How Comprehensive Reform Legislation Can Improve Secondary Schools

Can broad state-level initiatives for school reform actually improve the local schools? Using data collected in California, the authors answer that question affirmatively — but they remind us that successful local implementation of state-level initiatives depends on several factors.

BY ALLAN ODDEN AND DAVID MARSH

INCE APRIL 1983, when publication of A Nation at Risk touched off a national desire to reform education, many states have enacted comprehensive legislation intended to improve their schools. Such legislation typically increases high school graduation requirements, encourages a more substantive curriculum, defines new roles for teachers, and establishes higher standards.

Like that of many other states, California's major reform legislation, S.B. 813, had no previous parallel in terms of scope. Enacted in 1983, its dozens of provisions, if fully implemented, would alter curriculum and instruction in virtually every school in the state. S.B. 813 spells out neither a philosophy of reform nor a cohesive strategy for changing the schools. Instead, it represents a return to conventional wisdom, to a set of aspirations meant to restore the state's education system to a former level of achievement and academic rigor.

Little is known about the effects of enacting such a broad range of reforms

ALLAN ODDEN is director of the Southern California Policy Analysis for California Education (PACE) Center and an associate professor in the School of Education at the University of Southern California, Los Angeles, where DAVID MARSH (University of Southern California Chapter) is an associate professor.

simultaneously. Can local school districts and individual schools cope with the complexities involved? How do the various components of an extensive legislated reform program influence one another? Can local districts weld the disparate provisions of comprehensive state legislation into coherent and effective instructional programs?

Earlier studies produced data indicating that California's reforms were being formally implemented, but most of those studies relied on surveys or on statewide aggregate data. They left unanswered questions about how the reform programs actually operate in local schools and whether or not they result in substantive change. Given the high stakes involved in education reform, answers to these questions are crucial for policy makers and practitioners alike.

HAS EDUCATION BEEN REFORMED?

California and most other states have given the reform of education high priority in the mid-1980s. Legislated reforms are often accompanied by large infusions of dollars. Nationally, increases to date in funding for education during the 1980s, even after adjustments for enrollment changes and inflation, exceed those of the entire decade of the 1970s.⁴

Legislated reform involves literally billions of dollars, millions of students, and

hundreds of thousands of employees. In California, for instance, an additional \$1 billion was appropriated for each of the four years following enactment of S.B. 813. Both financial and political investments in school reform are intense. Some would like to declare S.B. 813 and other state packages a great success in order to justify still more expenditures for public schools. Others would like to declare them failures, either to deny schools additional revenues or to argue for alternative reform strategies.

Neither group will find much support in the results of the study reported in *How State Education Reform Can Improve Secondary Schools*, which we summarize here. Its purpose was not to judge the overall effectiveness of California's reform legislation. Instead, the purpose was to assess whether or not S.B. 813 reform components could contribute to secondary school improvement, by studying 17 schools that were active in implementing the reforms.

The study gathered information in order to seek answers to four important policy questions:

- 1. Were the 14 major reform programs in S.B. 813 and subsequent state department of education initiatives implemented, and were they integrated into both school and district visions of improvement?
- 2. How did schools and districts structure and manage the implementation of that vision?
- 3. What changes, if any, could be found in curriculum, students, teachers, administrators, and schools as social organizations as a result of the legislation?
- 4. Did state policies and programs help or hinder improvement in local secondary schools, or were they merely irrelevant?

The study also examined how reform efforts were or were not integrated into

the operation of four programs already serving students who needed remedial services, who needed compensatory education, who were less-than-proficient in English, and who were at risk of dropping out.

WHAT CALIFORNIA LEGISLATED

Among its 80-odd provisions, ranging in scope and magnitude from curriculum and instruction to financial structures and incentives for longer school terms, S.B. 813 increased high school graduation requirements to three years of English, two years of mathematics, two years of science, three years of social studies, two years of physical education, and one year of either foreign language or fine arts. It required the state department of education to develop model curriculum standards for those subject areas and mandated that local districts compare their curricula to the models. It also required the department to develop new criteria for textbook selection, including depth of substance, emphasis on thinking and problem solving, and attention to controversial and ethical issues in various content areas. It created a program to insure that sophomores were counseled into academic programs leading to graduation, and it required stronger district and school homework policies.

