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AUTHOR Firestone, William A.; And Others

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ABSTRACT

More state activity aimed at improving public education took place in the 1980s than ever before. Many of their efforts concentrated on three themes: increasing academic content, upgrading the teaching force, and enhancing state and local financial support for schools. In addition to examining reform activities in Arizona, California, Florida, Georgia, Minnesota, and Pennsylvania, the research is drawn from other reports and studies on the status of reform and from conversation with national association representatives and reform leaders in other states. First an overview of the reform movement, its goals, and major accomplishments is reported. The overview identifies three themes in the current reform movement and highlights state and district action in each area. Second, state policies on raising academic standards are examined. Included here is a discussion of the most widespread reform found in the six states studied: increased high school graduation requirements. Third, policies directed at enhancing the supply and quality of teachers are examined. Next, the fiscal side of reform, including trends in school finance during the 1980s, is reviewed, followed by a look at future steps that might be taken and the political factors likely to influence their direction. (75 references) (SI)

The Progress of Reform

An Appraisal of State Education Initiatives

William A. Firestone
Susan H. Fuhrman
Michael W. Kirst

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Michigan State University

STANFORD UNIVERSITY

UNIVERSITY of WISCONSIN-MADISON

CENTER FOR POLICY RESEARCH IN EDUCATION (CPRE)

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SUMMARY

More state activity aimed at improving public education took place in the 1980s than ever before. State legislators introduced an unsurpassed number of education-related bills, increased state aid, and reviewed the findings of hundreds of state-level task forces and commissions. Many of their efforts concentrated on three themes: increasing academic content, upgrading the teaching force, and enhancing state and local financial support for schools.

But the reforms met with only modest success in achieving their goals. It is true that high school curricula are more academically oriented, standards for entering the teaching profession are more selective, and teacher salaries are higher. But doubts still linger about the rigor and challenge of the new academic courses, the impact of these courses on at-risk students, and the adequacy of indicators to correctly measure the progress reform is making. Several of the most highly touted reform proposals, such as the introduction of career ladders, have not been widely adopted.

This study examines reform measures in six states--Arizona, California, Florida, Georgia, Minnesota, and Pennsylvania. In each state, the scope of reform was different, and so were the policy instruments employed to bring about change. Some states undertook comprehensive reform, symbolized by omnibus legislation. Others used inducements and incentives to promote change, and still others counted on local capacity building to achieve their reform agenda.

Despite differences in reform efforts, researchers were able to draw seven general conclusions about these state activities.

1. The highest level of state activity was in providing more academic content and dealing with changes in teacher certification and compensation. To provide more academic content, states increased course requirements and student testing, established curriculum standards, and aligned curriculum frameworks with tests and texts.

2. In spite of the national press for reform, state political culture affected the process of passing reform, the kinds of reforms adopted, and the way reforms were implemented. States that had traditions of large-scale policy fixes used that approach again. States preferring a more incremental approach continued that pattern in the 1980s.

3. States tended to reject complicated reform recommendations in favor of more manageable ones. The most popular reform of the last five years was increasing graduation requirements, a relatively uncomplicated reform. Reforms that were considered less manageable often required additional infusions of funds, the redistribution of authority, or more complicated structuring of teaching and administration.

4. Reforms adopted by most states lacked coherence. Although provisions rarely conflicted, they were often unrelated, sending a barrage of signals to schools and districts without setting clear priorities.

5. States continue to work on reform but there is no clear shift in direction from the first wave of reform to the second. Policies associated with both waves are being enacted.

6. The easy reforms that were adopted have stayed in place. Increased curriculum requirements have remained on the books. More complicated reforms such as teacher assessments, career ladders, and mentor teacher programs have been modified or diluted.

7. Expansion of the economy, although crucial to reform, was not the complete cause of it. States experiencing economic upswings were active in reform, yet a substantial number of poor states initiated reform efforts as well.

The researchers also drew three conclusions about school district activity during this reform period:

1. There was very little resistance to reforms that involved increasing academic content. In fact, in some cases, district requirements exceeded state requirements.

2. Much of the progress on the restructuring agenda resulted from district initiatives. State involvement in the "second wave's" restructuring movement usually took the form of providing seed money for local experimentation.

3. Some districts are actively using state policies to promote their own priorities, such as school-based management or curriculum alignment.

The researchers recommend that future reforms build on past efforts, and that particular attention be paid to tailoring solutions to the education of at-risk students. They also suggest that a single policy approach very often will not do. Combinations of approaches may produce greater results from state-initiated reforms.

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William A. Firestone teaches about educational change and educational policy at the Graduate School of Education at Rutgers, the State University. He also serves as a senior research fellow at the Center for Policy Research in Education. A former director of applied research at Research for Better Schools in Philadelphia, Dr. Firestone has authored several books including Great Expectations for Small Schools: The Limits of Federal Programs, School Context and School Change, and Change and Effectiveness in Schools: A Cultural Perspective Dr. Firestone has also written articles for journals such as Educational Evaluation and Policy Analysis, Educational Administration Quarterly, Educational Leadership and Sociology of Education.

Susan H. Fuhrman is a professor of educational theory, policy and administration at Graduate School of Education at Rutgers, The State University of New Jersey and a professor of policy at the University's Eagleton Institute of Politics. She also serves as director of the Center for Policy Research in Education. Dr. Fuhrman has written many articles, reports and monographs or education policy and education finance. She co-authored Legislative Education Leadership and Shaping Education Policy in the States. Dr. Fuhrman was a consultant to the Ford Foundation's program on educational management and finance for 10 years and currently serves as a school board member in Westfield, New Jersey.

Michael W. Kirst is a professor of education and business administration at Stanford University where he directs the School of Education\School of Business joint program in educational administration. Dr. Kirst also serves as co-director of Policy Analysis for California Education (PACE), which conducts policy analyses of statewide issues, and is a member of the research team of the Center for Policy Research in Education (CPRE). Dr. Kirst has written numerous articles on subjects such as compensatory education, education finance and evaluating

educational programs. He has co-authored several books including Schools in Conflict: Political Turbulence in American Education, published in 1989 and Who Controls our Schools: American Values in Conflict, published in 1984.

INTRODUCTION

More state activity aimed at improving public education took place in the 1980s than ever before. State legislators introduced an unsurpassed number of education-related bills, increased state aid, and examined the findings of hundreds of state-level task forces and commissions. Education initiatives spread quickly from state to state.

Analysts disagree about why state policy emerged as the bulwark in the present crisis in education. For sure, some of the impetus came from improved state policymaking capacities and expanding state tax bases. But were these weightier catalysts than the Reagan Administration's aversion to creating new federal programs, or the publication of A Nation At Risk? We don't know.

It's much more important to examine the significance of the reform movement itself. What were its goals? How much change did the new state policies really require? Were new initiatives translated into practice? Did they improve schooling? What future directions do they suggest?

To shed light on these questions, in 1986 the Center for Policy Research in Education (CPRE) began a five-year study of the implementation and effects of state education reforms. This report draws on the first three years of that research and provides an interim assessment.

CPRE studied six states chosen for their diverse approaches to reform: Arizona, California, Florida, Georgia, Minnesota and Pennsylvania. The states varied on three criteria. The first was the scope of reform--the extent to which states embarked on comprehensive reform, packaging several major initiatives together into omnibus legislation instead of pursuing change more incrementally.

The second criterion involved the range of policy instruments states used to implement their reforms--whether states relied heavily on mandates that required changes in local behavior, enticed districts with inducements, or employed other strategies such as building local capacity to change district behavior (McDonnell and Elmore 1987).

The third criterion in the selection of states for this study was geographic location. The researchers wanted various regions of the country to be represented.

As Table 1 indicates, California, Florida and Georgia undertook comprehensive reform, symbolized by one major piece of legislation. Reform in the other states was more incremental, with each state mixing and matching its policy strategies. Florida, Georgia and Pennsylvania counted on state mandates to change local behavior. California used inducements and Minnesota favored strategies that built local capacity and broadened the state system of service providers. Arizona's plan balanced mandates and inducements.

Table 1

SUMMARY OF EDUCATIONAL REFORMS IN SIX CPRE STATES

ST	SPECIAL INITIATIVES/DATE	STUDENT STANDARDS	TEACHER POLICIES	FINANCE
AZ	Several, including SB1336 (1986) & SB1195 (1988), Career Ladder, & 1985: an associate teacher program.	1980: state-mandated yrly universal standardized achievement tests. Now a test sample in grades 1-12. 1983: graduation requirements raised to 20 units; 8th & 12th grade competencies established.	1986: Career Ladder pilots in nine districts. Extended to 1990-91. Associate teacher program allows non-certified people to teach part-time in the high schools.	1986: Career Ladder financed at $1,200,000. Proposition 101 raised the fixed cap for state spending. Necessary to fund the formula. No new money appropriated.
CA	1983: Initial reform effort; passage of SB813 omnibus education legislation. State superintendent used administrative means to coordinate curriculum, testing & textbook policy.	SB813 established new graduation requirements & model 9-12 curriculum standards. New textbook adoption policies govern use of state funds. Incentives provided for extending school day & yr.	SB813 requires 150 hours of continuing education every 5 yrs, $18,000 minimum entry salary, Mentor Teacher program providing stipends of up to $4000, alternate certification route & CA Basic Educational Skills Test (CBEST) for certification.	No changes in the basic funding formula. SB813 provides approx. $85/pupil to schools that lengthen school day and year. Prop. 98 passed in 1988 guarantees approx. 40% of state budget for grades K-12 and comm. colleges.
FL	Two legislative comprehensive reform packages: 1983 - RAISE (Raise Achievement in Secondary Education) & 1984 - Omnibus Education Act.	RAISE mandated first state graduation requirements; began at 22 credits then went to 24. First mandated 7-period day, then shifted to incentives. State-mandated use of curriculum frameworks. 1.5 GPA initially required for graduation but delayed implementation.	1983: Master Teacher Program provided bonuses to exceptional teachers. 1983: Merit Schools Program provides stipends to all staff for improvement & achievement. 1988: Teacher certification tightened content knowledge requirements, established 2.5 minimum GPA & tougher testing.	Money for reform generated from unitary tax on profits of interstate/international corporations and alcoholic beverage tax. Later allocation of lotter funds brought in very limited additional income.

Table 1 (continued)

SUMMARY OF EDUCATIONAL REFORMS IN SIX CPRE STATES

ST	SPECIAL INITIATIVES/DATE	STUDENT STANDARDS	TEACHER POLICIES	FINANCE
GA	1985: Quality Basic Education (QBE), comprehensive education reform legislation.	1988: Quality Core Curriculum (QCC) established basic statewide curriculum & course objectives at each grade level. First grade readiness test required for kindergarten promotion. Basic Skills test required for HS graduation.	Teacher certification based on subject area, communication skills & classroom assessment. 1988: Career ladder piloted in 5 districts using a new teacher evaluation.	Revenue growth allows increased but not full funding for QBE. Formula changes include funding weighted for needs/cost & training/experience factors; as-needed mid-yr formula adjustment; minimum local fair share, equalization funding & program $$ accountability.
MN	Increasingly diverse public school choice program: 1985 - Post-secondary Options; 1987 - Open Enrollment (interdistrict); High School Graduation Incentives (At-risk). Heavy emphasis state-wide on At-risk Early Childhood.	Graduation requirements raised from 15 to 18. New initiative to upgrade & integrate graduation requirements, curriculum & monitoring.	1987: Basic Skills exam for new teachers. Exemplary Teacher Education grants to develop & disseminate model experimental teacher education. 1988: $10/pupil incentives for districts to conduct continuing professional development.	1988: Replaced foundation program, retirement & 8 categorical revenues with General Education Revenue formula. Categorical allowances part of general aid; districts required to spend 1.85% on special programs. Downturn in funds because of economy, but steady increments since 1985.
PA	1984: Turning the Tide agenda put forward by Governor Thornburgh that drove the subsequent PA reforms.	1984: Chapter V State Board mandated schedule of increased curricular offerings. Student graduation requirements raised from 13 in 3 yrs to 21 in 4 yrs. 5 electives allowed in 4 yrs. TELLS program provides funds to districts based on % of students not passing basic skills tests in 3 grades.	1984: Board mandate Chapter 49 requiring districts to submit induction plans to assign incoming teachers to experienced mentors during critical 1st year; & Continuing Professional Development Professional Development teacher-designed plans for upgrading instructional quality of faculty. Chapter 49 revised to comply with Act 178 legislation in 1987.	1983: Revised Equalized Subsidy for Basic Education (ESBE), a basic funding formula which utilizes percentage equalizing, foundation & weighted pupil formulas. Slight upswing in economy has increased dollar amount of funding but state share is not as strong as it once was.

CPRE researchers visited each of the six states in the spring of 1986. The next year they returned to the states and visited 24 school districts and 59 schools. Information gleaned during these visits was then updated in telephone interviews with selected state and district policymakers in the spring and summer of 1988.[1] In all, CPRE researchers conducted over 800 interviews. They spoke with governors' aides; legislators and their staffs; chief state school officers; state and local education agency specialists; state and local school board members; superintendents; principals; department heads; teachers; education association representatives; knowledgeable academics; business leaders; education reporters; and community and parent group leaders. The researchers also collected reports, documents and statistical data from states, school districts and schools. In 1989, they began another round of site visits to investigate the evolution of reform even further.

In addition to examining reform activities in the six states, the research team drew from other reports and studies on the status of reform and from conversations with national association representatives and reform leaders in other states.[2] In writing this report, the authors relied to a great extent on research conducted by their colleagues on specific reform policies in the six states and others. The results of this research are described in publications listed in the reference section of this report. Readers are encouraged to turn to these publications for more in-depth examinations of specific reform policies and the political process shaping these reforms.

