A REVIEW OF THE MAJOR CURRENT REPORTS
ON SECONDARY EDUCATION

A. Harry Passow
Jacob H. Schiff Professor of Education
Teachers College, Columbia University

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ERIC Clearinghouse on Urban Education
Institute for Urban and Minority Education
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I. The National Commission on Excellence in Education*

The National Commission on Excellence in Education was created by T. H. Bell, Secretary of Education, "to help define the problems afflicting American education and to provide solutions" (p. iii). The charge to the Commission, which consisted of eighteen persons, included:

--assessing the quality of teaching and learning in our nation's public and private schools, colleges, and universities

--comparing American schools and colleges with those of other advanced nations

--studying the relationship between college admissions requirements and student achievement in high school

--identifying educational programs which result in notable student success in college

--assessing the degree to which major social and educational changes in the last quarter century have affected student achievement

--defining problems which must be faced and overcome if we are successfully to pursue the course of excellence in education (pp. 1-2).

The Commission was directed to pay particular attention to teen-age youth and so it focused largely on the high schools. It went about its work by commissioning 41 papers on a variety of educational issues; by listening to testimony from a variety of individuals at meetings of the full Commission, at six public hearings, two panel discussions, a symposium, and meetings arranged by the Department of Education's regional offices; by examining existing analyses of problems in education; by reading letters from various concerned citizens, administrators, and teachers; and by studying descriptions of "notable programs and promising approaches in education" (p. 3).

The Commission's report sets out its theme from the first sentences:

Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovations is being overtaken by competitors throughout the world. This report is concerned with only one of the many causes that undergirds American prosperity, security, and civility. We report to the American people that while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its people, the educational foundations of our society are presently being eroded by a
rising tide of mediocrity that threatens our very future as a Nation and a people (p. 5).

Our society and its educational institutions seem to have lost sight of the basic purposes of schooling, and of the high expectations and disciplined effort needed to attain them (pp. 5-6).

That we have compromised this commitment is, upon reflection, hardly surprising, given the multitude of often conflicting demands we have placed on our Nation's schools and colleges. They are routinely called on to provide solutions to personal, social, and political problems that the home and other institutions either will not or cannot resolve. We must understand that these demands in our schools and colleges often exact an educational cost as well as a financial one (p. 6).

While describing the risk to the nation as an economic one, the Commission asserts that it extends beyond matters of industry and commerce: "It also includes the intellectual, moral, and spiritual strengths of our people which knit together the very fabric of our society" (p. 7). The nation is failing, the report asserts, to fulfill a long-standing promise: "All, regardless of race or class or economic status, are entitled to a fair chance and to the tools for developing their individual powers of mind and spirit to the
The utmost" (p. 8). This matter of educational equity has long been a matter of concern to educators and lay persons alike.

The Commission asserts that educational dimensions of the risk are well-documented and provides only 13 examples, including: the functional illiteracy of 23 million Americans, the functional illiteracy of 13 percent of all 17-year-olds, average achievement on standardized tests lowered from 26 years ago, fewer than half the population of gifted students achieving at the predicted levels of potential, the virtually unbroken decline in Scholastic Aptitude Tests between 1963 and 1980, consistent decline in College Board achievement test scores such as physics and English, a 72 percent increase in remedial mathematics courses in public four-year colleges, and the complaints of business and military leaders who spend millions of dollars on remedial education in the basic skills area.

The Commission defines "excellence" in terms of the individual learner, the school or college, and society.

At the level of the individual learner, it means performing on the boundary of individual ability in ways that test and push back personal limits, in
Excellence characterizes a school or college that sets high expectations and goals for all learners, then tries in every way possible to help students reach them. Excellence characterizes a society that has adopted these policies, for it will then be prepared through the education and skill of its people to respond to the challenges of a rapidly changing world. Our Nation's people and its schools and colleges must be committed to achieving excellence in all these senses (pp. 12-13).

The focus of educational reform, the Commission suggests, should be on the creation of a Learning Society, at the heart of which "is the commitment to a set of values, and to a system of education that affords all members the opportunity to stretch their minds to full capacity, from early childhood through adulthood, learning more as the world itself changes" (p. 13). The Commission is convinced that the resources needed to reform the educational system are at hand only waiting to be mobilized through effective leadership. Moreover, the necessary support of the public for education exists and there is a strong call for education being placed at the top of the nation's agenda.

The report observes that the declines in educational performance are largely the consequence "of disturbing inadequacies in the way the educational process
itself is often conducted" (p. 18). Specifically, findings are presented in four aspects of that process—content, expectations, time, and teaching. The Commission's recommendations deal with the four aspects.

The five recommendations of the Commission are:

--that State and local high school graduation requirements be strengthened and that, at a minimum, all students seeking a diploma be required, to lay the foundations in the Five New Basics by taking the following curriculum during their four years of high school: (a) four years of English; (b) three years of mathematics; (c) three years of science; (d) three years of social studies; and (e) one-half year of computer science. For the college-bound, two years of foreign language in high school are strongly recommended in addition to those taken earlier (p. 24).

--that schools, colleges, and universities adopt more rigorous and measurable standards, and higher expectations, for academic performance and student conduct, and that 4-year colleges and universities raise their requirements for admission. This will help students do their best educationally with challenging materials in an environment that supports learning and authentic accomplishment (p. 27).

--that significantly more time be devoted to learning the New Basics. This will require more effective use of the existing school day, a longer school day, or a lengthened school year (p. 29).
--[that a variety of actions be undertaken] to improve the preparation of teachers or to make teaching a more rewarding and respected profession. [These include raising the standards for admission to teacher education programs, increasing salaries, adopting 11-month contracts for teachers to provide time for curriculum development, developing career ladders, employing nonschool personnel resources to alleviate shortages in mathematics and science, providing incentives to attract outstanding students into teaching, and involving master teachers in designing teacher preparation programs] (pp. 30-310).

--that citizens across the Nation hold educators and elected officials responsible for providing the leadership necessary to achieve these reforms, and that citizens provide the fiscal support and stability required to bring about the reforms [proposed] (p. 32).

Each of the recommendations is accompanied by some "implementing recommendations" which tersely detail some of the actions which should be taken to effect the recommendation.

The report concludes with a confident assertion that America is up to the task: "Despite the obstacles and difficulties that inhibit the pursuit of superior educational attainment, we are confident, with history as our guide, that we can meet our goal" (p. 33). A word is offered to parents and to students urging them
"to demand for your children the best our schools and colleges can provide" and to exercise their best efforts in learning.

There is no question that the report, *A Nation at Risk*, has already achieved one of its goals, that of bringing education to the top of the nation's agenda. The language of the report, its clarion assertion of the nation's imminent decline to second or third class status, has moved a variety of individuals and groups to call for reform, often calling for some direct action, for instance, raising teachers' salaries, providing for merit pay, increasing the requirements for graduation or for admission to college. The Commission's focus is on curriculum and teaching. Its recommendations dealing with content ("the very 'stuff' of education, the curriculum") and its suggestions for "Five New Basics" are hardly new except for the addition of a half-year of computer science. Nor are the "implementing recommendations" sufficiently explicated "to clarify what [they] mean by the essentials of a strong curriculum" (p. 25). The Commission seems to take the position that if it is willed, then it will happen. If schools and colleges simply adopt more rigorous and measurable standards and raise their requirements,
students will then "do their best educationally with challenging materials in an environment that supports learning and authentic accomplishment" (p. 27). The Commission's recommendations to lengthen the school day and the school year is based, in part, on the finding that "compared to other nations, America spends much less time on school work" (p. 21). The report urges that high school students spend more time doing homework, that classroom management and organization of the school day be improved, that discipline be improved so that time is not taken from instruction to maintain discipline, and that absenteeism and tardiness be reduced. Obviously the use of time is of critical importance in the quality of teaching and learning but simply lengthening time without adequate attention to all of the elements related to the use of time, including more learning-effective use of time, is not likely to bring about improvement. The recommendations regarding the improvement of teacher education and of teaching aim to make the profession "more rewarding and respected" as the means for improving the quality of education. Each of the parts of the recommendations concerning teaching should, the Commission suggests, be considered on its own rather than simply as an
implementing recommendation. It is likely that this suggestion is what has lead to the embracing of merit pay or higher salaries or higher standards for admission to teaching.

The report concludes by addressing parents and students directly, urging the parents to nurture in their children "a deep respect for intelligence, achievement, and learning, and the skills needed to use them; for setting goals; and for disciplined work" (p. 35). And, it urges that this be done by parents becoming "a living example of what you expect your children to honor and emulate" (p. 35). Students are admonished: "Even with your parents' best example and your teachers' best efforts, in the end it is your work that determines how much and how well you learn" (p. 35). Students are urged to have high expectations for themselves and to convert each challenge into an opportunity. The Commission concludes with a plea that all segments of the population give attention to implementing their recommendations since reforming "our educational system will take time and unwavering commitment. . . . widespread, energetic, and dedicated action" (p. 36). It is the last section of the report which carries the Commission's call that America buckle down and get on
with educational reform: "It is by our willingness to take up the challenge, and our resolve to see it through, that America's place in the world will either be secured or forfeited" (p. 36).
II. The Carnegie Foundation for the Advancement of Teaching*

The Carnegie Foundation for the Advancement of Teaching study was approved in 1980 when the "trustees concluded the time had come to examine the current condition of American secondary education; the time had come for the nation's high schools to serve their students more effectively and regain public confidence and support" (p. xi). The decision was then made to focus on public high schools, in which some 91 percent of the secondary school students were enrolled, and to examine the school as an educational institution: the "specific aim was to look at teachers, at students, at what was being taught, searching for ways to strengthen the academic quality of the public school" (p. xii). While selecting the theme of quality in education, the study was aimed at equity as well since the two concepts, equity and excellence, were seen as closely connected: "Expanding access to the nation's schools must be seen as only the first step toward opportunity

for all. And it was our conviction that equality be advanced as the quality of education is improved for every student" (p. xii).

Fifteen public high schools were selected for field study by a team of 25 educators. The team visited the schools for at least twenty days each, visiting classes, talking with students and staff, observing activities, and participating in the life of the schools. School visit time was more than 2,000 hours. Each observer prepared a written report on his or her observations. The reports were then reviewed for common themes, contradictions, and priorities and a synthesis prepared from which drafts of the final report were drawn. The aim of the report "is to offer recommendations, stimulate discussion about secondary education, and, in the end, reaffirm the nation's historic commitment to the public schools" (p. xv).

The report begins with the belief that the time for renewing education has arrived. We believe that today America has the best opportunity it will have in this century to improve the schools. There is growing national consensus that our future depends on public education. There is a spreading awareness that every mind is a precious resource we cannot afford to waste. There is an eagerness to move beyond the alarming headlines; to begin to rebuild with confidence,
the public schools. As in the past, a new and more compelling vision of education is required to meet this challenge. And if we do not seize this special moment, we will fail the coming generation and the nation (p. 1).

In a look at the world, the United States and the public schools, Sputnik's launching by the Soviet Union is the point of departure. The dramatic changes which have occurred in all aspects of American life are pointed out. The push for excellence in schools is tied to national security, economic recovery, and social welfare. However, while recognizing the interlocking relationship between education and the nation's security, the report asks: "But where in all this are the students? Where is the recognition that education is to enrich the living of individuals? Where is the love of learning and where is the commitment to achieve equality and opportunity for all?" (p. 5).

On the basis of school visits, review of various reports (including other ongoing studies of secondary education), and considerable discussion, Boyer and his colleagues concluded that the time has come:

--To clarify the goals of education

--To stress the centrality of language and link the curriculum to a changing national and global context.
To recognize that all students must be prepared for a lifetime of both work and further education.

To strengthen the profession of teaching in America. This means the improvement of conditions in the classroom, better recruitment and preparation, better continuing education, and better teacher recognition and rewards.

To improve instruction and give students more opportunities for service in anticipation of their growing civic and social responsibilities as they become adults.

To take full advantage of the information revolution and link technology more effectively to teaching and learning in the schools.

To smooth the transition from school to adult life through more flexible class scheduling and by making available to students new learning places both on and off the campus.

To reduce bureaucracy in education and give school principals the support they need to lead.

To recognize that excellence in education is possible only when connections are made with higher education and the corporate world.

Finally, the time has come for public schools to be aggressively supported by parents, school boards, and government as well; and for the nation's historic commitment to public education to be vigorously reaffirmed by all (p. 7).
These topics provided the framework for the report. Each theme is discussed and proposals for reform are set forth.

An academic report card on the nation's public high schools suggests mixed grades. On the one hand, Boyer believes that there are signs that American education is beginning to improve and cites some signs of this: levelling off of test scores, tightening of college admission standards, a reviving of interest in schools. On the other hand, Boyer sees more demands being made on individuals and society so that we cannot be satisfied with what we have today.

One of the major problems schools face is that they have "accumulated purposes like barnacles on a weathered ship" (p. 57) and are called upon to provide services and transmit values which were formerly expected from other agencies and institutions such as the family, the community, and the church. The problem, as Boyer sees it, is that we want the high schools to accomplish entirely too much. What is needed is that the high school focus on realizing a clear and vital mission. The report sets forth four "essential goals":

1. The high school should help all students develop the capacity to think critically and communicate effectively through a mastery of language.
2. The high school should help all students learn about themselves, the human heritage, and the interdependent world in which they live through a core curriculum based upon consequential human experiences common to all people.

3. The high school should prepare all students for work and further education through a program of electives that develop individual aptitudes and interests.

4. The high school should help all students fulfill their social and civic obligations through school and community service (pp. 66-67).

Sample student transcripts are presented to show the extreme variations in requirements for graduation and the absence or existence of curriculum standards. The report comments:

During the past two years, we have heard much talk about raising academic standards, improving test scores, lengthening the school year. Many school people seem more concerned about how long students stay in school than they are about what students should know when they depart. We also have heard talk about adding another unit of science, another unit of math, or another unit of English to the required core, but we have heard little about the content of high school education, about what it means to be an educated person (pp. 83-84).

Boyer argues that "more substance, not more time" is what is needed and that the goal should not be the
imposition of a single curriculum on all high schools but rather to stress the point "that what is taught in school determines what is learned" (p. 84). Boyer's first curriculum priority is language: "the mastery of English is the first and most essential goal of education" (p. 93). His second curriculum priority is "a core of common learning—a program of required courses in literature, the arts, foreign language, history, civics, science, mathematics, technology, health—to extend the knowledge and broaden the perspective of every student" (p. 94). Each of these areas is discussed briefly in terms of courses, although Boyer warns that "beefing up traditional academic courses while essential, is not sufficient" (p. 114). What is needed is the bringing of coherence to student learning through "a new interdisciplinary vision . . . . The content of the core curriculum must extend beyond the specialties to touch larger, more transcendental issues" (p. 115). In addition to expanding the number of required courses from a half to two-thirds of the total—adding to the traditional English, mathematics, and science courses and giving "added priority to foreign language, technology, civics, non-Western studies, the arts, the importance of health, and the meaning of work"—Boyer proposes
an independent project for all seniors to help provide coherence to their studies (p. 116).

The report is critical of the preparation high school students are given to help them move on to college or to work. To prepare all students for a life of work and learning, they must be given "solid grounding in the basic skills, a common core of learning, a cluster of elective courses, and student assessment and counseling to smooth the transition to jobs and higher education" (p. 116). Vocational education is viewed as "an unfulfilled promise" and the track system is to be abolished in favor of a single track for all. Boyer proposes that a carefully planned program of "elective clusters" be tailored for each student, such clusters to include five or six subjects enabling advanced study in selected academic subjects or the exploration of career options or a combination of the two. To provide these elective clusters, high schools will have to "become 'connected' institutions, creating networks and specialty schools, drawing upon resources beyond the campus. . . . New teachers, new locations, and new technology are important" (p. 129). The report urges that a more adequate system of guidance be developed, recommending that guidance services be expanded,
the counselor caseload be no more than 100 students, and referral services to other community agencies be provided for students requiring additional professional assistance. A systematic program of post-high school study of student progress is proposed.

The report devotes considerable attention to the need for renewing the teaching profession, looking at the conditions of teaching, the recognition and rewards of teaching, teacher salaries, the recruitment of teachers, the schooling of teachers, continuing education of the profession, teacher career paths, and part-time teachers. Boyer's recommendations "are aimed at keeping outstanding teachers in the classroom and attracting into teaching young persons worthy to be their successors" (p. 185). If the recommendations are implemented, Boyer believes, teachers would be regarded and treated as professionals and would begin to consider themselves as professionals but, "Above all, they would be better teachers and the quality of the school would be enhanced" (p. 185).

The report's recommendations regarding the teaching profession deal with improving the working conditions: no more than four formal class meeting a day, 60 minutes daily for class preparation, freedom from all
noninstructional duties, and participation in a competitive grants program for special professional projects. Recognition of outstanding teachers is urged. Boyer recommends improving teacher salaries and, in addition, adding a two-week Teacher Professional Development Term to the school year with appropriate compensation, a paid Summer Study Term every five years, and a Teacher Travel Fund.

The report suggests that more gifted students be recruited into teaching. To do this, colleges and universities would provide full-tuition scholarships to the top five percent of their gifted students who will teach in public schools and the federal government would establish a National Teacher Service, a scholarship program for the top third of graduating high school seniors who would enter teacher education programs and teach for at least three years.

The report speaks of "the schooling of teachers," not of "teacher education" or even "teacher training."

A five-step program is proposed:

1. The first two years of college should consist of a core of common learning similar to the high school core curriculum, offered by the liberal arts department.

2. All teacher candidates should be carefully selected at the beginning
of the junior year. They should have B or better averages.

3. After selection at the beginning of the junior year, the teacher candidate should devote the next two years primarily to a major in an academic subject and classroom observation.

4. After completing the core curriculum and a "solid academic major," a fifth year should be devoted to an instructional and apprenticeship experience, including a four-course sequence dealing with Schooling in America, Learning Theory and Research, the Teaching of Writing, and the Use of Technology.

5. The fifth year should include classroom observation and teaching experience with senior teachers. During the fifth year, teacher candidates would participate in one-day Common Learning Seminars where they "would meet outstanding arts and science scholar-teachers who would relate the knowledge of their fields to a contemporary political or social theme" (p. 177).

Boyer proposes that a planned program of continuing education must be part of every teacher's professional life, part of a realistic policy which every district should adopt.

The report argues that "Good teachers must be recognized and moved forward within the profession, not outside it. And salary increases should follow such recognition" (p. 179). Boyer's career path would
involve: (1) credentialling which would come at the conclusion of the five-year college preparation and passing an examination in English proficiency and subject matter competence; (2) serving as an associate teacher for two years under the mentorship of senior teachers; (3) becoming a teacher following a formal review after two years "based upon testimony of the mentor, the written record, and testimony of other school personnel, including students"; (4) being designated a senior teacher after three years of service and careful assessment by a panel of master teachers. The senior teachers would serve as mentors to associate teachers as well as teach. Each rank would be accompanied by significant salary increases. Boyer believes that such a well administered career path program "would bring health to the profession, confidence to the public, and excellence to the classroom" (p. 183).

