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## Education Reform, School Improvement, and State Policy

If states expect real improvement, state policies to ensure uniformity of standards must be tempered with the expectation of nonuniformity of strategy and appearance.

Over the last 18 months, education has risen to the top of state policy agendas. Political and business leaders have increasingly viewed better public education as a key to the country's economic growth. Polls show that the public wants quality improvements in education and is willing to spend more to get them. States created over 250 task forces and charged them with designing education reform. Eight states enacted major education reform programs; many others plan to debate reform proposals in 1985. Five states raised taxes to finance education reform, bringing to more than ten the number of states that have done so between 1982 and 1984. States targeted fiscal attention on

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education in a manner unrivaled since the school finance reforms of the 1970s (Odden, 1984a).

These state initiatives are impressive in themselves; the important issue is whether state policy supports good local practices. This article assesses state initiatives in the context of current knowledge about effective teaching and schools, educational change, the process of school improvement, and state program implementation by:

1. Summarizing briefly the research on school effectiveness and identifying state policy implications by backward-mapping (Elmore, 1979-80).

2. Outlining actual state policies in school improvement and education reform and discussing their relationship to the policies identified in the first section.

### Research on School Effectiveness and Its Policy Implications

School effectiveness research includes five different but related components: effective teaching; effective principals; effective schools; educational change, specifically change for school improvement; and state and federal program implementation.

Effective teaching research concludes that teacher attitudes, expectations, management practices, and pedagogical skills affect student achievement. Effective teachers expect all students to master the content of the curriculum; at the same time they convey concern and interest to each student. Consistently well prepared, they approach teaching with a businesslike, task orientation and maintain a smooth pace during lessons. Transitions between activities are brief; seating configurations, traffic patterns, and material storage complement instructional activities. Classroom procedures and rules are taught as content at the beginning of the school year and reinforced with preventive group management techniques. Especially for the introduction of new content but also for systematically ordered content, effective teachers use active teaching strategies, provide feedback, and prepare students for seatwork during which they experience appropriate rates of success (high, particularly for

## Backward Mapping Policy Development

Backward mapping is a bottom-up rather than a top-down policy development process. Typical policy development begins at the top of the system, outlines the policy, and reasons through various actions to ensure that the policy gets implemented at the bottom. Backward mapping first clarifies the problem, then identifies the service delivery level where the problem will be addressed directly, and then reasons backward (or upward) to identify appropriate policies at the top. An example of backward mapping might be:

1. *Stating the problem.* Poor performance in basic and higher level thinking skills, for example.

2. *Determining where the problem is addressed most directly.* In the classroom, for example.

3. *Identifying effective practices at the service delivery level.* Certain teaching strategies and effective classroom management, for example.

4. *Moving up the system to ask how higher levels can help,* by first asking how school administrators can support effective classroom practices. Creating school improvement programs, for example.

5. *The process then continues up the policy making ladder* by asking what school districts, intermediate service units, state education departments, and the political community (governors and legislators) can do to support the effective practices at each level below.

The key to backward mapping for state policymakers is to ask how they can help sustain effective practices in classrooms and schools, rather than how they can get state level policies implemented faithfully in local schools.

young students learning new content). Effective teachers structure the presentation of content, use advance organizers, set the lesson in a context, review main ideas at the end, and provide numerous activities for practice and feedback (Good, Biddle, and Brophy, 1983).

Research on principals shows that both effective and less effective principal work patterns are characterized by brief, fragmented, and varied interactions with people, usually involving face-to-face contact. But effective principals move the school toward key goals amid the competing demands of that environment because they direct the entire school program toward a vision they create. As instructional leaders, they develop curriculum coordinated across grade levels and programs. They create a climate of high expectations and foster a collegial atmosphere. Effective principals know, and expect teachers to know, effective teaching research; they help their teachers through inservice training to use those strategies in their class-

rooms. They engage in symbolic management by using rituals, symbols, slogans, and ceremonies to outline their visions of the school and manage a goal-setting process that generates commitment to the goals. Through symbolic management, effective principals generate teacher commitment and engagement that energizes them to work on teaching effectiveness and overall school effectiveness (Manasse, 1983).