This report begins with an overview of the reform movement, its goals, and major accomplishments. The overview identifies three themes in the current reform movement and highlights state and district action in each area. Chapter II examines state policies on raising academic standards. Included here is a discussion of the most widespread reform found in the six states studied--

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1 Districts in six states (an average of four per state) were chosen to represent a range on two dimensions: degree of change required to conform with new state policies and capacity to make the required changes (as assessed by state respondents). Schools were selected to represent a range in capacity to respond to reform and to reflect the composition of sample districts. The school sample overrepresents high schools because of the researchers' interest in tracking the single most popular reform, increased high school graduation requirements.

2 CPRE's research findings were reviewed at meetings with representatives of the Education Commission of the States, National Association of State Boards of Education, National Governors' Association, Council of Chief State School Officers, National School Boards Association, Council of Great City Schools, American Association for School Administrators, National Conference of State Legislators, American Federation of Teachers, National Education Association, National Association of Secondary School Principals, Council for American Private Education, National Congress of Parents and Teachers and the Institute for Educational Leadership. Researchers also engaged in structured discussions with educators and policymakers from Arkansas, Connecticut, Illinois, South Carolina and Texas.

increased high school graduation requirements. Chapter III turns to policies directed at enhancing the supply and quality of teachers. Chapter IV addresses the fiscal side of reform, including trends in school finance during the 1980s. Chapter V looks to the future, the next steps that might be taken, and the political factors likely to shape them.

Chapter I

AN OVERVIEW OF EDUCATION REFORM

Crisis is a constant in American education. Scholars, university educators, business people, and legislators disclose major problems with elementary and secondary schools with some regularity. They then propose substantial reforms to solve these problems. Historically, two mechanisms have been used to encourage educators to adopt the changes proposed by these outside experts.

Until mid-century, the preferred approach to galvanizing action was largely symbolic. Reformers relied on highly publicized commission reports or other authoritative pronouncements. Thus we had The Report of the Committee of Ten in 1893, The Cardinal Principles of Secondary Education in 1918, and The American High School Today in 1959. Since the 1950s, however, the trigger has largely been government action. The National Science Foundation has granted millions of dollars for curriculum development, courts have effected desegregation, and Title I and Chapter I, along with other federal programs, have prescribed improvements in educational opportunity.

Two things are notable about efforts to reform American education. First, reform agendas fluctuate dramatically. The Committee of Ten sought to standardize secondary education for precollegiate students, while The Cardinal Principles addressed the needs of students who would take jobs immediately after graduating from high school (James and Tyack 1983). Similarly, 1950s curriculum reforms aimed to produce the nation's future scientific leaders while the focus in the 1960s was on attaining educational equity for children of all races and achievement levels. In the 1970s reform reports recommended humanizing education; in the 1980s they stressed tightening standards (Passow 1984).

One way or another, reform agendas have consistently been tied to the apprehensions and hopes of the times in which they are framed. In the conservative 1890s, 1950s and 1980s, reformers stressed consistency, rigor and the academic aims of schooling. In contrast, reformers in more liberal decades, such as the 1930s, the 1960s and the early 1970s, were more concerned with the broader goals of society and schooling (James and Tyack 1983).

Second, it is notable that reformers' targets are rarely met in practice. A recent review of a century of national commission reports on education suggests that, at best, change "trickles down" to schools. The authors suggest that commissions make strong, dramatic gestures to call attention to educational problems but that their recommendations are ambiguous and pay too little attention to matters of implementation. Many recommendations are subject to too many different interpretations; others can be ignored totally. Either way, the impact of reform recommendations on school and classroom life often is meager (Ginsberg and Wimpelberg 1987).

Those recommendations that do get put into practice get transformed. The most frequently cited study of the implementation of federal legislation coined the term "mutual adaptation" to describe how externally imposed procedures are

adapted to fit local conditions and how local institutions change (but only slightly) in response. (Berman and McLaughlin 1975). Federal mandates can run into the same obstacles faced by other outside regulation. For example, court-ordered desegregation plans can dictate who goes to which schools, but they cannot necessarily alter what goes on when students get there.

The reform efforts of the 1980s have been driven by a combination of national commission reports and state legislative and executive action. Commission reports, beginning with A Nation At Risk by the Commission on Excellence in Education in 1983, established targets and directions for change. State action provided the mandates, incentives, and resources to ensure local action.

State Policy Activity in Recent Reforms

Not since the formation of the common school system has the level of state policy activity in education been so high. Nearly every state joined in a national movement to address concerns expressed in 1983's A Nation at Risk (see Table 2 for a summary of recommendations from that report). CPRE's tracking of education reform in six states, and more general observation of others, suggests seven conclusions about this burst of state activity:

1. **The highest level of state activity has been in mandating more academic courses and upgrading teaching through changes in certification and compensation.**

States across the nation made substantial efforts to give their students more academic content. Forty-five of the states specified for the first time or increased their graduation requirements.

Student testing requirements have also gone up. Some states, like Pennsylvania, introduced state-wide mandatory testing for the first time; others, like Georgia and Florida, expanded existing programs. California moved instruction to a higher level by coordinating state-mandated tests, state textbook adoption, and curriculum standards.

But not all reforms of student standards have been as popular as new graduation requirements and testing programs. The most striking example is the proposal to increase the number of days in the school year. Thirty-seven states considered such action but only nine actually followed through with it. Of that nine, none pushed the number of student days beyond 180 (Bennett 1988). Other recommendations that received relatively little consideration from the states involved lengthening the school day and changing homework policies.

The most pervasive policy changes with regard to the teaching force dealt with certification requirements and salaries. Entering the teaching profession is tougher than it used to be. Arizona, Florida, and California are among the 27 states that have instituted a minimum grade-point average for entering teachers. All but four states require some kind of certification test. The proliferation of

Table 2

RECOMMENDATIONS FROM A NATION AT RISK

I. Content
- A. Raise high school graduation requirements; five New Basics:
  1. 4 years of English, to include extended reading & writing skills and knowledge of our literary heritage.
  2. 3 years of Math:
     a. higher-level mathematics such as geometry, algebra & statistics
     b. estimation, approximation, measurement and accuracy testing
     c. a curriculum for those not planning college immediately
  3. 3 years of science:
     a. higher-level sciences, scientific reasoning and inquiry
     b. application of scientific knowledge and technology
  4. 3 years of social studies:
     a. studies of selves and others in the continuum of time and culture
     b. understand social, economic and political systems
  5. 1/2 year of computer science:
     a. basic computer literacy and use of computers in other subjects
     b. comprehension of electronics and related technologies
- B. Foreign languages, arts and vocational education for college-bound
- C. Upgrade elementary curriculum--foreign language, English development in writing, problem solving skills, science, social studies, and the arts
- D. Outside experts to improve and disseminate quality curricular materials
  1. Evidence of text quality and currency from publishers

II. Standards and Expectations
- A. All educational institutions to adopt more rigorous academic standards
- B. Grades to be indicators of achievement
- C. Standardized tests of achievement at transition points

III. Time
- A. More learning time: efficient time use, longer day, or longer year
  1. More homework and instruction for study skills
  2. Districts to consider 7-hour days and 200 to 220-day school years
  3. Efficient management of the school day and class organization
  4. The strengthening of attendance incentives and sanctions
  5. Reduction of teachers' administrative and discipline burdens

IV. Teaching
- A. Improve preparation for and desirability of teaching
  1. Higher standards for incoming teachers; judge programs by quality of graduates
  2. Competitive, market-sensitive, and performance-based salaries; career decisions based on evaluation.
  3. Career ladders and 11-month contract
  4. Alternative credentialling, grants and loans to attract teachers
  5. Master teachers plan programs for & supervise probationary teachers

V. Citizen & Federal Involvement & Fiscal Support
- A. Citizens oversee reform and provide financial support
- B. Administrative and legislative officials provide stability and finance for reforms.
- C. Federal government identifies national interest, provides leadership, supports state and local district efforts to meet student needs

alternative routes to certification, however, may signal a smaller role for teacher's colleges in educating prospective teachers. Over 20 states have some alternative route to certification that allows individuals with liberal arts backgrounds to go into teaching. Along with revised certification requirements have come changes in incentives. Teachers' salaries increased 22 percent in real terms between 1980 and 1988, with most of the growth occurring between 1983 and 1988 (Odden 1989). While not quite back to earlier higher levels, teachers' paychecks still grew faster than the average worker's (Darling-Hammond and Berry 1988).

Reforms aimed at changing the organization of instruction or altering decision-making practices within schools did not generally garner much support. Until very recently, when a number of districts and states undertook restructuring experiments, reformers out to professionalize teaching looked largely to merit pay and career ladders. In 1986, 18 states had or were planning such programs (Cornett 1986). Florida and Tennessee were among the few to implement them on a large scale. Florida later discontinued its program, and Tennessee's was radically modified. Some programs that continue, like California's mentor teacher program, are producing only minor changes in teachers' roles. And while states continue to experiment with career ladders, they are doing so more carefully, often through small pilot programs. Arizona, for example, began a career ladder program in only 15 of the state's more than 200 schools districts. Much of the initiative in this area has shifted from the state to the district level (Darling-Hammond and Berry 1988).

Throughout this reform period, equity concerns have been overshadowed by the emphasis on higher standards. Generally speaking, states addressed equity issues in two ways. The first was by monitoring the effects of new standards on at-risk students, and concomitantly, improving and standardizing school dropout indicators. Second, states introduced programs specifically for at-risk students, including dropout prevention, coordinated social service, and early childhood programs.

By the mid-1980s, virtually all the states recognized the need for programs designed especially for the at-risk population. But, by then the surge in education spending had slowed, forcing many states to resort to pilot efforts or small programs that left large numbers of potential beneficiaries unserved. Interest in broader equity concerns, though, remained high as the decade drew to an end. Nowhere was this more illustrated than in the restructuring movement, with its emphasis on improving teaching and learning for all students, enhancing the role of parents in their children's education, and transforming schools into collegial communities.

2. In spite of the national press for reform, state political culture affected the passing of legislation, the kind of reforms adopted, and the way reforms were implemented.

Three states in CPRE's study that had histories of solving problems with large-scale policy fixes used that approach again. California's 1983 reform legislation is in the same tradition of reform as its 1972 early childhood and school finance legislation, and its 1979 school improvement act. Similarly, Florida

has a history of major reforms that was repeated in 1983. Leadership came from the Speaker of the House and the Senate President. And while in Florida's latest reform the governor was also a major player, he drew upon expertise he had gained in the legislature.

The states that lacked experience with comprehensive reform did not initiate it in the 1980s. Pennsylvania's reforms were organized by the governor and, as in the past, largely grew out of state board action. Arizona's history contains only modest legislative reforms.

Reform policy mechanisms also reflect state context. For instance, the level of trust between state policymakers in Georgia and the 186 county superintendents--and especially the 113 who were elected--was not high. Consequently, the state relied heavily on mandates to implement its reform measures. In California, on the other hand, the state is constitutionally responsible for financing any changes that it mandates. Given the size of the state, mandating reform could become prohibitively expensive. Thus California policymakers used incentives to move reform along.

Implementation processes reflected states cultures as well. For example, Arizona's Republican legislature did not work closely with the elected Democratic chief state school officer. This contributed to the decision of state's two education committees to administer the pilot career ladder program directly. Pennsylvania's legislature often serves as a court of appeal for interest groups who object to some executive action. Thus when the teachers' association opposed the state's new professional development mandate, it turned to the House of Representatives for help (Fuhrman 1989b).

3. States tended to reject complicated reform recommendations in favor of more manageable ones.

State policies are difficult to implement when they are:

- Expensive;
- make a large quantitative addition to what already exists;
- complex, requiring new administrative arrangements, new technologies or inventions, or new behaviors from teachers and administrators; and/or
- redistributive, moving money, status, or authority from those in more advantaged positions to those in more disadvantaged positions (Firestone 1989).

The most popular state reform of the last five years--increasing graduation requirements--doesn't raise most of these problems. In fact, it is quite easy to

implement. Rarely do districts incur direct costs by adding courses. The exception is when they need to add specialized teachers. In many school districts, courses that became requirements were remarkably similar to courses that had been on the books before the proliferation of electives in the 1970s. Also, often the new requirements simply endorsed what teachers thought they should be teaching all along. And finally, although there was some reallocation of opportunities from vocational to academic teachers to accommodate changed course requirements, there was no major redistribution of teachers.

Reforms that were not adopted or were under-adopted tended to be less manageable. For example, lengthening the school day and year would have been expensive for states and districts to implement because they would have had to increase teachers' salaries to cover the extra time. Career ladder arrangements are full of obstacles. They are expensive because, to prevent the conflicts that differentiation could cause among staff, districts would have to raise salaries overall. Career ladders are also troublesome because creating fair and reliable assessment instruments strains existing technology. Finally, the introduction of neophyte and mentor teacher functions can lead to a major redistribution of authority among teachers and between teachers and administrators. States that ventured into these complex reforms often found they had to reconstruct their career ladder programs to make them more manageable.

Other reforms fall between these two extremes. Three states in the CPRE study increased teacher salaries by raising minimums. Nationally, all states stepped up student testing, but most stayed within the capability of existing technology. Of the six states CPRE studied, only California pushed the limits of test technology by developing tests of higher-order cognitive thinking.

4. Most state reform packages lacked coherence.

Reforms that are designed as coherent packages with mutually reinforcing parts have the greatest impact. Each part facilitates the other, and the entire package sends a coordinated message to local educators. As a rule, though, the recent round of reforms lacked such coherence. The most common problem was not that specific provisions conflicted, but that they were often unrelated. This sent a barrage of signals to districts. District administrators were then forced to make complicated decisions about the allocation of time and money.

The prevalence of unrelated reform provisions seems typical of reform movements throughout the last century. To some extent, it reflects the inconsistent thinking that drives some reforms. For instance, a great many teaching reforms have been motivated by the need to improve both the quality and quantity of teachers. Yet, some reforms designed to enhance the quality of the teaching force could spur shortages. Tightening certification requirements is and example. Similarly, depending on how they are implemented, policies that encourage alternative certification routes create more teachers but risk watering down their quality.