The final suggestion regarding improvement of the profession is concerned with recruitment of part-time practitioners from a variety of sources including joint appointments of person from business and industry, in-and-out teaching terms for professionals, and modification of teacher certification to include part-time practitioners. Boyer asserts that while he supports
a highly paid, fully professional teacher corps, he believes the time has come to enrich that force with outstanding part-time professionals.

Boyer views technology as a way of extending the teacher's reach with the challenge of building "a partnership between traditional and nontraditional education, letting each do what it can do best" (p. 200). The various electronic teachers promise "to enrich the study of literature, science, mathematics, and the arts through words, pictures, and auditory messages" providing they are linked closely to school objectives (p. 201). There are things which television, calculators, and computers can do very effectively but other things—such as making value judgments and teaching students wisdom—are better done by teachers. Boyer sees the classroom as "a place where students are helped to put their own lives in perspective, to sort out the bad from the good, the shoddy from that which is elegant and enduring. For this we need teachers, not computers" (p. 201).

A new Carnegie unit is proposed by Boyer—not a Carnegie unit which deals with a measure of academic contact time but one which would involve volunteer service in the community or at school. Throughout the
four years in high school, students would undertake volunteer service of various kinds for not less than 30 hours a year. Students would have responsibility for organizing and monitoring such service activities and they would work with school officials to arrange for appropriate credit. The goal of this volunteer service "is to teach values--to help all students understand that to be fully human one must serve" (p. 215).

The report acknowledges the key role of the building principal in bringing about more effective schools but notes that most "principals have limited time, few resources, and little leeway for decision making... little or no control over their budgets and [little ability] to reward outstanding teachers, deal with unsatisfactory teaching, or develop new programs (pp. 225-226). Boyer's recommendations are that the principal be given more control, more responsibility, and more discretionary leeway in those activities that make a difference and that outstanding principals be given special recognition.

Boyer argues that

The urgent need is not lengthening the school day or school year, but using more effectively the time schools already have--more time to complete a science laboratory experiment, more time to write essays
and critique them, more time to engage in extended foreign language conversation. Therefore, we recommend that the class schedule be more flexibly arranged to permit larger blocks of time, especially in courses such as laboratory science, foreign language, and creative writing (pp. 232-233).

The report explores the pros and cons of school size, noting that research during the past few decades indicates that small schools have an advantage over large ones in terms of student participation and provision of emotional support. However, Boyer advocates flexibility concerning size as he does flexibility about time.

Flexibility is also suggested regarding the gifted and disadvantaged; "those who are not successfully served by conventional arrangements" (p. 236). Boyer believes that gifted and talented students are often overlooked in today's schools. He recommends that schools make special arrangements for gifted students including credit by examination, independent study, special arrangements with colleges and universities, magnet schools where feasible, and residential academies for less densely populated areas.

For the disadvantaged or high-risk student, the report recommends that dropout prevention begin in the elementary school, that students be tested for language
proficiency and provided with remedial help if needed, and that alternative schools be organized to provide the intensive, continuous and personalized help needed by some "high risk students."

Boyer observes that colleges and high schools are once again showing an interest in each other. He recommends that each state establish a panel "to permit educators at both levels to define an integrated school-college curriculum that provides both continuity and coherence and assures smooth transfer from high school to higher education" (p. 254). The report proposes that schools and colleges develop flexible arrangements for accelerating progress of students from one level to another. Specifically, he recommends "that every high school offer a 'university in the school' program and other flexible arrangements--credit by examination, early admission, and advanced placement--to permit able students to accelerate their academic progress" (p. 260).

The report urges colleges and universities to become more involved in "bolstering the skills and morale" of teachers already on the job since they will form the largest portion of the teaching staff during the 1980s. Boyer recognizes the need for institutions:
of higher education to "deepen their commitment to teachers and change their system of recognition and rewards" (p. 264) if they are to help the high schools.

Boyer recommends that schools and corporations establish partnerships to enrich the quality of education and proposes five separate strategies: (1) businesses can work with educationally disadvantaged students; (2) businesses can help gifted students, especially in mathematics and science; (3) corporations can help in teacher renewal through grants, fellowships, and special recognition; (4) businesses can help in student transition from school to work; and (5) businesses can help administrators develop their skills as managers and leaders.

Boyer observes that "high schools of the nation are only as strong as the communities of which they are a part. The renewal of the school must, quite literally, begin at home" (p. 286). Teachers, parents, students, school officials, and concerned citizens must all be involved in the renewal process. The local community, the state, and the federal government each has a role to play in improving education.

The report concludes with an expression of the "conviction that the promise of public education can
be fulfilled and that, as a nation, we will meet the challenge" (p. 319).

The Carnegie Foundation for the Advancement of Teaching report lists some dozen "priorities" or recommendations which, in Boyer's view, "taken together, provide an agenda for action" (p. 301). Unlike some of the current reports, this one recognizes serious problems in the nature and quality of education high schools provide but views them in a somewhat more balanced perspective. The four goals suggested by Boyer to help them realize a "clear and vital mission" are relatively broad and inclusive. They provide a focus for local discussion in order to establish "clearly stated goals--purposes that are widely shared by teachers, students, administrators and parents" (p. 301). Boyer sets a very high priority on mastery of the English language and few would argue with its importance in the total educational process. The core curriculum proposed will be debated in terms of the basic notion of a common curriculum for all and the balance among its various parts. Boyer calls for flexibility in time but still presents the core curriculum in terms of units. He thinks all students
should become familiar with the language of another culture and believes that all schools should offer Spanish as a first foreign language. As other reports have been, Boyer's report is critical of the practice of tracking which separates "students into programs for those who 'think' and those who 'work'" (p. 126). Noting that education in the future will have to be lifelong, he proposes elective clusters during the last two years to provide transition to work and/or higher education.

Some of Boyer's recommendations regarding renewal of the teaching profession will be viewed as controversial, particularly his suggestions for the "schooling of teachers." His recommendations regarding credentialing, a career ladder and some aspects of the proposal for part-time practitioners downgrade the role of schools of education and the long-standing debates over the nature of teacher education. Few would argue with Boyer's assertion that there are serious problems with the education of teachers and with the accreditation of schools of education but his recommendations regarding the preeminence of university liberal arts faculty and master teachers in teacher education programs will be debated.
Boyer argues that lengthening the school day and/or the school year are not as important as using time more efficiently and effectively. He suggests that teachers use a variety of teaching styles; set high expectations, clear standards, and fair evaluations; and evidence "enduring qualities in human relationships that still work: contagious enthusiasm, human sensitivity, optimism about the potential of the students" (p. 312).

The report suggests a number of cautions about the new technology, noting that such technology can enrich instruction if careful planning results in intelligent policies for its use.

While the Boyer report is not without its controversial recommendations, the general tone of the report tends to be more reasonable and subdued than some of the other reports. The recommendations are offered as the basis for discussion and the issues raised should certainly stimulate debate.
III. A Study of Schooling*

John Goodlad points out that A Study of Schooling was motivated in part by his conviction "that most efforts to improve schools founder on reefs of ignorance--ignorance of the ways schools function in general and ignorance of the inner working of selected schools in particular" (p. 16). Thus, the study was based on the premise that schools need improving but to improve them we must first understand them and, particularly, we must understand the individual schools. The purpose of the study was to enhance understanding "of the place called school."

A total of 38 schools--12 senior high, one secondary, 12 junior high or middle, and 13 elementary--were involved, chosen because they represented "maximum diversity and representativeness in a sample of small size" (p. 18). Twenty trained data collectors were sent to each community for a month-long stay. Data were collected from 17,163 students, 1,350 teachers, and 8,624 parents. Detailed observations were made in


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more than 1,000 classrooms. While not claiming a random sample, Goodlad observes that "it is reasonable to assume that [the] problems and shortcomings emerging most consistently are to some degree characteristic of schools beyond our sample and suggest an agenda for school improvement" (p. 18). The report is somewhat sparing in the data presented. Instead there are several dozen technical reports which are available separately. Only a very few tables are included in the report itself.

Goodlad and his associates identified some ten themes from the data, themes which seemed to define and describe schooling: "the themes thus help us see that schooling has a common set of characteristics and that school-to-school differences result from the sum total of how these characteristics manifest themselves in each school. On some characteristics, schools are very much alike; on others, they differ quite significantly" (p. 29). The ten themes include: (1) school functions, (2) the school's relevance in the lives of its students, (3) how teachers teach, (4) the circumstances surrounding teaching, (5) the curriculum, (6) the distribution of resources for learning, (7) equity, (8) the hidden or implicit curriculum, (9) satisfaction as a criterion of school quality, and (10) the need for data. In addition
there were two other pervasive themes that were "more perspectives than threads." The first was "the concept of the school as the unit for improvement. . . . efforts at improvement must encompass the school as a system of interacting parts, each affecting the others" (p. 31). The second was "caring. Our schools will get better and have continuing good health to the degree that a significant proportion of our people, not just parents, care about them" (p. 32).

Considerable agreement was found for the ten goals for schooling. Goodlad observe: "We are not without goals for schooling. But we are lacking an articulation of them and commitment to them. The goals represent four broad areas: (1) academic, (2) vocational, (3) social, civic, and cultural; and (4) personal. Goodlad recommends that each state should articulate commitment to these broad areas of educational goals as its basic policy, that each school should have responsibility for developing a means of continually assessing each student's program and guiding his or her curricular selections, that states study sample programs to determine areas of curricular imbalance in order to correct them, and that states exercise leadership "in emphasizing the limitations of schools' ability to fulfill society's
educational functions, let alone do the other things schools are called upon to do" (p. 59). Goodlad proposes that states also take the lead in planning and implementing alternative configurations for educational purposes of various educating agencies and institutions—by vigorously supporting communitywide education. And, states should gather data concerning the total educational system to be used in better planning. Goodlad asserts: "Let the states send a strong message of guidance, challenge, and hope for education and accompany it with clearly articulated expectations for education in schools" (p. 60).

The study found that both parents and professionals wanted more from the schools than what is implied by the phrase "intellectual development." In addition to a reasonable balance between intellectual, social, vocational, and personal goals, they want the schools to be nurturing, caring places. The data concerning emphasis "would suggest the dialogue, diagnosis, and subsequent planning in which district administrators, parents, students, the school principal, and teachers might engage in seeking to assure attention to the academic, social, vocational, and personal education of the young" (p. 69). Goodlad found that parents' concern with their
own school seems to go beyond the generalized cries for more discipline or back to the basics. There is a concern for behavior and safety which must be probed more deeply to determine the sources for satisfaction or dissatisfaction.

Goodlad's data indicate that junior and senior high school students seem to be preoccupied with a variety of matters which have little or nothing to do with the intellectual function of the school. This finding together with other data about school life that affect the school's performance of its educational mission are probed.

The study data indicate that student misbehavior, lack of student interest, lack of parent interest, and drug/alcohol use are all perceived as significant problems by parents and teachers alike. Surprisingly, no group studied ranked high in intensity "problems of curriculum, administration, rules and regulations, graduation standards, and the like. Even the problem of poor teachers and teaching is seen, at worst, as a problem of mild intensity" (p. 72). Over 80 percent of the parents surveyed were apparently very satisfied with schools' provisions in the various subject fields. Goodlad concludes that: "In seeking to improve our
schools, we may discover that some gains in standardized achievement tests scores will not satisfy the full array of interests that parents and students have in their schools, interests that reach to the whole life and extend well beyond academics" (p. 75). His findings concerning the importance of the school's ambience and the peer group preoccupations have implications for change. The problem of creating in schools "compelling environments for learning is exceedingly difficult" (p. 89).

Goodlad is concerned with the consequences of separating students into separate tracks, giving non-academically oriented students a heavy dose of vocational education, "curtailing the general education of some of these future citizens because we consider them incapable of acquiring it. But perhaps the educational system is not yet adjusted to the tasks of providing the education our rhetoric continues to promise" (p. 90). He is especially concerned about the large "group of students who do not grow up in academically oriented households, or who experience cumulative difficulties with school-based learning, or who are not turned on by academics, or who simply cannot or do not wish to defer employment" (p. 91).
The study teams observed more than a thousand classrooms and found patterns of teaching and learning activity which seemed to characterize these classes. These included:

1. The dominant pattern of classroom organization is a group to which the teacher most frequently relates as a whole.

2. Each student essentially works and achieves alone within a group setting.

3. The teacher is the central figure in determining the activities as well as the tone of the classroom.

4. The domination of the teacher is obvious in the conduct of instruction. Most of the time the teacher is engaged in either frontal teaching, monitoring students' seat work, or conducting quizzes.

5. There is a paucity of praise and correction of students' performance, as well as teacher guidance in how to do better next time.

6. Students generally engage in a rather narrow range of classroom activities—listening to teachers, writing answers to questions, and taking tests and quizzes.

7. The patterns are quite commonly descriptive of upper elementary classes, and become more accurately descriptive with progression to junior and senior high schools. The variety of teaching techniques is greatest in the lower elementary grades and least in the secondary school years.
8. Large percentages of the students appeared to be passively content with classroom life. In general, they felt positive about both peers and teachers. They expressed considerable liking for all subjects and classroom activities—even the repetitive listening to teachers' talk.

9. Even in the early elementary years there was strong evidence of students not having time to finish lessons or not understanding what the teachers wanted them to do (pp. 123-124).

Goodlad's data lead him to conclude that curricula were reasonably well balanced, especially in the elementary and junior high schools. Goodlad found little attention to foreign languages in either the junior or senior high school. He was concerned about vocational education using the largest percentage of teachers at the senior high school level. And, he felt "profound uneasiness" about the school-to-school variations: "The game of chance associated with the school attended is only the beginning in a series of differentiations beginning in the early elementary grades and appearing to be highly predictive of students' academic and vocational futures" (p. 158).

Goodlad is highly critical of grouping which he sees as restricting access to academic curricula with upper groups experiencing a richer body of curricular content while the lower groups are given more drill and rote learning. His general conclusion was that the
38 schools received children differentially ready for learning, educated them differently in their classrooms and graduated them differentially prepared for further education, employment, and presumably, vocational and social mobility. The 17,163 students in our sample had quite different opportunities to gain access to knowledge during their years of schooling. At least some of these differences in opportunity to learn, it appears, were differentially associated with economic status and racial identification (p. 160).

Goodlad recommends a general education and common curriculum for all students with no electives in this common curriculum but opportunities to pursue areas of special interest for the balance of time. He views mastery learning as a means of providing for individual differences but believes that it has "less practical significance for the next decade or so than the inherent concept of nearly all students being able to learn mathematics, science, social studies and the rest if appropriate learning conditions are established" (p. 166).

Goodlad characterizes "the economic, social and political context of schooling as having been more negative than positive during the 1970s" and believes that "school personnel perceived themselves to be working in an atmosphere of criticism, declining confidence and support, and little appreciation" (p. 167). He examines
the polarized views of the literature—that teachers contribute little to intellectual motivation and academic achievement and that everything depends on the teacher and concludes that teachers are potentially powerful influences whose functioning is inhibited by the circumstances in which they work. Goodlad views the directions for school improvement as fairly clear: "diagnose and seek to remedy the impeding conditions; improve teachers' knowledge and skills" (p. 168).

From a survey of 1,350 teachers, Goodlad builds a picture of the job and role of the teacher—why they teach and why they would leave teaching, their satisfactions and dissatisfactions, the problems they perceive. In Goodlad's view, "the greatest strains are now in the past. Educators are learning more about these circumstances and how to deal with them" (p. 182).

Unlike what is said in many other reports, Goodlad's observation concerning the adequacy of teacher preparation is: "to the degree that teachers' self-perceptions of their preparation square with an estimate of what teachers need to know about a subject, a hypothetical conclusion is that shortcomings lie more in pedagogy than in academic background" (p. 183). There may be a gap in teacher preparation but it will be closed by attention
"to the composite implications for teaching of how students learn and how subjects are structured" (p. 183). Goodlad's teachers viewed themselves generally as having adequate preparation in their subjects and believe that their colleagues are performing well. They are, however, functioning quite autonomously and in isolation. The circumstances in which teachers teach today, in Goodlad's view include some gain in their autonomy in the community accompanied by some loss in prestige and status; an increase in the heterogeneity of students to be educated, especially at the secondary level; increased utilization of schools to solve critical social problems such as desegregation; a marked growth in governance of the schools through legislation and courts; continuation of relatively low personal economic return; limited opportunities for career changes within the field of education; and continuation of school and classroom conditions that drain physical and emotional energy and tend to promote routine rather than sustained creative teaching (p. 169).

Holding teachers accountable for increased student achievement without attending to the circumstances in which they teach is unlikely to improve the schools in which they work or the quality of their professional lives.
Again, Goodlad's survey of what schools and classrooms teach presents a somewhat different picture from some of the other reports. His data "reveal not only the curricular dominance of English/language arts and mathematics but also consistent and repetitive attention to basic facts and skills. Developing 'the ability to read, write and handle basic arithmetical operations' ... pervades instruction from the first through the ninth grades and the lower tracks of courses beyond" (p. 236). However, the survey schools seemed not to be developing "all those qualities listed under 'intellectual development'; the ability to think rationally, the ability to use, evaluate, and accumulate knowledge, a desire for further learning" (p. 236). Two major deficiencies seemed to pervade curricula in all schools: "The first is a failure to differentiate and see the relationships between facts and the more important concepts facts help us to understand. The second ... is a general failure to view subjects and subject matter as turf on which to experience the struggles and satisfactions of personal development" (p. 237).

Goodlad is especially critical of the void between "the rhetoric of individual flexibility, originality, and creativity in our educational goals" and the actual
cultivation of these in the schools. In fact, he notes that schools seem to condition students in exactly the opposite behaviors. Goodlad is troubled about "the flat, neutral emotional ambience" he found in most of the classes observed. Nor does Goodlad believe schools need to curb "movement, small group work, and even overt expressions of joy, anger, and other feelings" but rather he argues for increasing "vicarious experience designed to connect students in some more passionate and compassionate way with the wholeness of human experience and especially with such existential qualities as hope, courage and love of humankind" (p. 243).

In Goodlad's sample, he finds teachers very much preoccupied with attempting to teach children and youth exactly those things which they are blamed for not teaching. Goodlad believes that we really want more than just the basics and yet realistic expectations must be set for schools.

Goodlad concludes from an examination of similarities and differences among the schools studied: "Schools differ; schooling is everywhere much the same. Schools differ in the way they conduct their business and in the way the people in them relate to one another in conducting that business. But the business of
schooling is very much the same" (p. 264). He believes there is currently no strong pressures to alter the ways schools conduct the business of schooling. But, much has been learned about improving schooling and especially the misleading simplicity of many past diagnoses and solutions.

The report concludes with two chapters which deal with improving those schools we now have and going beyond today's schools. Goodlad sees

the agenda of school improvement [as]
form'dable. It includes clarification of goals and functions, development of curricula to reflect a broad educational commitment, teaching designed to involve students more meaningfully and actively in the learning process, increased opportunities for all students to gain access to knowledge, and much more. Significant improvement will come about not by tackling these problem areas one by one, but by addressing all or most of them as a system (p. 271).

