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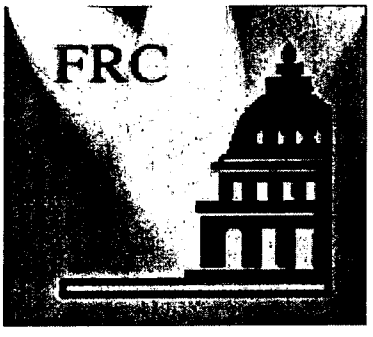
ABSTRACT

Part of a series on contemporary school reform and special education, this report discusses how states are building capacity for standards-based reform. An introduction describes seven key areas in which states must build classroom and organizational level capacities, including: (1) teachers' knowledge, skills, and dispositions; (2) students' motivation and readiness to learn; (3) curriculum material for students and teachers; (4) numbers and kinds of people supporting the classroom; (5) number and quality of social relationships within and among the different organizational levels; (6) material (non-human resources); and (7) organization and allocation of school and district resources. The next section reviews some of the policies and strategies that eight states (California, Colorado, Florida, Kentucky, Maryland, Michigan, Minnesota, and Texas) used to address the issue of capacity. Four of the most common approaches to building capacity are then described, including infrastructure for professional development and technical assistance, professional development and training standards, curriculum materials for students and teachers, and organization and allocation of school and district resources. The last part discusses continuing challenges. An appendix includes a chart outlining the development of standards and assessments in the eight states. (Contains 51 references.) (CR)

SPECIAL EDUCATION IN AN ERA OF SCHOOL REFORM

BUILDING THE CAPACITY FOR STANDARDS-BASED REFORM

by Diane Massell, Ph.D.



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BUILDING THE CAPACITY FOR STANDARDS-BASED REFORM

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Consortium for Policy Research in Education
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This is a product of the Federal Resource Center for Special Education, part of the Regional Resource and Federal Center Network.

Carol H. Valdivieso, Ph.D.
Director

Reports in the series *Special Education in an Era of School Reform:*

An Overview by Margaret McLaughlin, Ph.D.
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Building the Capacity for Standards-Based Reform by Diane Massell, Ph.D.

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PREFACE

This report is part of a series on contemporary school reform and special education. Schools are under increasing pressure to change, and the push is coming from many sources. Governments and citizens want more accountability, higher standards and better use of tax dollars. Businesses want a more educated and skilled workforce and a growing population of students with special needs requires a greater number of appropriate services. Current federal, state and local reform touches on many areas of education—curriculum, teaching, standards, assessment, finance, professional development and governance. This current series provides a general overview of special education in school reform; three reports discuss specific elements of school reform and how they impact special education, and this, the fifth discusses capacity-building for school reform. As reform progresses, additional papers on special education and school reform will be published by the Federal Resource Center. The more special educators, advocates, and decision-makers know about reform, and the lessons learned, the more effective they will be at ensuring access to services and opportunities for all students.

The reports available in this series are:

- Special Education in an Era of School Reform: An Overview by Margaret McLaughlin, Ph.D.;
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Contents

INTRODUCTION

Standards-based reform is the policy framework used by a majority of states and the Federal government to improve teaching and learning in America's classrooms. Standards-based reform generally consists of three key components: (1) a unifying vision and goals that include ambitious curriculum and performance standards for all students; (2) coherent policies that reinforce these ambitious outcomes, and (3) a restructured system of governance that gives local decision-makers more control to reach the student performance goals (Smith & O'Day, 1991).

The design and substance of the reforms can vary across policy contexts, yet these three basic elements have strongly shaped the business of public education policy for over a decade (Fuhrman & Massell, 1992; Massell & Fuhrman, 1994). This reform strategy has persisted in states and districts despite political turbulence, turnover in leadership and often voluminous debate about the nature and purpose of these new academic standards (Massell, Kirst & Hoppe, 1997).

The concern with bringing all students under the umbrella of this general education reform strategy is evident in recent Federal legislation, namely, the 1997 Amendments to the Individuals with Disabilities Education Act (IDEA '97) and the Improving America's Schools Act of 1994 (the reauthorized 1965 Elementary and Secondary Education Act). Historically, these Federally-funded categorical programs focused on providing distinct services to special education students and to educationally disadvantaged students from low-income areas. Over time, the separation of these students both academically and physically came to be seen as a major impediment to improving their education. Thus, the recent iterations of these Federal policies try to bridge the education of students who are disadvantaged and those who have disabilities with students in general education, and, more specifically, with the standards-based reform initiatives underway. Both IDEA '97 and Title I, for example, require that students with special needs be included in statewide assessments administered to all children. The IDEA '97 reauthorization requires that Individualized Education Plans (IEPs) for students with disabilities relate to the general education curriculum, and that parents be informed of their child's academic progress.

Is Standards-Based Reform Working?

From the late 1980's to the late 1990's, state policy-makers focused their energies on putting the architecture of standards-based reforms in place: the academic content standards and performance standards identifying how well students meet academic expectations, the tests, the incentives and the accountability systems for holding all students to the same high standards. Simply having clear ideas about learning goals or high motivation does not always yield the hoped-for student learning (Berman & McLaughlin, 1978; McLaughlin, 1987, 1991). Some states with high standards, assessments and accountability programs have found that early gains in student achievement level off in certain academic areas. For example, about 40% of students in poverty performed at or above the basic proficiency level in 4th and 8th grades compared to more than 70% of students not living in poverty. About 30% of African-American and 40% of Hispanic students were at or above the basic level compared to 75% of Caucasian students (Reese, Dossey, & Mazzeo, 1996). Similar disparities exist in science achievement (O'Sullivan, Resse and Mazzeo, 1997). Other studies indicate poorer outcomes for students with disabilities than their non-disabled peers: lower average grade point averages, higher course failure rates, lower academic achievement levels and higher dropout rates (McDonnell, McLaughlin, & Morison, 1997).

As a result, many policy-makers and policy analysts have begun to use the phrase "capacity-building" to acknowledge, at least verbally, that clear standards and powerful incentives are not enough to dramatically change teaching and learning (Cohen & Ball, 1996; Corcoran & Goertz, 1995; Goertz, Floden & O'Day, 1995).

What is "capacity"?

One way to think about capacity is to consider what is needed for an effective classroom. Many people tend to think primarily of teacher knowledge and skills. While these are certainly critical ingredients for high-performing classrooms, we need to think of capacity more broadly, indeed, we would say, more systemically. Classrooms also need quality instructional materials as well as students who are motivated and ready to learn (Cohen & Ball, 1996). Classrooms are nested in larger contexts—the school, district and state—which provide direction and leadership, and which can impact social norms as well as access to resources and knowledge (Goertz, Floden & O'Day, 1995). For example, a teacher's ability to teach well depends to some degree on the school's ability to support professional learning and collaboration within and

outside the school, or on the way districts use human and fiscal resources to enhance instruction.

The notion that we need to think of the capacity of classrooms and of the organization that supports them has led us to more specifically identify seven areas that we think are vital for supporting improvements in teaching and learning:

Classroom Level Capacities:

(1) Teachers' knowledge, skills and dispositions

To teach well and to teach to the more challenging expectations of current reforms, all educators must have a rich understanding of the subject matter that they teach (Darling-Hammond, 1996). Among other things, reform advocates suggest that teachers must also understand how all students learn and how diverse learning styles interact with subject matter (National Commission on Teaching and America's Future, 1996; National Board for Professional Teaching Standards, 1994). Recent policy efforts to include special education students as well as students from diverse language backgrounds and ability groups in general education reform makes such skills critical. Professional training and norms within schools however, do not always support such knowledge or skill development. For instance, approximately half the states require K-12 teachers to take a course in methods of teaching students with disabilities as part of the state certification requirement (Rhim & McLaughlin, 1997). And within schools, general education teachers are given responsibility for subject matter content while special education teachers are often responsible for adapting curriculum and instruction to their students' needs (Hardman, McDonnell, & Welch, 1997).

(2) Students' motivation and readiness to learn

Teachers' work in the classroom requires an implicit contract with students: they have to be both willing and able to engage in the learning process. But the chaos in many students' lives caused by hunger, poverty, violence, homelessness, lack of supervision and more, drains them of the motivation and readiness to learn. For example, nearly one-fifth of all children were living in poverty during the mid-1990s, a proportion that was much higher for African-American and Hispanic minorities than for Caucasians, and for female-headed households compared to two-parent families (National Center for Education Statistics, 1996). Furthermore, do students have sufficient incentives to do well with the standards-based curriculum, particularly when achievement on state assessments aligned to those standards is largely ignored in the college admissions and hiring processes?

(3) Curriculum material for students and teachers

Many recognize that curriculum materials alone are inadequate to revolutionize the way teachers teach or what students learn. This was amply demonstrated by the efforts of the National Science Foundation to upgrade the quality of mathematics, science, social studies and other textbooks between the 1950's and 1970's. The way these materials are used by teachers and students is essential, and depends upon many factors, including the knowledge and skills of the people using the material, whether school time enables teachers and students to explore ideas in the material, and so on. But high-quality curriculum is nevertheless a necessary if not sufficient implement for change. Indeed, the lack of such quality, and the emphasis of most textbooks on skimming through many topics in a highly general and dull way, was a major impetus for the National Council of Teachers of Mathematics (NCTM) to begin to set content standards. NCTM wanted commercial publishers to use their standards as a guide (Massell, 1994). It was hoped that content standards developed by other national subject-matter associations in the early-to mid-1990s and by the states would similarly influence the publishing industry. Despite some responsiveness by the industry, many teachers still feel the kinds of curriculum they need to meet the goals of standards-based reform are unavailable (Massell, Kirst & Hoppe, 1997). Content-based resources connected to standards are particularly important for special education teachers since they may be weak in the academic knowledge contained in standards.