When there was coherence among separate reform measures, it was usually due to state leaders' efforts to integrate existing provisions rather than to create new ones. This was the case in California, where the state superintendent

orchestrated the coordination of student testing requirements, state textbook selection, and state curriculum guides to stress higher-order cognitive thinking.

5. States are exhibiting no clear shift in direction from the first wave of reform to the second.

Educational rhetoric portrays two waves of reform. The first wave took place from approximately 1982 to 1986 and concentrated on establishing minimum competency standards for students and teachers. The second wave, beginning about 1986, moves beyond the setting of standards to improving the quality of teaching and learning at the school site. This second wave, with its shift in focus, has been labelled the "restructuring movement." Advocates of school restructuring call for reorganized instruction so that students truly understand the material presented to them, experience more in-depth learning as opposed to covering great amount of content, and engage in higher-order thinking. Restructuring also effects school governance. Restructured schools are usually characterized by school-site autonomy, shared decision-making among school staff, enhanced roles for teachers and parents, and regulatory simplicity.[3]

These second-wave reform elements are finding their way into a number of district-level experiments. They have also been incorporated into several state programs that provide planning and implementation grants to schools and/or districts (David 1989; Elmore 1988). Despite these inroads, however, states are still enacting policies more characteristic of the first wave of reform. There has been no clear shift to a second wave agenda in practice. For example, Florida tightened teacher certification requirements again in 1988--clearly a first-wave initiative. That same year, Pennsylvania began to develop a state-wide high school testing program. Minnesota, whose 1985 and 1987 choice programs made it a pioneer in the implementation of second-wave elements, instituted a basic skills examination for teachers in 1987. In other words, it appears that the reform movement is being driven by a broad set of policy recommendations that reflect state needs at a particular time. State level activity is not characterized by a set of successive waves and marked changes in direction.

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[3] Key studies and reports recommending restructuring reforms are Theodore Sizer, Horace's Compromise: The Dilemma of the American High School (Boston: Houghton Mifflin, 1984); Carnegie Forum on Education and the Economy, A Nation Prepared (New York: Author, 1986); and National Governors' Association, A Time for Results. (Washington, DC: Author, 1986).

6. The easy reforms that were adopted have stayed in place.

For the most part, the reforms adopted in the 1983-85 period of extensive legislative and executive activity have become part of the educational infrastructure. Few have been rescinded. The biggest exception within the states studied by CPRE is Florida's master teacher program. This program gave master teachers an annual $3,000 bonus, despite the objections of the major teachers' association, which saw it as unfairly rewarding some teachers over others. The program, rushed into place, fell down in meeting the complex administrative demands of scheduling teacher tests and evaluations. Applications were lost or disqualified on technicalities. Although some of the administrative obstacles were later removed, the fairness of the program was never established. The program was repealed within three years.

7. Expansion of the economy, although crucial to reform, was not the complete cause of it.

Nationally, the period from 1981 through 1984 was one of rapid economic expansion. Most of the more aggressive reform states benefited from the financial upturn and committed more funds to education. Georgia's governor was able to mount a major reform effort while pledging not to raise taxes. Business interests in both Georgia and Florida lobbied hard for educational reform, in part because they knew that new costs would be minimal. But economic factors do not explain why reform occurred in some states and not in others. It is no surprise that some states with weak economies did not participate. Yet, a substantial number--including Arkansas, South Carolina, Tennessee, Texas, and West Virginia--did initiate reform programs, even though doing so required raising funds for education over and above the inflation rate.

District Actions in Response to State Initiatives

As might be expected, school districts responded to the state reforms in various ways. Nevertheless, three conclusions about district activity appear warranted.

1. There was very little resistance to reforms that involved increasing academic content. In fact, in some cases, district requirements exceeded state requirements.

There has been very little organized resistance to the current round of reforms, especially those having to do with toughening the curricula. Many districts actually welcomed the changes. There are a number of reasons for this. First, in many cases, the reforms legitimized existing practices. That is, in several states district requirements already met or exceeded those newly enacted by the state. Second, implementing the reforms was not difficult. Teachers and administrators knew what had to be done to add new courses to the curriculum. And finally, there was often widespread support for the changes. District leaders saw them as an opportunity to do something constructive. Parents and community members also supported the changes. This made the reforms introduced in the

1980s different from the more politically unpopular redistributive changes of the 1960s (Fuhrman, Clune and Elmore 1988; Clune 1989).

2. Much of the progress on the restructuring agenda resulted from district initiatives.

A few states such as Washington, Arkansas, Maine, and Massachusetts have initiated programs to encourage school restructuring. However, state involvement in the restructuring movement has usually taken the form of seed money for local experimentation. Most of the creative development is being done by school districts. Early pioneer districts such as Rochester, New York; Miami, Florida; and Cincinnati, Ohio are being joined by others like Santa Fe, New Mexico. Some smaller districts are also experimenting with restructuring strategies, but without the same level of publicity. The most commonly implemented elements of the restructuring movement in these districts are school-based management, usually with teachers having a strong voice in school affairs; shared decision-making at the district level; and sometimes innovative inservice practices. Where such experiments are taking place, there is a particularly cooperative relationship between district administrators and the local teachers' association (David 1989).

3. Some districts are actively using state policies to promote local priorities.

Past research on the implementation of reforms has shown that state policies typically result in mutual accommodation between those at the state and local level. CPRE researchers found this pattern in districts under study. But they also saw another pattern--sometimes referred to as "see you and raise you five"--where districts exceeded state requirements. These districts often responded to state requirements in ways that met their own objectives. One major urban district coordinated its state teacher policies so that it could hire a large number of new teachers. Two districts in another state were using a merit schools program to promote school-based management. One of these districts was even putting additional money into the program. Another district was employing state teacher policies to fight teacher attrition caused by the higher salaries offered in neighboring districts. In some cases, districts had already begun aligning curriculum frameworks, tests, and texts before the state took action. The new state policies gave them the opportunity to show their "vision" (Fuhrman, Clune and Elmore 1988).

To summarize, the reforms of the 1980s pose a series of contradictions. First, mid-stream shift in rhetoric--from rigor to restructuring--was not accompanied by a notable shift in action at the state level. Second, the reforms represented a national agenda. States everywhere were implementing particular reform policies, nearly all of them participating in the drive to increase graduation requirements and expand teacher testing programs. However, the reforms reflect the political context of each state. Although the reforms are

incorporated into a set of directive state policies, they were being matched at the local level by a great deal of activism. That kind of activism is not well explained by the traditional "zero-sum game" notions of state-local relationships (Fuhrman and Elmore 1990). Finally, state education reforms encompass policies that are often unrelated and fail to present a coherent message.

Given the contradictions and the historical lessons about shifting reform goals, plus the educational system's own resistance to change, it would be wise to temper one's expectations about the reforms of the 1980s. In mid-1989, reports of current education statistics led some observers to conclude that educational performance had been stagnant during the preceding three years (Miller 1989). The inability to document progress with available indicators might be taken as evidence that the reform movement has failed.

Our research, however, leads us to view such a conclusion as overly harsh. On the following pages, we discuss specific reform themes and conclude that the reforms have produced modest change in the direction of goals expressed in 1983. Beginning steps are also being taken toward the school restructuring agenda. While much remains to be done, there has been a move forward.

Chapter II

STATE REFORM AND STUDENT STANDARDS

State policymakers responded to the push for more rigorous academic content by raising student standards. They increased the number of courses required for high school graduation and established testing programs to measure their students' academic progress.[4]

This chapter describes the nature and extent of state policies to increase student standards, state reformers' goals in choosing these policies, the extent to which new policies required change from past practice, evidence about reform effects, and trends and suggested future directions.

Changes in Testing and Graduation Requirements

At least 45 states have modified high school graduation requirements since 1980, primarily by increasing the number of credits and academic courses required for high school graduation. Research supports these new requirements. Studies show that students learn more when exposed to more content and that high expectations translate into higher performance. The new requirements were also in line with the recommendation in A Nation At Risk, which called for a more uniform, less diluted curriculum focused around academic subjects. Three quarters of the states now require between 18 and 22 credits for graduation, with core academic requirements making up two-thirds of the total. The expansions took place largely in the areas of math and science. Now, 11 states require three years of math; 31 states require two years. In all, 35 states increased math requirements. Thirty states increased science requirements. The majority now require two years of science instruction. Twenty-five states increased social studies requirements. The typical requirement is three years. Finally, 12 states increased their English requirement, mostly by adding a fourth year's instruction.

Table 3 shows changes in graduation requirements in the six states studied by CPRE. Some changes, such as California's which mandated high school graduation requirements for the first time, were quite dramatic. However, the more stringent state requirements generally resulted in much less change in actual practice than the formal, legal changes imply. Although Pennsylvania raised graduation requirements from 13 to 21 credits, much of what looks like a significant change is explained by the addition of 9th grade requirements to requirements in grades 10 through 12. Furthermore, all states permit districts to supplement state requirements and many districts already met or exceeded new state requirements by the time they were enacted (Belches-Simmons et al. 1987).

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[4] This chapter relies heavily on CPRE's research on high school graduation requirements and paraphrases sections of a report discussing that research (Clune 1989).

Table 3

GRADUATION REQUIREMENTS IN CPRE'S SIX STUDY STATES

State	AZ	CA	FL	GA*	MN	PA
Present Requirements						
Total	20	13	24	21	20	21
English	4	3	4	4	4	4
Math	2	2	3	2	1	3
Science	2	2	3	2	1	3
Social Studies	2.5	3	3	3	3	3
Other			2	3		
Unspecified (e.g., Physical Ed., Health, Computers)	9.5	3	11	8	11	5
Effective Date of New Requirements						
Graduating Class	'87	'87	'87	'88	'82	'89

*Georgia requirements listed are for the general diploma. The college preparatory and vocational diplomas have extra requirements.

Previous Graduation Requirements in the Six States

AZ -16 total 5 years ago; 18 for class of 1985.

CA -No statewide graduation requirements since 1969.

FL -No statewide requirements prior to current requirements (passed in 1983).

GA -20 total credits in the late 70's.

MN -About 6 years ago, Minnesota nominally increased high school requirements by adding 9th grade requirements, but there has been no real change for 50-60 years.

PA -Previously 13 credits (3 English, 2 social studies, 1 math, 1 science, and 1 elective)

Source: W. H. Clune, The Implementation and Effects of High School Graduation Requirements: First Steps Toward Curricular Reform, New Brunswick, NJ: Rutgers University, Center for Policy Research in Education, 1989.

For example, 75 percent of Pennsylvania's school districts met the new state requirements before they were enacted. The same is true in Arizona, where 226 districts already required the 20 units of instruction that the state set as a minimum for graduation.

It is important to note that course requirements are embedded in university and college admissions policies as well as in state statutes. Universities and colleges also specify the number of courses high school students have to study in particular academic subjects. Increases in high school coursework were the most significant trend in college entrance requirements in the early 1980s. The changes in university requirements usually came earlier or coincided with changes in state graduation requirements. This was true in states with statewide admissions policies as well as in most of the states where institutions of higher education control their own entrance standards (Goertz and Johnson 1985).

In addition to adding course requirements, changing or adding testing programs was a popular tool of the national drive toward higher student standards. Over 40 new state testing provisions went into effect in the 1980s (SEAC 1988). The typical state now has a comprehensive assessment program that tests student achievement in most academic subjects at several representative grade levels, as well as basic competency or proficiency tests in reading, math, or language arts. Twenty-one states have high school graduation tests, typically tests of minimum basic skills or competency. Eight states use test results to determine grade-to-grade promotion in selected grades. Just about half the states have graduation or promotional tests or both. Testing requirements in the six states studied by CPRE were as follows:

Arizona: Beginning in 1980, every student was given a standardized achievement test each year. Since then, this has been reduced to sampling students in grades 1-12, but districts may continue universal testing if they so choose. Each district must also evaluate student attainment of 8th and 12th grade competencies through criterion-referenced testing.

California: Since 1973, the California Assessment Program (CAP) has provided achievement data on school and district achievement in grades 3, 6, and 12. Individual pupil data is not reported. In 1983, grade 8 was added. All grades test reading, math, and writing. Eighth grade tests also measure science and social studies.

Florida: The State Student Assessment Test (SSAT) was adopted in 1977. Part I tests for minimum performance in reading, writing and math in grades 3, 5, 8, and 10. Part II tests communication skills and math. Since 1983, students must pass Part II in order to graduate from high school.

Georgia: The 1985 Quality Basic Education Act expanded the existing Georgia Student Assessment Program. National norm-referenced testing occurs in grades 2, 4, 7, and 9. In 1988, the California Achievement Test was used for the first time to test 1st grade readiness. State criterion

referenced testing occurs in grades 1, 3, 6, 8, and 10. The 10th grade test, the High School Basic Skills Test, is required for graduation.

Minnesota: The Performance Evaluation Review is a state-mandated, district-generated criterion-referenced test. Districts test students in each of six curriculum areas at least once in six-year cycles, and report results to the state. The state has developed an item blank from which districts may construct their tests.

Pennsylvania: In 1984, the state adopted the TELLS (Test for Essential Learning and Literacy Skills), a state-developed criterion-referenced test administered in grades 3, 5, and 8 to assess need for remediation.

While many new programs came into existence after the publication of A Nation At Risk, the growth in statewide testing actually began much earlier. The Council of Chief State School Officers finds that more than a third of current state testing provisions were initiated in the 1960s and 1970s (SEAC 1988). Nonetheless, A Nation At Risk made two major points about testing. First, it recommended greater use of achievement tests to control graduation and promotion from one grade to the next. Second, it suggested that minimum competency testing was setting a ceiling on what was taught, thereby reducing instruction to the lowest common denominator and discouraging the development of higher-order thinking. Since that time, states have expanded existing programs by testing students in more grade levels and subjects, adding different types of tests, and relying less on sampling and more on universal testing. California, through its revision of the California Assessment Program (CAP), was one of a few states that tried to use testing to encourage instruction in higher-order thinking.