Goodlad's recommendations for improving today's schools stem from his and related studies of educational change and improvement together with this study of what goes on in schools.

Goodlad argues strongly for the "school as the unit for improvement and those associated with the individual school as the persons to effect change" (p. 274). He
recommends that the "state should hold the district accountable for communicating the state's goals for education in schools, developing balanced curricula in each school, employing qualified teachers, providing time and resources for local school improvement, and assuring equity in the distribution of these resources" (p. 274). The districts should then institute decentralization of authority and responsibility to each local school within a "framework designed to assure school-to-school equity and a measure of accountability." Each school must then become largely self-directing and responsible for its own self-renewal. High priority should go to the selection of principals and development of their ability to lead and manage. A broadly based policy and planning group would assist the principal and "would be constantly alert to problems affecting the school as a whole, would identify the need for new policies, and would be responsible for final approval of the planning document and budget prepared for discussion by the principal with the superintendent" (p. 278). Goodlad urges that the school budget provide freedom to exercise control through alternative plans for using funds. Teachers should be involved in decisions regarding funds for materials.
Individual schools should develop their own long-term staffing plans. Teachers should be employed for 20 days of planning and school improvement activities beyond the 180 teaching days. Each building should have flexibility in scheduling these staff development and curriculum development days.

Goodlad found a considerable discrepancy between goals for schooling and the curricular provision for their attainment. He found that existing curricula seemed to evolve "not from careful local planning but from accretions of expedient decisions and omissions" (p. 280). He asks the question--how much curricular variation can we afford--and suggests that the answer has been more than we can and should afford. Some provisions for individuals' differences must be made, including pedagogical ones: "more time for students who take longer, experiential activities designed to overcome difficulties with abstractions, summaries and reviews of work covered through use of a different medium of instruction and so on. The specifics of content also can and should be varied" (pp. 280-1). However, he recommends that states mandate specific requirements for all schools.
Goodlad recommends 25 hours of instructional time each week but cautions that a "uniform time utilization target probably would be less constructive than initiating a process for improvement in each school" (p. 282). Staffs should have the opportunity to use time in different ways. Adding to the days and hours of schooling could well be counterproductive if there is not sufficient attention to improving the ways this added time is used.

Goodlad recommends that school staffs undertake two kinds of planning processes: (1) an analysis of the meaning and implications of state goals for education and (2) an analysis of the allocation of teachers to various subject areas as well as "the actual distribution of subjects, courses, and modes of thought in the curricula experienced by selected students" (p. 283). The purpose of these processes is to attend to problems of curricular balance and to aid in planning future staffing.

Goodlad notes a growing trend toward greater specification of subject requirements for high school graduation, part of increased curricular mandates. He reminds readers that "however loosely coupled the system of schooling may be, it is nonetheless a system.
Major changes in one part affect other parts" (p. 285). When colleges and universities require more mathematics and science, this affects secondary school staffing and curriculum. If curricular change proposals are not accompanied by significant improvements in pedagogy, a higher dropout rate could result, especially for some minority groups. Goodlad argues that the quality of schools must be judged by their holding power and not just be assessment of their graduates.

The report argues for better balance among fields of study as well as greater commonness of study in these fields. Noting that the individual student's program of studies has received the least attention, he recommends that each student have a cumulative folder which details what studies have been completed, what studies are planned for the future, and how this program matches an ideal prototype.

Goodlad recommends that two-thirds of the students' programs would be common with a balance as follows: up to 18 percent in literature and language (English and other), up to 18 percent in mathematics and science; up to 15 percent in the areas of society and social studies, the arts, and the vocations; and up to 10 percent in physical education. The curricular areas
would account for not more than 90 percent of the student's program with the remaining 10 percent reserved for electives, an individual choice but a guided one. Goodlad proposes that "about two thirds of all students' programs would be common; the rest would be made up of selections from a limited array of electives" so that "all students would have experienced, by the time of graduation, a curricular core" (p. 287). Goodlad suggests that students be given vouchers with which to exercise their choices in the electives area "purchasing" instruction. Goodlad makes his argument for common core curriculum and limited electives on his conviction that data regarding individual differences "have more compelling implications for pedagogical than for curricular differentiation" (p. 289). The fundamental principles which should guide curricular balance are that the role of primary and secondary education is to provide a general education, not a specialized one, and that judicious pedagogical and even curricular adjustments are necessary for meeting individual differences. It is recommended that research and development centers be created to focus on school curricula and accompanying pedagogy, each focusing on a particular domain of knowledge, thought, and process on a K-12 basis.
Tracking is viewed by Goodlad as giving up on the problem of human variability in learning and should be abandoned. Instead there should be a common core of studies required of all, the elimination of any grouping based on past performance, the assignment of students randomly to assure heterogeneity, and the improvement of pedagogical strategies for dealing with individual differences.

Unhappy and disturbed by the findings regarding the narrow range of teaching practices employed, Goodlad suggests that exemplary model or "key schools" linked to universities and schools be created to develop, demonstrate, and disseminate teaching practices.

The employment of "head teachers for units of schooling" is recommended. Such persons would teach part-time, would serve as role models to fellow teachers, provide assistance, and realistically serve as instructional leaders. Goodlad has reservations about building principals being able to serve that function. The proposal for head teachers is aimed at doing better with the teachers already in place and, at the same time, improving "the quality of the workplace and providing incentives for attracting and keeping high quality teachers" (p. 303).
The report proposes that a person serve as head-master/mistress over a senior high and the junior high and elementary schools from whence the students come in order to deal with problems of sequence and continuity in the curriculum, focus attention on each student's balance of studies, approve recommendations for acceleration, and so forth.

As to staffing elementary schools, Goodlad suggests that each school have a staff of fully qualified teachers, each with some concentrated preparation in a curricular area; that the elementary schools not be departmentalized; that the nuclear faculty be less than the total number of positions authorized for the school so that additional teachers who are needed to provide a balanced curriculum can be assigned; and that the staff be organized into teaching teams. He urges that schools be reduced in size, using the school-within-school concept for larger schools. Goodlad suggests larger schools organize "houses," each with its own curriculum, students, faculty, and counselors but sharing certain central facilities. Such houses should be organized vertically, not horizontally.

As for teachers, Goodlad proposes that there be differentiation in salary corresponding with
differentiation in function and accompanying preparation to perform a particular function" (p. 313). In addition, there have to be clear entry routes to the various levels--assisting and apprentice roles, career teachers, and head teachers. Goodlad recommends "a two-year program of professional studies and clinical experiences prior to a period of resident status in the hope that future teachers will actually experience, under guidance, the use of teaching methods not commonly practiced in schools" (pp. 316-17).

Goodlad stresses that the proposals are not meant to be prescriptive but rather to illustrate directions and guiding principles. Above all, he emphasizes their interconnectedness and cautions against "making laundry lists of unconnected simplistic solutions to complex problems" (p. 318).

Having made recommendations for improving the schools we have, Goodlad concludes with a discussion of going beyond those schools. He suggests that we consider "four conditions . . . that will affect schools whether or not we address their implications for the conduct of education and schooling" (p. 321). These conditions:
The first is a youth culture powerfully preoccupied with itself and made up of individuals much less shaped by home, church, and school than once was the case.

A second condition, to which our system of schooling has responded sluggishly, is the stunningly swift advance of technology in virtually all aspects of life.

Third, in regard to vocational education the school may be, in the late twentieth century, where the home was in the late nineteenth. It became impossible, about a hundred years ago, for families to provide their children with the skills required for gainful employment in the emerging workplace.

Fourth, there will be no diminution in the need and our expectations for a highly educated society (pp. 321-2).

Goodlad asserts that the hope for the future rests with our ability to use and articulate effectively all those educative and potentially educative institutions and agencies in society—"home, school, church, media, museums, workplace, and more" (p. 323). He suggests a rethinking of the continuum of schooling and recommends specifically that:

1. Secondary schooling end and a completion certificate be awarded at the age of 16.
2. School begin at age 4 and that what is attempted now between ages 6 and 18 be accomplished between ages 4 and 16.

3. Twelve years of schooling be divided into three closely-linked phases of four years each: primary phase, ages 4-7; elementary phase, 8-11; and secondary phase, 12-15.

4. Children begin school at age 4, entering non-graded, four-year units of not more than 100 students each, organized vertically and not horizontally.

5. Curricular considerations focus on general education of children with particular attention to curricular balance. Many of the proposed activities should be continuous so that "the activities of the secondary phase should be culminating activities through which students demonstrate their mastery, dexterity, and personal identification with the material of learning and begin to get a sense of style" (p. 337).

6. Serious attention be given to the consequences of new technology both within the school and as an additional educating institution.

7. Schools should play a role in the development of mature perspectives on careers, career choice, and the bases for career decision-making by linking students, school, and work. Schools must create collaborative arrangements with elements of the workplace to develop broad career perspectives through a vocational/career domain of the curriculum.
8. A "fourth phase in the continuum" should consist of a combination of work, study, and service conducted within an educational ethos beyond age 16.

9. Schools should become the centers for community education and the nurturing of educative communities. While the school may be the only institution charged exclusively with an educational function, there is an ecology of other institutions which also educate and are part of the educative community.

A Place Called School, perhaps more than any of the other reports, is based on long-term, intensive study of 38 schools. Goodlad, without presenting mountains of data which seem to have been collected during the study, does give readers a feel for the data and the basis for the recommendations and proposals made. The reader may take issue with Goodlad's proposals but it is usually quite clear where his biases are. There will be considerable debate about most of the recommendations which, of course, is what Goodlad urges. The notions of a common curriculum and the elimination of tracking are concepts which have been debated since the turn of the century. He quite correctly points to the interconnectedness of all of his recommendations and cautions against making a laundry list of wishes for improvement. In raising "the level of consciousness
regarding this ecological view of each community's educational system" (p. 351), Goodlad forces educators and others to move into unknown territory. As consciousness has been raised, the agenda for the council he recommends to a community educational system is a complex one with none of the partners as yet prepared to invest in the development of such a community because of all the unknowns. But the recommendations and proposals concerning the place called school will be debated first. Some of these proposals are new and radical, others are old and conventional. Goodlad does provide guidance as to the process of improvement and that may be one of the most important contributions he makes to the reform debates.
IV. The Paideia Group*

The Paideia Group consists of 22 persons from a variety of educational, business, foundation, and other groups, chaired by Mortimer J. Adler, Director of the Institute for Philosophic Research and Chairman of the Board of Editors of the Encyclopedia Britannica. Its work has been conducted through a series of meetings at which consensus was reached on "an educational manifesto" for reforming public schooling in America. As Adler puts it in his opening statement to readers: "The reform we seek is designed to improve the opportunities of our youth, the prospects of our community, and the viability of our democratic institutions. It must be achieved at the community level without resorting to a monolithic, national educational system" (1982, p. xii).

The manifesto is addressed to parents, teachers, school boards, college educators, elected public


officials, employers, minority groups, labor leaders, military leaders, and other American citizens, all of whom constitute "those Americans most concerned with the future of our public schools" (1982, p. xii). The report is divided into four parts which discuss schooling as only a part of education, set forth the essentials of basic schooling, examine teaching and learning as "the heart of the matter," and look beyond basic schooling. It concludes with an answer to a question sure to be asked by school boards and administrators: "What should we do next Monday morning to get started on the Paideia reform of basic schooling?" (1982, p. 81).

The report opens with an examination of the concepts of democracy and education. Adler asserts that we have failed to meet the challenge John Dewey posed in Democracy and Education (1916): "A revolutionary message of that book was that a democratic society must provide equal educational opportunity not only by giving to all its children the same quantity of public education--the same number of years in school--but also by making sure to give to all of them, all with no exceptions, the same quality of education" (1982, p. 4).
Adler believes that only half of the promise of equal educational opportunity—the provision of twelve years of schooling for all—has been fulfilled and that, as a consequence, the ideal itself has been betrayed. The innermost meaning of social equality, he argues, "is: substantially the same quality of life for all. That calls for: the same quality of schooling for all" (1982, pp. 5-6). Nor is there any reason why efforts "to promote equality should have led to a lessening or loss of quality" (1982, p. 6). While children differ and are educable in varying degrees, Adler asserts that "the variation in degree must be of the same kind and quality of education" (1982, p. 7). Schools, teachers, and parents have failed to teach children; the failure is not that of the children.

Adler reminds his readers that schooling is only one part of an individual's education, that "no one can become fully educated in school, no matter how long the schooling or how good it is. Our concern with education must go beyond schooling" (1982, p. 9). Schooling must develop the skills of learning and stimulate all individuals to engage actively in learning as a lifetime process: "To live well in the fullest human sense involves learning as well as earning" (1982, p. 12).
The basic cause of problems, in Adler's view, is our multitrack system of schooling which he calls "an abominable discrimination" (1982, p. 15) since it aims at different goals for various groups of children. The Paideia Proposal advocates a one-track system of public schooling with the same objectives for all children and with no exceptions. The public school must aim at three major objectives and attempt to achieve them to a satisfactory degree with every child. The three main objectives are:

--Every child should be able to look forward not only to growing up but also to continued growth in all human dimensions throughout life. All should aspire to make as much of their powers as they can. Basic schooling should prepare them to take advantage of every opportunity for personal development that our society offers.

--Public schooling must be universal in more than its quantitative aspect. It must be universal also in its qualitative aspect. Hence, the second objective of basic schooling—an adequate preparation for discharging the duties and responsibilities of citizenship.

--The twelve years of basic schooling must prepare them for [earning a living in one or another occupation], not by training them for one or another particular job in our industrial economy, but by giving them the basic skills that are common to all work...
in a society such as ours (1982), pp. 16-17).

In order to achieve these three main objectives, schooling must be general and liberal, nonspecialized and nonvocational in the sense of not preparing individuals for a particular job.

The Paideia Proposal recommends that all children follow the same course of study for their twelve years in school, "a program of study that is both liberal and general, and that is, in several, crucial, and overarch- ing respects, one and the same for every child. All sidetracks, specialized courses, or electives must be eliminated" (1982, p. 21). The only exception allowed would be the choice of a second language. The program, as depicted in Figure 1, provides for three modes of teaching and learning, "three different ways in which the mind can be improved—(1) by the acquisition of organized knowledge; (2) by the development of intellectual skills; and (3) by the enlargement of understanding, insight, and aesthetic appreciation" (1982, p. 22).
FIGURE 1. The Same Course of Study for All

<table>
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<tr>
<th>COLUMN ONE</th>
<th>COLUMN TWO</th>
<th>COLUMN THREE</th>
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<tr>
<td>Acquisition of Organized Knowledge by means of Didactic Instruction, Lectures and Responses, Textbooks and Other Aids in three areas of subject-matter Language, Literature, Fine Arts; Mathematics; Natural Science; History, Geography; Social Studies</td>
<td>Development of Intellectual Skills --Skills of Learning by means of Coaching, Exercises and Supervised Practice in the operations of Reading, Writing, Speaking, Listening; Calculating; Problem-Solving; Observing, Measuring, Estimating; Exercising Critical Judgment</td>
<td>Enlarged Understanding of Ideas and Values by means of Maleutic (Socratic) Questioning and Active Participation in the Discussion of Books (Not Textbooks) and Other Works of Art; Involvement in Artistic Activities (e.g., Music, Drama, and Visual Arts)</td>
</tr>
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The Three columns do not correspond to separate courses, nor is one kind of teaching and learning necessarily confined to any one class.

(Adler, 1982, p. 22)
Adler describes the interplay between Columns One and Two and the way Column Three reinforces and supplements the other two columns. What is needed is a nurturing of a joy in learning—a joy that arises from hard work well done and from participation of one's mind in a common task. Participation in activities of Column Three contributes to initiating the young into the life of learning. The proposal includes auxiliary studies as well—twelve years of physical education, less than that for a variety of manual activities, and, in later years of school, instruction in preparation for choosing and finding a career.

Adler suggests that the proposal "is not a monolithic program to be adopted uniformly everywhere." However, he points out, "the model does insist, for its validity, on the presence in all schools or school systems of the Three Columns—on the establishing of the three modes of learning and the three modes of teaching" (1982, p. 34).

Acknowledging that the homes and environments from which children come do result in distinct advantages and disadvantages in their schooling, Adler supports preparation for schooling through Head Start type programs: "The sooner a democratic society intervenes to
remedy the cultural inequality of home and environments, the sooner it will succeed in fulfilling the democratic mandate of equal educational opportunity for all" (1982, p. 39).

Adler does not deny the existence of individual differences but insists that "children are all the same in their human nature. They are human beings and their human equality consists in the fact that no child is more or less human than another" (1982, p. 42). To cope with individual differences, the program should be adjusted "by administering it sensitively and flexibly in ways that accord with whatever differences must be taken into account" (1982, p. 44). While agreeing that the program is not utopian, Adler believes that the proposal for dealing with individual differences is more realistic than schooling which "magnifies and overreacts to individual differences, and ... makes a mockery of equal educational opportunity by failing to recognize and make the best use of the sameness that underlie the differences" (1982, p. 45).

Teachers function basically as aids to learning, guiding and assisting the activity of the pupil's mind. For each of the modes of learning, teachers provide different kinds of help. As Adler points out: "In a l
three ways of learning, the more active the learner the better. As far as possible, passivity must be discouraged and overcome. This does not mean more activity on the part of the teacher, but a different kind of activity from that which most teachers now display when they go on the assumption that teaching is transferring the contents of their own minds (or their notes) into the minds of their pupils" (1982, p. 55).

Adler warns that laxity in discipline in the classroom can be completely destructive of learning and urges "students must be required to behave in class and in school in a manner that is conducive to learning" (p. 55). He advises that "the clearer and higher the expectations, the better the response of students" (1982, p. 55).

The circumstances surrounding teaching are explored by Adler who observes that poor working conditions are not the only reason that there are not enough able teachers or that good teachers are unable to teach effectively. Poor pay, low social status, too many non-teaching duties all contribute to difficulties in attracting good teachers. Teachers, Adler argues, "should be on the way to becoming educated persons" and "should themselves be at least as well-schooled as the graduates of the schools in which they are expecting to teach" (1982, p. 58). Teachers should themselves complete the required course of study the manifesto advocates. And,
the skills of teaching are seen by Adler as "intellectual skills that can be developed only by coaching, not by lecture courses in pedagogy and teaching methods such as are now taught in most schools or departments of education and are required for certification" (1982, p. 61).

Adler calls for a redefinition of the role of the principal to one of head teacher: "What is all important is that the principal provide the educational leadership that the school community needs. It has been shown in repeated studies that the quality of teaching and learning that goes on in a school is largely determined by the quality of such leadership" (1982, p. 64). Adler would give the principal authority to hire and fire teachers, have a voice in assignments and promotions of teachers, and have authority to enforce standards of conduct.