The reform legislation also strengthened the connection between curriculum and testing. It linked the California Assessment Program (CAP) more directly to the model curriculum standards. The CAP itself was expanded to include social studies and science, as well as reading and mathematics, and to emphasize



"Darn right, he's a hot prospect.... Twelve hundred yards, and an SAT score to match."

problem solving and application rather than basic skills and knowledge.

The legislation modified the state's school improvement program⁵ to focus on the quality of curriculum and instruction and to require, for instance, that administrators demonstrate their knowledge and expertise in order to be certified to evaluate teachers. It created mentor teachers (about 5% of all teachers) and provided them an extra \$4,000 per year for aiding in curriculum and staff development, especially in the training of new teachers. Overall, it identified several areas of curriculum and instruction as the "technical core" of education.

THE PACE STUDY

Over the last decade, new theories of policy implementation suggest that, compared with redistributive programs, which focus on specific groups of students (e.g., compensatory education students), *developmental* programs, which focus on curriculum and instruction, tend to meet with less resistance and to retain greater fidelity to the original program design. This is so because developmental programs augment existing efforts to improve local education systems.⁶

The nature of school reform has changed, too. Before 1980 reforms were usually targeted at specific student groups: the poor, the handicapped, the gifted, and so on. Funding for each program was discrete. Dollars were tracked to schools, where teachers and administrators identified targeted students and provided extra services for them.

By contrast, the reforms of the 1980s have tended to be more comprehensive. They focus on educational substance and are intended to serve all students. Consequently, this study focused on the contribution of state reform to improving local education; on the congruence of intent and implementation among districts, schools, and the state; and on the effects of reform on all students.

Recent theories on local implementation also suggest the importance of identifying and assessing such items as the selection of effective, high-quality programs; the vision and commitment of the central office; the prevalence of top-down reform initiatives; the development of implementation plans and the use of crossrole teams; the vision and commitment to change of each school; training and technical assistance; continued administrative leadership; and the press for fidelity of implementation to intended re-

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form — all as a causal network of variables. Consequently, these items and their relationships within the implementation process were studied as individual variables, in their relation to each other, and as the overall substance of the reform effort.

RESEARCH DESIGN

Informed individuals throughout the state were asked to identify "secondary schools which either have made or are in the process of making the transition to becoming academically more rigorous." At the same time, data provided by the state department of education located secondary schools in which large numbers of students had shifted enrollment into more rigorous academic courses. One of the major objectives of S.B. 813 had been to encourage and support academic learning.

By these two processes, 17 secondary schools in 10 different school districts were selected as a sample: 12 high schools and five middle/junior high schools. Because all had been identified as likely to be undergoing change, questions could be posed about factors behind local changes. Had S.B. 813 had any influence, or were the changes attributable to some other cause or causes?

Junior high schools and middle schools were included in part to represent the entire range of secondary schooling. In several districts, both a senior high and a junior high or middle school were included in the sample, and districts as well as individual schools were studied

because we believed that school board policies and central office management would prove to be one important component of school change. Overall, the 17 schools reflected the geographic diversity of the state, as well as the cultural and ethnic diversity and range of distribution of its secondary students.

Research teams collected data at each site several times during the 1986-87 school year, spending a total of at least 11 days in the field for each school. They collected, coded, and analyzed 1) documents and other data that reflected school and district activity, 2) interviews with dozens of individuals in each district and school, and 3) observations of interactions among professionals and between staff members and students at both the district and school levels.

MAJOR FINDINGS

The major findings of the PACE study follow. Each is accompanied by supportive or illustrative detail.