State-level attempts to raise student standards through means other than changes in course and testing requirements were less common. A few states required students to maintain a minimum gradepoint average for participation in athletics or high school graduation. Florida enacted a 1.5 minimum gradepoint average graduation requirement in 1983 but has delayed implementing it because of opposition from the field. The requirement would prevent "D" students from graduating even if they had never failed a course. A number of states also tried to raise student standards by requiring districts to develop written homework, attendance, discipline and/or promotion policies (Goertz 1988).

State Goals and Student Standards

State policymakers had two primary goals in increasing student standards: imposing the academic rigor on the curriculum and fostering a high school experience throughout the state (McDonnell, 1988). However, there were also interesting variations in motives which made some reforms ambiguous and sent unclear signals to the schools. For example, Georgia policymakers' agenda was not just to increase student performance, and the state's relative ranking in education nationally, but also to control local school superintendents. Some policymakers in Georgia were well aware that smaller districts would have trouble implementing the new standards and so used them as a not so subtle prod toward

consolidation. In Pennsylvania, policymakers knew that most districts already met or exceeded the new course requirements. They adopted the new standards anyway so that school districts could know that the state had high expectations of them. In many states, policymakers used the reform movement to obtain money for schools after a long period of underfunding. The new student standards went along with the money; districts adopted them in return for new funds. The standards also helped pacify other constituencies, particularly business leaders who preferred that more accountability accompany funding. It is also not too far fetched to say that some policymakers saw the standards as merely window dressing to make it appear that more money was not the sole issue.

Local administrators were generally quick to recognize when states lacked clear goals in adopting the new standards. Asked whether the new graduation requirements were likely to produce the effects state policymakers intended, a majority of administrators replied negatively, primarily because policymakers had not clearly identified their intentions or defined the problems stiffer standards were meant to solve (Clune 1989).

Implementation of Student Standards

Even districts that met or exceeded state course requirements had to adjust their practices in order to implement the new student standards. For example, districts with no need to increase the number of credits they required for graduation still may have had to add courses to fulfill specific subject matter requirements. These changes, however, were relatively inexpensive and did not strain local capacity.

There were costs and problems, however. Costs were usually related to the need for extra class periods, teachers, and facilities. Some districts added periods, not strictly because of the new requirements, but to preserve electives. Others added extra class periods to provide time for remediation and for students to retake courses they had failed.

How districts deployed teachers to cover new courses depended on local context. In large urban districts, the new requirements changed the mix of new hires and exacerbated the already difficult search for mathematics and science teachers. Smaller districts sometimes made temporary adjustments by combining basic and advanced classes. Internal adjustments, such as moving teachers from one curriculum area to another or from one subject to another, were also common. To help teachers adjust, many districts, sometimes in collaboration with unions, instituted inservice training programs (Belches-Simmons et al. 1987; Clune 1989, 29-30).

Because students who had never taken a laboratory science course before were now required to do so, some districts experienced a shortage of laboratory facilities. The problem was especially acute in districts where climbing enrollments were already causing a shortage of facilities.

One problem that appeared to bother many was the short phase-in period built into many of the new requirements. School personnel complained about unrealistic implementation schedules, but met them nonetheless. Only a handful of districts asked states for delays or waivers. Phase-in was also made difficult because of the extra paperwork that had to be done and the fact that different classes of students were subject to different requirements. The burden of paperwork often fell on school counselors, who not only worked overtime but also had to curtail their counseling time (Clune 1987, 29-30).

Implementing testing programs was problematic for two reasons: the amount of time students spent being tested and the amount of time staff spent coordinating, administering, and interpreting the various tests. Many school personnel saw state testing as not just a burden but as a burden that provided little in the way of useful information about student progress. Although they felt under pressure for their students to do well on tests, they viewed student attitudes, school climate, and other indicators of student performance just as important as test scores, if not more. Only slightly more than 20 percent of the school principals interviewed by CPRE researchers said test scores were the most important source of information about their schools (Shujaa and Richards 1989).

Despite these difficulties, administrators, teachers, and parents accepted the new graduation and testing policies. In the six states CPRE studied, and more generally throughout the nation, implementation took place on schedule. Compliance was widespread. CPRE researchers observed that some local districts tended to compete with other districts in implementing the reforms. For example, several districts raised high school graduation requirements beyond what the state required in deliberate attempts to stay ahead of other districts. This includes districts that did not already exceed new state criteria and those that did (Fuhrman, Clune, & Elmore 1988).

State policies on student standards paved the way for another movement taking hold in many local school districts: centralized curriculum regulation and the alignment of curriculum, tests, texts, teacher evaluation, and other mechanisms. Oftentimes, pressure from parents forced school officials to make curriculum more uniform across a district. This concern was reinforced by the frequency with which students moved from school to school. Technological advances, such as computer programs that map standardized tests against major texts in key subject areas, are helping make curriculum standardization possible, but state reforms furnished an influential lever. In approximately half the school districts visited, state testing was cited as an important impetus for district-level curriculum standardization. Districts also used the implementation of student standards as reason to request more resources such as personnel for curriculum and assessment.

Effects of New Student Standards on Schools, Districts and Students

The reforms of student standards met with mixed success when held up against the reformers' goals and the recommendations of A Nation At Risk. Graduation and testing policies focused the high school curriculum more coherently around academic courses and skills. They also created more uniformity across schools and districts. What the policies did not do, however, was produce a high-level academic curriculum for all students.

Tougher graduation requirements resulted in students taking more courses in academic subjects. In 13 districts in four states (Arizona, California, Carolina, and Pennsylvania), CPRE researchers found an expansion of course offerings, primarily in math and science. In these districts, 17 of 19 schools studied reported that they had added courses or sections in math; 16 of 19 reported additions in science. These additions ranged from one new section to as many as 17 new sections per school. The average number of sections added was four in math and five in science. About a quarter of the students in these schools are taking an extra math class and a third are taking an extra science class (Clune 1989, 13-14).

Social studies courses were also expanded. Six of 19 schools studied added sections or courses in topics such as world history, geography and world cultures. Other frequent additions to the curriculum were economics, computer literacy, and foreign languages.

To accommodate the new academic courses, many districts reduced the number of courses they offered in home economics, industrial arts, physical education, vocational education, business, psychology and the performing arts. This implies that students are taking fewer elective courses (Clune 1989, 15).

Students who now take additional academic classes because the states require them for graduation are mostly middle and low achievers. College-bound students would have taken the courses anyway because they were necessary to get into college.

But the new courses that middle and lower achieving students are taking are primarily at the basic and general level. Fifteen of the 17 schools that reported offering more math courses said the new courses were at the basic, remedial or general level. Similarly, 14 of the 16 schools that offered new science classes added them at that level. No in-depth study has yet documented the content of these new courses.[5] Many school personnel, however, questioned their quality.

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[5] CPRE currently is conducting research on actual course content and quality. In July 1989, the Center began a two-year empirical study of post-reform high school math and science in several states. The study is supported by the National Science Foundation's Directorate for Science and Engineering Education.

Among the problems cited by respondents were insufficient instructional time, courses with repetitious material, having to conduct science "labs" in regular classrooms, and teacher misassignments (Clune 1989, 15-18).

Other studies of coursetaking patterns found larger increases in college preparatory math and science credits earned between 1982 and 1987 than those observed by CPRE researchers. But CPRE researchers were examining only the impact of new state graduation requirements, not the combined impact of college and state requirements (Goertz and Johnson 1985; Goertz 1989; Grossman et al. 1985).

Heated controversy exists concerning the impact of the new standards on at-risk students. Numerous critics of the reforms predicted that tougher standards would push at-risk students out of school. The majority of school personnel interviewed by CPRE staff seemed to agree. Reducing the number of vocational courses and electives, they said, eliminated classes that helped motivate students to stay in school. But we have not seen evidence that tougher standards cause higher dropout rates. In fact, some studies find evidence to the contrary (Ginsburg, Noell and Plisko 1988; Dade County Public Schools 1988).

Uncovering the effects of the reforms on at-risk youth is also made difficult by problems in counting dropouts. Dropout data are unreliable and subject to manipulation (Williams 1987). Many systems, for example, do not consider students as dropouts if they transfer to adult education or night school, even if there is no way of knowing whether the students are actually attending these alternative programs. The debate about higher standards and rising dropouts must be considered inconclusive (Clune 1989, 72).

Although the dropout question remains unanswered, CPRE researchers found evidence of other problems for at-risk students. Sometimes the remedial and make-up courses students needed were unavailable, or they could not fit them into schedules that were already crowded by state requirements. The situation was most acute in districts that did not give students subject matter credit for remedial instruction. For example, in some Georgia districts students were registered for two mathematics courses, one remedial and the other a regular credit-bearing course. Because the remedial course took up time but did not give students credit, students were often caught short of the required number of credits for graduation. There were also stories about students taking nothing but remedial and make-up classes. Furthermore, to keep students in school, some counselors and other personnel were advising students to take easier courses so they could graduate, rather than harder courses that would enable them to go to college (Clune 1989, 27).

It is very difficult to establish a relationship between new state graduation requirements and student achievement. On the whole, there have been small gains on some measures of achievement. Between 1973 and 1980 combined average scores on the Scholastic Aptitude Test (SAT) plunged by 90 points (Bennett 1988). Despite fluctuations from year-to-year, SAT scores recovered by 11 points between 1982 and 1988. During the same period, scores on the American College Testing Program (ACT) test increased eight-tenths of a point (Miller 1989). According to the National Assessment of Educational Progress (NAEP), achievement in math and science by 17-year-olds improved between 1982 and 1986

(Bennett 1988). But these trends cannot be tied to specific state strategies. In addition, test scores may not capture the effects of reforms put into place only recently--in almost all the states, the new course requirements were not fully in effect until 1987 or later. Furthermore, the SAT and ACT are taken by college-bound students. The increased course requirements affect mostly middle and low achievers, many of whom may not take these tests.

To complicate matters further, state data are generally difficult to interpret. States switched tests several times during the reform period, making comparisons futile. Moreover, there was a clear lack of fit between nationally standardized tests, used by many states, and high school curricula. Nevertheless, some states with consistent data do show improvements. California Assessment Program data show slightly higher reading and math scores at the high school level among all achievement groups. South Carolina, too, showed consistent gains on the Comprehensive Test of Basic Skills and on the state's own basic skills test.

The effects of state testing programs on districts and schools are even more extensive and difficult to interpret than are the effects of additional high school graduation requirements. A major debate has evolved around the amount of time testing takes students away from classroom activity, the nature of this diversion, and the extent to which tests drive curriculum to a lowest common denominator and detract from more higher-order pursuits.

Testing has had its biggest impact at the elementary level, simply because there are more grades that can be tested. About two-thirds of the elementary teachers interviewed said testing influenced what they taught. Less than 50 percent of the high school teachers interviewed responded that way (Richards and Shujaa 1988; OERI Study Group 1988). Precisely how do tests exert their impact? It is clear that teachers engage in many activities related to testing and the curriculum. They may teach test-taking skills and awareness, review for the test, change the sequence of content, incorporate concepts on the test into instruction, and put extra emphasis on areas that testing shows student are having problems with. What is not so clear is what phrases such as "reviewing for the test" mean. Reviewing for a test can include a variety of activities, ranging from reviewing a skill or concept to preparing for specific item types (Koretz 1988).

Moreover, the relationship between testing and curriculum greatly depends on the nature of the state test. In some states--California, Florida, and New York are examples--tests reflect state curriculum frameworks. In these states, tests are expected to drive the curriculum more firmly in the direction of competencies the state wants students to achieve. Policymakers in California, Florida and New York also assert that the tests encourage schools to teach problem-solving and higher-order thinking.[6] However, 23 statewide testing programs use commercial, standardized tests (SEAC 1988, 28). These, too, drive the curriculum, even though

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6 CPRE researchers are currently examining the relationship between state curriculum regulation and what and how teachers teach.

they are not tied to competencies, frameworks and syllabi developed at the state, local and/or school level.

Future Directions in Student Standards Policies

The trend toward more standardized curricula is likely to continue in the near future. Many local districts have already aligned their curricula with tests and texts. States are pursuing such alignment as well. New York and California are in the forefront of this movement; Texas and Florida are not far behind.

More state developed or mandated student assessment is also likely. Alternative assessments, including the use of student portfolios and more open-ended and sophisticated tests, are likely to attract their share of interest (Archbald and Newmann 1988; Blank and Selden 1989). New technical developments may one day permit the same test to serve several purposes, including diagnosing student needs and tracking the progress of schools and districts (Bock and Mislevy 1988).

CPRE's research indicates that reform aspirations would be furthered if states considered the following:

- High school graduation requirements are producing a very crowded secondary school curriculum. Non-specific requirements like "mathematics" do not necessarily lead to improved educational content. Instead, what may be necessary is more attention to core learning objectives within each content area.

- There is a need to develop systematic approaches for remedial instruction of students at widely different levels of initial learning. The first step that should be addressed is the problem of students taking remedial courses but not receiving credit for them. Such policies create longer high school experiences for students, if they persevere. A long-term solution would be to design workable paths from remedial and weak courses to more demanding ones.

- Current indicators of student and school performance generally tell policymakers very little about the content of instruction and the adequacy of that content as preparation for college and work. Most tests indicate only whether students are meeting minimal levels of performance; measures of dropping out fail to trace students through experiences in alternative educational settings; measures of post-secondary attendance are typically not balanced by measures of job attainment or retention. If policymakers want to know more about the content of instruction as delivered, they need more sophisticated indicators.