Institutions of higher education have been, Adler believes, severely hampered by the inadequate preparation of too many students who are admitted. Colleges and universities must be relieved of remedial functions in order to pursue their two main purposes: (1) preparation of students for vocations which require specialized knowledge and technical training and (2) pursuit of general learning by students capable of more advanced work.
Adler has two fundamental goals in mind for all children: "One is equipping all the children of this country to earn a good living for themselves. The other is enabling them to lead good human lives" (1982, p. 73). Consequently, two things are needed to accompany reform in schooling: (1) "the commitment of our society to a policy of full employment, securing for everyone his or her right to earn a living"; and (2) "the enlightenment of parents with regard to the goals of basic schooling--not just earning a living, but living well" (1982, p. 75).

Adler sees the future of our free institutions resting on the quality of the schooling provided: "Trained intelligence, in followers as well as leaders, holds the key to the solution of the problems we face. . . . Human resources are the nation's greatest potential riches. To squander them is to impoverish our future" (1982, p. 79).

The second report, Paideia Problems and Possibilities, is an effort by Adler to deal with questions raised concerning the reforms proposed and their implementations. First the Paideia principles concerning goals and means are restated. Then, questions are posed and answered in four groups, questions about the
recommended curricular framework, the applicability of the course of study to all students and their reaction to it, teachers and teaching, and matters of organization, administration, and financing. After responding to questions, Adler concludes: "there are many and serious difficulties to be overcome, many problems to be solved, in order to actualize the Paideia plan in some satisfactory, approximate form. Recognizing the difficulty of a problem should not lead us to turn our back on it as insoluble. Confronting difficulties, however troublesome, should not cause us to despair and try to by-pass them as if they were insurmountable" (1982, p. 79).

The Paideia Proposal: An Educational Manifesto is a well-written restatement of the essentialist philosophical position, once nuaciated by Adler's mentor, Robert Maynard Hutchins. Adler quotes Hutchins' statement of "the fundamental principle we must now follow in our effort to achieve true equality of educational conditions. 'The best education for the best ... is the best education for all'" (1982, p. 6). The advocacy of the same objectives for all and the same course of study for all couched in terms of democracy and equality of educational opportunity is difficult to argue with
until one deals with the specifics. The concept of individual differences is acknowledged but is not dealt with very substantively. For instance, the proposal "assumes that mathematics will be taught in every school, and even stipulates that a stated degree of proficiency--through the calculus--shall be acquired by every student" (1983, p. 39). When some schools would be happy were some students to succeed in two years of high school mathematics, the notion that all students would succeed through the calculus leaves many teachers perplexed about the reality of the proposals. Nor are they helped with their perplexities by Adler's dismissal of such concerns as being undemocratic and resulting from an underestimation of human potential. On the other hand, schools will welcome Adler's opposition to the "process by which a 'problem' is identified, turned into a 'subject,' and then inserted into the curriculum for its solution" (1983, p. 45). They will applaud his view that "if the school is made the repository of every social concern, education itself is bound to be crowded out--and the social problems will remain" (1983, p. 45). But, The Paideia Proposal seems to ignore the social context in which schools function and the "problems" which are part of the total social fabric which exists.
V. The Twentieth Century Fund*

The Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy consisted of twelve persons, chaired by Robert Wood. Paul E. Peterson prepared a background paper which served as starting point for the Task Force's discussions and filled the role of rapporteur as well. The report, Making the Grade, consists of a 22-page report of the Task Force and Peterson's 151-page background paper.

The study was undertaken on the urging of some Fund trustees who were "convinced that the problems of American education are at the heart of many of our economic and social difficulties" (p. v). Because education was not an area in which the Fund had conducted research, the staff undertook a three-year exploration of what other groups were doing. The staff soon recognized "the vital necessity of doing a better job of educating young Americans so that they can contribute to and function in contemporary society" (p. v). It seemed to the staff that while there were a good many studies of education

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underway, no one was examining what federal policy and federal programs should be and a decision was made to study federal elementary and secondary education policy.

Peterson's background paper begins with an examination of the question: Is there a crisis in American education? Peterson's answer is that there is a crisis but crises have been identified so frequently that caution should be exercised in describing educational problems. He observes, however, that in the ongoing discussion of educational problems, "there is one issue that is not found in previous debates: the role of the federal government" (p. 30). His background paper focuses on the basic question: "How should the federal government directly assist in the maintenance and operation of the nation's elementary and secondary schools?" In order to assess the federal role in education, Peterson asserts that federal policy developments need to be placed in a larger context in order to ascertain the extent to which federal policies contribute to or are responsible for the trends in education. He concludes: "Nothing in these data permits the conclusion that educational institutions have deteriorated badly, and, certainly nothing supports the claim that increased federal role has had a fundamental effect" (pp. 59-60).
Peterson traces the role of the federal government which, until 1965, had traditionally been very limited. He notes that there "were few, if any federal educational concerns and priorities that were not widely shared by local school districts in all parts of the country; as a result, there was little need for national direction or control" (p. 61). This changed markedly after 1965 with passage of the Elementary and Secondary Education Act of 1965; "Federal involvement increased, based on the premise that local school districts had failed to support adequately social equity and equality of educational opportunity" (p. 63). Since 1965, there has been an expansion of the federal role along with new approaches to equality.

The background paper concludes with an analysis of what might be a balanced federal role. Peterson observes that the debate over the federal policy's future direction currently involves two distinct but unconnected questions: (1) how to raise educational standards and (2) whether block grants should be substituted for the potpourri of categorical programs.

Peterson believes that "the crisis in American education is greatly exaggerated" but that, "after so many decades of steady expansion and improvement, these signs
of stabilization and even decline have generated calls for reappraisal and renewal" (p. 157). He concludes: "Because our country both suffers from and enjoys government by decentralized institutions, there will remain, for better or worse, a gulf between the goals set by federal policy and the state of American education" (p. 161).

The Task Force begins its report with the observation:

The nation's public schools are in trouble. By almost every measure—the commitment and competency of teachers, student test scores, truancy and dropout rates, crimes of violence—the performance of our schools falls far short of expectations. To be sure, there are individual schools and school districts with devoted teachers doing a commendable job of educating their students, but too many young people are leaving schools without acquiring essential learning skills and without self-discipline or purpose.

The Task Force believes that a national commitment to excellence in public schools is necessary if dire consequences are to be avoided. The group favors continuing the diversity found in schools that results from school decentralization but it argues:

schools across the nation must at a minimum provide the same core components to all students. These
components are the basic skills of reading, writing, and calculating; technical capability in computers; training in science and foreign languages; and knowledge of civics, or what Aristotle called the education of the citizenry in the spirit of the polity. . . . We think that they should ensure the availability of large numbers of skilled and capable individuals without whom we cannot sustain a complex and competitive economy. They should foster understanding, discipline, and discernment, those qualities of mind and temperament that are hallmarks of a civilized polity. . . . And they should impart to present and future generations a desire to acquire knowledge, ranging from the principles of science to the accumulated wisdom and shared values that derive from the nation's rich and varied cultural heritage (pp. 3-4).

In the view of the Task Force, few schools accomplish these tasks and there is a clear national interest in assisting schools with a concerted effort to improve their performance. The Task Force believes that "the federal government should be able to foster excellence in education, serving as a firm but gentle goad to states and local communities without impeding or restricting state and local control of and accountability for the schools" (p. 4).

Despite the expenditures on our schools--more per student than all other advanced nations--the gap between
the goals and the achievements of schools widens. The Task Force believes that a number of factors, economic, demographic, social, and political, have contributed to this gap but they are especially concerned that we have made excessive demands on the schools, especially during the past three decades. We have asked schools to play too many roles, to achieve contradictory goals, to deal with interventions from many sources, and cope with a variety of excessive burdens.

Although many criticisms of the federal presence in education seem warranted to the Task Force, the members believe "that educating the young is a compelling national interest, and that action by the federal government can be as appropriate as action by state and local governments" (p. 6). The Task Force believes that the objectives of equality and excellence "should be vigorously pursued through a fresh approach, one that reflects the national concern for a better-educated America and that strikes a reasonable and effective balance between quality and equality" (p. 7).

The Task Force admits that quality in education is probably easier to recognize than define and that it cannot be legislated into being. The Twentieth Century Fund's Task Force recommends that:
--The executive and legislative branches of the federal government emphasize the need for better schools and better education for all.

--A National Master Teachers Program be established to recognize and reward teaching excellence, selecting the best teachers from every state and awarding the accolade of Master Teacher plus a monetary grant.

--The federal government assert clearly that the development of literacy in the English language is the most important objective of elementary and secondary schools; that federal funds now used for bilingual programs be used to teach English to non-English-speaking children; that the federal government promote and support English proficiency for all children.

--Every American public school child be afforded the opportunity to acquire second language proficiency.

--The federal government support and promote programs to develop basic scientific literacy for all citizens and to provide secondary school students with advanced training in science and mathematics.

--The federal government continue its efforts to provide special educational programs for the handicapped and the poor; the federal government should pay for categorical programs it requires; "impact" aid funds be redirected to school districts which are overburdened by large numbers of immigrant children; and federal attention and assistance go to school districts with concentrations of impoverished and/or immigrant groups as well as districts which are making strong efforts to improve their educational efforts.
Federal support be provided for a number of specific research activities, including: collection of data about the educational system itself; collection of data about the educational performance of students, teachers, and schools across the country, strengthening the work of the National Assessment of Educational Progress; evaluation of federally-sponsored programs; and fundamental research into the learning process.

Free public education should remain a public responsibility with a high priority and support of nonpublic education should remain a private responsibility but special federal fellowships be created and awarded to local school districts for the purpose of establishing "small, individualized programs staffed by certified teachers and run as small-scale academies" for students who repeatedly fail in the regular school setting (p. 20).

The Task Force concludes that although there is a significant role to be played by the federal government in promoting both equality of opportunity and educational quality, the prime responsibility is still that of the state and local governments. Recognizing this, it is increasingly important that the federal government emphasize the pressing need for a high-quality system of education open to all Americans, regardless of race or economic position. Toward this end, the Task Force has put forth a coordinated policy of overall federal support for American
school, that simultaneously asserts the national interest in quality schools and in equal access to education, with assistance for those with special needs (pp. 21-22).

The Task Force reasserts its belief that "equality of educational opportunity cannot be separated from educational quality" and that the "nation is best served by offering our young people the most rigorous educational experience that we can" (p. 22).

In asserting that the "federal government has a responsibility to help overcome the unevenness of state efforts," the Task Force is reopening a long-standing controversy concerning the federal role vis-à-vis state and local control. Paterson's background paper indicates that the federal government has, certainly since 1965 and probably since 1958, been very much involved in compensatory education, in science and mathematics education, in teacher education, in educational research, and so forth. The Task Force's recommendations, for the most part, seem to reinforce many of the federal government's activities, especially those of pre-Reagan administrations. Its most controversial recommendations probably are those dealing with "the primacy of English." Supporters of bilingual education (including Carlos Mortas, a member of the Task Force) will probably take
exception not to the importance of teaching English to non-English-speaking children but to redirecting bilingual education funds for that purpose. And, while the belief that every student should have an opportunity to acquire proficiency in a second language is probably widely accepted, some would argue that until we have achieved proficiency in English for all children or consider the mother tongue of non-English-speaking children as a second language for them, this objective is fraught with problems.

The proposal for what the Task Force calls "provision of choice"—federal fellowships awarded school districts to create "small, individualized programs staffed by certified teachers and run as small academies"—would apply only to children who are failing repeatedly in public schools and appears to represent a "supercompensatory education effort" (p. 20). Task Force member Chester Finn "deeply regretted" that private schools were not recognized "as a particularly important resource in achieving the Task Force's vigorously stated goal of improved educational quality" (p. 21). Rose Yalov, on the other hand, objected to fellowship or tuition scholarships for either gifted or educationally retarded students, arguing that "there is no a priori
reason why a public school cannot provide a learning environment equal to that of a private school" and that funding should go to the public sector, not to removing children from that sector (p. 21).

The Task Force report is clearly aimed at the federal political leadership: "This nation's young people are our most precious and potentially our most productive asset, provided that we invest wisely in educating them. In our view, support for our program by Congress and the White House will demonstrate the value that they attach to better schooling for all" (p. 22). The Task Force believes that active support by the nation's political leaders of the programs proposed "is no longer a cause that requires political courage. . . . What it takes now is the political will to bring it about."
The College Board Educational Equality Project

The College Board's Educational Equality Project is a 10-year effort "to strengthen the academic quality of secondary education and to insure equality of opportunity for postsecondary education for all students" (p. iv).

The project was begun in 1980. The Board's committees were asked whether consensus might be reached as to what the outcomes of subject matter preparation for college should be. Some College Board committees consisting of school and college personnel drafted preliminary statements in six subject areas: English, mathematics, history/social studies, science, foreign languages, and the arts. This statement was summarized and sent to various committees, including the Board's Advisory Panel on Minority Concerns which pointed out that many high school students have deficiencies in the basic skills areas. A report which defined certain basic competencies provided the basis for a series of urban dialogues in seven cities. A national symposium


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was held in May, 1981, to examine "Preferred Patterns of Preparation for Higher Education 1980-2000." A draft document was prepared and discussed in a variety of settings--some 24 dialogues in all were held on the basic academic subjects. The critiques of the subject-matter statements were reviewed and a number of revisions made by the Board's Council on Academic Affairs, which recommended broad dissemination of the document as a basis for extensive discussion. The publication, *Academic Preparation for College*, includes six basic academic competencies, computer competency as an emerging need, and six basic academic subjects. Expectations are detailed, about what college-bound high school graduates need to know and be able to do.

Noting that one of the nation's great educational triumphs has been the opening of colleges and universities to a majority of high school graduates, the report notes that "inadequate preparation in effect deprives students of a fair chance to take advantage of this opportunity" (p. 1). The report is viewed as a central aspect of the effort to mount a national drive to improve the educational quality of secondary schools by improving the college preparatory or academic education. It is "meant for everyone who cares about
how well students are prepared for college" (p. 2). Upgrading preparation for college is essential if the national promise of equal access to higher education is to be fulfilled. The publication is aimed at presenting "a comprehensive description of the knowledge and skills needed by all college entrants" (p. 2). The Council believes that "when concerned parties identify what all college entrants do need to know and be able to do, they can begin to take constructive and decisive steps to help students achieve these outcomes" (p. 6).

The Basic Academic Competencies—reading, writing, speaking and listening, mathematics, reasoning and studying—are those broad intellectual skills necessary for effective work in all college study fields which, although not specific to any single discipline, provide the link across the various knowledge disciplines. These competencies are developed abilities. For each of the Basic Academic Competencies the abilities needed are spelled out as "a way to tell students what is expected of them" (p. 7).

Computer competency is viewed as "basic to an understanding of the full range of procedures that may be applied to organizing information and solving problems" in a variety of fields and areas of study (p. 11).
Competency in the use of computers is seen as becoming a "basic skill which is complementary to other competencies.

The Basic Academic Subjects--English, the arts, mathematics, science, social studies, and foreign language--are presented as the subjects which provide "knowledge and skills necessary for effective work in college" and which provide "the foundation for college study in all fields" (p. 13). In some fields, successful work will require more than the basic learning and the more extensive learnings required are outlined as well. For each of the subject areas, the report indicates "why students preparing for college need to make this effort and what they need to learn in the course of their high school work" (p. 13).

For instance, with respect to English, the report observes:

The arts and skills of English have been at the core of college preparation for generations, and so they are today in the midst of enormous technological and social change. The skills of reading, writing, listening, and speaking will be necessary as college students are called on to read a wide variety of materials; to write essays, reports and term papers; to express themselves aloud; and to listen to and learn from
discussions and lectures. English language skills serve as the foundation for all these activities.

... Although literature, language, and composition may be the special province of English, competence in writing, for example, pertains to all academic disciplines. Thus, skill in writing should be developed in other subjects as well as in English (p. 14).

The preparation needed in English is detailed through lists of "ability to" outcomes in reading, writing, and speaking as well as a list of understandings of principles concerning the English language.

The arts--visual arts, theater, music and dance--are seen as having value to all college entrants, regardless of their intended fields of study. Whether or not one engages in advanced study, performance, and studio work leading to a career in the arts, the arts are seen as permanently enhancing "the quality of their lives, whether they continue artistic activity as an avocation or appreciation of the arts as observers and members of audiences" (p. 17). Additional knowledge and skills are listed for those whose college preparation is in one of the arts areas.

A similar pattern is followed for mathematics, science, social studies, and foreign languages--a
brief discussion of the "why" followed by the "what" together with additional basic knowledge and skills for those "majoring" in the area. The knowledge and skills are presented in outcomes of secondary school study which can be achieved in a variety of ways. The report "is intended to provide a framework for designing secondary school curricula. [it] does not describe such curricula. It does not give specific course titles and contents. It goes beyond prescribing years of study to describe what students actually need to learn as a result of their study" (p. 13).

An appendix notes that, late in the course of deliberations, a seventh area was suggested as a Basic Competency on which there was not yet consensus—"observing." This skill is presented as a competency to consider and is therefore included in the appendix until consensus is reached as to whether to expand the Basic Academic Competencies to seven.

The report concludes with suggestions for action within the schools and actions to be taken by others concerned with the schools, "a vast extension of the commitment and cooperative action that led to this description of academic preparation for college" (p. 31). These suggestions include careful
consideration of curricular and instructional approaches to achieving the learning outcomes, improving the coordination and content of existing courses, strengthening elementary and junior high school curriculum, improving counseling, and creating a climate for excellence.

Colleges, of course, have a special role to play; especially with those students who have not yet prepared adequately for college-level work.

The Educational Equality Project intends to continue efforts to improve college preparation of all potential college entrants by building acceptance of the learning outcomes as a basis for curriculum planning, by fostering collaborative school and college efforts, and by encouraging colleges to include the learning outcomes as recommended for preparation of incoming students.

The report concludes that "improving preparation for college can help improve the quality of high school education overall, whether or not students intend to enter college" and the Educational Equality Project intends "to be working to build alliances not only within education but also between education and others -- particularly employers -- who are concerned with how well high school students are educated" (p. 34).
The Educational EQuality Project has attempted to detail the learning outcomes of a college preparatory program in the secondary school. It has gone a step beyond a number of the reports which simply advocate raising standards and increasing the requirements in terms of units or years of study. College preparation is expressed in terms of "what students need to know and be able to do"—in terms of basic academic competencies and basic academic subjects. It leaves to individual schools the tasks of designing curriculum and instruction in order to develop these competencies and knowledge on the assumption that there are variations in schools and communities that call for different approaches to enabling students to achieve these outcomes. In addition to, "raising "their own coherent curricular and instructional strategies," schools will have to create a climate for excellence: "Students learn best when excellence is expected of them and when they are encouraged to achieve it. They need incentives and stimulation in learning" (p. 32).