Research on effective schools reinforces the above findings. Effective schools have strong instructional leaders, emphasize the academic curriculum and instruction in that curriculum, have clear goals and high expectations, monitor student performance, and have ongoing staff development programs that include effective teaching strategies. Leaders in effective schools have a feel for the school improvement process. Characterized by intense interaction and communication, an effective school is bound together by a value system that directs it toward its strategic goals and

collaborative planning. Cultures in these schools identify what is valuable and important in them; induce clarity, consensus, and commitment regarding their basic purpose; serve as compasses that steer everyone in a common direction; and tightly couple students, teachers, and administrators (Cohen, 1983; Purkey and Smith, 1983).

Research knowledge on school improvement, or how schools move from ineffectiveness to effectiveness, also is accumulating. This research shows that school improvement takes place over two to three years, affects both individual teachers and the schools themselves, must include ongoing technical assistance for teachers as they carry out new practices in classrooms, and can be planned and managed by school and district leaders (Crandall, and others, 1983; Fullan, 1983). Successful school improvement depends on teacher commitment, which in turn derives from mastery of new classroom techniques required by the school improvement effort. Mastery comes only through practice, feedback, and coaching (Joyce and Showers, 1982). Assistance must address the evolving concerns of teachers as they work with new practices (Hall, 1979).

Research on educational change also shows that teachers, principals, central office staff, and external facilitators (such as state education department staff) play important and different school improvement roles. In general, though, successful school improvement requires assistance to teachers focused on the *content* of the change—that is, on helping teachers implement new practices—and also requires assistance focused on the *context* of change—that is, on getting needed approvals, resources, facilities, and long-term coaching help (Crandall, and others, 1983).

Most knowledge of successful school improvement strategies derives from research on federal school improvement programs but is complemented by findings on the implementation and impact of federal and state programs for compensatory, bilingual, and special education. Implementation research suggests that such programs have expanded fiscal resources

for these students, increased education services to them, and strengthened state and local capacities for developing and carrying out major program initiatives (Sherman and others, 1983). This research, too, suggests that program implementation takes time and must include ongoing technical assistance if it is to improve program quality (Elmore and McLaughlin, 1982).

In short, a rapidly expanding research base now provides information on characteristics of effective teachers and principals and on the nature of organizational structures and processes that characterize effective schools. In addition, it identifies the change steps in the school improvement process and the key roles for different actors.

If states take the school effectiveness research seriously, they must, however, be prepared to see state goals reached differently in each school. As Finn (1984) puts it, effective schools need strategic independence from state and district controls. Effective schools will look different from one another. State leaders should prepare for nonuniformity of appearance while insisting on uniform goals and standards.

States can support effective schools and stimulate school improvement activities by:

- Providing symbolic leadership to keep education on the policy agenda.
- Articulating clear educational goals.
- Building awareness of school effectiveness research.
- Developing system incentives that recognize and reward education effectiveness.
- Creating school-based technical assistance programs.
- Altering training and certification requirements.
- Strengthening state data gathering (Odden, 1984b).

It is difficult to promote quality and excellence for an unimportant issue with low status. State *symbolic* leadership can keep education on the state policy agenda and raise its status. In many respects, the national reports have done this (Yudof, 1984). To maintain this higher status, symbolic leadership must extend to a number of

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other fronts. For example, the reports call for expressing a new and higher regard for teachers. We need new metaphors and revised images for the language used to discuss education. Policymakers could talk about schools as knowledge work organizations (Schlechty, forthcoming), could discuss teachers as managers of knowledge workers, and could describe teaching as a set of executive functions (Berliner, 1983), including planning, communicating goals, regulating activities, supervising and evaluating others. New mechanisms for celebrating excellence also could be created: annual award dinners for outstanding teachers, recognition days for effective schools, governor's days for education improvement awards, legislative scholarships for top students. Such public recognition and ceremonies would keep the symbols surrounding education excellence in the public view and help to build a state and nationwide ethos that would nourish local effective school cultures.

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Clearly, state policymakers can expand *technical assistance* programs and target them for schools as well as districts. Effective schools programs in which states work with individual schools to develop in them the characteristics of effective schools are one example. More general school improvement programs in which state consultants work with schools on specific change or improvement initiatives are another. Further examples include instructional management programs (where the state helps districts and schools align academic goals, instructional materials, and tests) and inservice training programs in instructional effectiveness, classroom management, expectations and attitudes, clinical supervision, instructional leadership, and management of educational change.