Organizational Level Capacities (school, district and state):

(4) Numbers and kinds of people supporting the classroom

Many other people in schools and districts outside of teachers provide support for the classroom or within it, such as district administrators, curriculum specialists and teachers' aides. The numbers and kinds of people can influence the way teaching is organized, the way teachers interpret standard reforms and use them to guide classroom activities (Spillane, 1996), and other elements directly related to teaching and learning.

(5) Number and quality of social relationships within and among the different organizational levels

High-functioning schools establish professional communities where the adults communicate with and trust one another, and are open about their teaching practices. This kind of environment can encourage more innovative and risk-taking behavior, which is often a prerequisite for the kind of teaching called for under current visions of reform. In addition, the creation of professional communities outside of the building can help move all teachers beyond the isolation and insularity of practice

that typically attend this occupation and enhance teachers' sense of professional efficacy and responsibility. For special education, some of the critical issues are whether general education and special education teachers communicate, when and under what conditions? Are academic responsibilities for special education students shared?

(6) Material (non-human resources)
A school's ability to provide a safe and rich learning environment hinges to some degree on its access to sufficient material resources. For example, when facilities are cramped or inadequate, districts and schools find it difficult to add more teachers or services because there is no space to house them (Firestone, Goertz, & Natriello, 1997). This problem is exacerbated by a rapidly expanding school population, and in some areas, little land on which to build facilities.

(7) Organization and allocation of school and district resources
The way resources are organized and used can impact a teacher's and school's ability to address instructional change. Hindrances to these abilities would be resources targeted on areas that have little consequence for teaching and learning, or resources that are spread so thinly that few things are accomplished well.

It is important to consider how these seven areas are addressed. Without attention, it will be difficult for teachers to deliver and all students to receive a more challenging and appropriate academic fare.

In the next section we will look at some of the policies and strategies that eight states used to address the issue of capacity. These eight states—California, Colorado, Florida, Kentucky, Maryland, Michigan, Minnesota and Texas—which participated in a three-year research study (1996-1999) run by the Consortium for Policy Research in Education (CPRE) examined the interaction of Federal and state standards-based reforms with local policies and teaching and learning in classrooms. Part of the work was coordinated with research at the Center for Policy Research on Special Education at the University of Maryland. In 1996-97, state capitols were visited and approximately nineteen policy-makers in each state were interviewed, including the chief state school officer, legislative leaders, state department of education personnel and teacher union and business representatives. In addition, we supplemented these interviews with background documents to verify and support factual statements and to extend our analysis.

Have state policy-makers tried to address those different kinds of capacity?

States can and have undertaken a wide array of initiatives to build capacity for improved teaching and learning. In fact, nearly every state studied addressed each of the seven areas we identified with one or more policy strategies. Tables 1 and 2 show the different kinds of policy strategies used in our states. The lists are not exhaustive and many readers will be able to add their own ideas and initiatives in these categories.

Table 1 - Policy Strategies To Build Classroom Capacity

Build Teachers' Knowledge, Skills & Disposition	Student Motivation & Readiness to Learn	Curriculum Materials for Students & Teachers
• State Department Staff Offer Direct Support & Technical Assistance upon Demand	• Establish Promotion and Graduation Requirements	• Create Frameworks & Supplemental Materials
• Create a Professional Development Infrastructure to Provide Support to Districts, Schools and Teachers	• Reward Students for Performance with Scholarships, Recognition	• Establish Materials for Adoption & Development policies
• Involve Educators in Curriculum, Assessment or other Policy Development Activities	• Establish Social Services/Pre-School Programs	• Reward Students for Performance with Scholarships, Recognition
• Broker Information for Districts, Schools or Teachers.		• Provide Support for Adoption of National Instructional Programs
• Create Professional Development Standards, Teaching Standards, and Training Standards or Licensure and Certification Requirements		

Table 2 - Strategies To Build Organizational Capacity

Number & Quality of Social Relationships	Number & Kinds of People	Material (Non-Human) Resources	Organization & Allocation of School/District Resources
• Restructure Authority and Control Relationships, e.g. School-Based Management or Decision-Making	• Alter Class Size	• Invest in Technology	• Require Schools and Districts to Reconsider their Use of Resources, e.g. School Improvement Planning, School-Based Management or Decision-Making
• Establish or Support Professional Networks for Teachers, Schools or Districts	• Use Categorical Program Regulations or Funding to Require Certain Staffing Configurations	• Improve Facilities	• Use Market Pressures such as Choice and Charters to Shift Resources Within the System
• Move Staff or Students or Dismiss Staff in Failing Schools to Change Climate	• Establish District-Level Personnel Requirements, e.g. limit administrator/ pupil ratios; specify certain types of personnel such as curriculum specialists	• Set Aside Moneys for Districts, Schools or Teachers to Select their Own Instructional Materials	• Consolidate the Use of Categorical Funds
• Impose New Leadership, e.g. State Takeover of Failing Schools			• Alter State & Federal Aid Allocation Requirements
			• Reorganize School Time

What were the differences and commonalities in states' approaches to providing support?

While the states we studied had initiatives in each of these areas, there was variation in what areas they emphasized, and what policy mechanisms they used to address capacity. For instance, in 1996, California's governor put a high priority on reducing class size in grades K-3, and invested a tremendous amount of state resources towards this end, including capital construction funds to help schools add space for

more classrooms. While Florida provided some financial incentives to reduce class size in kindergarten and first grade, no other of the eight states put such a high priority on improving the pupil-teacher ratio specifically at that time.

Comparatively speaking, policy-makers in some states put a much greater emphasis on building capacity for reform than others. Kentucky stands out as particularly exceptional in its focus on this issue, namely in terms of its diversity of approaches, the time, resources and attention paid by staff to capacity, and the extent to which it provided relatively muscular and detailed curricular guidance and support. Some of this focus can be explained by the small size and homogeneity of the state and the energy and investment of the business community in reform. It is also due to the comprehensiveness of Kentucky's initial reform legislation, which revamped everything from school finance to children and family services to the role of the state in providing instructional direction with standards-based reform. These initiatives have enjoyed relative stability over a long period of time, permitting strategies for addressing specific needs to surface. For example, the challenging nature of their reform agenda and the high stakes of its accountability system created greater demands from the field for curricular guidance (Massell, Kirst & Hoppe, 1997). With stability, the state has had time to develop a more extensive response to local needs. Getting the architecture in place may be a prerequisite to considering the full implications of reform for the capacity of teachers, schools and districts to implement change. Of course, the way strategies for building capacity are designed and implemented is crucial to whether they actually improve the ability of students, teachers and administrators to respond.

Despite these variations, when all the policy initiatives are assembled, a pattern emerges. Four broad strategies, in particular, stand out.

- States in our sample concentrated on establishing, supporting or simply relying upon an infrastructure for providing training and professional development that was external to the state department of education. Many states required or encouraged state-sponsored assistance in these external organizations to focus primarily on low-capacity districts or schools.

- They relied heavily upon professional development and training standards as levers to improve the quality of services to enhance teacher knowledge and skills.

- They sought to clarify the implications of their student content standards for classroom curriculum and teaching.

- A majority of the states viewed school improvement planning (SIP) as a way to encourage schools to review and analyze their own approach to meeting standards-based reform goals. States assumed that such planning would enable schools to reorganize and reallocate resources more appropriately for reform.

In the next section of this report we will explore these approaches to building capacity for reform.

PART 2: COMMON APPROACHES

This section describes in some detail the four most common approaches to building capacity, and illustrates them with many examples.

(I) Infrastructure for Professional Development and Technical Assistance

Overview

For many years, lawmakers and policy analysts have called upon state departments of education to move away from their traditional role of monitoring compliance with program regulations and procedures (Sroufe, 1967; Massell & Fuhrman, 1994; Lusi, 1997). They argued that these functions were counterproductive, stifling innovation and doing little more than burdening local educators with meaningless paperwork. Instead, they wanted these bureaucracies to offer greater assistance in improving the practice of teachers, districts and schools.

In response to these demands to be, in effect, capacity-builders, state departments of education attempted to reorganize, introduced new managerial strategies based on a more client-oriented approach, such as Total Quality Management and undertook other activities (Lusi, 1997). States such as Florida, Kentucky and Texas took dramatic steps to reduce or even eliminate compliance monitoring and site inspections (except in cases of chronically low performance). They stopped evaluating schools according to inputs, such as; how many books are on library shelves. Many states also attempted to reduce regulations, or permitted waivers more readily.

However, this intended shift in purpose did not mean that staff in state education departments expanded their own roles as direct providers of professional support to teachers, schools or districts. In fact, in each of our eight states, the contrary occurred: state education departments decided not to function as principal agents of technical assistance and professional development, and in some cases pulled their central office staff back from earlier activities in this area. Half of our states—Florida, Kentucky, Maryland and Texas—offered less and less direct assistance over time.

When department staff did provide direct support, they were often very careful about how they used their time. For instance, Maryland curriculum specialists tried to maximize the use of their time by responding to requests from school systems or clusters of schools, rather

than to individuals or single schools. They also sought to train local educators to provide assistance (the 'trainer-of-trainers' model), and met biannually with district curriculum supervisors. Many state education departments viewed providing information about good practices as a key function. States such as Colorado, Florida and Maryland were exploring, or encouraging others to explore, unusually effective high poverty schools. As we shall see below, brokering information about curriculum was also a strategy many states used to meet teachers' and schools' demands for more specific instructional guidance addressing standards-based reforms. Importantly, policy-makers and central office staff in many states often made the strategic decision to focus their limited time and resources on the lowest performers in the system.

But their foremost strategy for providing professional development and technical assistance was to build or support an external infrastructure of assistance, such as regional service centers. Or, more simply, they relied upon pre-existing groups or institutions like professional networks, state subject-matter associations, or colleges and universities to fulfill these needs. Many states required or encouraged state-sponsored assistance in these external organizations to focus primarily on low-capacity and/or low-performing districts or schools.