Chapter III

STATE POLICIES AND TEACHING

Policies that deal with professionalizing teaching are especially complex. While many state policymakers interviewed by CPRE researchers spoke about strengthening the teaching profession, most of the policies that were enacted through the mid-1980s concentrated on setting entrance requirements, not on enhancing the profession as a whole. The new policies aimed at screening out the least qualified and attracting new teachers by promising higher beginning salaries. Teachers' working conditions, professional development and salaries overall received less attention. State attempts to define professional structures through the use of career ladder programs floundered more often than they succeeded. More recently, much attention has been paid to policies that encourage schools and districts to participate in "restructuring" experiments that create new roles for teachers.

This chapter begins with a discussion of four types of teacher policies that were prevalent during the recent wave of reform: licensure, staff development, compensation, and merit pay and career ladder programs. Next, it outlines the rationale behind the policies, and their implementation and effects. The chapter concludes with some general observations about the progress of reforms in the area of teacher policy.

Teacher Licensure

Licensure encompasses a variety of specific measures. Most set minimums in knowledge, skill, or education required of entering teachers. Table 4 shows some of these requirements and illustrates how they are used in states studied by CPRE. Some reforms dealing with licensure have been especially popular, particularly teacher assessment programs and alternative routes to certification.

The spread of teacher assessment requirements predates the 1980s reform movement. Georgia mandated the first assessment system in 1975, and 28 states required some form of assessment before the publication of A Nation at Risk. By 1986, 46 states had a teacher assessment system that effected licensure (Sandefur 1986).

The form and content of teacher assessment differs substantially acr states; although most states rely on the National Teacher Examination. Rudman (1988) found that teacher certification tests were in use or in planning stages in 44 states; 27 states were already administering admissions tests to teacher education programs. Only seven administered performance assessments of new teachers, but another 17 intend to institute them. What this means is not certain. On-the-job tests are more difficult to design and more time consuming to administer. However, they may be more valid measures of teaching skills than written tests.

Another popular reform is the alternative route to certification although, unlike most recent reforms, it eases rather than restricts entry to teaching. The theory behind the alternative route is that many fine potential teachers, usually those with liberal arts degrees, are denied entry to the field because they did not major in education. Alternative route arrangements allow these individuals to teach on a temporary basis while they participate in training programs in their employing districts. The number of states employing alternative routes to certification increased from 8 in 1984 to 23 in 1986 (Feistritzer 1986).

In practice it is difficult to separate alternative routes from emergency certification--a long-standing procedure allowing teachers to teach subjects other than those in which they are certified when there is a shortage. Forty-six states had such provisions by 1983 (Feistritzer 1984). But while the mechanism of alternative routes is similar to emergency certification, the intent behind alternative routes is different, and fewer teachers are involved in such programs (SREB 1988).

Table 4

TEACHER LICENSURE REQUIREMENTS IN CPRE'S SIX STUDY STATES

	AZ	CA	FL	GA	MN	PA
Entrance Requirements for Teacher Education	X	X	X			
Requirements that Teachers be Certified in Fields Taught		X	X			
Paper-&-Pencil Test before Certification		X	X	X	X	X
On-the-Job Assessment of Beginning Teachers		X	X			
Coursework for Recertification		X				X
Alternative Route	X	X	X	X		X

Staff Development

Staff development policies often overlap other policies. In states like Georgia that have powerful assessment systems, staff development is driven by the Teacher Performance Assessment System, an on-the-job test for beginning teachers. Following the test, new teachers are trained in the areas where their scores were low; training is linked to certification. In California, training is part of a modest restructuring effort. The state's mentor teacher program provides experienced hands to help beginning teachers.

Most state-level staff development programs are one of two types. The first is a beginning teacher program, which usually combines teacher assessment and training. Nine states, including Florida and Georgia, have such programs (AACTE 1986). The second type of state-level staff development is linked to recertification. In order to become recertified, experienced teachers must take additional courses. Typically, the requirements are light, as little as six semester hours every six years. Some states have more stringent requirements, such as demanding that teachers work towards a masters degree (Goertz 1988).

Minnesota is one of a handful of states to have an autonomous professional board that provides grants for innovative staff development programs. Pennsylvania's staff development program requires each district to develop a training plan, and specifies the planning procedures and participants. But the state gives districts considerable discretion in deciding on a program.

State policies that affect staff development are less prevalent than those dealing with licensure or compensation. Perhaps state policymakers find staff development policies difficult because the policies represent an investment in the development of skills over the long term rather than buying a specific program or requiring specific behaviors. Policymakers may feel that since professional development programs give more discretion to the local level, it may be more difficult to judge their results.

Compensation

States have used two mechanisms to regulate teacher salaries: mandated salary schedules, which are used in 20 states; and minimum teacher salary requirements, present in 30 states. Since most of the concern in recent years has been about recruiting new teachers, most attention has been given to increasing minimum salaries. In some cases, however, recent policy changes brought state regulations in line with local practice rather than seriously increasing salaries. For instance, between 1986 and 1988 Pennsylvania raised its minimum from $6,500 to $18,500.

Between 1980-81 and 1985-86, average teacher salaries increased nationally by 45 percent (unadjusted for inflation), outstripping inflation as well as increases received by all other workers. But new compensation policies did not boost

teacher salaries enough to recover everything lost from earlier times. Figure 1 shows the trend in teacher salaries over the last 30 years. It indicates that all the increases of the 1980s only restored teacher salaries to 1971-72 levels. Yet, in 1971-72, teachers averaged 10 years experience, while the average teacher in 1985-86 had 16.5 years experience. Thus, teachers in 1985-86 still remained about 15 percent worse off that those at the earlier time (Darling-Hammond and Berry, 39-41).

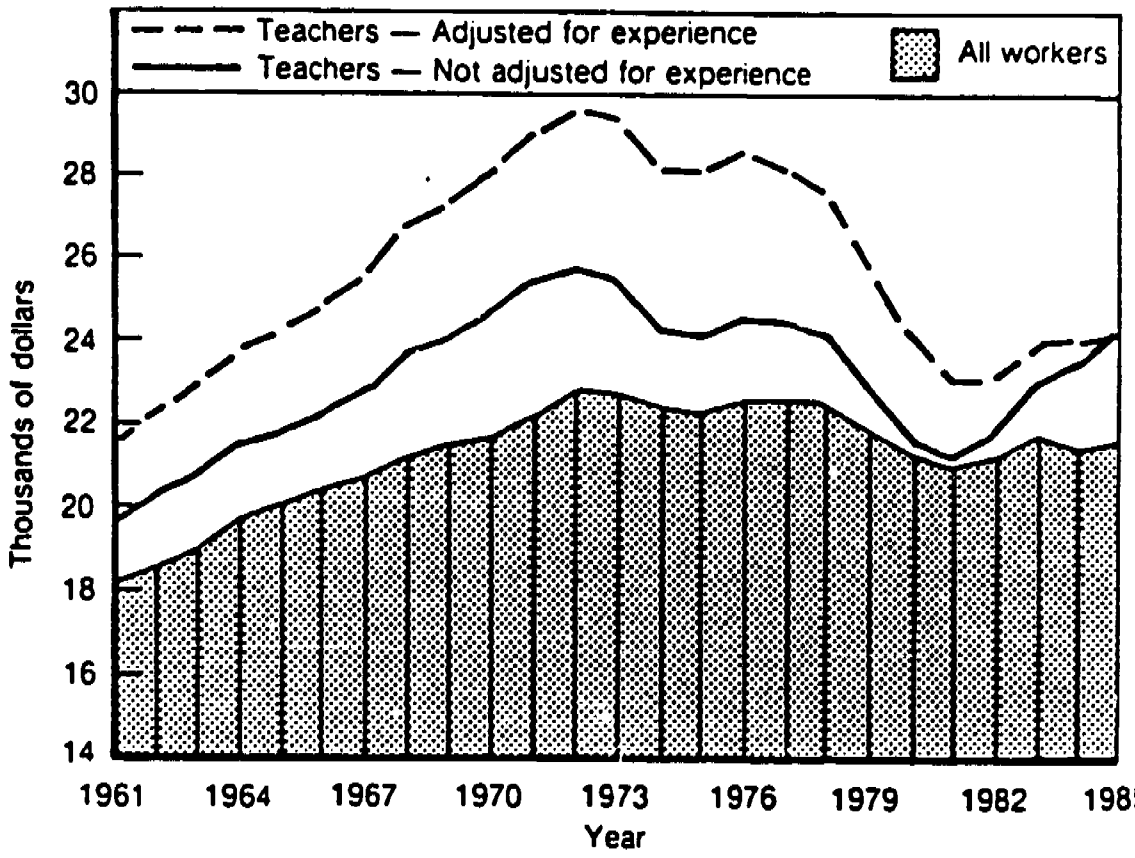

Figure 1-- Trends in annual teacher pay, controlling for work experience (mean annual earnings in 1986 dollars).

Source: Nelson, et al. (1986), p. 22, reprinted from Darling-Hammond and Berry, 1988, 45.

While average teacher salaries went up across the board, there were no major changes in ranking of state averages, despite the attention given to educational reform in some regions of the country, especially the South. There were isolated dramatic changes in position. Between 1980-81 and 1985-86, average salaries rose in Virginia from $14,649 to $23,388, and in Minnesota from $17,182 to $27,360, bringing them from 42nd to 26th place and 22nd to 9th place respectively. Some declines in rankings were nearly as dramatic. Still, the big

changes were the exception. For the most part, relative position among the states remained stationary.[7] Nor did salary increases in the states at the lowest levels help them catch up with those near the top.[8]

The South is sometimes viewed as an area of the country where salaries increased dramatically, but the picture for the whole region is mixed. Between 1981-82 and 1987-88, 5 of 15 states in the region raised average salaries by over three percentage points more than the national average increase of 46.4 percent. However, increases in 5 other states in the region were still lower than the national average by at least three percentage points (SREB 1988, 39).

Merit Pay and Career Ladder Programs

Advocates of restructuring the teaching profession sometimes support using career ladders to redistribute authority. In some cases, master teachers are expected to assume responsibilities that conventionally belong to principals (Carnegie Forum 1986). Such systems imply salary differentials between ranks, but this is only part of the picture. Differential incentive policies vary substantially, and the language that describes them adds to the confusion. The same words do not mean the same thing in different states. Darling-Hammond and Berry (1988, 55) list four kinds of reforms:

1. Merit pay programs that give bonuses for superior performance.

2. Career ladder systems that structure jobs so that highly qualified, experienced teachers supervise beginners. In these systems, promotion is based on competence, and salary follows rank.

3. Master teacher programs that reward individuals for superior performance without revising the career structure. Sometimes, the master teachers are given special assignments like curriculum work or supervising beginning teachers. When special assignments are permanent, master teacher programs resemble simplified career ladders.

4. Teacher incentive programs that do not change salaries but give superior teachers additional resources to develop and disseminate curricula.

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7 The rank-order correlation of state salaries in 1980-81 and 1985-86 is .92, indicating substantial stability in ranks.

8 If anything, there may have been a widening of the gap. In 1980-81, the standard deviation among state average salaries was $2983. In 1985-86, it was $3387 (in 1980-81 dollars).

In addition to these incentive programs there are a few school-wide incentive programs that reward a school's entire staff for exceptional performance rather than selected individuals. Although there was a great flurry of interest in district-level selective incentive programs in the mid-1980s, the historical evidence is discouraging. When such programs were tried in the past, they rarely lasted more than a few years. The usual problem was in developing a selection system that all parties agreed was fair (Johnson 1984).

The states studied by CPRE provide a reasonable cross-section of the kinds of incentive programs states are exploring:

Arizona initiated its "pilot career ladder" in 1985. In many ways, this program more resembles a master teacher program. The program gives 15 school districts additional funds for teacher salaries on the condition that the salary scale reflect merit and additional work rather than years of experience and courses taken. One criterion of merit includes student achievement test data. The program costs the state $8.8 million, and it has been estimated that to take it statewide would cost $60 million. The legislature has yet to consider this issue. However, were it to approve such a measure, the program would likely garner more support in districts with many young teachers who would gain through merit increases than in districts with more older teacher who currently benefit from seniority-based systems.

California's mentor teacher law was passed as part of a 1983 reform package. Initially, teachers wrote proposals for special projects, and the best ones in each district were funded. The law allows up to five percent of the state's teachers to be mentors. In 1989, $64.1 million was provided to include five percent of the state's teachers. Originally, projects could either involve developing curriculum or assisting beginning teachers. Recently, the program has been changed to favor the latter, with costs per mentor of $6,729.

Florida initiated one of the nation's first merit pay plans in 1983. The intent was to give exceptional teachers a one-year bonus of $3000. In the first year, $9.5 million was appropriated and three percent of the state's teachers qualified. However, the program was highly controversial and teachers' unions strongly opposed it. Initial implementation was marred by many administrative problems including lost forms and misprogrammed computers that were supposed to score tests. Moreover, teachers were never convinced that selection procedures were fair and valid. The 1986 teacher of the year was not selected for a merit bonus. The program was discontinued in 1986, and its replacement was authorized but never funded.

Florida does have a merit schools program. The state gives selected districts funds to divide among staff in schools at the top quarter of the system. One selection criterion is achievement data. In 1987, $10 million was spent on the program with 29 of the state's 69 districts participating.

Georgia began planning a career ladder program in 1985. Under a directive from the state legislature, the state board developed a program that would allow outstanding teachers to earn salary supplements ranging from $2,250 to $14,500. Districts were to develop their own plans and assess their own teachers. The ladder was designed to have a three-year appraisal cycle. Candidates would be

evaluated yearly, with supplements awarded after the third year. Implementation of the program was to be spread over seven years. By September 1989, the legislature had not allocated the $3 million needed to implement the program in 33 school districts (Education Week, September 13, 1989).