*System incentives* are another major category for state action, since both effective school cultures and effective principals recognize and reward those who help move the school towards key objectives. States could develop planning and implementation grants for local districts and schools to help principals gain schoolwide consensus on school goals. Bonuses for meeting improvement or productivity goals could help focus and reinforce school and district responses to key state goals. Competitive grants to help administrators and teachers develop innovative instructional or management programs or materials (like the successful federal Title IV-C program) would spur initiative and reward creativity. Pay-for-performance compensation systems could allocate pay in part on outstanding performance rather than just on education and experience.

In short, the major state policy initiatives deriving from research on school effectiveness are the following: to keep education excellence constantly in the public eye and maintain its importance on state policy agendas; to create a variety of technical assistance programs designed to help develop, implement, and sustain school improvement initiatives; and to offer a series of system incentives to spur creativity, recognize excellence and reward performance related to key state goals for public education.

### **Current State Education Policies And Their Relationship to School Effectiveness Research**

How do current state policies measure up to the policies suggested by the research on school effectiveness? In drawing conclusions, it is important to distinguish between state *school improvement* initiatives, most of which began prior to the national education reports, and developing state *education reform* programs that flow from recommendations of the national reports.

First, state symbolic leadership for education is substantial. State executive leaders—governors—largely have been responsible for revived state attention to education (Task Force on Education for Economic Growth, 1983). State legislative leaders have been substantially and largely responsible for the 250 state education reform task forces and the prominence of education on legislative agendas. Compare this resurgence to the end of the 1970s when state political leaders were shunning education (Rosenthal and Fuhrman, 1981). Today, governors such as Richard Riley of South Carolina and Lamar Alexander of Tennessee have spent most of their time during the past 18 months getting education reforms enacted. They are but two of many examples of state symbolic as well as substantive leadership for education.

States also have developed a variety of *school improvement* programs. A 50-state survey by the Education Commission of the States identified many programs that had been developed by state education agencies (Odden and Dougherty, 1982). These programs emphasize technical assistance, are school based, often are based on school effectiveness research, collect longitudinal student (rather than school) data, and focus on academic goals and related instructional programs. Currently, 37 states have school or district planning programs; 47 states have curriculum development or technical assistance initiatives; 15 have state-level effective schools programs; 44 have state-run staff development programs for teachers, and 31 have them for administrators; 29 states have new incentive programs for

teachers; seven require new kinds of field experiences for teachers; and 16 have begun requiring beginning teachers to serve supervised internships (Andringa, Brown, and Burnes, 1984). The following four examples represent different state policy approaches to school improvement.

Connecticut's Effective School Program draws directly on the effective school literature, specifically Edmonds (1979). It seeks to instill effective school characteristics in all schools in the program. Guiding its intervention process with individual schools is the research on organizational development and the role of change agents, an emphasis on commitment by school personnel, a focus on the school rather than either the classroom or district, and a concentration on instructional leadership by the principal. The program encompasses four major steps in which the district is contacted about volunteer schools; the program is discussed with the school principal and faculty; the degree to which the school has effective school characteristics is assessed; and an action plan is developed to set priorities for implementation and to outline roles of the state education agency staff, the principal, and the teachers. The state provides ongoing help while the action plan is being carried out, usually over several months (Fuhrman, 1983).

Colorado's School Improvement Clusters Program draws on Goodlad's research (1975). A school improvement cluster is a group of schools and cooperating education organizations (university, state department of education, and regional education service unit) working on education improvement for the participating schools. Normally, each cluster has a different focus: increasing school capacity for renewal, expanding the use of school effectiveness research in school improvement planning, improving teacher instructional effectiveness or principal instructional leadership, upgrading school climate, or broadening the use of computer technologies. The state department of education serves as a facilitator in organizing, staffing, assessing, and nurturing all clusters (Palaich, 1983).

The Arkansas Program for Effective Teaching draws on mastery learning,



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Madeline Hunter's teaching-learning model, and effective teaching research. It features a 25-day training cycle of presentation, classroom practice, observation, and feedback for each participant. Over half of all teachers, 75 percent of principals, and almost half of all professors in teacher training institutions have been trained. Training in classroom management, drawing directly on the effective teaching research, was added in 1983-84; and the state administrator academy is focusing on instructional leadership, including supervision (Odden, 1983).