One reason why state education departments turned to this external infrastructure to build professional capacity lay in the prevailing wisdom that people who are in regular and close contact with teachers and schools are in a better position to offer advice and assistance. This is an off-shoot of broader policy arguments holding that higher levels of government should decentralize control and authority to lower levels to improve the quality of service. Yet another reason was simply pragmatic. The numbers of state departments of education staff have dwindled steadily for years because of fiscal distress during the late 1980s and early 1990s, as well as long-standing legislative mistrust and concerns about the burden of central department oversight and monitoring. As a result, department staffing levels were cut sometimes by a quarter or more in states such as California, Minnesota and Texas (Fuhrman & Rosenthal, 1981, Massell and Fuhrman, 1994). In California, the state department of education lost nearly 50 percent of its staff since 1991, leaving it with just one math and science specialist (Carlos & Kirst, 1997). Even though further cutbacks were not made in 1996-7 in a majority of our eight states, neither did central offices grow substantially to accommodate new responsibilities for reform, and staff limitations had a noticeable effect on the extent to which states could fully implement their policy designs.

Description of the External Institutions and Groups:

A) Regional Institutions

Regional service centers and intermediate education units, such as county offices of education, have existed for many years, but their importance over time as a strategy for professional support has waxed and waned. However, these regional institutions received renewed emphasis in the last few years, at least in our sample (see pages 13 & 14). State education agencies like Texas believe that using the energy of their central agency staff to support regional centers is a more efficient and effective use of their time rather than dispersing them into the field to work with a smattering of teachers, schools or districts. Similar considerations led to the restructuring of state department staff roles in other states, particularly Florida.

Texas' Education Service Centers

Texas is a dramatic illustration of a state that shifted from a centralized approach to providing professional support and technical assistance to a decentralized one through the use of regional institutions. In the early 1990s, the Texas Education Agency decided to eliminate altogether the direct provision of technical assistance to schools or districts, and instead handed these responsibilities over to 20 Regional Education Service Centers (ESC). The ESCs are responsible for professional development, technical assistance, technology support and Federal program assistance. In addition to the ESCs, Texas also created centers for educator development to provide subject-specific professional development in math, social studies, science and English language arts at the University of Texas-Austin and Region 6 ESC. So instead of the Texas Education Agency (TEA) staff offering direct assistance themselves, their central office staff worked with these regional groups to develop programs and other tools that can be disseminated to school districts.

Different regional institutions were set up to serve different functions and different populations. Some were created to address state reform goals, others to meet specific needs such as special education or curriculum development. Some to provide general assistance to anyone seeking support, others to serve only member districts or certain groups of districts or schools in low-capacity, high-need areas.

Different Kinds of Regional Institutions

1) Serve State Reform Goals

- Between 1995-96 and 1997-98 Maryland invested $3 million to establish a set of Regional Staff Development Centers (RSDC). The RSDCs provided services directly related to the state's reform laws, especially school improvement planning (an integral part of Maryland's accountability system) and more recently in support of a pending new set of state high school exams.

2) Serve Specific Programs

- Colorado's regional Board of Cooperative Education Services (BOCES) was established primarily with Federal dollars to provide assistance on special education. Districts purchase support from them on an as-needed basis.

3) Serve Member Districts

- Michigan districts create Intermediate Education Units to provide support to members.
- Kentucky mandated the creation of school district consortia to encourage districts to pool resources to purchase various kinds of services ranging from materials to professional development.

4) Serve Targeted Districts and Schools

- Maryland located its Regional Staff Development Centers near low-capacity districts to help them move towards reform goals.
- Texas specified that its centers focus strongly on low-performing schools.
- California's Statewide System of School Support (S4) was created to serve Title I and low-performing schools.

B) Networks

Many states actively nurtured or relied upon professional networks of teachers or other educational experts, schools or districts to develop professional capacity tied to reform. There are three kinds of networks. The first kind focuses primarily on improving the knowledge and skills of the individuals or organizations that participate in them. The second type of network is formed to deploy a cadre of teachers or other experts who can offer their knowledge and skills to others. The third is used to develop and/or disseminate specific products.

Different Kinds of Networks

1) Networks to Build the Knowledge and Skills of Participants

- California has flourished with these kinds of networks. It has subject-specific teacher networks like Math Renaissance, a middle school initiative funded by the National Science Foundation, a network for restructuring schools and a pilot network of schools focused on early literacy. But perhaps the most well-known and large-scale example is that of its teacher-based networks, the Subject Matter Projects (SMP). The origins of the SMPs can be traced to the Bay Area Writing Project first established at the University of California over twenty years ago.

The Bay Area Writing Project offers several-week summer institutes and follow-up training through the year; they are an extended, continuous time period meant to provide participating teachers with the opportunity to reflect on and develop instructional and curricular strategies and projects. Building on what has been hailed as a very successful professional development model, the state became involved and helped sponsor new SMPs in subjects related to the state curriculum frameworks. In 1987 the legislature provided the SMPs with funding in three-year cycles, which offered stability and enabled interested teachers to make long-term commitments and evolve into a cadre of teacher leaders (Loucks-Horsley, 1997). By 1996 the SMPs were running in 90 sites, representing work in 11 curriculum areas.

2) Networks to Provide Assistance to Local Practitioners

- As part of the School Transformation Assistance and Renewal (STAR) program, the Kentucky Department of Education trained a network of Distinguished Educators to support schools "in decline" or "in crisis" on the state's accountability index. Distinguished Educators helped schools with their mandated school planning and change processes. Among other things, Distinguished Educators provided assistance in interpreting the implications of the statewide assessment, the Kentucky Instructional Results Information System (KIRIS) and other school factors related to achievement. Many of the schools designated as "in decline" also receive training and support in curriculum alignment using the state's standards as well as national content standards.
- Florida trained over 400 people in curriculum restructuring aligned to the state standards, these individuals held professional development workshops for teachers throughout the state.
- Minnesota established Best Practice Networks of state-trained, content-specific practitioners to provide support to classroom teachers.

3) Networks to Create and Disseminate Products

- The Michigan Reading Association, the Michigan Council of Teachers of English and the Michigan Department of Education drafted standards, created classroom examples and set up demonstration sites to pilot the standards as part of Michigan's English Language Arts Framework Project.
- The Kentucky Department of Education prepared a large cadre of the Kentucky Education Reform Act (KERA) Fellows to work on standards-based curriculum and assessment. These Fellows piloted the state's curriculum framework, Transformations, and developed lessons based on it. They also created assessments and scoring rubrics. The Fellows were asked to share their knowledge, and the department endorsed them as providers of professional development to encourage the dissemination of their products.

C) Professional Associations

State-level professional associations, especially affiliates of national subject-matter associations or unions, often played key roles in providing professional development and other kinds of reform-related support.

Different Roles for Professional Associations

1) Providing Professional Development

- The Michigan Reading Association (MRA) has played a major role in providing professional development for reading. In the mid-1980s, reading specialists from the MRA presented dozens of local and regional workshops to introduce local educators to the newest research on reading.
- Colorado Council of Teachers of Mathematics, the Kentucky Academy for School Executives and the Kentucky School Boards Association are all examples of organizations that offer standards-related training to their membership.

2) Helping States Create Policies

- Michigan's State Department of Education has long relied on professional organizations to help the state develop guidance policies. The Michigan Reading Association has had contracts with the state since 1976. More recently they received the contract to develop a new framework for the state's high school proficiency test, and work with the Michigan Council of Teachers of English to assist the state's curriculum frameworks project (Goertz, Floden & O'Day, 1995).

D) Higher Education

Finally, to strengthen a statewide infrastructure for professional development and assistance, many of the states tried to forge stronger and more sustained ties between K-12 and higher education. These efforts tried to move beyond traditional roles, such as pre-service training and credit hours for experienced teachers, and tried to encourage higher education to undertake more reform-relevant professional development and more regular assistance.

1) Professional Development and Training for Teachers

- A key component of Maryland's effort to redesign teacher education was to create Professional Development Schools (PDS). The state developed 13 pilot PDS sites between ten districts and nine universities (along with a few community colleges) to provide high-quality internship experiences for pre-service teachers and to become sites of best practice. Florida established five Florida Academies for Excellence in Teaching to pilot in-service partnerships between schools and colleges of education.

2) Curriculum-Related Support

- Texas established curriculum-related professional development centers at the University of Texas, and Texas A&M University assists Region 6 ESC with its professional development center.
- California's universities host many of the Subject-Matter Projects.

(2) Professional Development and Training Standards

Overview

In addition to nurturing the supply of technical assistance and professional development, state policy-makers also expressed growing concern over the quality of professional development for teachers. To address this issue, the eight states in our sample tried to create different kinds of professional development and training standards, paralleling their standards-based approach to improving the quality of curriculum and instruction.

States' focus on the quality of professional development and the use of standards to improve it was motivated in part by the need to convince key players, such as governors and legislators, that professional development was a valuable and necessary activity. Over the years, politicians around the country have expressed skepticism about the worth of professional development, often seeing it as payoff to the teachers' unions rather than a critical component of reform. Before its

professional development standards were completed, Michigan's governor eliminated a $10 million fund for staff development. In 1995 only 19 states offered districts a line-item for professional development (CPRE, 1996), and at least one of these subsequently dropped that provision. Instead, states typically provided professional development resources in the form of grants or as a part of special programs. For example, California's Reading Initiative carried substantial funding for professional development. Much of what many of our states could offer districts for professional development came from Federal sources, such as Goals 2000 and Title 1 of the Improving America's Schools Act. Including these dollars in special programs and grants is often easier than getting direct line-item appropriations, and some felt it made these moneys less vulnerable to budget-cutting maneuvers. However, placing these moneys in different budgets also makes it more difficult to determine what resources are available for professional development and how to best deploy them at the state or local levels.

Description of the Standards

A) State Standards for Professional Development

States used different kinds of standards to improve the quality of professional development. Some of these were standards per se: they identified standards of good practice for professional development, teaching and pre-service education. Districts were not required to use professional development or teaching standards in their programs, but states used them as guides for grants-making or as a targeted program component. However, some states required or encouraged institutions of higher education to follow these standards in the preparation of new teachers: this is expanded upon in the next section.