- 1. Virtually all schools implemented key provisions of S.B. 813 in a manner consistent with state purposes.
- All schools in the study had increased high school graduation requirements. In many locations, this process had begun before S.B. 813 was passed.
- District guidelines in two-thirds of the high schools followed the standards of S.B. 813's model curricula; half of the schools were incorporating the standards into classroom practice.
- A majority of schools used the additional funds and the guidance provided by the new curriculum standards to select and purchase new and more rigorous texts.
- Most of the schools paid greater attention to the California Assessment Program (CAP) and used its results to assess educational progress, pinpoint problem areas, and modify curricula.
- All schools were scheduling longer school days and years; many of them had begun to do so even before the passage of S.B. 813.
- All schools implemented the 10thgrade counseling program.
- 2. Education reform legislated at the state level can be an effective means of improving schools when it is woven into a cohesive strategy at the local level.
- S.B. 813 generally raised teachers' and administrators' commitment and encouraged their efforts to improve the quality of education. The combination of

- rigorous new standards and added resources renewed their determination to upgrade education.
- Even though commitment to major reform and concrete efforts to bring it about were under way in many districts before the passage of S.B. 813, the research teams concluded that the legislative force of the law and the fiscal resources it made available were of key importance. Without them, many local reform efforts might have foundered.
- Most of the districts and schools we studied renewed their emphasis on curriculum and instruction, the core activities of education.
- Districts tended to centralize efforts to improve curriculum and instruction.
- Districts moved beyond formal state recommendations into broader upgrading of the curriculum.
- Districtwide scope-and-sequence designs (K-12) aligned curriculum objectives with new textbooks, model curriculum standards, local tests, and the CAP tests.
- New academic courses had more substance and rigor; they were not merely old courses relabeled.
- Many schools put new effort into reading and writing across the content areas and required more instruction in mathematics and science for average students.
- Most schools established programs to improve student scores on the CAP tests.
- Most districts implemented staff development programs to strengthen teachers' instructional strategies.

- 3. Successful implementation of reforms at the local level reflects several key themes.
- District leadership is important both in initiating local reform and in supporting its implementation over several years.
- District leaders transformed disparate elements of S.B. 813 into integrated visions of reform that retained the state's academic and intellectual demands but tailored them appropriately to local needs and priorities.
- To these district visions the schools added their own emphases on culture, stressing such items as collegiality among teachers and heightened concern for students across the full range of academic ability.
- The participation of teachers and site administrators in designing the local implementation of reforms balanced the top-down initiatives from the district and state.
- Follow-up coaching and assistance in schools and classrooms combined most effectively with general staff development to improve professional expertise.
- 4. Attention to the substance of curriculum and instruction and to the process of school change correlates with higher test scores and improved learning conditions for all students.
- Average scores on the CAP tests in the sample schools increased more than did the statewide average. Moreover, the CAP scores in the sample schools rose for students of all ability levels.
- The changes mandated by S.B. 813 and the broader reform efforts influenced sample high schools more than sample



"He's the best teacher-union negotiator in the business."

middle schools, probably because S.B. 813's provisions are directed more specifically at high schools.

- Students are now subject to more rigorous and more academically oriented expectations.
- The expertise of administrators in the sample schools increased. They were better able to design curricular programs, manage the process of reform, and supervise instruction.
- Teachers' sense of their professional efficacy has grown.
- Schools in the sample have improved as institutions. Their visions are clearer, their norms of collegiality and continuous improvement are stronger, and their concern for at-risk students is greater.
- 5. Students with special learning needs—the poor, those with limited proficiency in English, and those at risk of dropping out—received increased services and attention. Unfortunately, the services were generally of a type that has produced insufficient levels of academic achievement in the past. Sample schools lacked appropriate strategies for mounting more effective interventions for at-risk students.
- 6. Sample schools wanted to engage in even more complex school improvement, such as focusing the curriculum on problem solving and on higher-order skills.

Thus state policies and programs apparently played a major role in improving these schools. However, state initiatives often meshed with local efforts that had been launched before passage of S.B. 813. "S.B. 813 didn't cause the reform," said one local superintendent, "but it sure helped." In the view of many respondents, the state's legislative action 1) increased momentum and continuity of local reform, 2) provided critical technical assistance to districts and school sites, 3) helped monitor and reinforce program success, and 4) provided useful direction and materials.