A number of trends in differential incentives are emerging. States have been moving away from merit pay plans to career ladder and master teacher systems. Also, state legislatures are moving more slowly to initiate new teacher policies than they did in the early days of this reform period when there was a rush to be early innovators. Policymakers are now aware of the complexities of differential incentive systems themselves and the complex manner in which they interact with teacher licensure and training. Moreover, teacher opposition to changes in these areas, although decreasing in some states, is still strong.

State Policy Goals

Teaching became a policy concern for two reasons: fear of imminent teacher shortages and declines in teacher quality.

The concern about shortages resulted from climbing student enrollments and the aging of the teaching force. Enrollments are still increasing in the elementary grades. Meanwhile, the number of teachers nearing retirement is growing. The proportion of college students majoring in education has been declining since 1970, although the drop leveled off around 1983. In the last few years, schools have experienced spot shortages of teachers of mathematics, science, special education, bilingual education, and English (Haggstrom, Darling-Hammond and Grissmer 1988, 2-3).

Not only does the teacher labor market vary by subject, but it also varies both across and within states. Shortages of teachers have appeared most often in some Southern states. But even when there is a general shortage in a state, some districts that are more desirable places to work may not face shortages while others will have difficulties attracting the teachers they need even during periods of surplus.

Another issue affecting the supply of teachers has materialized over last two decades. The civil rights movement has opened new doors for women and minorities. Those who went into teaching because they had no alternatives can now enter a wide variety of fields. One consequence of this is that there are fewer minority candidates for teaching positions at a time when the number of minority students is increasing. Among the CPRE study states, shortages of minority teachers are especially severe in California, Arizona, and Florida (Sykes 1988).

Whether these instances of teacher shortages--either by subject area, geographical location, or ethnic or racial characteristic--presage an across-the-

board problem is difficult to ascertain. The technology of projecting teacher needs remains underdeveloped. One projection suggested that beginning in 1988, the supply of new teacher graduates will satisfy less than 70 percent of the demand for additional teachers. Among the states studied by CPRE, Arizona, California, Florida, and Georgia all expect shortages. Pennsylvania predicts spot shortages in a few fields while Minnesota expects no recruitment problems.

Despite the appearance of teacher shortages, vacancies, up till now, have always been filled. It is not entirely clear whether districts are hiring experienced teachers who had earlier dropped out of the labor force or underqualified teachers who are working outside their specialties (Haggstrom, Darling-Hammond and Grissmer 1988, 2-3).

The issue of teacher supply and demand, is inextricably linked to concerns about the quality of those who go into teacning. Using data from the National Longitudinal Survey of 1972 High School Seniors (NLS72), Vance and Schlecty (1982) found that students who did not major in education had higher verbal SAT scores than those who did. Moreover, individuals who majored in education but never went into teaching had higher scores than those who became teachers. Finally, those who left teaching had substantially higher scores than those who remained in the profession. In sum, teaching has special problems in recruiting and retaining the most academically able students.

Interestingly, state policymakers interviewed by CPRE researchers often lacked specific evidence of teacher shortages or problems in recruiting quality teachers in their own states and had more particularistic motives in enacting compensation increases. For example, policymaker rhetoric indicated that the purpose of career ladder programs was to raise the status of teaching so that school districts could recruit and retain more competent individuals. However, some policymakers focused on differential incentives as a way of decreasing public distrust, rather than upgrading the teaching profession. In states like Arizona and Florida, policymakers reported that the public would only be willing to provide more funding if the money did not go to what the public perceived as a teaching force predominated by weak teachers. Thus, the motivations for new policies in these areas are often quite diverse.

Recently, there has been a change in the language for discussing teaching policy. Up until about 1986, proposed changes in the teaching area emphasized tougher standards rather than encouraging local creativity. With the release of a second wave of reports--most of them focused on teaching--by such groups as The Carnegie Forum on Education and the Economy, the Holmes Group, and the National Governor's Association, emphasis shifted to restructuring the educational enterprise. There was a greater emphasis on professionalizing teaching and giving schools more decision-making authority. The tradeoff was that while states would have greater policy control over who enters teaching, they would deregulate the teaching process and prescribe fewer rules about what is to be taught and how (Darling-Hammond and Berry 1988, 3-5).

The Implementation and Effects of State Teacher Policies

Some elements of the new teacher policies were readily implemented, but others encountered serious difficulties. Conflicting state policies caused problems and unintended consequences at the local level. Furthermore, the failure of states to track the effects of their new policies on the supply and quality of the workforce makes the impact of these new policies difficult to judge.

Testing requirements for beginning teachers have been implemented without significant difficulty. However, there has been substantial criticism of the tests on several grounds. First, the new assessment schemes make it difficult for minority teachers to enter the profession because many minority candidates fail the paper-and-pencil tests. In California, white pass rates have been consistent around 80 percent, while for blacks, rates have hovered around 30-35 percent (Sykes 1988, 8). Only 10 percent of students graduating from predominantly black colleges in Louisiana between 1978 and 1984 passed that state's certification test. Moreover, only 34 percent of Hispanics and 23 percent of blacks passed Texas' admissions test for teacher training in 1983-84.

Critics also contend that the current versions of these tests do not tap the qualities most related to good teaching. The pencil and paper tests rely on multiple choice formats and rarely address the kinds of discretion and judgments teachers will have to exercise on the job. Moreover, performance assessments currently used are primarily behaviorially oriented and fail to account for the teacher's ability to reflect on her teaching and adjust to students' different learning styles. According to Marshall Smith and Jennifer O'Day (1989):

> There has neither been a coherent logic or theory on which to structure the assessment instruments nor have the instruments been shown to predict the future quality of students' teaching. Thus, with the exception of a modest and inconsistent relationship between verbal scores of teachers and student achievement... there exists no direct support for the testing policy.

In 1987, Arkansas, Georgia, and Texas had recertification tests for veteran teachers. All three of these states found that they needed mechanisms to deal with the disruption and morale problems that the tests created. In Georgia, a settlement of litigation brought by the Georgia Association of Education and the National Education Association over Georgia's recertification test resulted in study grants being given to teachers who fail the recertification test. In addition, the state education agency provides study courses and practice testing opportunities for veteran teachers who have to retake the test.

Raising minimum salaries was intended to address both the problem of teacher shortages and the problem of teacher quality. However, these increases may not be having their intended effects. Higher minimum salaries, by compressing the wage scale, may be actually be reducing incentives for

experienced teachers to stay in the field. Beginning teacher salaries now equal about 66 percent of average teacher salaries across the nation. But, in some states, like Florida, a 15-year veteran earns only $6000 more than a beginner. This compression of the scale has become an issue in local bargaining, particularly as it concerns teachers with middle years of experience. These teachers are truly caught in the middle. Their salaries have not benefited from past bargained increases which aimed at helping the older teachers who made up the bulk of union membership, or from the new state minimums (Sykes 1988, 11).

On the other hand, increases in minimum salaries do appear to help retain some teachers--but they may not be the best teachers. In North Carolina, for example, salary increases were found effective in retaining teachers. However, they were not effective in retaining those who had scored highest on the National Teachers Exam (NTE). These people have other opportunities available to them and require larger salary increments to stay in teaching. Thus, the paradoxical effect of salary increases may be to hold the wrong set of people (Murnane and Olsen 1990, 23).

Career ladder policies did not fare particularly well in implementation. Such plans are very sensitive to the validity of evaluation. Teachers in Florida complained bitterly about the master teacher program, a 1983 reform was scrapped in the wake of severe first-year administrative difficulties. A number of the issues contributing to the program's demise concerned the evaluation procedures: tests were available in some subject matter areas and not others, so that some teachers were ineligible for promotion by default; the observation instrument was designed for beginning, not experienced teachers; non-classroom personnel were subject to the same evaluation as classroom teachers; trained teacher evaluators became very savvy about doing well on their own evaluations, causing others to resent them; some principal-evaluators were suspected of stealing good teachers they evaluated in other schools; and part of the process called for teachers to be evaluated by their own supervisors, leading to dissension.

The Arizona career ladder suffered from fewer administrative snafus and aroused less concern about evaluation procedures than Florida's plan. However, Arizona teachers and evaluators complained about enormous paperwork demands and the vast amounts of time required to prepare and evaluate portfolios.

The issues of eligibility, criteria for promotion and how and by whom teachers should be evaluated are immensely difficult. Some of the problems are caused by a weak knowledge base. Educators are just beginning to develop assessment instruments that appraise important aspects of teaching, such as teachers' ability to reflect on practice (Peterson and Comeaux 1989). Many problems are political. Differential reward schemes involve constructing consensus on key values, like what constitutes "good" teaching, and matching desires to recognize success to available resources. Such issues have proven at least somewhat troublesome in every district visited by CPRE researchers where a state career ladder exists.

Because of such problems, states have slowed down their implementation of differential incentive systems. Longer planning periods and pilot programs are becoming common. More and more districts are beginning to design and administer their own differential incentive programs. These local programs avoid

many of the difficulties of centralized administration, are amenable to local variation and permit more teacher input (Darling-Hammond and Berry 1988, 57-65).

In fact, a good deal of the momentum for experimentation has shifted from the state to the district level, with cities like Rochester, Cincinnati, and Miami taking the lead. Miami is a good example. Although the school district takes full advantage of Florida's merit schools program, it has given even greater attention to experimentation with school based management. In 1987-88 11 schools piloted a system of school-based management where a committee consisting of the principal and selected teachers was given broad authority to change the school organization. Where necessary, the district waived existing policy. Rather than hiring a new teacher, one school choose to have two aides. Another school hired Berlitz to teach the city-required course in Spanish as a Second Language to Anglo students. During the 1988-89 school year, the program was expanded to 45 schools. In addition, one of the city's four subdistricts was reorganized according to school-based management principles so that middle and elementary schools could join the high schools in participating in the experiment.

Summary

Four summary observations are in order about the progress of teacher reforms in the states.

First, states have been most active and successful as regulators, especially regulators of teacher licensing. They have also provided funds, primarily to increase teacher salaries. States have been more tentative in enacting policies that require local initiative and new roles for teachers and administrators, such as staff development and career ladder programs.

Second, the differences in how states use these policies are marked and substantial. According to Sykes (1988, 18-19):

> Minnesota stands out for its capacity-building, professional orientation to reform.... State policy makers generally believe that the quality of teaching is good and that efforts should strengthen an already solid school system. There are no signs of distress: imminent shortages, minority teacher shortfalls, inadequate funding. This is a state that supports education handsomely and that trusts educators to do a good job....
>
> Other states face much tougher conditions. Georgia includes many poor rural districts that have difficulty attracting and holding teachers. In 1984, almost one in five teachers held emergency credentials, shortages are impending, and minority teachers are a scarce resource. The state has moved aggressively to raise teacher salaries but has coupled this with an increasingly regulatory approach to teacher policy.

Sykes concludes that "the pattern is relatively clear: those states that face crisis conditions tend to rely on regulation in response. Policy makers in the state capitol distrust local educators in schools and universities and believe that they must directly intercede to improve matters."

There is a dilemma in this kind of approach. Distrust between states and school districts that have a low capacity to reform leads to regulation. However, the effective remedy for low capacity is not to increase regulation but to provide incentives or build capacity by increasing state aid or providing technical assistance for staff development and perhaps career ladder programs. Excessive regulation is likely to increase rigidity and opposition to state policy and not address the underlying capacity issue (Bardach and Kagan 1982; Berman 1986). Yet, staff development and career ladder programs in particular are high risk ventures for states because they give districts a good deal of leeway. It is unlikely that they would be endorsed by states where distrust of districts is high.

The third observation is that it is very difficult to influence teacher recruitment and retention through policy initiatives. Age-old traditions and patterns may slow the implementation of new policies. Deep-seated norms of teacher isolation and egalitarianism work against career ladder and mentor teacher programs, and teachers tend to implement these programs in ways that minimize change in the existing order. Similarly, recruiting new teachers to the field is still influenced by the attitudes current teachers hold about teaching, and many veterans encourage their students not to enter teaching. Substantial salary increases, along with changes in teachers' working conditions, will be needed to overcome such messages (Sykes 1988, 20-21).

Finally, we know a great deal more about what states are doing than we know how these programs actually affect the quality and activity of the teaching force. Most states have not sufficiently developed information systems that would enable them to track candidates in teacher education through certification and employment. They cannot adequately gauge supply and demand and trace the effects of policy changes on the qualifications and supply of new teachers.

Partial information is available, however. Georgia, for example, uses its Teacher Competency Test as one way to evaluate its state teacher education programs. In 1983, the Board of Regents put some 30 programs on probation because of low student test scores. While this information is useful, it does not tell much about whether putting programs on probation or even closing them produces better teachers. Pennsylvania plans to develop a longitudinal data base on teacher candidates and teachers, but it will be years before anything can be learned from it.

Studies of specific state programs that take into account variation among schools and districts are necessary. Ongoing studies of the Utah career ladder are an example (Malen and Hart 1987). CPRE will report on such work in the future.

Assessing teacher policies is further complicated by the problem of evaluating teachers' performance. The interactions between teachers and students and the cognitive processes required in the classroom are too complex to be assessed with existing methods. However, two lines of work are laying the groundwork for more sophisticated assessment approaches. One is the research on teachers as reflective practitioners. The other is the examination of certification tests currently in use or under consideration in other fields leading to work by Lee Shulman and the National Board of Professional Teaching Standards, and more recently by the Educational Testing Service, on developing new approaches to assessment. Among the states, Connecticut is one of the first to begin developing such tests. Future assessments may use computer simulations and interactive videodiscs or other media to supplement conventional paper-and-pencil tests (Peterson and Comeaux 1989).