States also developed quality criteria for providers' lists that they maintained, or criteria for evaluating professional development activities. Some states took a more decentralized approach and asked local districts to create plans for professional development based on their needs. Occasionally, districts were asked to develop criteria and assess the value of their professional development. These requirements were often heavily process-oriented rather than content-oriented. In other words, they specified who should be involved in decision-making and how decisions should be made, and often said little about the content of those decisions.

Types of Standards for Professional Development

1) State Standards for Professional Development

- As a first step towards creating its own professional development standards, the Maryland Board of Education adopted those of the National Staff Development Council in October, 1996.
- Colorado's advisory Investing for Results standards called for professional development that is:
  a. Comprehensive and planned with a clear purpose
  b. Designed to engage professionals, paraprofessionals, support staff and the community in ongoing efforts to improve student learning
  c. Content rich, focused and aligned with standards-driven education as defined by Legislation- HB 93-1313
  d. Designed to align reform efforts, especially standards-driven reform and licensure reform
  e. Designed to build capacity of schools, districts, professionals and the profession to raise student performance

2) Quality Criteria

- California planned to build on its earlier state-sponsored evaluations of professional development to create a system of quality indicators, prompted in part by pressure from Federal requirements under the Improving America's Schools Act to determine whether its programs were effective in helping teachers receive professional development linked to high content standards.
- Kentucky maintained a list of approved professional development providers. Its KERA Fellows, for example, were highly involved in piloting state and developing policies, and they endorsed them as professional development providers.

3) Local Professional Development Planning and Review Criteria

- Districts in Texas will have to develop their own plan and criteria for the use of professional development dollars. Each school's site-based decision-making committee must also approve the portions of the district plan that address their staff development needs.
- The Kentucky Board of Education required district professional development plans to include a clear statement of school or district mission, with professional development objectives focused on that mission and a process for evaluation. These plans must be approved by Regional Service Centers.

B) State Standards for Pre-Service Education and Teaching

Of course, teacher licensure and certification, as well as institutional accreditation, have been and remain primary policy mechanisms for ensuring that teachers receive adequate and appropriate preparation. To improve these traditional quality-control measures, states both created their own pre-service standards (see pages 20 & 21) and many joined national organizations and projects that offer standards-based initiatives. Maryland and Kentucky were two of twelve states nationally to participate in the National Commission on Teaching for America's Future (NCTAF), which seeks to identify the implications for teaching embodied in current school reforms, review state policy and develop a blueprint for change. Colorado's experienced teachers could undergo the rigorous, highly evaluative certification process established by the National Board for Professional Teaching Standards, and use it to obtain an advanced teaching certificate. As noted in the table, many states turned to the National Council for the Accreditation of Teacher Education (NCATE) to review their institutions or to refashion their own accreditation processes.

But the states also undertook their own efforts to generate standards-based improvements in these areas. Several of our states developed standards for pre-service teaching or the teaching profession more generally, and others revamped accreditation and accountability processes.

Improving Pre-Service Education

1) Standards for Pre-Service Education and Teaching

- By the year 2000, Maryland teacher education programs must show how their teacher education curriculum incorporates the state's teaching standards, the Essential Dimensions of Teaching, along with other components of their new effort to redesign teacher training.
- Florida created new pre-service standards, and made the approval of teacher preparation programs contingent on performance outcomes, known as 12 Educator Accomplished Practices. Teacher education programs must show that their students are meeting these standards for which the state has recommended sample indicators (see page 22).

2) Accreditation

Many states joined the National Council for the Accreditation of Teacher Education (NCATE) accreditation, which has aligned its accreditation processes more tightly to standards-based reform principles. Florida required its public teacher training institutions to undergo NCATE accreditation. Maryland, Michigan and Kentucky were also NCATE partners, Texas was considering a limited relationship and Colorado attempted to model its own accreditation standards after NCATE.

3) Accountability

- Texas is using a unique accountability mechanism to try to improve the quality of pre-service training. Specifically, its goal is to encourage teacher education candidates to gain deeper content knowledge. Its strategy is to broaden the responsibility for teacher preparation from a college of education concern to a university-wide issue. Its new Accountability System for Educator Preparation (ASEP), would hold the whole institution responsible for teacher candidates' Examination for the Certification of Educators in Texas (ExCET) test scores in content areas as well as in education fields. If these test results are low, it is proposed that the Higher Education Coordinating Board withhold awarding the institution with any additional programs.
- Testing prospective teachers is another incentive strategy to stimulate teacher training institutions to improve quality and align their education to state reform goals. 1995 Minnesota legislation called for the state to develop performance-based licensing, including performance assessments covering basic skills, pedagogy and content, as well as a one-year internship with mentoring and on-going professional development. Kentucky's New Teacher Standards (and New Administrator Standards) must be met through portfolios and performance assessments. Colorado teacher education candidates must take the Program for Licensing Assessments for Colorado Educators (PLACE), which are exams for entering and exiting teacher education programs.

Maryland's New Design for Teacher Education

In June 1995, the Maryland Higher Education Commission (MHEC) approved its Teacher Education Task Force Report, The Redesign of Teacher. The focus of the Redesign is to prepare teacher candidates in a way that is both research-based and has a strong clinical component that gets pre-service students into the teaching environment. The state's Program Approval process and the development of a network of Professional Development Schools (PDSs) are two of the major mechanisms for achieving both of these goals. By the year 2000, the Program Approval process will require institutions of higher education to describe the progress they have made in meeting components of the Redesign (which goes into full effect in 2000), which include:

1. a solid foundation in an academic discipline, either through a degree in a single academic content area, a degree in an academic interdisciplinary or multidisciplinary program or a performance-based undergraduate teacher education program;

2. substantive math, science and technology backgrounds; and

3. an extensive internship in a PDS that provides the candidate the opportunities to:
   a. master the combination of theory and practice inherent in the Essential Dimensions of Teaching;
   b. work with children from diverse backgrounds, their parents and communities; and
   c. work with students with special learning needs and experience inclusive strategies for integrating regular and special education students into their classrooms.

Florida's 12 Educator Accomplished Practices

1) Assessment: Uses assessment strategies to assist the continuous development of the learner.
2) Communication: Uses effective communication techniques with students and all other stakeholders.
3) Continuous Improvement: Engages in continuous professional quality improvement for self and school.
4) Critical Thinking: Uses appropriate techniques and strategies which promote and enhance critical, creative and evaluative thinking capabilities of students.
5) Diversity: Uses teaching and learning strategies that reflect each student's culture, learning styles, special needs and socio-economic background.
6) Ethics: Adheres to the Code of Ethics and Principles of Professional Conduct of the Education Profession in Florida.
7) Human Development and Learning: Uses an understanding of learning and human development to provide a positive learning environment which supports the intellectual, personal, and social development of all students.
8) Knowledge of Subject Matter: Demonstrates knowledge and understanding of the subject matter.
9) Learning Environment: Creates and maintains positive learning environments in which students are actively engaged in learning, social interaction, cooperative learning and self-motivation.
10) Planning: Plans, implements and evaluates effective instruction in a variety of learning environments.
11) Role of Teacher: Works with various education professionals, parents and other stakeholders towards the continuous improvement of the educational experiences of students.
12) Technology: Uses appropriate technology in teaching and learning processes.

(3) Curriculum Materials for Students and Teachers

Overview

The motivating theory of action in standards-based reform argues that it is the state's role to set the goals of what students should know and be able to do—in other words, to establish challenging academic content standards and standards of performance—while it is the district's and/or school's role to determine how best to meet these objectives (Smith & O'Day, 1991). This approach authorizes the state to set academic goals and standards and leaves decisions about curriculum and instruction in

local hands. It is a strategy that fits well with the "horse-trade" division of authority proposed by the National Governors' Association in the mid-1980s. In an influential report called, A Time for Results (1986), they argued that the state should relax regulation and oversight and offer schools and districts greater autonomy if the latter met outcome goals set by the state (National Governors' Association, 1986).

These ideas took root in the states, and led to the development of standards documents at a fairly broad level of detail-in other words, not a day-to-day curriculum that teachers could pick up and use in their classroom, but rather a description of the large concepts and ideas that students should know and be able to do. This approach to standards also satisfies certain political and legal constraints felt in many states. For example, Colorado's constitution explicitly prohibits the state from determining curriculum.

This general standards design fit with one prevalent version of instructional reform known as constructivism. Among other things, constructivists argue that state standards should focus on concepts and big ideas and move away from the once-common approach of providing lengthy lists of the facts and skills that teachers should cover (Curry & Temple, 1992). They suggest that the latter encourages the error of over-emphasizing the memorization of facts and skills at the expense of deeper, and more challenging thinking. Constructivists also call for moving away from setting rigid grade-by-grade expectations of what students should know, arguing that instruction should be sensitive to the different pace at which children develop. Standards, then, should be established at certain benchmark grades to provide this greater flexibility.

These arguments have had an impact, even in states which once offered more detailed curriculum guidance for schools. For example, unlike Texas' earlier Essential Elements standards, the 1997 Texas Essential Knowledge and Skills Standards (TEKS) do not refer to specific content such as names, dates or books, but focus on concepts. While there is a competing argument that standards should be highly specific, policy-makers in Texas and many other states have sustained a broader, more general approach to academic standards.

But as these states' reform initiatives were implemented and matured, they have been called upon to take a more active role in helping local educators find or develop curriculum materials that address the standards. Indeed, one of the most frequent complaints from districts about state standards is that they are too general, and that district and

school staff do not have the capacity, resources, time or expertise to convert these broad standards into a local curriculum. Furthermore, restructuring initiatives decentralized curricular guidance and responsibilities to the school site, thus amplifying the need to prepare even more people to conduct new and different tasks (Massell, Kirst & Hoppe, 1997). In fact, local administrators and teachers historically have not had the kind of expert knowledge and skill necessary to develop curricular programs and materials, leading them to depend heavily on textbook and testing publishers for structure and guidance (Walker, 1990).