In addition to the role played by teachers, administrators, and counselors, school boards will have to reconsider "curricula, standards, and overall policy for the schools"; communities and the public
at large will have to commit themselves to quality education for all; and colleges will have to play a special role, especially in the beginning with inadequately prepared students. The College Board is convinced that "improving preparation for college can help improve the quality of high school education overall, whether or not students intend to enter college" (p. 34). In 1893, the Committee of Ten argued that preparation for college was really the best preparation for life. In spelling out what academic preparation is best for college, the Project has suggested that there are six basic academic subjects which must be taken, and that there are certain areas of knowledge to be acquired and competencies to be developed. The report does not deal with these subjects and competencies in terms of years or units of study but in terms of what students need to know. In doing this, the what is of such a general nature that its explication becomes a matter for local planning.
VII. Education Commission of the States*

Action for Excellence is the report of the Education Commission of the State's Task Force on Education for Economic Growth. In the foreword, the Task Force claims that its "comprehensive plan to improve our nation's schools" differs from other national commission reports in a number of important ways. This report is put forth with an unusual sense of urgency: "There are few national efforts that can legitimately be called crucial to our national survival. Improving education in America--improving it sufficiently and improving it now--is such an effort" (p. 3). Focusing on the nation's public schools from kindergarten through grade 12, the report calls for action by local communities and states; for new alliances among educators, school systems, and other groups "to create a new ethic of excellence in public schools," and for fundamental, lasting changes rather than quick fixes. The report represents the midpoint in the work of the Task Force which will continue to build the partnership it says is needed.

The challenge America faces is one of developing new skills for a new age: "Technological change and global competition make it imperative to equip students in public schools with skills that go beyond the 'basics'" (p. 9). The Task Force is convinced that our national survival depends on continued progress in education and that that progress depends on revamping the educational system: "It is the thesis of this report that our future success as a nation--our national defense, our social stability and well-being and our national prosperity--will depend on our ability to improve education and training for millions of individual citizens" (p. 14).

The Task Force's concepts of basic skills are very minimal: the ability to comprehend a simple written passage, to compute whole numbers, and master writing mechanics. But the report argues that persons with only such minimal skills "will be consigned to economic stagnation" (p. 16). Advances in technology will directly affect both job opportunities and job requirements and, increasingly, those jobs which require creative use of technology will be the ones which offer upward mobility. Consequently, schools face two imperatives: "First, we must upgrade
Second, beyond reworking our definition of basic skills, we must mobilize our educational system to teach those new skills (p. 17). The Task Force argues that we must raise both our expectations and our standards and improve the quality of instruction for all students, raising both the floor and the ceiling of achievement. The challenge the Task Force sees as the nation seeks "to educate for economic growth, will be to generate in our country such a 'high average level of capability': a level high enough to keep us capable of competing intellectually--and thus capable of competing economically--in the future" (p. 20).

As other reports do, the Task Force report describes the problem as one of "educational deficits and blurred goals" (p. 21), citing the deficits in mathematics and science as especially disturbing in light of the close relationship to technological progress. While believing that the United States can still claim technological leadership in the world--but barely so--our supremacy has eroded and our capacity to compete is being threatened. The report observes that the deficits should not be surprising since America, among industrialized nations, has the lowest
expectations of its youth in terms of academic effort and achievement.

Paralleling the student deficits, there is a "teacher gap"—a shortage of qualified teachers in critical areas of mathematics and science. It would be an error, the report points out, to blame the gap between need and supply on the teaching profession: "Perhaps the chief cause of the problem is the value that our society places upon elementary and secondary-school teaching: a value measured by what we pay our teachers. The average salary of beginning mathematics teachers with a bachelor's degree, for example, is only 60 percent of the beginning salary offered by private industry to bachelor's degree candidates in mathematics and statistics" (p. 25).

In addition to low salaries, low differentials between inexperienced and experienced teachers and lack of rewards for superior performance, the Task Force notes the lack of opportunity for in-service training. The teaching profession, the report concludes, is simply "not attracting a sufficient proportion of the most able college students" (p. 27).

Noting that more than a decade has elapsed since the nation's science curriculum was revitalized with
the help of university scientists, mathematicians, and engineers supported by the National Science Foundation and that those materials are becoming obsolete, the Task Force urges a renewed effort at curriculum building aimed at all students: "We need a renewed curriculum. But we must take care to develop teaching materials aimed at attracting, motivating and establishing competency in every ability group. A concept of curriculum improvement that focuses on cognitive goals but ignores motivation is destined to fail" (p. 27).

The report notes that students in other industrialized nations start the study of science earlier, spend more time studying science, attend longer school days and longer school years. Moreover, the report notes that American schools have hardly "scratched the surface when it comes to integrating modern technology into instructional programs" (p. 28).

The Task Force notes that "the one key determinant of excellence in public schooling is the leadership of the individual school principal" (p. 29). However, they find that the principal often spends far too little time managing education because of the drain on his efforts to manage other things.
Employers and educators, the report points out, need to improve their communication about what constitutes adequate educational preparation for work. Educational partnerships between businesses and schools must be created in order to improve the work skills and employability of youth.

In the Task Force's view, the "greatest overall deficiency in the United States ... is our absence of clear, compelling and widely agreed upon goals for improving educational performance" (p. 31). No consensus has yet emerged about what must be done to improve American education. In fact, the report observes, "many of our prevailing policies and actions in education contradict the goal of improving quality; they undercut, willingly or unwillingly, our stated goals of educational excellence" (p. 31). We have cut back on admission requirements to college, we have reduced homework requirements, and we have lowered our expectations from students, the Task Force believes.

The Task Force proposes eight recommendations which constitute its Action Plan on Education for Economic Growth, asserting that "no challenge facing our nation matters more than making the changes we call for now" (p. 34).
1. "Develop—and put into effect as promptly as possible—plans for improving education in public schools from kindergarten through grade 12" (p. 34). The chief recommendation is that every governor, working with state legislators, state and local boards of education, educators, business leaders, and others, should design a plan of action to improve education in that state's public schools. The plan "should acknowledge the central role of education in the state's future economic growth and preparing citizens for jobs. It should set specific goals for educational improvement. It should suggest ways in which technology might be used to improve education. And each plan should establish clear timetables for achieving results and explicit methods for measuring progress" (p. 34). In addition, it is recommended that each governor appoint a State Task Force on Education for Economic Growth.

2. "Create broader and more effective partnerships for improving education in the states and communities in the nation" (p. 35). The Task Force recommends that "leaders outside the traditional educational system—especially business leaders" become active in improving the public schools, marshalling resources, communicating skills required in the workplace, sharing management expertise, and so on. Partnerships between businesses and the schools are recommended.

3. "Marshall the resources that are essential for improving the public schools" (p. 36). The report urges
better use of existing resources but, at the same time, "states and communities across the nation do need to assign higher budget priority to improving education; they need to increase their investment of financial, human and institutional resources in new efforts to enhance education" (p. 36). The Task Force reaffirms its conviction that chief responsibility for educational policy making and financial support must remain with state and local communities. It recognizes that education is a national priority as well and that the federal government has important responsibilities as well but that the federal role is a supporting role.

4. "Express a new and higher regard for teachers and for the profession of teaching" (p. 37). The report recommends that every state and local school district, with full teacher participation, "drastically improve their methods for recruiting, training and paying their teachers" (p. 37). Improvement measures should include competitive pay schedules, scholarships and other incentives to attract more able persons to teaching, financial incentives based on differing responsibilities and needs for particular subject area teachers, and merit pay for outstanding teachers. The report strongly urges that each state create a career ladder for teachers and that the states establish better pre-service and in-service programs for teachers. In addition to higher salaries, the report urges that new forms of teacher recognition be created which "honor the contributions of teachers and . . . underscore publicly their crucial importance in our national life" (p. 37).
5. "Make the academic experience more intense and more productive" (p. 38). The Task Force recommends that the states and local school districts "establish firm, explicit and demanding requirements concerning discipline, attendance, homework, grades and other essentials of effective schooling and that parents be enlisted in the education process in ways that are not now sufficiently widespread" (p. 38). State and local school systems are urged to strengthen the curriculum from kindergarten through grade twelve: "The goal should be both richer substance and greater motivational power; to eliminate 'soft,' non-essential courses; to involve students more enthusiastically in learning; and to encourage mastery skills beyond the basics—problem-solving, analysis, interpretation and persuasive writing, for example" (p. 38). The Task Force recommends that both the intensity of academic learning time and the duration be increased. While suggesting that consideration be given to lengthening the school day and the school year, the report urges better use of the existing time. Class size should be limited and instructional technology should be used to extend the teacher's reach.

6. "Provide quality assurance in education" (p. 39). The report proposes that systems be developed for "fairly and objectively measuring the effectiveness of teachers and rewarding outstanding
performance" (p. 39). The recommendations focus on improving the certification process for both teachers and administrators, dismissing teachers who are ineffective, and monitoring student progress by regularly testing general achievement and specific skills. The partnerships are urged to identify the skills needed for effective employment and citizenship and to communicate these broadly so that the mission of the schools will be better understood. In addition, institutions of higher education should upgrade their admission requirements.

7. "Improve leadership and management in the schools" (p. 40). The Task Force views the school principal as the school's leader and the instructional program manager as well and suggests that "the principal [be put] squarely in charge of educational quality in each school" (p. 40). As it has with teachers, the report recommends better pay for principals; higher standards for recruiting, educating and monitoring principal performance; and expanded and improved use of effective management techniques.

8. "Serve better those students who are now unserved or underserved" (p. 40). The report recommends that each state and local school system make special efforts "to increase participation by women and minority students in courses such as mathematics and science" (p. 40) and that

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academically gifted students be identified early and provided with appropriate curriculum. The Task Force members urge that parents be involved in efforts to reduce absenteeism. Special efforts should be made to educate handicapped children, including them in plans for education for jobs and economic growth. Recognizing that underserved students are generally concentrated in schools with limited resources, the report urges a more equitable distribution of educational resources.

The Commission's Task Force is optimistic about the nation's ability to improve education. While viewing the educational deficiencies as both serious and alarming, the report sees them as amenable to positive action. The national assets are adequate to the task and the resources are available.

Over the past generation in America, we have mounted a massive social and educational effort to deliver on that commitment [to "life, liberty and the pursuit of happiness" for all of our people]. We have broadened access to education and improved the educational performance of large numbers of our citizens who for many years were put at a disadvantage by poverty, minority status or both. The civil-rights reforms and social legislation of the sixties--notably the Elementary and Secondary Education Act--signalled a far-reaching commitment by our nation to put old wrongs right and to educate those who once were barred from access to quality
education. . . . Our twin goals, which we must pursue simultaneously and with equal zeal, must be ever broader access to education for all students—and access to quality as well (p. 44).

The report concludes with an appendix which lists the skills and competencies needed for productive employment. These include competencies in reading, writing, speaking and listening, mathematics, science, reasoning, economics, and computer literacy.

The Task Force on Education for Economic Growth closes with a Jeffersonian quote: "The cheapest defense of nations is a good education" (p. 51). Its task, and consequently its thrust, was to argue the importance of education for economic growth. The report stresses that particular theme. The report urges that governors make education one of the highest priorities and take leadership in developing a plan for excellence in education. It thus urges educational reform be undertaken with strong political leadership. The framework of an action plan is present in the sense that the elements to be dealt with are set forth. However, the details of a viable action plan are left to the states and local school districts: to improve teachers and the teaching profession, to improve educational leadership and management, to upgrade standards and expectations, to set
higher admission standards to colleges, to monitor the quality of education, and so on. The Task Force promises to promote efforts to move its plan ahead by establishing a clearinghouse of information and ideas which states and local school districts can use to develop their own plans.
VIII. The National Science Board Commission on Precollege Education in Mathematics, Science and Technology*

Educating Americans for the 21st Century, the report of the National Science Board Commission on Precollege Education in Mathematics, Science and Technology, is subtitled "A plan of action for improving mathematics, science and technology for all American elementary and secondary students so that their achievement is the best in the world by 1995." The Commission consisted of 20 individuals from a variety of schools, colleges and universities, industry, and other scientific and educational groups. The report is accompanied by a second volume that contains source documents reporting activities sponsored by the Commission, including conferences and surveys.


In its letter of transmittal, the Commission states that it "does not simply decry the present inadequate state of many of the Nation's schools. Rather, we spell out a detailed plan of action for all sectors of society to address the very serious problems facing America's elementary and secondary educational systems in mathematics, science and technology" (p. iv).* While focusing on mathematics, science, and technology, the Commission believes its recommendations apply equally well to other areas such as literature, foreign languages, history, art, and so forth.

In its opening sentences addressed to parents, decision makers, and all other Americans, the Commission asserts:

"The Nation that dramatically and boldly led the world into the age of technology is failing to provide its own children with the intellectual tools needed for the 21st century.

We continue to lead because our best students are still unsurpassed. We continue to lead because our universities, industries, 

*Quoted material comes from the major report.
resources and affluence attract the finest talent from throughout the world. But this is a precarious advantage. The world is changing fast. Technological know-how is spreading throughout the world—along with the knowledge that such skills and sophistication are the basic capital of tomorrow's society (p. v).

The nation's schools must return to the basics, the Commission states, but to the "basics" of the 21st century which are more than reading, writing, and arithmetic. The basics include "communication and higher problem-solving skills, and scientific and technological literacy—the thinking tools that allow us to understand the technological world around us." Moreover, these basic skills are necessary for all students, not just the talented and the fortunate. Describing its plan as "difficult and demanding," the Commission argues that "by 1995, the Nation must provide, for all its youth, a level of mathematics, science and technology education that is the finest in the world, without sacrificing the American birthright of personal choice, equity and opportunity" (p. v).

The Commission notes that too many young Americans are leaving school without an adequate
grounding in mathematics, science, and technology and are simply not equipped "to work in, contribute to, profit from and enjoy our increasingly technological society" (p. 1). The problems faced in elementary and secondary education are well-documented, the report notes, and threaten the future. Its basic objective which underlies its recommendations, the Commission states as follows:

The improvement and support of elementary and secondary school systems throughout America so that, by the year 1995, they will provide all the nation's youth with a level of education in mathematics, science and technology, as measured by achievement scores and participation levels (as well as other non-subjective criteria), that is not only the highest quality attained anywhere in the world but also reflects the particular and peculiar needs of our nation (p. 5).

The date December 31, 1995, was selected as the target for achieving the recommendations because it represented one complete educational cycle for a generation of children and was a specific target, unlike the notion of with "all deliberate speed" which was propounded by the Supreme Court in connection with desegregation in 1954. The Commission recommends a series of major strategic actions aimed
at "building a new national commitment which will initiate major changes in American education and provide a system to measure the results" (p. 5).

To build this new national commitment, the Commission sees four national efforts required: (1) one by national political leaders (the President, Congress, and other federal agencies) as well as state and local officials; (2) a prestigious presidentially-appointed National Educational Council, Governors' Councils, and community partnerships between schools and other groups; (3) an improved national assessment mechanism to monitor progress and provide local communities with data for program development activities in mathematics, science, and technology; and (4) a strengthened commitment to ensuring quality education for all students by all governmental levels. The recommendations are aimed at raising the quality of education for all students: "In short, the educational system must provide opportunity and high standards of excellence for all students—wherever they live, whatever their race, gender, or economic condition, whatever their immigration status or whatever language is spoken at home by their parents, and whatever their career goals" (p. 12). The Commission asserts its conviction that
quality and equality are not mutually exclusive concepts or goals.

The achievements of Japanese schools are examined because Japan is a major international competitor, shares many of the same educational goals with America, and pursues a goal of universal education. The Commission notes that Japan is doing better than the United States in attaining the goal of having all students learn science and mathematics and believes the disparities in performance between the two countries are due to two factors: time-on-task and motivation. Japan puts a much higher priority on mathematics and science education from the earliest years; has higher expectations for all students in mathematics and science who spend an average of 26 percent of their school time on mathematics and science (a Japanese high school student spends three times as much time on mathematics and science as does his American counterpart who has elected four years of science); sees its teachers and outside tutors as highly important in society; and has established more than 200 science teaching centers.
The Commission found that a number of American schools already are meeting the challenge of academic excellence and doing many of the things the report recommends. The characteristics common to "successful" programs (some of which are discussed in the report and others in an appendix) both in the United States and abroad, include the following:

- agreed upon, clearly defined educational goals;
- dynamic and knowledgeable leadership;
- committed, knowledgeable and resourceful principals and teachers;
- administrative flexibility;
- opportunities for, and willingness of, teachers to interact and exchange ideas;
- a specific student commitment;
- programs and instructional techniques which motivate the students;
- sufficient time-on-task;
- demanding standards of participation and achievement;
- a coherent course of study in mathematics and science, with early "hands-on" experience;
- early exposure to good teaching in elementary school;
- adequate resources;
- innovative use of available facilities; and
- extensive homework (pp. 21-22).

Three significant lessons gleaned from the successful programs form the basis of the Commission's recommendations: (1) quality teaching is critical--"If mathematics, science and technology are to be successfully learned, it is clear that the teachers must be of high talent, high motivation, and must
be allowed to function in a setting in which effective teaching is possible" (p. 22); (2) early and intensive exposure to the concepts and processes of science and mathematics is critical to later achievement; and (3) "more time must be devoted to the teaching of mathematics, science and technology, and ways must be found to use time more efficiently and effectively" (p. 23).

The Commission was impressed by the strategy of creating a "magnet" or "model" school and found that the most effective of its exemplary school examples usually:

- have better academic achievement, better attendance, and usually fewer behavior problems; provide quality education for average as well as above average students;
- have strong leadership and support from the superintendent and school board; can have strong links to other community resources such as universities, businesses, hospitals, and theaters; are, wherever possible, racially and ethnically integrated and usually reflect the larger population they serve . . . ; succeed equally well in "good" and "bad" neighborhoods, as long as they provide a quality learning environment; can be created, organized, and managed well within the administrative capabilities of all but perhaps
The most pressing problem the schools face in mathematics, science, and technology education, in the Commission's view, is that of attracting and retaining qualified teachers. The shortage of teachers in the areas of science, mathematics, and technology is critical and has resulted in filling the gap with unqualified and poorly trained teachers. Another serious dimension is the fact that experienced teachers have not upgraded their skills and knowledge in the fields of mathematics and science, both rapidly evolving fields.

Substantial efforts must be made at three levels to upgrade the quality of teachers and teaching: "(1) the skills and understanding of many current teachers must be upgraded; (2) the training of incoming teachers must be improved; and (3) in the interim, persons who are qualified to teach mathematics, science and technology must be found from 'non-traditional' sources" (p. 29). These non-traditional sources include science and mathematics majors without education credits who would be "given the opportunity to acquire a knowledge of classroom management and educational
psychology . . . through intensive training programs or by placing them under the direct supervision of a more experienced teacher" (pp. 32-33).

To attract and retain high quality mathematics teachers, school systems "should explore means to adjust compensation" (p. 34) of teachers in fields where shortages exist. Excellence in teaching should be rewarded by increased pay and a career ladder which keeps good teachers in the classroom. Industry, the military, and other governmental agencies should provide summer or part-time, year-round employment for mathematics and science teachers. The classroom conditions of teaching must be improved so that teachers can "devote the time they have with their students to teaching the subject" (p. 35). The Commission recommends that every state establish at least one training and resource center to provide a variety of supporting services and instructional resources for teachers of mathematics, science, and technology. School districts should adopt rigorous discipline policies and enlist parent support for maintaining discipline. Effective organization of the teaching staff and principal leadership affect the working conditions of teachers. The Commission
recommends that "teachers, principals and superintendents need to be supportive of each other and accountable for activities in the classroom" (p. 36).