Chapter IV

SCHOOL FINANCE AND EDUCATIONAL REFORM

The expansion of state aid to education has been a notable feature of school reform in the 1980s. Between 1982-83 and 1986-87, state funding for education rose 21.3 percent (CPI-U)[9] in real terms. During this period, local expenditures increased as well--by 14.9 percent CPI-U adjusted (Odden 1987). Despite the rapid growth in school spending, however, education did not increase its share of the Gross National Product (GNP). Relative to GNP, school funding equalled 3.61 percent in 1980, declining to 3.54 percent in 1983 and 3.57 percent in 1988--a figure still smaller than the proportion at the beginning of the decade (Odden 1989). The recent growth in state aid was not due to the kinds of equity concerns that prompted expansion in the 1970s. This chapter looks at the financial side of reform: trends in school finance, factors stimulating the funding growth of the 1980s, the allocation of school dollars, revenues for reform, equity and the future funding outlook in the states.

Trends in State School Finance

A variety of spending measures indicate that schools fared quite well in the early and mid-1980s, exceeding even the considerable gains made in the 1970s. Real revenues per pupil in 1988 were $4,297, up from $3,279 (CPI-U) in 1980--a real increase of 31 percent. By contrast, revenues per pupil rose only 28 percent in real terms during the 1970s, and a significant portion of the increase during that period was due to declining enrollments (Odden 1989).

Between 1983 and 1988, the growth in revenues per pupil (CPI-U) was 19 percent. This increase varies substantially across states and regions, with the Southeast experiencing higher than average growth while the Rocky Mountain, Plains and Southwest regions lagged behind.

Another way to examine school finance is by looking at trends in total revenue. Total real funds for public schooling rose 26 percent between 1980 and 1988, from $136.7 billion to $172.4 billion. This increase also varies substantially across states and regions. In the Great Lakes states, total revenues (CPI-U) rose only 10 percent during the 1980 to 1988 period. Total revenues rose 11 percent in the Plains states, 15 percent in the New England states, 27 percent in the Mid-Atlantic states, 34 percent in the Southeastern states, 33 percent in the Rocky Mountain states, and 49 percent in the Far Western states. For just the 1983 to 1988 period, when aggregate real increases were $29.1 billion or 20 percent (CPI-U), spending rose 30 percent in the Far Western states, 26 percent in the Southeast, 24 percent in the New England states and 24 percent in the Mid-eastern states (Odden 1989).

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9 Consumer price index for an urban family of four.

However, recent statistics show that this high upward trend may be slowing, as evidenced by 1988 declines in the growth rate of real per pupil expenditures. For example, as shown below, the average annual total increase in school revenue (unadjusted for inflation) declined after 1985 (Gold 1988b):

Average Annual Increases in School Revenue

1983	5.9%
1984	6.8
1985	9.4
1986	7.3
1987	6.3

Furthermore, the pace of expansion in state education expenditures relative to increases in general fund spending has slowed. In 1988, state spending for education increased 0.8 percent faster than the general fund spending increase. But in fiscal year 1987, elementary/secondary school expenditures outdistanced increases in the general fund by 1.9 percent; in 1986 that figure was 1.5 percent (Gold 1988b).

While state aid increased substantially during the 1983-87 period, the state share of total school revenues rose only modestly from 49.3 to 50.7 percent between 1983-84 and 1986-87. Since World War I, state aid has comprised a growing proportion of school funding. At that time, the states provided 17 percent of the revenues with local governments providing the rest and the federal government fairly absent from the scene. By 1981, state shares of school aid were close to half. Recent reform efforts have not impacted the proportion of school funds picked up by all states; they have either exceeded or hovered close to 50 percent ever since (see Table 5).

The states in the CPRE study reflect these national trends (see Table 6)[10],. California, Arizona, Florida, Minnesota, Pennsylvania and Georgia became majority shareholders in school funding prior to 1983, although Pennsylvania's proportion of total school budgets actually declined to 43 percent in 1986 (down from 50.5 percent in 1985). It should be noted, however, that these aggregate figures exemplified by the six states do not reflect the great variety in state/local revenue shares across the United States. In fact, state percentages actually fell in several states (Gold 1988a).

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10 Note that the Minnesota data is distorted for 1983 because stopgap deficit avoidance shifted some state or local revenue from one fiscal year to another. This also occurred in Arizona although the school finance data produced by the Arizona Department of Education does not go beyond 1984.

Table 5

PERCENT DISTRIBUTION OF SCHOOL REVENUES AMONG THE THREE LEVELS OF GOVERNMENT, 1968-1986

YEAR	%STATE	%LOCAL	%FEDERAL	%TOTAL*
1968-69	41.3	49.5	9.2	100
1969-70	41.6	48.3	10.2	100
1970-71	41.7	49.6	8.7	100
1971-72	41.5	49.5	9.0	100
1972-73	42.0	48.5	9.4	99.9
1973-74	42.7	46.9	10.4	100
1974-75	44.8	46.0	9.2	100
1976-77	45.6	44.9	9.3	99.9
1977-78	45.7	44.9	9.7	100
1978-79	46.5	43.5	10.0	100
1979-80	48.3	41.7	9.9	99.9
1980-81	48.6	41.9	9.4	99.9
1981-82	49.8	41.8	8.4	100
1982-83	50.3	41.5	8.2	100
1983-84	49.3	43.5	7.1	99.9
1984-85	50.0	42.8	7.1	99.9
1985-86	50.4	42.6	7.0	100
1986-87	50.7	42.5	6.8	100

SOURCE: Compiled from National Education Association, Estimates of School Statistics, 1968-69 through 1986-87, Washington, DC: Author.

* Washington, D.C. is not included in our analysis. The total percent may not be equal to 100 due to rounding.

What Caused the Funding Increases?

Unusually large increases in school funding have reawakened interest in an old topic: Is politics or economics the major influence on educational spending patterns? Did the politics of reform stimulate spending, or did reform policies merely tag onto increases that might have occurred anyway?

Over the years, analysts have had only mixed success in sorting out the impact of political, demographic and social variables on school expenditures. Problems occur in specifying the statistical models, in reaching consensus on measures of factors like fiscal capacity, and in accounting for interactions among independent variables (Hawkins 1988).

According to rational economic models, general economic conditions determine increases or decreases in educational aid. Advocates of this view argue that the recent school funding boon would have taken place without the 1980s reform movement, since state economies experienced rapid economic growth after the recession in 1982. Indeed, among the CPRE states with expanding economies, total revenue per pupil increased above the level of inflation. (See Table 6; note that Arizona figures are not available.) In several states where economies remained or became weak, such as Louisiana and Nebraska, few new reforms or aid increases were forthcoming. Alabama, Oklahoma and Mississippi also experienced declines in economic health and, with Louisiana and Nebraska, tended to contribute a lower share of the total education budget (Gold 1988a).

However, the economic determinants model has a hard time explaining the increases in educational funding in states with depressed economies. Between 1983 and 1987, per pupil revenue went up much faster than inflation in West Virginia, Arkansas, South Carolina, Tennessee and Texas. In each of these states, higher expenditures resulted from reordered priorities rather than economic expansion. For example, South Carolina voted to increase taxes and devote the revenue to education. The fact that educational expenditures during this period rose considerably faster than state general funds also demonstrates that education achieved a somewhat higher priority within the total budget. This suggests that state economic growth has a powerful effect but state political priorities are also important.

Table 6

NATIONAL AND STATE FISCAL TRENDS

	US	AZ	CA	FL	GA	MN	PA
EFFECTIVE PROPERTY TAX RATES							
1983	1.31%	0.71%	1.05%	0.92%	1.16%	0.85%	1.71%
1986	1.16%	0.68%	1.06%	0.89%	0.90%	1.03%	1.37%
TAX CAPACITY							
1983	100	97	119	103	87	102	88
1984	100	99	119	105	89	101	88
TAX EFFORT (all taxes)							
1983	100	91	92	75	93	124	105
1984	100	95	93	74	89	124	105
REVENUE BY SOURCE							
1983							
State	48%	N/A	67%	54%	57%	45%	46%
Local	45%	N/A	24%	38%	33%	51%	50%
Federal	7%	N/A	9%	8%	10%	5%	5%
1987							
State	50%	N/A	70%	53%	57%	58%	46%
Local	44%	N/A	24%	40%	36%	38%	50%
Federal	6%	N/A	7%	7%	8%	4%	4%
REVENUE CHANGES BY SOURCE (1983 to 1987)							
State	41.00%	N/A	64.70%	47.60%	38.90%	66.80%	33.30%
Local	29.50%	N/A	53.90%	54.40%	47.80%	-1.90%	33.80%
Federal	17.00%	N/A	24.90%	32.40%	9.10%	6.30%	20.20%
PERCENT CHANGES IN ENROLLMENT (1983-1987)	0.30%	N/A	6.80%	8.20%	1.30%	-0.80%	-7.00%
REVENUE PER PUPIL							
1983	$3,042	N/A	$2,949	$3,026	$2,292	$3,347	$3,496
(Rank)			(28)	(26)	(43)	(14)	(9)
1987	$4,068	N/A	$4,383	$4,163	$3,144	$4,355	$4,994
(Rank)			(14)	(19)	(40)	(13)	(6)
PERCENT CHANGE	33.70%	N/A	48.60%	37.60%	37.10%	30.10%	42.80%

Source: Table compiled by Craig Richards, Center for Policy Research in Education. State data were obtained from the CPRE core data base; national data were obtained from Gold (1988a) and Odden (1989).

Many claim that in addition to economic and political factors, increases in educational financing are strongly related to enrollment growth. In California and Florida, enrollment increases absorbed much of the new spending after 1987. States with the fastest growing enrollments tended to have large increases in school revenue. This was true in California and Florida, as well as in Alaska, Utah, Arizona, Mississippi, Texas and Nevada. Generally, though, across the nation, enrollment increased only slightly (0.3 percent) between 1982-83 and 1985-86, and in half the states it declined (Gold 1986). Indeed, educational revenues were up in many states where enrollment dropped (again, see Table 6).

In seeking reasons for such variations in school funding, it is important not to neglect the larger policy environment--that which is beyond schooling. State resources are limited, and funds for K-12 education compete with other concerns related to the condition of children such as child care and welfare. New initiatives in the latter areas could divert funds that otherwise may have gone to schools. In other words, what may appear as a decrease in education funding may have to do with an increase in monies for other activities closely related to children's well-being.

Where Did the New Money Go?

Determining whether new educational revenues were spent on reform or basic elements of the existing system is difficult.[11] The term "reform" itself is problematic. Some observers consider lower class size or higher graduation standards critical changes which break the pattern in school systems, while others consider them mere extensions of the existing structure. Indeed many state education officials themselves believe that most new monies have been devoted to maintaining the existing system rather than changing it in any significant way (Jordan and McKeown 1989). Various definitions of reform effect what categories analysts include in tracking reform dollar allocations.

Much of the new money for education was expended to pay teachers and other instructional staff. Across the nation, teacher salaries comprise approximately one-half of all school budgets. Following a 3.8 percent decline (constant dollars) between 1978-79 and 1982-83 (NEA selected years), teacher salaries increased 14 percent (adjusted for inflation) between 1982-83 and 1987-88 (Odden 1989). Yet the boost in salary expenditures had little effect on the ratio of pupils to classroom teachers. In 1978-79 the ratio was 17.9, in 1982-83 it was 17.2, and in 1986-87 it was 16.4--a decline of only one pupil per classroom teacher (Walker and Augenblick 1988). Therefore, it appears that increases in salary expenditures went to pay teachers more, not hire more teachers.

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11 For a more in-depth analysis of funding expenditures in school districts see Kirst 1989.

Revenues for Reform

Despite the widely publicized property tax revolt of the 1970's, property tax remains a crucial and growing source of revenue in many states. The share of state revenue from sales and income taxes has risen at an uneven rate while taxes on severance, gas and cigarettes have declined since 1978.

Property taxes produce almost all local revenue. Local revenue for schools increased by 15 percent between 1983 and 1987 after adjusting for the CPI-U. Federal aid did not keep pace with inflation, declining by two percent in real terms.

The continued strength of the property tax for increasing school funding is demonstrated in five states where, as indicated below, property taxes caused local revenue to grow much faster than state revenue:

State	1983-1987 State Revenue Increase	1983-1987 Local Revenue Increase
Colorado	20.0%	40.8%
Mississippi	42.3	62.6
Nebraska	11.5	32.4
New Hampshire	6.5	37.7
Wisconsin	15.6	40.9

In other states, local property tax revenue was severely constrained by tax-limiting voter initiatives. In Massachusetts, for example, voters passed Proposition 2 1/2 in 1980. As a result state revenue grew 47.4 percent while local revenues increased by only 4.1 percent between 1982-83 and 1986-87. Again, one can find diversity across the states. Nevertheless, the property tax retains its overall potential for growth when averaged across the nation.

School Finance Equity

To adequately examine school finance equity in the 1980s will require broad-based research on the effects of recent increases in school aid. To date, this has not been done. In the six states examined by CPRE, most of the dollars allocated to education were channeled through pre-existing or new general aid formulas. This suggests that the new funds had no substantial positive or negative effects on equity. Specifically, reform funding was primarily channeled through aid formulas in Arizona, Pennsylvania, California and Florida. In practically every state, school funds are allocated in ways that help "equalize" property tax burden between poor and affluent districts (Benson 1985). Reducing

disparities between districts, however, remains an elusive goal in all the states (Guthrie, et al. 1988).

Despite the dominance of raising standards and other measures to promote educational excellence, finance equity, although muted just now, is not a dead issue. Several states have passed finance equalization legislation to accompany their "excellence" reforms. For example, Georgia's school finance scheme underwent substantial reorganization in the reform legislation. Under the Quality Basic Education (QBE) plan the state identified 12 categories of allowable expenditures and gives the local districts 10 percent leeway in actual spending. QBE calls for an 80/20 split between state and local expenditures but the local districts are permitted to spend more and do.