While all the states in our sample moved to address the curriculum gap, they varied in the extent to which they provided support and how specific their advice about curriculum was. California and Kentucky stand out as offering quite extensive and substantive curriculum guidance. Although California was buffeted by fierce debates that produced mixed messages about curriculum, policy actors certainly did not equivocate about their positions on the issues and offered very specific programs. Perhaps most unusual was Kentucky's 1997 sponsorship of a Showcase Conference highlighting research-based programs that demonstrated improved student achievement outcomes (on any kind of test, not just the Kentucky state assessment). They found just 12 programs, a small number which speaks volumes about the adequacy of instructional program evaluation around the country.

State constitutional constraints and views about the suitable role of the state in curriculum guidance have prevented many of the others in our sample from taking similar action. The importance of policy culture becomes quite evident here, especially the culture of local control in education. Concerns about local control and the appropriate role of the state were quite evident in states such as Texas, Colorado or Maryland. In these states, department staff were hesitant even to offer advice about curriculum programs that they felt were well-matched to their standards. For example, one important Colorado official in charge of a major instructional reform initiative said that he was uncomfortable having his staff recommend or identify good curriculum programs. Thus, the states in our sample continued to pursue a range of loose to tight curriculum policies, depending on their own political traditions and mix of interests, generally leaving districts and schools with primary responsibility for determining their own curricular and instructional programs.

Description of Building Curriculum Capacity

To fill the curriculum gap, states frequently developed more specific frameworks with greater details and examples of how the standards could be used in instruction. They also developed supporting documents. States also set up resource banks containing sample materials and instructional tools. A few states tried to support or encourage the adoption of national instructional programs, though certainly the vast majority of these kinds of activities were undertaken independently of the state by districts and schools.

Approaches to Supporting Local Curriculum Development

1) Curriculum Frameworks and Other Materials

- Florida's curriculum frameworks link the Sunshine State Standards to pedagogy and student achievement expectations. Each document provides overviews of models of good teaching, learning and assessment to encourage local educators to develop new and innovative instructional approaches.
- In addition to its frameworks, California published a host of backup documents, including program advisories, materials lists (beyond textbook adoptions), task force reports and model curriculum guides. The department also issued curriculum advisories. For example, its reading program advisory, Teaching Reading, laid out a rationale and a research basis for a recommended approach to the teaching of early reading. It included grade level expectations and examples of classroom practice, and a sample reading curriculum timeline for preschool through 8th grade.
- Several years ago, partially out of concern that the textbook industry was not responding adequately or quickly to its mathematics framework, California produced "replacement units;" instructional units on specific mathematical topics. These units did not constitute a comprehensive mathematics curricula, but were meant to be an interim step until aligned textbook materials were produced (Goertz, Floden & O'Day, 1995).

2) Resource Banks

- Texas, Florida, Kentucky and Colorado emphasized new technologies to provide ready access and cost-effective dissemination. For example, Texas developed TEKS content and teaching vignettes on compact disks and put materials on the Internet. Similarly, Florida created an on-line community of teachers and staff developers with its InTech 2000 initiative to develop standards-based classroom resources. InTech 2000 disseminated CD-ROMs of best practices in content areas, trained teachers to navigate the Internet for resources, developed electronic curriculum planning tools based on the state's standards and frameworks and helped teachers develop classroom assessments.

• Maryland supported local districts' efforts to develop a resource bank of classroom-based performance assessments. The state loaned a staff member to direct the Maryland Assessment Consortium (MAC), which brought teachers together to create assessment tasks based on the state's Learning Outcomes. Selected tasks were published and sent to local school systems. MAC has also created a bank of high school level tasks for a new high school assessment.

3) Support for Adoption of Instructional Programs

• Maryland is a New American Schools (NAS) scaling up site, and as such its goal is to have at least 30% of districts adopt an effective practices model by the year 2000. Subsequently, effective practices criteria have been included as part of the criteria for evaluating Goals 2000 applications. In addition, the department supported the effort by leveraging grant funds from Goals 2000 and technology grants, provided locals with assistance on selecting designs, identified implementation resources and networked schools.
• Different Ways of Knowing (DWoK) is an instructional program developed by California's Galef Institute that has circulated widely in Kentucky, because it is viewed as compatible with Kentucky's standards. While the Kentucky Department of Education did not directly fund this initiative, it has been supported by foundations and business partnerships.

(4) Organization and Allocation of School and District Resources

Overview

The policy structure in education today often reflects the kind of "horse-trade" ideas about authority and accountability promoted by the National Governors' Association. As noted earlier. this horse-trade offers local districts and schools greater freedom from regulation and oversight in exchange for high student performance. The thinking was expressed in the following quote from the Texas Commissioner of Education:

"The vision for the new system can be summed up in three words-freedom with accountability. School districts, principals, and teachers have the freedom to try innovative teaching strategies to improve student performance, but they also are held accountable for their results." Mike Moses, Texas Commissioner of Education (1996).

State policy-makers have tried to craft new accountability systems focused primarily on holding educators accountable for outcomes, rather

than or in addition to the more customary inputs (e.g. number of books in the library) or processes (e.g. committees) (Elmore, Abelman & Fuhrman, 1995). As part of this shift, states have focused more and more on schools as critical units of the system. This, too, departs from traditional accountability programs, which largely held districts or students responsible for performance. So, for instance, if states disaggregated and published test results beyond a state level average, they usually did so for districts, not for schools. But policy-makers argued that district-level data masks the variable performance of schools, and the literature on effective schools shows that the practices that occur there are critical to school success.

The trend for school accountability is reflected in our sample of states. Maryland, for instance, first began producing school-level results on their new state assessment in the early 1990s, and focusing the consequences for failure (or success) primarily on schools. Their motivation for doing so was clearly articulated in an influential 1989 commission report. The report said that this strategy was meant to prevent teachers and administrators from finding excuses for failure and to hold them fully accountable for results "regardless of the demographic characteristics of their students, regardless of past performance, and regardless of local resources" (Governor's Commission on School Performance, 1989).

The final major trend we note in capacity-building across the eight states reflects these arguments. Each of the eight required some form of School Improvement Planning (SIP), and several viewed it as a critical component of their reform initiative. Policy-makers saw SIP as a way to link bottom-up decision-making with the top-driven goals of state reform. SIP is also intended as a vehicle, like site-based decision-making, for asserting schools as important actors in local district decision-making processes. This kind of planning intends to have schools identify their needs in light of reform goals and then reallocate the necessary money, time, personnel, professional development or other resources to meet them.

Description of School Improvement Planning

States either linked their school improvement planning to their accountability systems, or tied it into site-based decision-making. The extent to which states supported and monitored school improvement plans differed. For example, staff in the Maryland Department of Education reviewed and provided technical assistance for school improvement planning only in schools where poor performance

designated them as eligible for reconstitution (i.e., where part or all of a school's staff may be removed from the building). The department limited its review to these schools because they did not have the staff capacity to review all plans. Since only a handful of schools meet all state standards, most are required by law to develop a school improvement plan. Florida required districts to collect school improvement plans, and stipulated that failure to do so could lead to the loss of state lottery funds. Texas, Kentucky and Colorado did not collect school improvement plans unless they were required documentation for grant applications.

Finally, while Florida designed its SIP process to more directly reflect state reform goals, some of the other states did not tightly specify this kind of connection. Rather, it was assumed that school planning would be linked to these goals by the pressures of the broader accountability system. In other words, a school would be likely to focus on state standards and outcomes in its planning if it stood to lose prestige, staff or students by under-performing on state accountability measures.

Approaches to School Improvement Planning

1) Linked to Accountability

• Maryland's state accountability program required every school not meeting state performance standards in each area (currently all schools) to develop a school improvement plan.
• School improvement planning was also a key component in Florida's 1991 accountability legislation. It required all schools to develop annual school improvement plans assessing the schools performance relative to the state's eight education goals. These plans described the activities the school would undertake to address state goals and performance standards and allowed schools to define their own measures of adequate yearly progress and their self-evaluation process. The state also established its own criteria for low performance, out of concern that schools were not setting challenging enough targets. In both cases (school-defined and state-defined low performance), schools not making adequate progress received technical assistance, and, if progress is not forthcoming a range of possible interventions may be triggered.
• Michigan and Colorado built school improvement planning into their accreditation processes. California required schools to produce a school improvement plan as part of its Program Quality Review process.

2) Linked to Site-Based Decision-Making

• Kentucky and Texas embedded school improvement planning in regulations governing Site-Based Decision-Making (SBDM). For instance, Kentucky required SBDM teams to develop School Transformation Plans every two years, while Texas called for annual plans by SBDM teams.

Summary

In this section, we have tried to provide the reader with both a deeper understanding of dominant trends in capacity-building across the eight states and insights into why states gravitated towards these solutions to the problem of capacity during the time period studied. In many ways, these strategies were highly decentralized. Certainly this was reflected in the emphasis on creating a statewide supply of professional development and technical assistance closer to districts and schools. But it was also reflected in the many options states tried to provide in curriculum, and in most states' insistence on an agnostic stance towards curriculum. School improvement planning and professional development standards

also maintain substantial flexibility and control in teachers' and administrators' hands.

These decentralized strategies strongly reflect the ideas and approaches underlying standards-based reform, such as the notion that the state should set standards but not determine the curriculum, that instructional decisions should be left in the hands of local authorities and that schools should be held primarily accountable for results. Indeed, the degree of conformity we saw in the three areas of capacity reiterates the lesson that policy ideas do matter (Reich, 1988), and that common ideas can strongly affect decisions across diverse environments.

But it would be simplistic to overplay these trends. As we noted at the outset, some states had major strategies in different areas, and we would do them no justice to say that what we have described here was all they considered. Nor would we do justice to overgeneralize findings from eight states, and within them there was certainly variation. For example, while political action in many of our states reflected skepticism over the financial value of professional development, policies in some states, especially Kentucky and California, reflected a strong fiscal commitment. Thus policy ideas matter, but ideas also intersect with politics, leadership, state political cultures and traditions, state department of education's own institutional capacity and local demands.