Programs in California, South Carolina, and Tennessee created system incentives. California provides about \$100 per pupil to local schools that develop multi-year school improvement plans approved by regional panels of local educators. South Carolina and Florida direct per-pupil grants to local schools that meet performance or improvement criteria. Tennessee enacted an ambitious career ladder program for teachers, designed to base teacher compensation more on performance than on education and experience.

These and other school improvement programs across the states are consonant with the policy implications of school effectiveness research. Preliminary research on the impacts of

such programs indicates that they change state education agencies from regulatory to technical assistance bodies; spring from leadership within the education community (often the chief state school officer); emanate largely from school effectiveness research; and cost relatively little (Burnes, Fuhrman, Odden, and Palaich, 1983). Other research suggests that they have positive effects on students, teachers, and schools (Roberts and Kenney, 1984; see also Eubanks and Levine, 1983, for evaluation of similar local programs).

In contrast, state *education reform* programs and recommendations ignore school improvement and emphasize the hardware of education excellence—stiffer requirements, higher standards, and more time. A study of eight states that considered or passed education reform programs in 1984 found many similarities, but each state emphasized key programs (Odden, 1984a). Tougher standards across the board were critical in Arkansas. Greater high school course requirements and the addition of 7th period in high school were Florida's focus. Reinstatement of minimum high school graduation requirements and tougher courses were important in California. A high school exit examination and merit pay were pivotal in South Carolina. Expanded student testing and



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grade-to-grade promotion were emphasized in Texas. The career ladder for teachers was the cornerstone of reform in Tennessee.

State education reform packages included other elements of state education policy in addition to those identified as part of the reform programs. School finance formulas are revised and strengthened; funding for compensatory, bilingual, and special education programs is increased; and most new dollars are allocated through fiscal equalization formulas. In many ways, education reform states have addressed excellence and equity simultaneously, giving reform programs the most visibility while giving other components of education policy most of the new resources (Odden 1984a).

The eight states enacting education reform also expanded and strengthened school improvement initiatives. Arkansas increased staff in the state education department by almost 33

percent to help implement its new educational standards and also to expand training in instructional leadership, to train teachers in classroom management, to begin an effective school program, to train principals and teachers in schools where students are poor readers, and to train parents to teach at home. California established teacher centers and regional computer centers for inservice training and widened its school improvement program. South Carolina based a new teacher training program on the Arkansas program, expanded its administrator academy, and funded a principal assessment center. Texas plans to strengthen its state education department with several new positions. Utah put funds into a productivity program.

While education reform and expanded school improvement programs are developing simultaneously, the connection between them is more a matter of accident than design. Press

releases rarely mention the school improvement components of the reform bills. School improvement does not sell well either in political arenas or to the public. It is mushy, difficult to describe, and only the means to what political leaders and the public want—excellent schools and better-performing students. But it is a key to attaining those goals and a critical element in the success of any education reform effort.

To fuse school improvement and education reform thrusts, South Carolina's education reform implementation unit was created at the suggestion of the business community as a temporary project in the state education department. About 15 staff members will help local districts and schools carry out education reform programs. The unit's mission is to identify problems, document obstacles, help local educators work out implementation bugs, and report annually to the governor and legislature on the progress of implementation. In creating the unit, legislators recognized specifically that the new education reform programs were major programmatic thrusts that required additional state technical assistance if local districts were to implement them successfully.

How education reform and school improvement strategies will be linked in other states is difficult to predict. Forming those linkages, even covertly, certainly could be one objective of creative state and local education leaders, who know from research that linkages must be developed.

Current state school improvement policies and policies for state education reform programs are similar to the policies implied by school effectiveness research. At the same time, education reform programs have thrust the hand of state government into classrooms where before it stopped at school district boundaries (Kirst, 1984). For all schools to become effective, this new government intervention must unify standards and objectives but not practices and programs. If states allow this strategic independence, strengthen technical assistance and school improvement programs to help sustain this independence, and help implement new standards, education reform and strategies based on school effectiveness research

have great potential for raising the level of excellence in the country's public schools. □

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