research in Education, 215-573-0700.

ECS has published three booklets focused on various aspects of comprehensive school reform: Comprehensive School Reform: Criteria and Questions (#AN-98-2), Comprehensive School Reform: Identifying Effective Models (#AN-98-3) and Comprehensive School Reform: Allocating Federal Funds (#AN-98-4). The booklets are available on the ECS Web site at www.ecs.org or may be purchased for $7.50 plus $3 postage and handling for all three by calling the ECS Distribution Center at 303-299-3692. Also available is Selecting School Reform Models: A Reference Guide for States (Publication #AN-98-5). Check the ECS Web site or call 303-299-3692 to order. Free while supplies last.
Organizations with Web sites devoted to the Comprehensive School Reform Demonstration project include the U.S. Department of Education (www.ed.gov/offices/OESE/compreform); ECS (www.ecs.org); the North Central Regional Education Laboratory (www.ncrel.org/csri); and the Southwest Educational Development Laboratory (www.sedl.org/csrd/resources.html).

- **Evaluation.** Many states and districts need assistance with collecting and evaluating information about how effective comprehensive school reform efforts are in improving student achievement.

- **Best practices.** Education and political leaders need more information on what research shows as to what works and what does not work in various aspects of comprehensive school reform.

- **Standards.** Comprehensive reform efforts must incorporate, not be carried out apart from, state standards, which have the backing of state legislators and education leaders in most states.

- **Business involvement.** Because turnover in school or district leadership can derail reform efforts, the involvement of business leaders is critical to maintaining progress.
LESSONS LEARNED FROM NEW AMERICAN SCHOOLS

New American Schools (NAS) was established in 1991 to help schools transform themselves into high-performing organizations through the use of comprehensive school designs. From 1995 to 1997, NAS partnered with 10 school districts to bring these designs to more than 30% of their schools.

RAND assessed the implementation status of 40 schools during that period. Among the findings are the following:

- Schools with staff that were well-informed about designs, had a choice of designs and had stable leadership showed the highest levels of implementation.

- Schools that worked with NAS design teams, which provided greater amounts of onsite support, were implementing reforms at higher levels.

- Secondary schools progressed more slowly toward implementation than elementary schools.

- Schools in districts with a supportive environment, no significant crises and a high priority on the NAS efforts also progressed more rapidly.

The report concluded that design teams do not successfully implement such efforts by themselves; they must have school and district support and cooperation. The environment offered by schools and districts, especially resources for investment and a high priority on the effort, is crucial to successful implementation.

In a growing number of states and school districts, the issue of education governance — who makes what decisions and in what manner — is receiving increased attention from policymakers.

Probably the longest-standing governance reform is school-based management (SBM), a form of decentralization aimed at increasing the participation of parents and teachers in school management and decisionmaking. Under SBM, some powers and functions traditionally held by states and central district offices are delegated to subdistricts or local schools.

Another tool states are using to increase the versatility, responsiveness and accountability of the education system is charter schools and other forms of school choice, which are discussed elsewhere in this report.

Finally, many states have adopted “academic bankruptcy” laws. These laws provide for state intervention in the operation and management of chronically underperforming schools or districts.

**School-Based Management**

A recently published article in *Educational Policy* reviewed 83 studies of school-based management to identify variations and the effects of such variations on students and other key players.

The research by Kenneth Leithwood and Teresa Menzies found that SBM usually takes one of four forms: administrative control, professional control, community control or balanced control (with power shared among school professionals, parents and community members). A number of factors were found to influence the form that SBM assumes in a given district, including: a school district’s traditional way of doing business, student demographics, community perceptions about schools and leadership, and vision of superintendents and principals.
Among the major findings of the Leithwood-Menzies report are the following points:

- There is virtually no firm, research-based knowledge about the direct or indirect effects of site-based management on student achievement. The little research that has been done suggests the effects on students are just as likely to be negative as positive. There is "an awesome gap between the rhetoric and the reality" of SBM's contribution to improved student learning, the report concluded.
- There is "a lack of strong theoretical argument and empirical evidence" as to whether SBM improves the quality of teaching.
- There are huge costs -- in principals' and teachers' time and effort -- to making SBM work, especially in the early stages of implementation.
- Administrative-control SBM is the least likely to result in fundamental change in schools and the roles of those associated with schools.
- Community-control SBM is the most likely to bring about change in schools but requires the largest accommodation by teachers and principals.
- Professional-control SBM appears to have more positive effects on the practices of teachers than either administrative- or community-control SBM.

State Interventions

In 1989, the New Jersey Board of Education took over governance of the Jersey City School District, the first such intervention in a local school district deemed "academically bankrupt." Since then, nearly a dozen states have taken similar actions, either taking over a district or designating another entity (for example, a mayor) to manage a district.
Governance

Although there is little research on the effects of state interventions, they seem to have had more of an effect on central office activities than on classroom practices. One notable exception is Logan County, West Virginia, where the state intervention resulted in higher student test scores, better management and stronger community support. The West Virginia Board of Education recently decided to intervene in another low-performing district, Mingo County, because of continuing budget deficits, low student achievement and a lack of leadership.

One of the most high-profile state interventions occurred in the Chicago public school system. In 1995, the Illinois legislature shifted control of the Chicago schools to the city’s mayor and charged him with appointing school board members, the board president and the district’s chief executive officer.

According to a 1997 study by the University of Chicago’s School of Education, these changes have improved managerial efficiency within the district. More recently, the Consortium on Chicago School Research concluded the 1995 governance change, in combination with earlier reforms, had brought about substantial improvements in student achievement in a significant number of Chicago’s public elementary schools.
SCHOOL GOVERNANCE: WHAT STATES ARE DOING

In 1998, a number of states and districts enacted policies affecting the governance of schools, including the following:

- The Minnesota legislature abolished its state board of education.

- In Ohio, the legislature shifted control of the Cleveland Public Schools to the mayor and charged him with appointing the school board and a chief executive officer.

- In Wisconsin, the Milwaukee Public Schools implemented a new local school council policy. The council’s elected membership must include at least 51% parent representation, at least one student (in middle and high schools), community representatives, staff members, and the principal.

- In Kentucky, the superintendent of education appointed three new members to the Floyd County school board. The board subsequently voted to accept a state takeover because of “educational malpractice” within the district.

- Massachusetts officials intervened in the Lawrence School District. The state entered into a joint selection process with the district for a new superintendent and opened an office within the district to oversee day-to-day operations and provide technical assistance to school administrators.
Listed below are some other ECS publications dealing with the topics discussed in this report.


- *A Policymakers’ Guide to Education Reform Networks* – discusses the kinds of networks available, how they work, and the benefits and services they offer. Includes a thumbnail sketch of some major education reform network models. SI-97-11, $10.00 + p&h.

- *Education Accountability Systems in 50 States* – defines the components of a performance-based education accountability system and then shows what each state’s system looks like. SI-97-12, $7.50 + p&h.

- *A Policymaker’s Guide to Incentives for Students, Teachers and Schools* – identifies elements for improving performance in a standards-based system; describes incentives for students, teachers and schools; and looks at implications for policymakers. AN-97-5, $10.00 + p&h.


- *So You Have Standards... Now What?* – provides tips and strategies on how to involve educators, the public and parents in deciding on new forms of assessment. Includes public concerns and tips for meeting policy and communications challenges. SI-97-2, $10.00 + p&h.

See page ii for postage and handling information. To order, contact the ECS Distribution Center, 707 17th St., Suite 2700, Denver, CO 80202-3427; phone: 303-299-3692; fax: 303-296-8332; e-mail: gfrank@ecs.org.
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