PROCESS OF IMPLEMENTATION

Districts in the study tended to initiate and implement education reform in phases. The first phase reflected the immediate concerns of S.B. 813, such as more rigorous high school graduation requirements and a longer school day and year. The second phase reestablished an academic orientation by upgrading curriculum standards, selecting new and more substantial textbooks and tests, identifying mentor teachers, developing better administrative supervision of in-

Teachers and administrators are crucial to implementation of school reform at individual school sites.

struction, and improving accountability through the use of quality indicators. In these two phases, many of the local schools had anticipated the state initiatives.

In a more recent third phase, curriculum and instruction are being revised to emphasize thinking and problem-solving skills, inquiry-oriented history and geography, more mathematics and science, and the integration of writing assignments across content areas. Its effects have been incorporated into several state curriculum frameworks and into the new eighthgrade CAP test, and they will be reflected in revised sixth- and 12th-grade CAP tests.

The revised CAP tests and the curriculum models and standards that were developed as a result of S.B. 813 helped districts in the PACE sample clarify and coordinate goals, texts, instructional materials and strategies, and tests of student progress - the technical core of a school's curriculum and instruction. In California secondary schools, as in those in many other states, these elements had not been closely connected in either policy or classroom practice. The professionals in sample schools and districts tended to use the curriculum initiatives in S.B. 813 as a springboard to engage in comprehensive curriculum upgrading.

Local school systems in the study were actively involved in a wide array of staff development activities — some spawned by S.B. 813, others locally initiated.8 Staff development typically consisted of workshops, some quite sound but most with limited follow-up and only an inconsistent relationship to overall reform. However, many districts had plans to

make staff development an integral part of reform. Many districts also planned to integrate mentor teachers into their overall reforms, and mentor teachers appeared to welcome this change. While mentor teacher programs were formally operational in most sample districts, most had been only loosely linked to overall reform efforts. Mentor teachers had served mainly to develop isolated curriculum and to train a small number of volunteer teachers, few of whom were experienced teachers.

The study revealed several factors that are critical for successful local implementation of reform. First, district leadership is essential to transform state initiatives into integrated visions of local reform. District leaders who exploited state initiatives did so because they felt that the reforms were important, substantive, and sound. They shared ownership of the reform process because they had taken at least some steps before S.B. 813 mandated them. Furthermore, they tailored state reforms to local needs and priorities without destroying their essence. The local vision of these district leaders resulted in a more integrated, more substantive, and more academically oriented technical core of curriculum and instruction than their districts had enjoyed prior to 1983. Other recent research on effective schools has noted the active role of district leaders.9

The second factor that is crucial to the success of reforms at the local level is that the academic orientation and cognitive demands of an upgraded curriculum must be balanced at the site by a complementary concern for student self-esteem, teacher collegiality, and overall social responsibility. The vision of reform at the school level often matches the demographic characteristics of the local school environment. This finding fits with the strong role of school climate found in the effective schools research.¹⁰

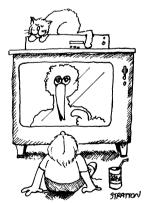
The third factor is the active involvement of teachers and administrators. Although reforms are typically initiated from the top down and tend to lead to greater centralization of curriculum development and textbook selection at the district level, teachers and administrators are crucial to implementation within individual schools. Superintendents, principals, department heads, and teachers play key roles in implementation at the school site. It is important that district leaders be candid in proposing directions for reform and that they continue to coor-

dinate, lead, pressure, and monitor reforms throughout the entire implementation process.¹¹

Finally, successful reform hinges on a shared vision between district and school and between teachers and administrators. According to the ratings given by case researchers in this study, schools showed higher CAP test score gains in districts in which the vision of reform was clear and consistent, in which district leaders were both highly committed to education reform and strong in communicating this commitment to schools, and in which schools were moving in the same direction and with the same substantive agenda as the district. These schools were *not* loosely coupled.¹²

All but one of the schools in our sample conducted an effective local implementation process. Every school used some form of cross-role teaming; typically, groups of teachers, department heads, and administrators were charged with designing and coordinating the process. These cross-role teams blended the top-down initiation of reform with bottom-up participation in developing and implementing specific activities. They helped achieve the essential shared vision between teachers and administrators and between schools and districts.