California's school finance system underwent substantial scrutiny and adjustment as a result of the Serrano court case in the late 1970s. The Serrano decision required the reduction of wealth-related expenditure disparities to a $100 band above and below statewide average expenditure per pupil. Pursuant to a 1987 Serrano appeal court decision that allowed the expenditure band of base revenue limit to be adjusted for inflation, 95.6 percent of all students fall within the equalization standard. The percentage of students within the band has been increasing steadily but slowly for each type of district in the state for the past five years. Thus in California, 95.6 percent of all students attend school districts that have a revenue limit within $238 of the statewide average revenue limit. In addition, the state's 70 categorical programs have their own funding mechanisms and account for about 18 percent of total school funding (Guthrie, Kirst, Hayward et al 1988).

In Minnesota, the 1987 legislature passed a significant funding change for 1988-89 fiscal year. The foundation program, retirement aid, and eight separate categorical funding areas have been replaced with a General Education Revenue formula. The latter is similar in concept to foundation revenue, with a per pupil formula allowance and a required uniform levy. Categorical allowances have been folded into general aid, but with the requirement that at least 1.85 percent of basic revenue be spent on special programs. Minnesota's old tier structure has been replaced with cost factors which increase state aid but not levies.

Arizona also consolidated categorical programs into more broadly defined block grants. Thus, local districts have greater discretion to set priorities for special programs. Similarly Florida school districts are allocated a lump sum to cover operating costs. They may, within certain guidelines, determine how these monies are spent. Florida underwent finance equity revisions in the early seventies. In the Florida Education Finance Program (FEFP), students are counted and differential costs are assigned to instructional programs. The amount of state aid is based on the difference between the sum needed and the sum locally collected through property taxes.

One of the problems that these and other states have encountered is the lack of full funding for programs that enhance equity efforts. In Georgia, for example, equalization was fully funded in 1986 but investments in this area declined greatly by 1987.

In sum, school finance equity effects are difficult to uncover. To do so would require a detailed longitudinal analysis for each state. Other than California, we do not have enough information on the states in the CPRE data base to reach any firm conclusion in this area.

Future Directions in School Finance

Despite the slowdown in state spending, education in 1988 was ranked the major issue facing states in a National Conference of State Legislatures' survey of state legislative fiscal officers (Gold 1988c). Schooling also holds a high place among the concerns of the general public. In the summer of 1988, education was a cover story in both Business Week and Fortune. Newspapers and television media are full of studies showing declining test scores or otherwise inadequate performance by the nation's students. Nonetheless, the public's concern and expressed willingness to raise taxes to improve schooling has not been matched by a consensus among policymakers on new directions. In Arizona, for example, state-level actors indicated that while they were committed to new reform, there was no agreement on the underlying causes of their problems. A myriad of proposals were circulating in the capital but no clear direction for change has yet emerged.

None of the new policy reforms in Arizona or elsewhere has engendered as strong a consensus as increasing academic standards did in 1983. While national teacher union leaders have joined corporate executives in calling for radical restructuring of the school organization, the state's role in stimulating structural at the local level is unclear. Calls for restructuring have not generated political momentum in state capitals. At the state level, political enthusiasm for the allocation of new funds to lower class sizes or raise teacher salaries is waning. In California and a few other states, the promise of reform served as a lever for gaining new dollars from sectors of the policy community previously hesitant.

Politically, the key to continued expansion in school funding is in keeping the link between education and economic growth before the public. Historically this link has played a crucial role in urging a reluctant federal government to become involved in schooling and in creating a consensus for change at state and local levels. In recent years, the relationship between education and economic growth has been overshadowed by frequent reports of school dropouts, illiteracy, and poor academic performance. It is vital that the public not lose interest in supporting school reform.

Even with consensus and political alignment, however, if the economy slows down, it is doubtful that the school expenditures increases of the mid-1980s will be sustained. State surpluses were sharply reduced in the early eighties, and in some cases have remained low. Of the 26 states that have some form of stabilization fund, only seven in FY 1989 had a balance of the desired fund-to-expenditure ratio of five percent. The average is one percent. A minor miscalculation or a recession could have significant fiscal impact, and may have

consequences for future efforts to equalize funding. In sum, the probable outlook is for state funding of education to exceed the CPI inflation rate by only a small percentage (Gold 1988c).

Chapter V

LOOKING TO THE FUTURE OF REFORM

This review indicates that states have met with only modest success in achieving the educational goals expressed in A Nation at Risk. It is true that high school curricula are more academically oriented, standards for entering the teaching profession are more selective, teacher's salaries are higher, and state and local governments have boosted educational funding.

But there are still doubts about the rigor and challenge of some of the new courses in academic subjects, the impact of reform on at-risk students, the quality of teachers and teaching, and the equitable funding of schools. We still lack adequate indicators to correctly measure the veracity of either of these concerns. Furthermore, several of the most highly touted reform proposals, such as the introduction of career ladders, have not been widely adopted.

These outcomes do not warrant despair. School reform is a long-term endeavor that requires many years of consistent effort before it pays off. The graduation requirements that went into effect for the classes of 1987, 1988 or 1989 are an example. Initially, the new requirements led to districts adapting higher-level academic courses for middle- and lower-achieving students. Over time, the new courses may become more rigorous. States, such as California, are initiating policies to upgrade curriculum. Professional associations are spearheading efforts to develop core curriculum components, elevate teacher standards and heighten student and parent expectations. Districts and schools are taking steps to better prepare elementary and middle school students for more academic courses in high school. All this is to say that tests given in 1988 can not measure the long-term impact of recent education reforms.

On the other hand, if reformers were as wrong-headed as some critics charge, there is little reason to expect the new policies will produce improvement, no matter how widely implemented or how much time they are given to show results. If the reforms are insensitive or detrimental to at-risk students, if they reduce rather than enhance minority access to teaching, and if they mistakenly assume that top-down directives induce productivity, it is unlikely that schools will improve in their wake.

Education improvement can occur regardless, or even in spite of, specific policy initiatives. Indeed, it is our opinion that renewed public commitment to education improves morale, lends support to experimentation, and undergirds the efforts of everyone involved in the educational enterprise, including students and parents. The 1980s reforms have been characterized by such public interest and commitment.

Furthermore, we believe that the reform policies of the 1980s do represent first steps in a long-term improvement process. In that spirit, and in recognition that educational reform in this nation has been marked by too many shifts in direction, we present some recommendations for the future.

No More New Waves

There is only one reform agenda: improving teaching and learning for all. Achieving this agenda encompasses a variety of policy approaches--including both the establishment of the more rigorous standards that characterized most state reforms between 1983 and 1987 and local school restructuring efforts. Rhetoric about moving from "Wave One" to "Wave Two" of reform correctly acknowledges that standards alone cannot do the job--that standards set minimums but rarely inspire excellence; that mandates depend on local capacity for implementation and state capacity for enforcement, neither of which may exist; that collegial goal development and dedication is crucial to effective schooling; and that, different kinds of policy problems require different kinds of solutions.

However, some "Wave Two" rhetoric incorrectly, and in a politically unsophisticated way, implies that school-based problem solving means scrapping standards. This is not so. Standards are essential for expressing to educators and the public the expectations of state policymakers who are constitutionally responsible for education. Standards also establish the parameters for the accountability that the public receives in return for its substantial dedication of resources. They signify a commitment to a degree of educational uniformity in today's highly mobile society. Finally, they represent a commitment that no students' education will entirely depend on local decision-making, especially if that results in inequitable treatment.

The reform agenda--improving teaching and learning for all--implies the need to move on several fronts at once. Improving curriculum, establishing new roles for teachers, developing school-level structures to support teaching and learning are each pieces of the solution, not successive topics to be sequentially cycled through policy mechanisms.

In particular, we are convinced that much more work is needed in strengthening the curriculum. Concerted effort is needed in providing better teacher education and staff development programs and in improving instruction and academic content. A major overhaul of the science curriculum, for example, could include strategies similar in scale to that of programs created in the 1960s by the National Science Foundation to improve curricula, texts, tests, and a staff development.

Match Policies to Problems

Too often, policy solutions are not well-suited to policy problems. Our examination of state reforms tells us that some problems require several approaches or combinations of approaches. In the 1980s reforms, policymakers raised graduation requirements to get high schools to concentrate on more academic instruction. But the graduation standards are a blunt instrument. Although they can lead students to take more academic courses, in the absence of other strategies such as upgraded curriculum frameworks and staff development, they are not likely to produce desired goals. Similarly, policymakers have waived some regulations for schools experimenting with school-based management. However, without models of successful schooling, technical assistance, and staff development to help personnel assume new roles and responsibilities within

experimental programs, waiver offers are not likely to generate much interest (Fuhrman 1989a).

Another potential pitfall for policymakers is assuming that a particular policy response is the answer for all students when different mixes are optimal for different types of pupils. In general, students at the top two-thirds of the achievement band benefit from curricular intensification. More rigorous content enhances these student's academic achievement. However, students in the bottom one-third of the achievement band may need strategies beyond curricular intensification. Policies that include giving parents greater choices among schools and strategies that promote greater links between schools and potential employers might help these children. Analysts and policymakers also urge prompt attention to the entire range of school and social services for children and an overall attack on out-of-school influences that inhibit learning. National reports like Investing In Our Children by the Committee for Economic Development highlight the need to improve and coordinate programs addressing children's health and psychological needs, child care, income support, and protective services. Schools cannot provide all these services but they can do a better job of brokering them for individual children who are at risk. States could fund schools to hire case managers to bring these fragmented services together for individual children. Some chief state school officers have proposed developing an Individualized Teaching and Learning Plan (ITLP) for at-risk youth, much like the Individualized Education Plan that pulls together services for physically handicapped children.

Our lowest achieving students are the most threatened by the impending changes in the labor market. According to the Department of Labor, the average level of education required to do the lowest level jobs is rising. There appears to be sufficient supplies of engineers, but other jobs that require more than repetitive low skill operations go unfilled. Approaches such as the Jobs Corps or coordinated service delivery systems between public and private organizations could help at-risk youth acquire the skills necessary to do these jobs.

Coordinate Reform Policies

For states to attack the problems of schools simultaneously from several fronts, their policies must send coherent signals to local educators and boards. As noted in our discussions of the student standards and teacher policy reforms, many state policies are ambiguous and lack coordination.

Combinations of policy approaches hold particular promise for future reform. Some scholars have suggested that higher curriculum standards be incorporated into school restructuring efforts (Smith and O'Day 1989). Under such a plan, the state would provide a broad but explicit curriculum framework to guide teachers in presenting content. Careful alignment of the content in state curriculum frameworks, tests, texts, and accreditation standards would assure additional coherence. State funded, in-depth staff development and pre-service programs would provide even more reinforcement.

Restructuring comes in as teachers design and implement pedagogical strategies that comply with state curriculum frameworks and student standards, but are also appropriate for the local contexts. Teachers could use strategies such as peer and cross-age tutoring, cooperative learning, and new student configurations.

Another combination, suggested by the National Governors' Association, would combine restructuring with performance accountability. In this arrangement, states would reduce some of their cumbersome rules and regulations and give schools more decision-making authority. In return for their greater autonomy, schools would agree to regularly evaluate and report their performance. Continued state deregulation would depend on the schools making satisfactory progress on performance indicators. The scheme can be taken one step further by recognizing outstanding school performance with cash rewards. The NGA proposal is especially compatible with "choice" strategies.

The most effective combinations will vary from state to state. But whatever the combination, it will need much more attention to coherence among its various pieces than has been the case to date-- no small feat given the current fragmentation and bureaucracy in educational governance. For example, curriculum intensification can take place only if policymakers and educators at both elementary-secondary and post-secondary levels cooperate. The subject matter preparation of prospective teachers needs to be coordinated with state curriculum frameworks, otherwise teacher preservice is a jumble of credits and courses. Similarly, staff development--offered by states, regional agencies, districts, teachers organizations, or universities--must be coordinated with curriculum revisions and new roles and responsibilities. This is especially true when both school restructuring and curriculum intensification are pursued simultaneously.

Implications of the Economic and Political Environment for Reform

We have suggested that the future of reform depends on building on the past, tailoring solutions to problems, and developing coherent strategies and combinations of strategies. However, whether states continue to drive education reform may depend on the growth of the American economy and how this growth is distributed across the nation.

The hefty per pupil budget increases that financed the 1983-86 reforms (about 17 percent after inflation) can not continue indefinitely. School finance cycles correlate roughly with periods of economic growth and recession. The probable slow down in growth of the U.S. economy in the near future will not make this an optimal time for major new and costly reforms. If the economy falters, state governments are likely to allocate their resources to improving efficiency, developing performance incentives, and evaluating the 1983-87 reforms.

As of late 1988, there was no clear consensus about the future directions of education reform. Education remains a priority issue for politicians, but they are searching for a specific set of initiatives that would be similar in scope to the 1983-86 reforms. Nonetheless, the low achievement of at-risk youth is viewed by

many as a threat to the nation's economic competitiveness, and so the movement to make schools more responsive to the needs of these students is building momentum.

Enhancing the education of our most disadvantaged students is clearly an imperative, especially given the limits that early 1980s reforms placed on this issue. Concern about at-risk youth has produced a few state token dropout and pre-school programs, but nothing very substantial or widespread. A recent publication by MDC Inc. reports that:

> Some 45 states report have legislation that addresses the problems of at-risk children. But most of it is piecemeal in nature, typically supporting a limited number of pilot programs.
>
> With awareness has come a good deal of casting about by the states, almost all of it characterized by a certain haphazardness, not necessarily indicating lack of direction as much as lack of central planning purpose ... no single state has an overarching policy addressed to at-risk, school-aged youth (Olson 1988).

Historically, significant political advances for disadvantaged children have emerged from upheavals in the economy and major social or political movements (Kirst and Meister 1985). The depression of the 1930s galvanized huge federal efforts to relieve the suffering of the poor. The civil rights movement's success in the 1960s was crucial in creating a climate favorable to government programs for disadvantaged children. Recent changes in job requirements and in the labor force has stimulated new concern for the productive potential of disadvantaged children. This concern may lead to government interventions to upgrade the skills of those individuals who do not have the minimum competencies for employment skills in our rapidly changing economy.

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