What is the promising evidence supporting these approaches to building capacity?

After our research visits to the eight states, we felt a certain sense of optimism that policy-makers were giving serious thought to the important issue of building capacity for teaching and learning. As our review amply illustrates, states undertook numerous efforts to address the many needs emanating from reform. To fulfill their mandates to become more assistance-oriented, state education departments sought to create a decentralized fabric of support that involved a diverse array of players. Such decentralization and diversity, especially if the players are strong, may help institutionalize and stabilize reform and sites of capacity-building. Certainly research evidence suggests that improvements are more likely to result when teachers and schools receive support tailored to their setting that is longer-term than the typical workshop (Cohen & Hill, 1998; Little, 1993). For example, early indications from Kentucky imply that the kinds of intensive, school-specific support provided by Distinguished Educators yielded results. After receiving assistance from the Distinguished Educators, sixty-three percent of schools "in-decline" made enough gains to be placed in the reward category in the next accountability cycle. Thus, this individualized and focused assistance was associated with measured improvement on KIRIS (Davis, McDonald & Lyons, 1997), though further studies are needed to better understand the role these educators play in building schools' capacity to change. Groups and organizations dispersed throughout a state and working directly with schools may be in a better position than state department of education staff to offer such sustained and specific assistance.

It is also promising that policy-makers in several states have given heightened interest to creating professional networks of educators. The literature on such networks suggests they can be quite promising by offering teachers access to new knowledge, a strong sense of professionalism and collegial opportunities to move beyond the confines of their own school and experiences to see other ways of doing things (Lichtenstein, McLaughlin & Knudsen, 1991). Breaking the isolation that typically attends teaching and offering teachers the kinds of professional opportunities that higher education faculty have long enjoyed (Elmore, 1993) is an important component of improving practice.

States also listened to the concerns emanating from the field about the need for more specific curriculum guidance and for curriculum models that address state reform goals and can help improve students' performance. States became more active in providing access to curriculum resources and providing frameworks with more concrete illustrations about what standards-based instruction and high student performance might look like. As noted in the section on states' efforts to build infrastructures of support, several also used or considered curriculum-specific professional development.

The argument for curriculum-specific support cannot be overstated. It is bolstered by important studies that show that professional development tightly coupled to what students are to learn can be a strong and powerful lever for school improvement-more important than the typical training session based on vague and ambiguous reform principles. The work of the CPRE colleagues David Cohen, Heather Hill and Suzanne Wilson suggests that professional development strongly grounded in curriculum is associated with instructional changes as well as gains in student achievement. Cohen and Hill contrasted teachers' practice and student outcomes when they had received professional development that was tightly connected to the math curriculum supported by the state's framework versus professional development that more loosely related to math content. They found that teachers involved in the curriculum-specific workshops reported more reform-oriented practice in their classrooms. They also found this kind of professional development was associated with students' success on the statewide mathematics test (then, the California Learning Assessment System), especially if the professional development activities were extended in time and connected to multiple elements of instruction, such as assessment as well as curriculum (Cohen & Hill, 1998). Similarly, Suzanne Wilson's research on mathematics reforms in California found that teachers' participation in workshops focused on the new student curriculum had important and positive impacts on teachers' behavior and classroom practices. Compared to teachers who were involved in more generic types of workshops, these experiences prompted teachers' involvement in reform-related activities and reform-related instruction (Wilson, 1997a, 1997b). The argument for curriculum-specific professional development also enjoys empirical support from evaluations of the New American Schools models, together with analyses of natural variation experiments in such locales as Memphis, Tennessee (Herman & Stringfield, 1997).

Finally, attention to the quality of professional development and pre-service training, as expressed by new professional development standards, may indicate a greater willingness on the part of policy-makers to consider stronger designs and investments in this activity. It also reflects their concern to channel professional development towards more fruitful activities that offer real improvements in teaching and learning. The quality of professional development and training has been long questioned by teachers, administrators and policy-makers alike.

What are some of the continuing challenges we face in building the capacity for reform?

The strategies that were common across our states also raise some policy questions and pose issues and challenges. What are the gaps and potential problems in these approaches? What should policy-makers consider when using these strategies to support teaching and learning? Here we describe five major challenges.

(1) The Capacity of the Infrastructure Outside the State Departments of Education

States turned to external infrastructures and groups in part because of the philosophy that those closer to the field are in a better position to provide regular, sustained and relevant aid, but also as a way of coping with their limited state department capacity. When considering whether and how to use these regional institutions for building capacity, however, it is important to take stock of how much and what kind of assistance these institutions can really provide. While we did not do a comprehensive survey, it was clear that the number of such institutions varied substantially across the eight states. On one end of the spectrum were large, populous states such as Texas and California with a comparatively large number and range of regional institutions. However, staff in these organizations were expected to cover a lot of territory and serve many districts, schools and teachers. Even in small states, like Kentucky, the staff in these organizations were stretched. Kentucky's Regional Service Centers (RSC) had one staff person to provide curriculum support to around 25 school districts and at least four or five times that many schools. Perhaps not surprisingly, they also had a high rate of staff turnover. Capacity in Michigan's Intermediate Service Districts was directly related to the wealth of the communities that fund them. While state education departments may not be in a position to reach out to all teachers and schools, the question arises whether these external groups and institutions themselves have sufficient human resources to meet the needs. Can these organizations provide the immediate, on-going type of assistance that policy-makers envisioned

when they turn to them? Furthermore, do staff in these organizations themselves have the knowledge and skills to provide meaningful assistance? State policy-makers at times recognized the staff limitations, and they often asked these external groups to strategically target their energies on the lowest performers, just as the state department staff often had. But even that did not always address the challenges faced by these external groups.

Another consideration is whether these external groups or organizations have stable and sustainable sources of funding. The California legislature's three-year funding cycles for the Subject Matter Projects has enabled them to better plan activities and engage teachers on a long-term basis (Loucks-Horsley, 1997): precisely what the literature on professional development suggests is important for meaningful changes in teachers' practice (Little, 1993; McLaughlin & Talbert, 1993). Regular state funds, as well as a state leadership role, when necessary, can help sustain these kinds of teacher networks.

(2) Translating Numbers into Action

One of the key assumptions of the reform strategy used by policy-makers is that information on performance from the accountability system will drive change in schools and districts. The theory of action is that the accountability system will provide feedback on school performance that will then be used in school improvement planning. Performance data will drive change by being embedded in a system of sanctions and rewards of varying degrees that will further stimulate and motivate teachers and schools to improve. This accountability-driven model requires that:

1. The data on performance are transparent and readily understandable, and
2. Teachers and administrators have the knowledge and skills to translate this information into appropriate action for school improvement.

The evidence suggests that the performance data often are not transparent and readily understandable, and that educators often do not have the requisite knowledge and skills to translate them. Part of the issue lies in the way outcome data are incorporated into accountability formulas. Kentucky and Maryland, among others, have established accountability programs that hold schools responsible for performance over a several year period. Policy-makers and local educators would argue that looking at year-to-year data unfairly penalizes schools for

natural fluctuations in the data; looking over a longer term is intended to show trends that more accurately reflect practices in the schools.

The calculations to determine a school's progress or decline can be very complex. For example, Maryland's School Performance Index (SPI) uses a weighted average of a school's relative distance from state-defined "satisfactory" standards, and calculates change on the SPI over a three-year period. Progress or decline is determined by comparing the SPI for the current year with the average performance of the previous two years. Distance from satisfactory standards is calculated by the school's performance on the indices divided by the satisfactory standard set by the state. Thus, the numerator is the percent of a school's students at proficient levels in each tested content area, combined. The divisor is the weighted average of a school's relative distance from the state's satisfactory standards. If the school declines over a three-year period and is "far below" standard, it could be identified as reconstitution-eligible by the state, a status which allows districts to move staff if they wish. Alternatively, significant progress may earn financial rewards.

Other states' accountability indexes are similarly complex. A study of accountability indexes used in Kentucky and Mississippi found that they were so difficult to comprehend that few policy-makers or educators could begin to explain them (Elmore, Abelman & Fuhrman, 1995). This complexity, undertaken in the name of providing fair and adequate performance data on the schools, makes the performance results less than obvious. Thus, interpreting their implications for developing programs or altering school structures to make improvements could pose significant challenges for school and district staff.

But even if student achievement data were not embedded in complex formulas, testing data does not necessarily translate easily into obvious changes in classroom or school practice. Some reasons have to do with test designs. In order not to overburden students and schools with a vast number of tests, and to attend to the notion that children learn at different paces and thus should not be evaluated annually, many states test only a few grades and a discrete number of subjects. For schools and districts this provides insight into broad trends and can help in program planning. The dilemma is that individual teachers in the non-tested subjects or grades do not get feedback on their performance.

But even when teachers do receive individual student data, interpreting the implications of the results can be a difficult task since teacher education programs traditionally have offered little training in using

assessments or interpreting their implications for learning and instruction (Massell, 1995). Teachers find that criterion-referenced and performance-based assessments offer more direct evidence of students' ability to write, think and problem-solve than traditional norm-referenced tests. Nevertheless, though teachers find that these kinds of assessments provide them with richer insights into student understanding (e.g., Koretz, D., Barron, S., Mitchell, K., & Stecher, K., 1996), they still need other kinds of knowledge and skills to decipher that information and translate it into classroom improvements that move beyond simple imitation (i.e., asking students to write more) and lead to deeper changes in instruction (David, 1997). For example, when teachers have information that certain children are weak in interpreting and using graphs, they must still determine how best to teach that information, how different students best learn and more.