In addition to assessing the local implementation of policies mandated by S.B. 813, the PACE study yielded other observations. As measured by CAP scores, for example, students in the sample schools made substantial gains in achievement between 1983-84 and 1986-87. Some gains in reading were at double the statewide average. Schools improved in climate and in administrative



"Sesame Street for Gifted Children' was brought to you today by the formula $E=MC^2$ and the Greek letter beta."

and instructional practice. Gains in completely dissimilar variables seemed to complement one another. The performance of students at every ability level improved.

However, dropout rates also increased in the sample schools, though only marginally.

While the initial training of administrators and teachers helped them during the first phases of revitalizing the curriculum, more substantial changes later on required increased and continuous assistance: in clinical supervision and evaluation of teachers (for site administrators) and in classroom management, clinical teaching, and general pedagogy (for teachers). At most schools the quality and extent of assistance during the later phases of reform were insufficient to make serious changes in classroom teaching or to support a more demanding curriculum that includes thinking, problem solving, communication skills, and cooperative learning.13

The finding that substantial restructuring of the curriculum requires large-scale and strategically targeted staff development and training — a finding supported by other studies — is somewhat sobering, given the lack of such systematic activities in the schools we studied. The next phases of school reform will depend for their success on large-scale staff development, but new knowledge is needed about how to organize and implement such activities.

Although it was gratifying to discover that the needs of special student populations were recognized by schools and districts, programs and services for these students tended to remain focused on basic reading and mathematics skills. Districts and schools did not typically offer alternative instructional approaches nor try to encompass higher-level thinking skills. Although the concern for students who need additional help was clearly genuine, the services provided for them remained rather traditional and offered no new advantages.

TOWARD A MORE COMPLEX REFORM AGENDA

Schools in the study returned rather easily and quickly to traditional academic courses in response to S.B. 813 and other stimuli for reform. These changes required few new instructional strategies. Generally, secondary teachers have long preferred teaching academic courses to

teaching general-track courses. Most of them were originally trained to teach academic courses, and they needed little additional prodding to begin teaching more of them.

It has apparently proved very difficult for schools to change the nature of teaching or of the academic curriculum, as proposed in the frameworks for California's new mathematics and science curricula. And it is proving more difficult still to inject into the curriculum greater emphases on critical thinking, problem solving, and communication skills. While the PACE study found schools poised to take on these more substantial curricular reforms, it found few articulated and consistent strategies for doing so.

One clear implication of the findings of this study is that states should disseminate information about effective processes of local change in order to encourage other districts and schools to develop similar processes. Key structural elements of a local improvement process include:

- a vision shared by the district and the school that focuses on rigorous curriculum content and effective teaching strategies:
- a cross-role district team consisting of central office representatives, site administrators, and teachers to plan and coordinate the implementation of reforms:
- a district plan for coordinating and linking the elements (curriculum objectives, texts and other instructional materials, and teaching strategies) that are the technical core of curriculum and instruction, along with a set of implementation activities that are interrelated and planned for more than one year's duration;
- strategically targeted staff development in specific curriculum content and pedagogical skills, as well as training that relies heavily on the leadership of mentor teachers and that provides significantly more ongoing assistance;
- district monitoring of the performance of students, teachers, and building administrators; of program implementation; and of congruence in district and school emphases;
- school teams composed of site administrators, department heads, and teachers to plan and coordinate specific implementation activities; and
- assistance to teachers that turns curriculum and instructional strategies into skilled classroom practice.

One possible solution to the problems

presented by the massive program of staff development (make that human resource development) needed to make substantial later-phase changes in curricular goals and pedagogy would be to expand the roles and responsibilities of mentor teachers, either by identifying more of them or by allocating more of their time and energies to staff development. Mentor teachers could thus focus more directly on implementing the restructured curriculum that is designed to develop deeper content knowledge and to foster thinking and problem-solving skills among students.