To improve classroom conditions, the Commission believes that student involvement, interest, and achievement must be increased. Too many students, the Commission believes, "do not focus on academics, do not apply themselves to difficult subjects and, for the most part, have lost respect for a quality education and an understanding of the importance of the time spent in the classroom" (p. 36). The Commission suggests that normed achievement measures should be used intelligently and effectively; that classroom time be filled with purposeful, substantive content, that specific homework assignments be made regularly and be evaluated by the teachers, that a clear attendance policy with sanctions be developed and implemented, and that there be no social promotions.

Beyond improving the teaching of mathematics, science, and technology, "efforts must be made to improve what and how students learn about those subjects" (p. 39). Time spent on those subjects must be increased, and educational objectives,
curriculum, and instruction must be redesigned. Convinced that time-on-task is a crucial element in raising achievement, the Commission recommends that the amount of time spent on these subjects be increased in the elementary school and that the requirements for graduation from high school and admission to college be increased. The Commission recommends that a minimal daily allocation of 60 minutes for mathematics and 30 minutes for science be required in grades K-6 and a full year of mathematics and of science and technology be required in both grades 7 and 8. At the high school level, the Commission recommends that by September, 1985, all high school students be required to take at least three years of mathematics, including one year of algebra, and at least three years of science and technology, including a semester of computer science. The report urges that every school "should provide opportunities for their students to develop their mathematical and scientific skills to the limits of their abilities and should offer appropriate sequences of courses for students at various levels of ability" (p. 40). College and universities should phase in higher mathematics and science entrance
requirements to include four years of mathematics (including a second year of algebra as well as a course in probability and statistics) and four years of science (including physics, chemistry, and a semester of computer science). Better guidance procedures should be developed to counsel students in academic and career development requiring science and mathematics. Schools and community colleges should cooperatively provide opportunities for students whose mathematics and science preparation prevents their going on in higher education.

The Commission repeatedly asserts its belief that courses badly need revision and updating, teachers need to be better trained and must have better courseware, and new technologies must be better employed. While eschewing a national curriculum in science, mathematics, and technology, the Commission does propose a set of educational objectives which it believes can serve as a guide to state and local officials in developing local curricula. Objectives for mathematics education and for science and technology education that are focused on students being "able to use both the knowledge and products of science, mathematics.
and technology in their thinking, their lives and their work" are proposed (p. 45).

The report recommends that the National Science Foundation should again take the leadership in curriculum development. The foundation should, the Commission believes, "set up a process to evaluate existing curricula, identify good curricula, disseminate information, act as a clearinghouse and promote the development of guidelines for new curricula as necessary" (p. 46). Various professional societies in mathematics, science, engineering, and related technologies should be involved in curriculum development, review, and revision. The Commission seeks subject matter specialists, classroom teachers, professional societies, academic researchers, and others involved in a joint effort. The report urges that in the development of revised curricula, "educators should strive to incorporate the latest information on the teaching and learning process" and that the federal government fund research on these processes at both basic and applied levels: "This research should further the recent program in the cognitive sciences, and particular research projects should
investigate the integration of educational technologies into the processes of teaching and learning" (p. 48).

The report observes that "modern information technologies offer a tremendous potential for improving education and could revolutionize the education process" (p. 51). Possibilities of learning about, learning through, and learning with computers are explored. Again, the Commission recommends that the National Science Foundation should establish a Council for Technology Application to draft policies that promote the use of educational technologies. It recommends that states establish regional teacher education and computer centers for demonstration of and training in various new technologies.

The report notes that the quality of formal education in the classroom is greatly affected by the unintentional and unconscious learning outside the school--what is called informal or experiential learning. It recommends that formal education be supplemented by a wide range of activities in non-school settings: "Youth organizations, museums, broadcasters and other agents of informal education
should cooperate with school districts and each other to provide a rich environment for early and continued learning and motivation outside the schools" (p. 59).

The Commission estimates the cost of its recommendations to be about $1.51 billion dollars in the first year of their institution with federal expenditures at the rate of $956 million per year for the first three years, $680 million per year for the next two years, and $331 million per year thereafter. The Commission recognizes problems in simply requesting additional federal expenditures in light of the enormous annual deficits but does recommend federal funding for specific programs which are set forth in an appendix. The Commission recommends the immediate establishment of a federal Council on Educational Financing which would determine which levels of government should provide funds needed to implement the recommendations and suggest ways of protecting state and local agencies from "anti-competitive tax disadvantages" (p. 66) since they assume a share of the responsibility for implementing the recommendations.

The appendix reports list the programs and activities reviewed by the commission; suggest course topics and criteria for their selection in mathematics, science,
and technology; spell out the costs of recommended federal initiatives; and describe "imaginative ways to enhance teacher compensation" (p. 115).

The 251-page volume of source materials contains a number of very useful documents which served the Commission in its deliberations. They include papers, conference reports, survey findings, and related materials. The first four papers deal with the teaching and learning of mathematics, science, and technology in grades K-12, examining issues of appropriate content and process and suggesting changes. The promise of emerging new technologies is discussed in papers related to subject matter learning and in a separate paper which focuses on the uses of technology as a tool in education rather than learning about technology itself. The Federation of Behavioral, Psychological and Cognitive Sciences reports on "Research on Cognition and Behavior Relevant to Education in Mathematics, Science and Technology," dealing with findings of recent research and with research needs and opportunities. The Education Commission of the States' 50-state survey of initiatives in science, mathematics, and computer education is summarized. Other papers deal with magnet schools, with efforts to facilitate increased access and achievement of females
and minorities in mathematics and science education, and with business' role in pre-collegiate education.

The National Science Board Commission's mandate was to propose a plan of action for improving mathematics, science and technology education for all American elementary and secondary students so that their achievement is the best in the world by 1995. Its report is such a detailed plan and includes steps for implementation, a timetable, and a first-effort at estimating its costs. In focusing clearly on mathematics, science, and technology education, the Commission has deliberately avoided discussion of related issues such as the need for upgrading such other basic skills as reading and writing in order that all students will be able to succeed in the new improved science and mathematics curricula. Or, will the emphases on upgrading the requirements and increasing the time spent on mathematics, science, and technology, diminish attention to the arts, humanities, and social sciences? The Commission urges that other commissions take up curricular and instructional problems in other areas, hoping that the glaring deficiencies in such subject areas as English, social studies, and foreign language will be studied with the same sense of urgency as it had examined mathematics,
science, and technology. These and other issues will have to be considered at federal, state, and local levels. The report has focused on its terms of reference and proposed a set of reasoned "sweeping changes" for the areas of mathematics, science, and technology. The experience of the post-Sputnik efforts embodied in the National Defense Education Act of 1958 can serve as a useful background for cautions to be exercised and actions to be stressed in improving education in these areas. The report contains recommendations for action to be taken at the federal, state, and local levels and its estimate for the federal initiatives, $1.51 billion, is seen as a modest amount compared to the $9 billion spent by the federal government on elementary and secondary education during 1982-83.
IX. A Study of High Schools*

A Study of High Schools is a project sponsored jointly by the National Association of Secondary School Principals and the Commission on Educational Issues of the National Association of Independent Schools. The project is chaired by Theodore R. Sizer. Three publications are planned for 1984, the first of which is called Horace's Compromise.

Sizer views adolescence, of all the stages of life, as "the most volatile--full of promise, energy, and, because of newly achieved freedom and potency, substantial peril . . . . What happens in these years profoundly affects what follows" (p. 1). It may well be, Sizer believes, that "the critical attention today paid to high schools is richly deserved." He and his colleagues spent five years inquiring into adolescent education, focusing on students, teachers, and the subjects they study as a "triangle" which must be taken into account if schools are to be improved. Sizer and his colleagues chose to examine the schooling of

adolescents, recognizing that there are other worlds from which adolescents come and to which they go.

There are numerous educational jurisdictions in the country, but despite this decentralization, Sizer was "struck by how similar the structure and the articulated purpose of American high schools are" (p. 5).

Regardless of size, location, affluence, or poverty, "the framework of grades, schedules, calendar, courses of study, even rituals, is astonishingly uniform and has been so for at least forty years" (p. 6). The single variable of student social class differentiated schools: a school that served poor students differed in character, if not structure, from one which served affluent ones. "Tell me about the incomes of your students' families," Sizer writes, "and I'll describe to you your school" (p. 6).

Although Sizer and his colleagues visited "dozens of schools," they concentrated their studies on 15 schools--11 public and 4 private. Sizer himself visited some 80 schools in 15 states and Australia. His report aims at communicating "the essential 'feel' of schools" by presenting a series of word pictures derived from the visits (p. 7).
The prologue describes Horace Smith, a veteran English teacher in a suburban high school, from his rising at 5:45 A.M. through his long day. Smith is a good teacher, has high standards, believes in coaching, relates well to students but has to compromise in order to meet the demands of the system. As Sizer puts it: "Most jobs in the real world have a gap between what would be nice and what is possible. One adjusts. The tragedy for many high school teachers is that the gap is a chasm, not crossed by reasonable and judicious adjustments" (p. 20).

Five adolescents are described in terms of diversity, commonality, docility, and incentives. Sizer observes that "good teachers take note of these uneasy generalities, and then, freeing themselves as much as possible from the trap of stereotyping, deal with each student as an individual" (p. 39). Lamentably, Sizer, notes the American high school student, as student, is all too often docile, compliant, and without initiative. Some who have initiative use it to undertake as little engagement as possible with school. They await their education and take in such of it that interests them. Such students like to be entertained. . . . There are too few rewards.
for being inquisitive; there rarely is extra credit for the ingenious proof. The constructive skeptic can be unsettling to all too many teachers, who may find him cheeky and disruptive. Questioning can be costly (pp. 54-55).

Popularization of higher education may have lowered the importance of college admissions as an incentive for high school youth: "If one could merely attend school and still get a place in college, why work very hard?" (p. 62). Sizer recommends that high school diplomas be awarded whenever the student attained an agreed-upon level of mastery at the completion of the student's study and not after four years of attendance. This would use the diploma as an incentive to improving student's learning, emphasizing the ends—exhibited mastery—not the serving of time. Moreover, it would "undermine the tyranny of age-grading," eliminate the counting of Carnegie units "where equally useful but very different enterprises—physical education and physics, for example—are equated, usually on an 'hours-attended' basis" (p. 63).

Sizer urges high schools to personalize their work with students as a means of building self-esteem:

Personalization absolutely implies options for students, different ways and setting for differing individuals. While
total personalization is practically impossible, much is clearly attainable within the kinds of constraints usually found in many high schools. The biggest hurdle will be adult attitudes, particularly those which confuse standardization with standards. . . . Set them a clear goal, give them some sensible guidance . . . and put the burden of learning on them (p. 67).

Sizer devotes seven chapters to "The Program," beginning with a description or characterization of what high school is, essentially a conveyer-belt, systematized process of "taking subjects." Sizer believes that the process is unrelated "to the rhetorical purposes of education" but is "tolerated by most people, perhaps because they do not really either believe in those ill-defined goals or, in their heart of hearts, believe that schools can or should even try to achieve them" (p. 83). Both students and their parents are happy about the taking subjects rituals. What is high school all about? Sizer believes that: "The adolescents are supervised, safely and constructively most of the time, during the morning and afternoon hours, and they are off the labor market. That is what high school is all about" (p. 83).

Schools have two purposes: education of the intellect and an education in character, Sizer believes,
and must reconcile their philosophy with their practice. An issue that must be faced early in reconciling the two is the question of compulsion. Sizer's view is quite clear:

Compulsory attendance in an educational institution should cease when a young citizen demonstrates mastery of the minima, and most young citizens should master those minima before high school. As a result, schooling for most adolescents would be voluntary. Few would be compelled to attend high school, though a prudent state would vigorously encourage it. High school would be an opportunity, not an obligation (p. 88).

As for curriculum, Sizer argues that "less is more." He believes "that the qualities of mind that should be the goal of high school need time to grow and that they develop best when engaging a few, important ideas, deeply" (p. 89). Moreover, learning how to use information "requires a form of personal coaching of each student by a teacher that is neither possible in many schools today nor recognized as an important process" (p. 89).

Citing Adler's *Paideia Proposal* distinction of three spheres of learning--development of intellectual skills, acquisition of knowledge, and enlargement of understanding of ideas and values--Sizer observes
that skills are best taught by a process he calls coaching.

With respect to vocational education, Sizer recognizes that there are those who propose removing all training for specific jobs. In his view, "The focus of schools should be on general intellectual powers--which are, after all, an important aspect of vocational preparation, for more than entry-level skills. It is nonetheless important to state that training in school for specific jobs may be the most efficient means of connecting the lives of some students to the more abstract employment of a mature mind" (p. 115).

With respect to acquiring understanding, "the development of powers of discrimination and judgment" is best nurtured through questioning in a small seminar format. Sizer believes that schools should help students "become decent people" and he defines decency as denoting "satisfaction of a widely understood and accepted standard" (p. 121). He points out: "Clearly, schools are expected by most Americans to stand for certain values and to inculcate these in their students. Most of these values have religious roots, if not strict theological identification today. Educators who pretend that these are purely secular values are whistling in the dark" (p. 129).
Sizer would organize his school into four areas or large departments: (1) Inquiry and Expression, (2) Mathematics and Science, (3) Literature and the Arts, and (4) Philosophy and History. He proposes so few subjects in order to reduce the splintered view of knowledge which usually confronts high school students, to enhance coaching which cuts across academic specializations, and to "reduce both the scheduling problems and the frenetic quality of the school day" (p. 134). Electives would be accommodated within each of the four areas "rather than through a smorgasbord of unrelated courses" (p. 134). Such a program, if properly taught, would not be deadly and academic nor removed from student's lives. Sizer would eliminate physical education and vocational education, the latter because he believes that "the best vocational education will be one in general education in the use of one's mind" and that a majority of today's high school students are or want to be in the labor market--"working per se can be good for adolescents" (p. 135). Sizer does not believe that a large number of students will drop out if vocational education and athletics are not available in the school's program.
Sizer does not believe that foreign languages should be required, partly because many students have not mastered their own language and partly because if there is no immediate need for a second language, time spent studying it is largely wasted. He sees the issue of ethnocentrism as more important than second language study, one which must be addressed through history courses. Sizer would ideally like all youngsters to be bilingual but sees it as a special problem for non-English speaking students. He would immerse such students into intensive English study with nonlinguistic studies continuing in their mother tongues for as brief a period as is absolutely necessary.

As for tracking, Sizer believes "there would be none and there would be a great deal" (p. 136). All students would be enrolled in each of his four subject areas all of the time. There would be none of the current tracks but, since each student would be progressing in the subject area at his or her own pace, multiple tracks would be created, "ones that are flexible and that put no child in any dead end."

Sizer urges that "schools retreat from the objective of 'comprehensiveness' and concentrate on classroom..."
teaching" (p. 137). He would have well-paid faculty teach no more than 80 students at no increase in current per-pupil expenditure. Sizer believes that by improving faculty-student ratios the number of counselors could be reduced with many of the functions placed directly under the principal.

Computers, well used, could significantly extend teachers' coaching efforts while helping students learn. With respect to the new technologies, Sizer believes that "it is up to us to select the data to be put into them, and we must choose with care the uses we put them to" (p. 138).

Sizer sees his final exhibitions as the basis for awarding diplomas, as giving teachers control over standards. In addition, he would use a variety of external examinations to provide a better reading of the quality of work students are doing.

Sizer believes that students, in a sense, run schools:

Their apparent acquiescence to what their elders want them to do is always provisional. Their ability to undermine even the illusions of certain adult authority and of an expectation of deference was admirably if benignly displayed by students. . . . A less benign challenge
can be made by students in any classroom when, for whatever reason, they collectively, quietly, but assuredly decide to say no. The fact that most go along with the system masks the nascent power that students hold. Few adults outside the teaching profession understand this (p. 140).

A successful class, Sizer observes, "is one in which students and teacher agree on what they are about and on the rules of their academic game" (p. 154). Explaining ends and means and gaining agreement about them is, Sizer observes, itself educational and absolutely necessary: "Failing to get agreement, and agreement on ends and means that forward serious intellectual activity, however painful, results in an empty school" (p. 160).

Discussing the conditions of a good school, Sizer emphasizes that the environment is terribly important. In his view, "a good school should be a place of unanxious expectation" and is a stable one. Good schools meet "a commitment to provide each child with an education in a place that is attractive and free of fear. It is a pity that some schools, especially those serving the poor, fall so short" (p. 179).

Unlike some other reformers, Sizer found "the litany of commitment and demoralization" of teachers
paradoxical: "The typical teacher to whom we listened is an idealist who genuinely wants students to succeed, who wishes them well. Most teachers accept unquestioningly the American conviction about the worth of schooling. They want schools to prosper and believe they can" (p. 181). Sizer urges that we build respect for teachers in three ways: (1) we give teachers autonomy and enable them to exercise professionalism, (2) we pay teachers what we think they deserve, and (3) we bestow on teachers the equivalent of a Nobel Prize, a Rhodes Scholarship or a Pulitzer Prize. Sizer would give teachers greater decision-making powers over curriculum, selection of texts, and other teaching materials. In his view, "Teaching often lacks a sense of ownership, a sense among teachers working together that the school is theirs, and that its future and their reputation are indistinguishable" (p. 184).

The complex problems of salaries for teachers are examined by Sizer who observes that boards of education "lack the political courage to reward any exceptionally good work . . . they don't value the quality that is the source of [teacher] self-esteem," effectiveness in helping students learn (p. 186). Nor is he happy with the "patronizing efforts" to recognize
good teaching: "Few awards are consequential, in financial terms or in the sense that the competition for them consisted of widely respected criteria" (p. 187).

Looking at teacher competence and teacher preparation, Sizer urges that teachers be taught to use various disciplines in combination. He finds few governing authorities attending to the scholarship of their teachers, providing funds for fresh study of disciplines, gauging "the depth and breadth of prospective or veteran teachers' grasp of subjects" (p. 190). Sizer sees teaching as "science, art, and craft." The most important aspect of teacher training, he argues, is coaching: "One is helped to be a good teacher much as one is helped to be a good writer, by coaching.

... One teaches and is criticized. The process is incessant" (p. 192).

Sizer urges Americans to restore their trust in their teachers. To do this will require "substantial autonomy, the decentralizing of substantial authority to the persons close to the students is essential.

... Decisions over how teacher and student time is organized, the materials and approaches used, and the way staff are deployed must be at the school level, or, in large schools, at house (or other subschool)
levels" (p. 195). Teachers, argues Sizer, must be empowered. Sizer would dismantle the hierarchical bureaucracy which administers schools today and have them managed scientifically. As he puts it: "If teachers are given autonomy and held ultimately accountable for the work of their students--itself a gratifying compliment--they will perform to the best of their imaginative ability. Equally important, the career of teacher will become more attractive than it is now. Talented people seek jobs that entrust them with important things" (p. 213).