A few of our states gave attention to these transparency and translation issues again, often focusing most on low-performing schools. Kentucky's Distinguished Educators, for instance, worked in such schools to help them interpret the performance data into meaningful changes in practice. Some states, like Maryland and Minnesota, try to involve teachers in scoring and developing state assessments partially as a professional development activity. These efforts may improve teachers' knowledge of assessment, but do not necessarily help them understand how instruction can be paired to improvement on the tests. Transparency and translation are clearly areas that need more attention.

(3) Building the Capacity of Schools in the Middle

As we have noted frequently, states often targeted their resources on the lowest performing schools and districts. Offering assistance to those most in need was one way of coping with limited staff capacity and resources and was in many ways a logical action. But this begs the question of how other schools, the schools in the middle of the performance distribution, can gain the knowledge and skills they need to make progress, and they too often have a far way to go to fully meet state performance standards. While states set performance standards at different levels of difficulty (Musick, 1997), state standards are quite challenging for many if not most schools to achieve. For example, in Maryland in 1996 only 145 schools met or exceeded the satisfactory standards: 20 elementary schools (2.5%), 11 middle schools (4.5%), and 112 high schools (59.9%). The state's target is to have 70 percent of an elementary or middle school's students meeting the state's satisfactory performance standards or better by the year 2000, and 90 percent of high school students passing the current exit exam. Similarly,

in Kentucky in 1995-96, 31 percent of fourth grade students met the proficient standard in reading, 14 percent did so in math, 3 percent in science, 13 percent in social studies and 18 percent in writing (Petrosko, 1997). Kentucky expects that all schools will have an accountability index of 100 by 2012. This would require high percentages of students in each school to be at the proficient or distinguished levels (the two highest of four categories).

Clearly, support is needed for more than just the schools at the lowest end of the performance distribution. This is a challenge under conditions of limited resources, but if policy-makers are to scale up reform, it is one that must be addressed.

(4) The Importance of Continuity in Capacity-Building

As we noted in our earlier discussion about state roles in curriculum leadership, many state policy-makers are hesitant to prescribe or even recommend exemplary curriculum programs. While part of states' reluctance in this sphere stems from notions about the appropriate role of the state, reluctance also stems from the Pandora's Box of competing political forces and notions about best practice that can emerge over curriculum (Massell, 1994). While states have made much progress in developing and adopting standards, their efforts have not gone unchallenged, and future challenges are likely in store. Maintaining some stability and continuity during these periods is important in building capacity for teaching and learning.

Perhaps nowhere is this more dramatically illustrated than in California. After having been at the forefront of standards-based reform and new ideas about teaching and learning for nearly a decade, California began to experience sharp reversals in the mid-1990s. After poor state showings on the National Assessment of Educational Progress (NAEP) exam, the governor vetoed funding for the state's new performance-based assessment program, California Learning Assessment System (CLAS). Policy-makers also called into question the state's progressive language arts and mathematics frameworks, the existing structure for creating standards and tests, frameworks at benchmark grades rather than grade-by-grade and more. Indeed, legislation enacted soon after the Governor vetoed CLAS specified major revisions in state academic content and testing policies (Massell, Kirst & Hoppe, 1997; Carlos & Kirst, 1997). Debates ensued about whether California should modify or reject the underpinnings of the previous state mathematics framework, which embraced the 1989 standards developed by the National Council of Teachers of Mathematics (NCTM). Similarly, in

language arts, arguments centered over whether the kind of whole language approaches used in the previous framework should be eliminated or modified with phonics-based instructional strategies.

In the absence of consensus, a confusing and complex array of curriculum guidance initiatives have been issued from multiple sources. As a result of the outcry, the department convened a set of task forces in math and language arts, which issued advisories for districts. The California Department of Education created its own set of standards for what they call their Challenge Districts Project and for Title I purposes. In addition, a Standards Commission developed and submitted its own standards for approval to the State Board of Education. A group of higher education representatives also embarked on a process of developing their own K-12 standards.

For example, the Challenge District mathematics standards, like the state's earlier mathematics frameworks, reflect the NCTM approach. In late 1997, the California State Board of Education rejected the recommendations of the Standards Commission and adopted their own version of K-7 mathematics standards, which is reputed to embrace a traditional approach to the curriculum that focuses on math facts and skills and not on concepts. The Superintendent of Public Instruction sharply challenged the Board's standards. The guidance on language arts was similarly disjointed.

It is important to recognize that these content issues are by no means confined to California. The question for policy-makers is whether they can maintain policy direction and continue to incorporate incremental change if the debates become as politically charged as they did in California, or whether they will suffer the chaos of policy disintegration and mixed messages. Coherence is an important component of building capacity and reinforcing change (Goertz, Floden & O'Day, 1995).

Even if there is not discord among policy elites, policy-makers must be careful that they are sending out coherent messages and not bombarding teachers, schools and districts with too many messages. As is often the case in large systems, people tend to conceive of their world as the world, and plan initiatives in their area without regard to what is happening elsewhere. New Federal guidelines allowing states and districts to develop consolidated plans for certain categorical programs and standards-based reform which tries to align policies may be making some in-roads into more comprehensive and coherent designs, but there is still plenty of fragmentation. One example occurs simply in the

standards states set for teacher training and professional development. Standard-setting is abundant, perhaps too abundant in some cases, i.e., where there are standards for the teaching profession, standards for new teachers, standards for teacher education programs, standards for experienced teachers, criteria for local planning for professional development, criteria for state professional development activities and grants and guidelines for teacher professional development plans. Furthermore, other levels of government, Federal or local, may have their own standards and criteria. It is a confusing array, and may be difficult for locals to parse through to develop a coherent strategy for building capacity.

(5) Incentives to Build Capacity

We began with the argument that setting standards and desiring to achieve them are necessary but not sufficient conditions for change. The people in the system—the students, teachers and administrators—must have the capacity to enact change. We have talked about these various capacities and ways policy-makers are trying to achieve them. But now we must come back to the word "desire." Strategies for building capacity must take into account whether the policy design adequately considers the motivation of people in the system to take advantage of the capacity-building activities. Motivation is a complex phenomenon, of course, arising from many diverse sources, and policy design can only address one piece of that puzzle (Fuhrman & O'Day, 1996). It can be, however, an important piece. Hence, the question: Do the capacity-building strategies discussed here offer sufficient incentives to their target clientele-teachers, administrators and students? In many areas, the policy-makers with whom we spoke said "no", and we, too, wondered whether the incentives were sufficient.

Here we consider five areas where incentives may be weak or lacking:

- incentives to heed professional development standards,
- incentives for teacher training institutions to improve quality,
- incentives for teachers to pursue professional development,
- incentives to hold all students to high standards, and
- incentives to engage in the school improvement planning process.

A) Incentives to Heed Professional Development Standards

Whether professional development standards will improve the quality of teachers' learning experiences depends in part on whether these standards are taken seriously. Persuasive visions may produce results, but incentives and sanctions are often important if not sufficient components of broader change. Thus the question is whether locals have

adequate incentives to follow these standards. Recall that these standards are often recommended, not required. And, while the states used these standards as criteria in grants and programs or in state professional development activities, few states offered professional development funds directly to schools and districts, so the latter often depended heavily upon resources from their general funds for these activities. What incentives do schools and districts have to gear their self-funded activities around these professional development standards? Furthermore, do suppliers of professional development have much motivation to comply?

A related question is whether these standards are specific enough to strongly impact the nature and quality of professional development. Many of the standards are not specifically linked to student content goals. Furthermore, most professional development is like most curriculum and school-based reform programs-it has not been rigorously evaluated for its impact on student performance. This compounds the challenge for schools and districts. With imperfect information it is difficult to pressure professional development suppliers to improve their quality.

B) Incentives for Teacher Training Institutions to Improve Quality
A number of state policy-makers also discussed the problem of establishing strong incentives for institutions of higher education to offer reform-related support to teachers. Many felt that teacher education programs were on their own, if they could decide to participate and realign their programs to meet the goals and needs of reform, but there was little to make them do so.

Of course, high failure rates on state teacher tests, or other requirements to meet licensure standards, might damage the reputation of the teacher education program. States often felt pressure, however, to moderate these licensure standards. For example, one state we visited planned to adjust some content tests required for a provisional teaching certificate because the outcomes were consistently low. To prevent teacher shortages in those areas, the state planned to lower the cut scores.

Indeed, teacher shortages offer a perennial challenge to state efforts to raise the bar for pre-service and in-service teachers. Florida, Colorado, Texas and California had acute shortages of special education and bilingual teachers. Colorado planned to recognize special educator preparation programs at the undergraduate rather than the graduate level as in the past. Other states consolidated special education

endorsements into generic, K-12 endorsements. In 1996-97, California's problems were greatly exacerbated by its class-size reduction initiative in primary grades. This required the hiring of thousands of new teachers, and, since many licensed teachers could not be recruited on such short notice, many were hired with emergency permits. Typically, California issues about 6,000 emergency permits a year, but by April 1996-97, it had issued 10,000. To handle some of these problems, California allowed special education teachers to be credentialed without meeting all the general education requirements typically needed. In this case, the effort to build capacity by improving the teacher-student ratio had negative effects on efforts to build capacity by improving the knowledge and skills of entry-level teachers.

Many states encouraged or required institutions to meet more rigorous accreditation standards, but a few policy-makers argued that accreditation was a weak instrument because institutions so rarely lost their accreditation. Constraints on taking this dramatic step ranged from historical and legal notions of academic freedom as well as the political repercussions that might be felt if a teacher education institution folded, particularly in remote areas where they are major employers.

C) Incentives for Teachers to Pursue Professional Development

Many states require teachers to participate in on-going professional development to earn re-licensure. However, many policy-makers felt that these incentives did little to engage teachers in continuous professional learning. They argued that many experienced teachers viewed credit requirements as bureaucratic hurdles rather than opportunities to seriously improve practice. As we discussed, many unions and other groups opposed initiatives to specify that these continuing credits be related to reform or even to teachers' subject areas. Nor did other requirements, such as school improvement planning or other planning initiatives, ensure that the activities teachers chose were coherent with reform principles or school needs. For example, reports on Kentucky schools' professional development plans showed that they did not, until recently, include common elements on teachers' individual professional growth plans (Cody & Guskey, 1997).