The PACE study also documented a genuine concern for students who already need extra help and who will probably need even more help to master a curriculum that places greater emphasis on thinking and problem solving. The push for excellence has not left at-risk students completely out in the cold, but the system's strategies for dealing with atrisk students need strengthening. New approaches will unquestionably be needed for instructing low-achieving students, low-income students, those who have limited proficiency in English, and other students at risk of failure. Efforts to help these young people could include some combination of research and program development and the waiving of regulations to allow local schools to experiment with new approaches. However, services for these children need to expand beyond the schools to include the

coordinated services of other public and private agencies.¹⁴

Finally, if subsequent phases of reform are to restructure curriculum to place dramatically more emphasis on conceptual and practical mathematics and science for all students, on reading and writing across content areas, and on thinking and problem-solving skills, then state leaders must articulate these new directions in light of a vision valued by both policy makers and practitioners. They must insure that critical elements of that vision curriculum goals, textbook selection, instruction, pedagogy, the alignment of tests with the curriculum, and staff development - are integrated in ways that appeal to local education leaders. Finally, they must maintain that vision over time, so that local leaders can define and allocate sufficient time and resources to implement appropriate local versions of state-initiated reforms.

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3. Michael W. Kirst, "Sustaining the Momentum of State Education Reform: The Link Between Assessment and Financial Support," *Phi Delta Kappan*, January 1986, pp. 341-45.

4. Allan Odden, "School Funding Changes in the 1980s," paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., 1987.

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6. Paul Peterson, Barry Rabe, and Kenneth Wong, When Federalism Works (Washington, D.C.: Brookings Institution, 1986).

 A. Michael Huberman and Matthew B. Miles, Innovation Up Close (New York: Plenum, 1984).
See Judith Little et al., Staff Development in California's Public Schools (San Francisco: Far West Educational Laboratory, forthcoming).

9. Michael Cohen, "Instructional Management and Social Conditions in Effective Schools," in Allan Odden and L. Dean Webb, eds., School Finance and School Improvement: Linkages for the 1980s (Cambridge, Mass.: Ballinger, 1983); Lori Manassee, "Improving Conditions for Principal Effectiveness: Policy Implications of Research," Elementary School Journal, January 1985, pp. 439-63; Philip Hallinger and Joseph F. Murphy, "Assessing and Developing Principal Instructional Leadership," Educational Leadership, September 1987, pp. 54-62; and Warren Bennis and Burt Nanus, Leadership (New York: Harper & Row, 1985).

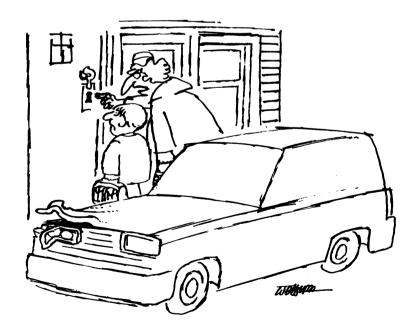
10. See Thomas Corcoran and Bruce Wilson, The Search for Successful Secondary Schools: The First Three Years of the Secondary School Recognition Program (Washington, D.C.: U.S. Government Printing Office, 1986).

Huberman and Miles, Innovation Up Close;
and Susan Rosenholtz, "Effective Schools: Interpreting the Evidence," American Journal of Education, May 1985, pp. 353-87.
Karl Weick, "Educational Organizations as

12. Karl Weick, "Educational Organizations as Loosely Coupled Systems," *Administrative Science Quarterly*, vol. 21, 1976, pp. 1-19.

13. As mentioned previously, staff development was becoming a more strategically targeted activity in the districts and schools studied, and teachers were beginning to volunteer to learn new skills. On the latter point, see Georgea Sparks, "Staff Development for Effective Teaching," Educational Leadership, November 1983, pp. 65-72. The emerging mode of staff development addresses broader and more complex issues, is provided over longer time periods with considerable ongoing assistance, is linked to strategic directions of the district and the school, and is targeted to specific issues rather than provided across an array of disconnected areas. See Bruce Joyce and Beverly Showers, Student Achievement Through Staff Development (New York: Longman, 1988).

14. See Michael W. Kirst, ed., *The Conditions of Children in California* (Berkeley: University of California, PACE, forthcoming).



"Next time you wait 'til we're home before you read your report card to me."