Sizer concludes with five imperatives for better schools. These are:

1. Give room to teachers and students to work and learn in their own, appropriate ways.

2. Insist that students clearly exhibit their mastery of their school work.

3. Get the incentives right, for students and for teachers.

4. Focus the students' work on the use of their minds.

5. Keep the structure simple and thus flexible (p. 214).

Sizer believes that there is "a sizable core of fine teachers and administrators in our schools. They are often demoralized, but they could, if empowered,
lead a renaissance of American high schools; their numbers are large enough. But they need the trust of those in political power. Unfortunately, they have difficulty even getting these people's attention" (p. 219). In addition, he urges that it is "respected adolescents" who will, together with teachers, reshape the schools and adolescents must be taken much more seriously (p. 220).

In focusing on the teacher-student-subject triangle, Sizer argues that the quality of schooling can only be improved by improving the quality of these basic educational transactions. The proposals attempt to suggest the need for restructuring the processes. More than most reports do, the Sizer report focuses on the relationships and the transactions which go on between students and teachers and the supporting structures that affect teaching and learning, especially the climate. As he puts it, "the hours per week of homework and credits per year of courses are important, but nonetheless secondary to issues of attitude, to the subtle, confusing, controversial humaneness that infuses every school" (p. 220). *Horace's Compromise* aims at raising standards but very differently from many other reports for it is the
quality of relationships that Sizer focuses on with his proposals for restructuring the high schools.
The Need for Quality is a project of the Task Force on Higher Education and the Schools of the Southern Regional Education Board. The 17-member Task Force was appointed in January, 1981, "to consider the linkage between our schools and colleges and in particular to select those priority issues and problems on which states, schools and colleges must act jointly in order to strengthen education at all levels" (1981, p. iii).

Mindful of tremendous strides in education in the South made during the past three decades (e.g., an increase in high school graduation from 50 percent to 75 percent and a tenfold increase in higher education enrollments), the Task Force observed that the accomplishments should not conceal the very serious questions about quality which confront us today. A June, 1981, report sets forth priorities and recommend-
dations for actions to upgrade the quality of education in the 14 states which comprise the Southern Regional Educational Board.

The Task Force observes that: "Current movements to test pupils in various grades, to test prospective teachers, and to require exit examinations as a condition for college graduation reflect a growing belief that educational quality is unacceptably low" (1981, p. 1). However, the report notes that most of these steps represent only a quest for minimal competencies, "a far cry from the quality desired by many parents and educators" (1981, p. 1).

Among the deterrents to quality which the report cites are a declining interest of college students in majoring in teacher education, leading to critical teacher shortages in some areas; declining enrollments at colleges and universities which may result in abandoning or rejecting higher admissions standards; financial pressures on schools accompanied by a growing disillusionment with the quality of education. The immediate challenge is one of implementing minimum standards across the board and then to "seek to achieve during the Eighties substantial improvement of academic standards above those minimum expectations" (1981, p. 2).
The priorities suggested by the Task Force are based on a number of assumptions, including the following:

Improvements in the teaching profession depend not only on tighter selection and better preparation of teachers, but also on public respect and financial rewards for teachers.

Opportunity, quality and diversity are not contradictory goals. Our commitment to maintain and extend educational opportunity must reject acceptance of mediocrity, and strongly support additional resources to insure that educational opportunity becomes synonymous with achievement.

The commitment to quality for the 1980s must address the special needs of black students, many of whom have major deficiencies in academic skills.

The primary objective of the schools is to educate our youth, and to the extent that society continues to assign superfluous tasks to the schools, the central objectives of education will suffer (1981, pp. 2-3).

Three sets of priorities are suggested by the Task Force: (1) improving the quality of teachers and other staff, (2) improving curriculum at secondary and postsecondary levels, and (3) coordinating the various sectors of education. A total of 25
recommendations are made concerning these three priority areas.

Among the recommendations concerned with improved teacher selection is the proposal that selection procedures be applied throughout the teacher preparation process and not just at the end point, beginning with tighter admission standards and ending with performance assessment. The Task Force suggests consideration of the feasibility of regional assessment of teacher selection techniques and acceptance of a common test to enable interstate migration of well-qualified teachers.

To strengthen teacher education, the Task Force recommends ongoing evaluations of teacher education programs jointly by state boards of education and state boards of higher education with a top priority put on eliminating duplication and consolidating programs. Coordination between schools and teacher education programs should be required with early and sustained classroom exposure provided for all prospective teachers. States should modify certification regulations, removing rigid and unnecessary requirements. The Task Force proposes that provisional certificates be issued until the beginning teacher's performance is evaluated.
A number of recommendations are offered concerning "special personnel needs." These include an array of incentives to attract mathematics and science teachers, including the modification of certification requirements for individuals lacking professional preparation; the convening of representatives from appropriate groups to develop a model for effective delivery of vocational guidance and for staff development activities for effective vocational programs; the convening of a panel of school administrators, business and industry representatives, and teacher educators to consider improvements in the development of effective school leaders; and analysis of certification rules for skilled personnel to staff occupational programs in high demand.

Recommended are comprehensive continuing education plans which would revise state laws and regulations so that salary increments and recertification will be tied to meaningful graduate education and staff development activities. The Task Force also proposes that the states increase staff development funding for local districts and that colleges and universities use salary and promotion procedures which would recognize and reward faculty service to school districts.
To improve the quality of the curriculum, the Task Force recommends that states establish joint committees to consider ways of establishing and raising standards for high school curricula and the general education component of higher education and that they strengthen the major field requirements, prohibiting acceptance of peripheral courses for major subject requirements. The repeal of legislatively mandated courses other than the major subjects is also recommended. Simultaneously, colleges and universities are urged to raise their admissions standards. In addition, committees should be appointed to examine remedial education to determine which are the most effective settings and models to provide for high school graduates needing such remediation.

To improve vocational education, the report proposes that current programs be reviewed to determine fundamental objectives for the programs and to establish priorities which "balance needs for basic competency, exploratory educational exposure to job clusters, and specific skills training" (1981, p. 23). More cooperative programs should be developed with incentives provided to industries to participate. Occupational
training and manpower programs should be reviewed for consolidation and extension.

Asserting that few of their recommendations for improvement can occur unless there are coordinated efforts by school and higher education officials and by state and local officials, the Task Force recommends joint meetings of separate boards to review existing programs, to improve communication, and to examine existing issues. Finally, the report calls for "priorities as well as for more effective utilization of financial resources that support state educational systems" (1981, p. 27). In some areas, substantial savings can be effected through improved productivity but a general improvement of teacher salaries will require greater expenditures.

In Meeting the Need for Quality: Action in the South, the Task Force reviews development in the two-year period since its first report with some 25 recommendations was presented in June, 1981. The report notes that a number of states did move decisively on a number of the recommendations for improving academic standards at all levels even though there were serious budgetary constraints. The report indicates that "major progress" has been made in the following areas:
raising high school academic standards and graduation requirements

-raising college admissions standards

-tightening teacher selection standards

-cooperating toward mutual objectives

--higher education and the schools (1983, p. 4).

However, among the priorities in which some progress had been made but not major progress were the following:

--improving the quality of teachers beyond minimum standards

- rewards for excellence
- teacher education programs
- teacher certification
- reciprocity agreements
- continuing education of teachers

--selecting principals who are leaders

--strengthening mathematics and science in the schools

- the curriculum
- the teacher shortage

--preparing youth for work

- vocational education in the high schools

The Task Force sets forth some 20 recommendations related to both areas in which major progress has been made and those which require further action. With respect to raising high school academic standards, for example, it urges state and local school boards
to continue their efforts to implement higher standards in the curriculum for all secondary school students and urges those states which have not already adopted more rigorous requirements to do so now. Recognizing that progress on raising college admissions standards has been made, the Task Force suggests that serious barriers to improving standards be studied and includes inflexible enrollment-driven funding formulas in this category.

With respect to teacher selection, the Task Force recommends that the Southern Regional Education Board "should continue to foster and monitor changes in admissions standards for teacher education programs and results on teacher certification tests, with special concern for assuring an adequate supply of black teachers" (1983, p. 12).

To improve the quality of teachers, the report recommends that financial incentives be established to reward outstanding teachers, as well as to facilitate the recruitment and retention of talented and motivated persons for the profession. It is also recommended that loan-scholarship programs be set up to attract academically superior students to teaching and that special attention be paid to recruiting minority
students. The Task Force again urges that college presidents provide leadership in improving teacher education programs and that colleges reexamine their general education courses, particularly those taken by education majors, to ensure a strong foundation for professional preparation. The recommendation regarding creating incentives for faculty members to involve themselves in improving school programs is restated. The report urges states to reduce the variety of subjects for which teacher certificates are issued. The Task Force is still concerned with a common teacher certification test as a basis for facilitating interstate movement of teachers. To improve continuing education for teachers, the report recommends that admissions requirements for graduate programs in education be equal to those for other graduate programs and that graduate courses taken by teachers for recertification be made more relevant to their teaching assignments.

Two recommendations deal with the school principals, urging that the assessment of behaviors which characterize effective principals be included in the selection process and that an on-the-job internship be made a requirement of all administrative training programs.
The primary focus of the Task Force with respect to the curriculum is on mathematics, science, and computers. The report recommends that states examine the content of mathematics and science courses which have been added to high school graduation requirements to ensure their serving the needs of both college-bound and non-college bound youth. Viewing the functions of computers in schools as giving all students some exposure to this new technology and helping teachers through computer-assisted instruction, the Task Force suggests that states develop guidelines for computer usage in schools and provide assistance in implementing these guidelines. The Task Force recognizes that a variety of strategies and incentives are going to be needed to attract, retain, and retrain teachers in the fields of mathematics and science and it cautions states to monitor the assigning of不合格 teachers as a remedy. It recommends that teacher-preparing institutions examine their general education components and that they strengthen the mathematics and science requirements for elementary and middle school teachers. In addition, the report proposes that state departments modify their certification requirements to facilitate placement of personnel
from colleges and private industries to aid mathematics and science teaching in schools.

With respect to vocational education, the Task Force proposes that states reappraise vocational education programs, including "evaluation of the objectives of vocational education in the high schools, of duplicated occupational offerings by various sectors of education, and of the market relevancy and quality standards of available programs" (1983, p. 27).

The Board’s Task Force is heartened by the new spirit of cooperation which it found among the schools, higher education institutions, state departments, and industry. Communication lines have been established which did not exist two years ago. However, continued dialogue and expanded areas of cooperation are needed still.

The financial constraints which were pointed out two years earlier are even more severe in 1983. Nevertheless, "realistic recommendations to raise educational standards must take into account limited resources. The implies the crucial necessity of making choices among numerous worthy expenditures" (1983, p. 30). In some instances, the report notes, more funds are needed but, in others, savings may occur. "If current
financial restraints lead to judicious reduction of programs and to deliberate choices between effective and less effective programs, all of education will benefit and the public may become more willing to provide further support" (1983, p. 36).

The Task Force on Higher Education and the Schools has tried in its two reports to establish priorities for action by states, local school districts, colleges and universities, and other nonschool groups. Its priority areas deal with upgrading the quality of teachers, improving the curriculum, and coordinating efforts among various sectors. Its focus is on greater cooperation and collaboration amongst the various sectors. Its recommendations are basically mainstream proposals which urge states to take the leadership in raising standards for high school graduation, for college admissions, and for teacher education and certification.
This project originated in a request by a member of the National Council of Educational Research for a report on "What Makes a Good School?" Schools, of course, differ and there are both good and bad schools. At the heart of the study was the question as to why schools differ and how different kinds of ethos or climates are created.

The study began at a time of renewed interest in "effective schools" ("defined as those with higher cognitive outcomes than would be predicted on the basis of known input variables such as the social and economic background of pupils in the school (p. 5). Although there is a growing body of literature on effective schools and there are a number of critical reviews of that literature, effective schools seem to be "characterized by strong instructional leadership, high expectations for pupils, shared values among the teachers and staff, more time spent on academic instruction, clarity about goals and a safe and secure atmosphere" (pp. 5-6). In Gerald Grant's view,
effective schools research tends to ignore the complexities of life in schools as well as "the interrelationship of variables and independent sources of actions" by assuming a simplistic change model. This study focused on the dynamics of creation of the school's particular ethos or climate: "We wanted to know what was the nature of the struggle, the complex of factors one had to take into account in order to understand how different goals or states were achieved" (p. 6).

Grant says that another shortcoming in the effective schools research is revealed by asking the question, "Effective for what?" Almost all of the research answers the question in terms of raising scores on standardized tests of verbal and mathematical ability; no attention is paid to the dual responsibility for intellectual and moral virtue.

This study is based on observations and interviews in five schools which were selected from 33 public and private schools in northeastern United States that the staff "felt exhibited a strong ethos or were schools where the adult leadership was consciously trying to effect a change in the climate" (p. 9). Implications for policy regarding the creation of a given climate or ethos are suggested.
Grant views the school's ethos as consisting of three layers or set of influences:

1) the adult teachers and staff who stand in the center and exercise responsibility on a daily basis, 2) the social and economic character of the student body, including those motivations, attitudes and dispositions they bring to school from the home, and 3) the constraints imposed by external policy makers at all levels--the courts, local, state and federal government and other agencies that affect the exercise of authority by the adults in the school and partially condition the nature of interaction between teachers and students (p. 11).

The policy implications Grant suggests are organized under those three headings:

1. "You make a good school by creating a place where everyone is learning" (p. 11).

2. "A good school must have a core of able pupils around which to form a positive ethos" (p. 12).

3. "The central problem we as a society confront with respect to education is the problem of how we reconstitute the necessary intellectual and moral authority without which schools cannot function while preserving the gains we achieved in fashioning a more equitable and just educational system" (p. 13).
Grant argues that the way in which authority is instituted and the way it is exercised establish the intellectual and moral character of a school. In his view education in urban public schools has become "increasingly instrumental, technicist, adversarial and officially value neutral," all as a consequence "of good intentions gone awry and an overweening faith in what public schools alone can do to solve the ills that plague us" (p. 25). It is the public schools which have "shouldered an enormous share of the burden of creating a more equal society" (p. 25) and, as a result of new laws and regulations which accumulated in the 1960s and 1970s, have had the freedom of adult action in the schools radically altered. Old communities and ways of acting uprooted and altered. At the same time, expectations have increased and "a new sense of entitlement experienced by many previously disenfranchised groups" has contributed to changed context within the school as well as a change in the relations between school officials and parents. Society demanded that schools perform more and more custodial functions while the disciplinary powers of adults were being reined in. Students were no longer regarded as children but as having "new equalities vis-à-vis adults" (p. 26).
In Grant's view, the "spread of children's rights literature through the secondary schools has been one of the great untold curriculum stories of the last decade" and has contributed to a "collapse of adult authority as representing a standard for children" (pp. 30-31). Moreover, private schools are not constrained in the same way as public schools. While some parents are fleeing public schools, others are seeking the ethos or tradition which private schools represent, a tradition that includes a way of talking about character and agreement about which virtues are important.

Grant is disturbed that the modern high school is threatening to become a container for adolescents who receive the ministrations of a greatly enlarged core of specialists in a setting in which presumed equals argue about their rights and individuals pursue their moral preferences in whatever direction they please as long as they do not break the law. The only test the larger society applies to such collectivity is a test of efficiency: i.e., is the school effective in producing increases in cognitive functioning as measured by standardized tests? (pp. 35-36).

Schools, he maintains, are increasingly operating as if they were simply factories for learning from...
which the only value is that of increased cognitive output. A crisis in authority has resulted in part because of a belief that schools alone, through greater cognitive output as measured by standardized tests, can solve various problems which plague society. The social reform strategies of the 1960s and 1970s assumed that schools were capable of carrying a major share of the burden creating a more equal society, reversing the cycle of poverty, the racially segregated patterns of society, the isolation of the handicapped, and the problems of the non-English speaking. Society constantly has means-ends conflicts on goals of equity and the means for attaining it.

Under these circumstances, schools have become containers, "universal receptors . . . [which] must not only contain all young, but must teach them many subjects while creating a good community" (p. 47). Some observers of schools comment that "the common school has always been a container for diversified and rambunctious" children and youth. As Green sees it: "Both the enormous expansion of secondary education and the desegregation of schools in the last decade can be seen as successes that have created new problems. We should be able to take satisfaction in our
successes without glossing over the new difficulties" (p. 51).

Racial desegregation, Grant believes, was one of the critical tasks assigned to the schools as a solver of society's problems. While school desegregation was morally right, Grant thinks that "we sometimes failed to recognize the stress and tension that accompanied that experiment" (p. 52). Grant argues that there was usually no moral language to address the true nature of the evil of racial injustice we were attempting to overcome; the schools were not given the support they needed to effect a social revolution but were told to solve the problem with what they got; children living out the tensions had no forum to talk about their pains. The final irony was that we judged the worth of a moral experiment almost solely in cognitive terms, that is, what effect it had on raising or lowering the scores on standardized tests. And the desegregation experiment was only one of several reformation of the public conscience that we wanted to achieve through the schools (p. 57).

Grant sees a rise of specialists and a growth of a technicist spirit having occurred and continuing. At the classroom level, increased numbers of psychologists, social workers, reading specialists, and specialized aides have been added. At the bureaucratic level, new curriculum specialists and technocratic
managers have been added. In both cases, there has been a significant effect on the way schooling is conducted. The technicist spirit began a century ago in the movement for more scientific management of the schools. It continued in the drive for more rational management techniques for education, together with new machines and new technology. Rigid and precise specifications to which teachers must conform have been developed. Grant asserts that "teachers are troubled by this lack of autonomy, combined with new measures of accountability and new levels of expectations" (p. 74). Grant is concerned that "efforts to create a technically fail-safe system may explode in our face" (p. 75).

The teaching profession is currently undergoing the same kind of transition which occurred when the family doctor was absorbed into the highly technical medical complex, an event which Grant believes did not necessarily result in better medical care despite the new technologies and new cures. What has happened, Grant argues, is that "the teacher's authority has been squeezed from above by the technocrats of administrative and curricular control at the same time as she must adjust to the rapidly expanding class of
specialists and para-professionals within the school" (p. 81). This rise in new specialists creates a variety of problems, including that of working out new patterns of coordination.

The development of new law, Grant notes, has had a profound impact not only on the relations between children and parents but between children and the parent surrogates in school. In order to examine the extraordinary changes which have occurred, three interrelated questions must be understood: To what extent do we regard equality between adults and children as desirable? To what degree may the state intervene between parent and child for the presumed benefit and protection of the child? What is the actual legal status of the child vis-à-vis parents and other adults? A whole series of judicial decisions have, Grant points out, "put many school officials on the defensive and established a whole new set of procedural guarantees that changed the climate in many schools" (pp. 92-93). In the past few years, a genuine conflict of rights and responsibilities has developed in school and society.