D) Incentives to Hold All Students to High Standards

A critical issue for special educators revolves around whether the testing and accountability designs provide sufficient incentives to hold all students to high standards. States such as Kentucky, Maryland and Colorado created clever strategies to motivate educators to include all students in statewide exams. These ranged from tighter rules about

excluding students from tests and closer monitoring for compliance with these rules, to giving untested students a zero in the overall accountability calculation. The latter is meant to discourage educators from unofficially persuading students not to come in on the day of the tests. Yet despite these efforts we heard many concerns about the incentives present in high-stakes systems to exclude the lowest performers anyway, despite these consequences. Some policy-makers spoke about schools or districts that focused attention on students who were closest to meeting satisfactory state standards, and ignoring those at the bottom.

E) Incentives to Engage in the School Improvement Planning Process

Finally, while state policy-makers viewed school improvement planning as a pivotal or at least necessary component of the change process, the jury is still out on how seriously schools engage in it and the quality of the resulting plans. While states such as Kentucky, Maryland and California tied support and technical assistance to SIP, others like Colorado and Texas did not. Do schools have the knowledge or commitment to use these processes well? Certainly low performing schools may be motivated to do so, especially when the state monitors their activities in these areas, and when there are high consequences for failure. But do other schools? Furthermore, do SIP councils have the authority to carry out the plans; do they have sufficient control over fiscal and human resources? The answer likely lies in the extent to which school and district leaders allow them that authority.

Part 4: Questions To Consider When Building Capacity For Reform

State policy-makers used many mechanisms for improving the quality of teaching and learning for standards-based reform. We have noted in this paper the most common of these across the eight states in our study. Certainly, not all these initiatives were primary in each state, and many states often had other important efforts to build capacity for teaching and learning. The prevalence of these strategies, however, cannot be ignored. We have explained why states gravitated towards these solutions, and discussed progress and continuing challenges for building capacity.

We would encourage policy-makers and special educators to consider the whole system when designing their capacity-building strategies. It may be useful to take a framework such as ours to see whether existing policy strategies and mechanisms address the seven capacities we noted at the beginning of the report, and to see where there may be gaps. When conducting such a survey, readers should keep in mind the following questions:

1) Do the regional infrastructures for technical assistance and professional development have adequate resources, knowledge and person-power to carry out the tasks assigned to them? Do they use high-quality models of professional development and technical assistance?

2) How can the state scale up capacity to better assist schools in the middle of the performance distribution?

3) Does the state or local district have a strategy for helping schools and teachers translate the data generated by the accountability and testing program into practice? Is there assistance for special educators, who are often working with modified assessments?

4) Research suggests that support that is a) highly tailored to individual school settings, b) long-term, with opportunities for feedback and reflection, and c) curriculum-specific and linked to reform is most effective. Do the capacity-building initiatives undertaken in the states meet these three criteria?

5) Research on curriculum and instructional practices that improve all students' performance is sorely needed, and districts and schools need access to such high quality information. What role can the state play in facilitating such research and brokering this information?

6) Does the capacity-building system in a state provide adequate incentives for individuals and organizations (students, teachers, schools, districts and higher education) to build capacity, particularly capacity that is aligned or at least coherent with reform? Are there incentives to bring all students up to the standards, even those currently at the bottom of the performance distribution?

7) Is the policy system sending coherent signals to schools and teachers so that they may move forward on building appropriate knowledge and skills?

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STANDARDS AND ASSESSMENTS IN THE 8 STATES

	Standards	Testing
CA	• 1995 law created the State Commission for the Establishment of Academic Content and Performance Standards (CEACP) to create voluntary K-3 standards in reading, writing and mathematics and to establish graduation requirements by January, 1998. • Since the early 1970s, the SBE has adopted curriculum frameworks to guide textbook selection. They are advised by the Curriculum Commission. These activities are continuing. In late 1997, the SBE adopted new mathematics frameworks with a basic skills focus. • Law also allows districts to adopt their own standards. • The state department of education adopted its own draft content and performance standards for the superintendent's Challenge Initiative in which a group of districts participate. • The Business Roundtable developed standards for high school and graduation.	• In 1994 the performance-based *California Learning Assessment System* (CLAS) was suspended. • 1995 law authorized the *California Assessment of Academic Achievement* (CAAA) for assessment of academic subjects in grades 4, 5, 8 & 10. CAAA had two components, a *Pupil Incentive Testing Program* offered districts $5/pupil incentive to administer a locally-selected, SBE-approved norm-referenced test in grades 2-10. The second component will be a statewide test in grades 2-11. In late 1997, the SAT-9 was selected.

CO	• In 1995 the SBE adopted *Colorado Model Content Standards* its "first tier" model content standards in mathematics, reading/writing, science, history and geography; performance standards were adopted in 1996. "Second tier" standards in visual arts, music, physical education, foreign languages, economics & civics will be adopted in spring 1998. • Districts were required to adopt local standards that "meet or exceed" state content standards by 1996-97.	• In 1996-97 the *Colorado Student Assessment Program* was administered in reading/writing for grade 4. The test design was amended by the legislature in 1997, and will be phased in over a 5 year period. It will eventually include mathematics and science in grades 3, 5 & 8. • 1993 state law requires local assessments aligned with local content standards in at least grades 4, 8 & 10.
FL	• In 1996 the SBE adopted *Sunshine State Standards* in language arts, mathematics, science, social studies, the arts, foreign languages & health/physical education.	• In 1996-97 the *Florida Comprehensive Assessment Test* (FCAT), which is aligned with state standards and covers reading and mathematics for grades 4, 5, 8 & 10, was field tested and is expected to be fully implemented in 1997-98. • In 1995-96 the *High School Comprehensive Test* was made more rigorous and is required for graduation. • *Florida Writes!* is administered in grades 4, 8 & 10. • Districts must select and administer a norm-referenced test in reading and mathematics in grades 4 & 8.
KY	• In 1991 the state adopted *Kentucky's Learning Goals and Valued Outcomes*, which in 1994 were rewritten and renamed as *Learning Goals and Academic Expectations*. KY has standards in mathematics, language arts, writing, science, social studies, arts and humanities and practical living/ vocational technology.	• Since 1992 the state has administered the *Kentucky Instructional Results Information System*, which is aligned with standards. It covers reading, writing, mathematics, science, social studies, arts and humanities and practical living/vocational studies in grades 4, 5, 7, 8, 11 & 12. An *Alternate Portfolio* is administered for seriously disabled students in grades 4, 8 & 12. • Since 1997, the state has administered *CTBS/5* in reading/ language arts and mathematics in grades 3, 6, & 9.

MD	• In 1990 the SBE adopted *Learning Outcomes* for grades 3, 5 & 8 in reading, writing, mathematics, social studies and science. • In 1996 the SBE adopted *High School Core Learning Goals* in English, mathematics, science and social studies. "Skills for Success" standards are integrated across subject areas.	• Since 1991 the state has administered the *Maryland State Performance Assessment Program* (MSPAP) in grades 3, 5 & 8. It covers reading, writing, language arts, social studies and science. • Maryland administers the *CTBS/5* in grades 2, 4 & 6 in reading and language arts. • The *Maryland Functional Tests* in reading, writing, mathematics and citizenship have been required for graduation since 1981. Maryland is developing new *High School Assessments* in English, social studies, mathematics, science and Skills for Success.
MI	• In 1995 the SBE adopted model *Michigan Curriculum Framework (Tier I)* which contains *Michigan Content Standards and Draft Benchmarks* in mathematics, language arts, science and social studies. There are also draft frameworks and model standards in arts education, career and employability, and world languages. • Districts may adopt their own core curriculum standards if they describe how it differs from the state model standards.	• Since 1988-89 the state has administered the *Michigan Educational Assessment Program* (MEAP) in reading and mathematics; science was added in 1996, and social studies will be added in 1998-99. Students are tested in grades 4, 5, 7, 8, 10 & 11. Revised versions of mathematics and language arts tests aligned to standards are planned for 2000-01. • In 1996 the state administered the *High School Proficiency Test* in grade 11. It assesses Communication Arts (reading and writing), mathematics and science.

MN	• *The Graduation Rule* contains two sets of standards: *Basic Standards* in reading, mathematics and writing; and *Profile of Learning* standards which are performance-based interdisciplinary standards in math, reading, writing, science, social studies and the arts.	• In 1996-97, the state administered *Basic Standards* basic skills tests in reading and mathematics in 8th grade; writing will be administered in 1997-98. These are required for graduation for the class of 2000. Districts may use these or other tests to demonstrate students' performance in basic skills. • Beginning 1997-98, students also must pass a subset of the *Profile of Learning* standards for graduation. The state has model performance tasks; districts may use these or other tests. • Beginning 1997-98 the state will administer *MN Comprehensive Assessments*, criterion-referenced tests aligned to the *Profile of Learning* standards, in grades 3, 5 and 8 in reading, mathematics and writing. These tests are to check student progress towards the standards. • State requires districts to assess in grades 3, 6 & 9 in mathematics and language arts. The state also requires districts to administer performance assessments in high school.
TX	• In 1997, the SBE adopted the *Texas Essential Knowledge and Skills* (TEKS) in agricultural science and technology education, business education, English language arts and reading, fine arts, health science technology education, home economics education, industrial technology education, languages other than English, marketing education, math, science, social studies, trade and industrial education, health and physical education and technology applications to replace previous *Essential Elements*.	• Since 1990 the state has administered the *Texas Assessment of Academic Skills* (TAAS) in reading, writing, mathematics, science and social studies in grades 3-8 and at the exit level (usually grade 10). TAAS is aligned with the *Essential Elements*, and is being realigned to the new *Texas Essential Knowledge and Skills*. There are also end-of-course exams in Biology, Algebra, U.S. History (in development) and English (in development)

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