Grant argues that children do have rights but they are not equal to adults since "their claims to
equal rights are moderated by material dependence and by limited capacities and a paucity of experience" (p. 110). As schooling took up more of the student's life during this century, youth became a time of preparation for adulthood. Now "adolescents demand adult rights or are treated as full adults without bearing adult responsibilities" (p. 111). Grant believes that the way to resolve our present confusion is "to make a more careful distinction between the rights of all persons, including adolescents, and those rights granted to adults as a function of their capacity to exercise concordant responsibilities" (pp. 112-13).

Probably the most disturbing indication of the educational crisis, Grant believes, has been the withdrawal of talent from teaching: "If even the mediocre college graduates continue to sneer at teaching and if teachers continue to abandon the classroom at current rates, all talk of educational improvement or reform will be meaningless" (p. 113). Grant details the teacher's predicament of today with data that present a bleak and disheartening picture. The decline in the teacher's authority is perhaps the prime concern. To show how teacher authority has diminished, Grant explains how it is derived and argues "that the teacher's
authority is both individual and social, that is, it is both personally earned and socially earned" (p. 118).

Among the personal factors affecting teacher authority is the teacher's own knowledge and competence in the subject he or she is to teach: "The teacher must sustain a student in an engagement with a subject that has its own laws and mysteries that are independent of the student's impulses or subjective will" (p. 120). Further, teachers strengthen or undercut their authority by the way they reveal their moral qualities or lack of them in daily routines. The personal qualities and character as well as knowledge and competence in subject matter are personal aspects of teacher authority. But, teacher authority is also conferred socially and is derived from the general social esteem granted the role. While teaching has never been at the top in comparison with a number of other professions, there has been a continuing decline in recent decades in perceived status both by teachers and the public. Grant observes: "Certainly, the teacher's loss of esteem in America cannot be wholly or even largely blamed on the romantic writers or neo-Marxist critics of the recent past, but it can be said that a great libel was committed" (p. 125). Although a major source of social
authority stems from the teacher as a moral agent, many teachers are convinced that neither parents nor the law at present support this authority. In addition, the teacher's social authority is derived in part from the general status of adults in that society and, for a variety of reasons, age is no longer a conveyor of authority. Grant argues "that under the best conditions, the teacher's role is precarious. Teachers must establish control, motivate and insure that even their involuntary clients actually learn" (pp. 130-131). With weakened social authority, establishment of authority rests increasingly on the individual teacher. More and more teachers either leave the profession or wish they could leave.

Grant concludes:

A school or society that relies primarily on individual sources of authority will produce a generation of "burned out" and withdrawn teachers. On the other hand, if we depend too heavily on the glue of societal or institutional authority, schools may become too rigid or authoritarian. A balance is needed, and the defect in one source produces a strain in the other. In the current situation, there is a further complexity . . . namely, the withdrawal of talent from teaching (p. 135).
College graduates with teaching certificates, Grant asserts, have absorbed only half of what they must know to teach; the rest is acquired on the job. A school with a good ethos or social base of authority attracts good teachers and plays a significant role in helping young teachers learn their craft.

*Education, Character and American Schools* is an examination of the nature of authority and the factors that affect the school's climate or ethos. Unlike most other current reports, it focuses on understanding the dynamics of school ethos as a basis of school improvement. Essentially, it examines the nature of authority and the factors which have eroded the teacher's authority and argues that "we need to radically deflate the incentives for bureaucratic careers and to enhance the rewards for the vocation of teaching and the exercise of responsible leadership within schools" (p. 14). In the analysis and the suggested policy implications, Grant responds to the question—"What Makes a Good School?"—in terms broader than cognitive growth on standardized tests; a good school attends to both intellectual and moral virtue and represents some notion of character to its students. Schools are institutions, Grant points out, "that educate the
emotions, indelibly affecting both heart and intellect" (p. 9). His aim was to renew the dialogue on the issue and this he does.
XII. An Education of Value*

An Education of Value is a project initiated by the late Stephen K. Bailey to examine the historical and contemporary values which underlie public education, especially the dual commitment to equality and excellence. Looking at the educational scene in the 1980s, Bailey was troubled by what seemed to be a loss of faith in schooling. He organized the project in order to raise the level of discussion about the schools. The report, Marvin Lazerson et al. point out, is about excellence and equality, two goals which are not incompatible. The authors are troubled about the condition of public education. In their view,

Far too many people leave school without [possession] of the complex skills sufficient for effective coping in an interdependent technological society and world. Far too few school practices lead students and teachers to value learning, and far too little value is placed on learning by those outside of schools. But it is precisely these conditions that lead us to put forward what we believe are sensible thoughts on how to give new meaning to our educational

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enterprise--an enterprise that ought to foster enlightened democratic communities and the freedom and growth of individuals (p. iii).

Recurring priorities and recurring tensions are examined in terms of the evolution of expectations held for public schools, how some have persisted and others changed over the years. Americans, Lazerson et al. observe, "have always expected so much from our public schools" and these expectations have been part of the reason for the commitment to public education (p. iii). However, the expectations have themselves been a continuing source of considerable tension and conflict.

The conditions of learning and teaching at the turn of the century are examined and the changes in the organization of schooling and the assumptions about how much schooling was necessary described. Mass attendance, Lazerson notes, brought into schools children and youth who had not previously been enrolled and kept them there. Consequently, "the rush to make efficient what had become a bureaucratized, expensive, and mass institution forced to the surface questions that were previously muted: What were the differences among children? How could they be measured? How could learning be enhanced? What kinds of curriculum and teaching were suitable for what kinds
of learners? (p. 1.7).

With expanded expectations came commitments to increase the amount of schooling but, at the same time, expanded expectations intensified the conflict over the schools: "Contradictory expectations became less easily ignored, consistent commitments difficult to maintain. Establishing priorities about the purposes of schooling, what should be learned and how it should be taught became central to educational debate" (p. 1.28).

The report observes that "nowhere have the aspirations for and the tensions between excellence and equality been more apparent than in debates about curriculum" (p. 2.1). The curriculum reform efforts of the 1950s and 1960s--"the most intense period of curriculum reform in American educational history" (p. 21)--are reviewed with the Man: A Course of Study (MPCOS) (Cambridge, MA: Educational Development Center) program given special attention as a case study. Lazerson believes that despite the enthusiasm for the curriculum revolution of the 1950s and 1960s, neither curriculum nor teaching were transformed. Despite the euphoric promise with which their efforts were launched, the reformers were unable to achieve the
transformations they had envisioned (p. 2.30). The question remains: "Why have traditional forms of teaching persisted despite past efforts at reform?" (p. 2.31). Three issues cut across the reform efforts: "competing claims over what ought to be learned, the relationship of the reform to the 'culture of the school,' and the shifting priorities of the educational system" (p. 2.32). Lazerson notes that the reformers were, at best, ambivalent about classroom teachers, more often viewing them as part of the problem. Nevertheless, the curriculum reformers were dependent on the same classroom teachers to implement their new programs.

In the mid-1980s, once again there is an intense debate about excellence in education with a tendency toward treating "equality as a natural enemy of excellence" (p. 3.1). Lazerson observes that many Americans view the drive for equality of educational opportunity in the 1960s and 1970s as having contributed to lower academic standards, viewing the "liberalization of the curriculum to serve a plurality of interests as a permissiveness that was intellectually barren and that converted learning into play and doing one's own thing" (p. 3.1). Many Americans blame
efforts to create a more fair and more egalitarian school system as eroding a commitment to high standards of academic excellence and, in the view of some, it has been this push for equality of opportunity that has led to the current "crisis" in education.

Lazerson and his colleagues argue that both equality and excellence are absolutely essential to public schooling in a democratic society and that the "current opposition of equality and excellence is a statement of our narrow conception of each and of the political polarization that has come to dominate the educational landscape" (pp. 3.3-3.4). Lazerson trace the shift in education from the nineteenth century concern with preparing youth for moral and political equality to a concern for economic equality which brought educational excellence and equality into conflict at a cost to both. The report views the tracking system found in most schools as the most apparent manifestation of this conflict: "Nowhere is equality in schooling more undermined than in the tracking of students" (p. 3.13). The report argues that: "the shame of American education is that not all students are expected to develop skills of reason, communication, literacy, and the h...
participation necessary for citizenship in a democracy" (p. 3.15). Lazerson and his colleagues are not opposed to all forms of grouping but believe that the usual stereotypic tracks—academic, vocational, commercial and general—constitute a "charade." They believe that most tracking practices do not enhance learning. Rather, as currently practiced, most tracking is "a confession of pedagogic failure." The issue is not one of whether to group/track students but rather how to group them so that all students can learn more.

Because public education has as its basic charge the development of democratic citizens, schools must take democratic values seriously and develop the knowledge, skills, and attitudes that constitute effective citizenship. To nurture democratic citizenship, "the educational system—through its pedagogy, curriculum, and organizational forms—[must] whet the appetite for citizenship and enhance the capacities and skills of participation by all of its students" (p. 3.23). The report argues: "To accomplish these ends, educators must struggle simultaneously with equality and excellence and resist the tendency to pit one against the other. The pursuit of educational excellence may be the most direct path to the
achievement of equality. Equality is the essential condition of democratic citizenship. Excellence is the necessary condition for making that citizenship meaningful" (p. 3.23).

Barzerson suggests that a definition of excellence in learning should go far beyond the current position that schools should first teach basic skills and then teach the more cr
te, complex, and sophisticated skills. Literacy, for instance, should be thought of "as involving the broadest capacities to initiate and engage in learning" not simply reading, writing and computing. Definitions of literacy which are rooted only in minimal skills levels will not likely teach basic skills effectively nor will they motivate students to continue learning. "Literacy, then, involves going beyond what is 'basic' or 'minimum.' ... It means cultivating attitudes toward learning such that students will want to read intelligently, or solve scientific and mathematical problems, or seek to participate and understand music and art. Literacy, in its deepest sense, involves setting students on a path of life-long learning" (p. 4.8).

The cultivation of imaginative expression and critical thinking is essential to nurturing an
"expansive and facilitative rather than deterministic and limiting" concept of literacy. Further, Lazerson asserts that "by integrating scientific and aesthetic understanding, we can begin to understand more clearly how to think about learning" (p. 4.17).

Lazerson argues that educational environments must be restructured in order to increase "educative power, the school's ability to challenge, motivate, instruct and develop students' and teachers' abilities, capacities and attitudes, its power to excite and hold students' and 'teachers' attention" (p. 4.19). Learning environments which include teachers who are passionately committed to teaching must be created.

Lazerson and his colleagues see innovation holding as much promise for the aims of excellence and equality as microcomputers. Computer-assisted instruction can help students "think about thinking and to act on their thoughts" (p. 5.3); can provide opportunities to acquire particular skills; can test students on their learnings; can improve student capacities for critical and imaginative thinking; and can provide stimulation and model-building opportunities. However, Lazerson points out, these are only potentials and the realization of these possibilities
depends on how basic curricular and instructional questions are answered.

The report is concerned about problems of equality of access to computers and to computer-assisted instruction, pointing to the growing gap between the haves and the have-nots due to inadequate funding:

"Decisions about the use of computers in the curriculum become predicated on financial, rather than educational, considerations. Denying school children access to computers on the grounds of poverty undermines at the start the computer's potential to enhance learning for all" (p. 5.5). An additional concern on computer usage is the tendency for the computer culture to become a male culture with programming courses enrolling boys while word-processing courses enroll girls. Still another concern is the tendency for access to computers becoming a reward for gifted students while slower students have access to computers for remedial instruction only. The issue of access must be confronted now or else "the promise of computers to enhance learning will be undermined. The potential solution becomes a new problem" (p. 5.7).

Computers may be used either as "teaching machines" through which children are simply put "through
their pace, to provide exercises of an appropriate level of difficulty, to provide feedback, and to dispense information" or they may be used as "learning machines" where the interactive capabilities of computers are used to stimulate student thinking (p. 5.8). Thus, the matter of software development becomes a crucial problem in the schools' use of computers. Lazer-son and his colleagues do not believe educators are taking the computer-related issues seriously enough. In addition, they are convinced that "computers will only become learning machines in the schools if teachers are themselves comfortable and proficient in their use and involved in introducing computers into schools, deciding their appropriate applications, and monitoring the quality of the software used" (pp. 5.11-12). The debate over the very purposes of schooling can be sharpened by the issues raised by computers in education.

The problems and the promise of teaching are examined by Lazer-son and his colleagues. In a variety of settings, they found, "a large number of teachers are feeling the effects of difficult working conditions, public hostility and public demands" (p. 6.1). The report describes teaching as a lonely, routinized,
repetitive, sometimes debilitating process, with little collegial support or caring on the part of students, parents, or others. Lazerson observes that:

Teachers are constrained by the fundamental ambiguities of their craft. They are uncertain that they can make all of their students learn. They are uncertain whether they possess the skills to excite all of their students. Many teachers recognize that teaching is a hit-or-miss affair, that there are no certain scientific methods. Their disappointments are frequent; their doubts that they have done their best are pervasive (p. 6.4).

Teaching is a very complex process and recognition of this complexity and of the fact that teachers must be both caring and knowledgeable is essential if practice is to be improved. Much has been learned about the change process and clearly teaching and learning will not be enhanced by "heavy-handed, top-down approaches to reform" (p. 6.12). Rather, efforts must be school-site based and involve collaborative planning among all those concerned about the process of education. Because they have been excluded from the planning process for so long, teachers are wary of current efforts to involve them and often resist the time-consuming commitments needed for collaborative planning.
The report concludes that the promise of teaching can only be fulfilled to the extent that the variegated nature of the learning process is understood and accepted and the conditions for enlarging this variety are created.

In the post-World War II period, there have been "wild swings in curriculum fashions" (p. 7.3). The criticisms of what is viewed as the cafeteria curriculum have led to demands for a core curriculum consisting of a set of specified courses to be taken by all students in most states and many school districts. Lazerson points out that, at their best, such "debates pose questions about the purpose of schooling and what ought to constitute a common core of knowledge and skills for all students in a complex and rapidly changing world" (p. 7.4). However, such debates too often focus on the wrong questions, running the risk of setting expectations which are minimal: "Most of all, however, debates about a core curriculum which concentrate on what students are taking rather than how much and how well they are learning will fail to enhance either the commitment to learning or learning itself" (p. 7.4). Much more is needed than simply a list of required courses.
Lazerson describes learning as a conversation: "The curriculum is the content of that conversation, a mixture of facts and values around which teachers and students interact." When the curriculum is thought of "simply as something teachers teach and students learn," then this important interactive and conversational quality is neglected. The interactive process prevents separation of subject matter from the teaching act itself: "Teaching involves more than simply knowing one's subject, although that is a fundamental requirement. But unless we recognize interactive quality of the enterprise, we will understand that what teachers teach—the curriculum—is more than just presenting students with something called subject matter" (p. 7.7). Excellence in learning, the report observes, "means gaining knowledge, skills and the desire to learn still more" (p. 7.9).

The role of the school principal is critical in this process: "If we expect students to learn from teachers, we must expect and set conditions for teachers to also be learners" (p. 7.12). This requires a bold and committed leadership to design schools as places of learning. The principal must constantly appraise the extent to which teachers are enhancing
student learning, how learning opportunities for teachers can be provided, and how the learning culture of the school can be nurtured. Beyond leadership of educational professionals, if education is to be improved, there must be a strong coalition of a variety of interest groups, all of which believe that "strong public schools [are] essential to the health of American democracy" (p. 7.14). A recommitment to public education is needed.

Lazarson and his colleagues are convinced that schools will not be radically altered by any single reform or group of reforms: "Despite the prophesizing of doom and the dreams of instant solutions and ready panaceas, the schools are neither going to entirely collapse nor be totally transformed" (pp. v-vi). For one thing, schools are not all the same and the variations "mean that any generalization about what exists or what ought to exist in the schools of America must necessarily be subjected to refinements and qualifications demanded by local specificity" (p. vi). Nevertheless, it is possible to talk about the totality of American education as "the cultivation of an informed and expanded intelligence, the enhancement of creative expression and critical thinking, and the
development of active and meaningful citizenship, across regional, racial and class lines" (p. vi).

Lazerson is worried that the current debate treats schools primarily in utilitarian terms focusing on increased prosperity and productivity as the consequence of improved educational programs. While hoping that those ends will be achieved, Lazerson believes that the primary justification of improved educational programs is "the enhancement of human capabilities. To the extent that we neglect these purposes, to the extent that we turn to simplistic panaceas and instant solutions, we invite continuing disappointment. We devalue teaching and learning itself, and we make of our schools something less than they should and could be" (pp. vi-vii).

To improve educational programs will require more than simply calls for better schools. The report concludes that we must create environments which communicate the value of learning:

We need to change and improve the curriculum, recruit, train and re-train better teachers, and raise expectations and demands placed on students. But unless we have atmospheres in which students develop the motivation to learn, gain a sense of growing maturity and responsibility, and become respectful
of each other and their mentors—the intangibles that are the life-blood of a good school, intangibles based on human relationships—we will, sadly, fall far short of what is educationally possible.

An education of value is an examination of the ends and means of the educational process and makes recommendations concerning all elements of that process—goals and purposes, curriculum and teaching, computers and technology—as these relate to the creation of learning environments.
The Wisconsin Program for the Renewal and Improvement of Secondary Education (WRISE) is aimed at developing an "improvement capability" which will enable a school to improve its educative processes. As its director, Herbert Klausmeier, puts it: "A school has developed an improvement capability when it employs strategies and makes operational facilitative structures and processes that enable it to set improvement goals each year and to attain them" (1983, p. 1). The WRISE program is a research program which studies the effects on student achievement and other outcomes when a school implements specific improvement strategies and makes operational school structures and processes which facilitate implementing improvement strategies.


The WISE program includes four main elements: (1) a design for improving secondary education consisting of 10 comprehensive objectives together with related enabling objectives for the major elements of a functioning school; (2) a generic six-step improvement process which is adapted to local conditions and used by the school's staff to begin or refine a systematic improvement program; (3) print and non-print materials which local staffs use to gather information about the program and which university professors share with students studying school improvement; and (4) a plan for dissemination and utilization of the program.

The 10 comprehensive objectives which "indicate desirable directions for the improvement and renewal of secondary education" deal with:

- Educational programming for the individual student
- Curricular arrangements
- Work and community learning
- Student decision making
- Evaluation
- Administrative arrangements
- Organization for instruction and student advising
- Home-school-community relations
- Internal and external support
- Continuing research (1982, pp. 2-4).

The comprehensive objective dealing with "Educational Programming for the Individual Student," for example, is as follows:
An individual educational program of course work and other activities is arranged for each student that satisfies his or her developmental needs and characteristics and that also meets district and state requirements. An individual instructional program is arranged for the student in each course and other activities that is part of the student's educational program that takes into account the student's aptitudes, interests, motivation, learning styles, career goals, and other personal and social characteristics and that also meets district and state requirements (1982, p. 2).

Each of the comprehensive objectives has a number of enabling objectives which provide illustrative means for achieving the objective. Together, the comprehensive and enabling objectives provide "the rationale for the cooperative improvement-oriented research that was conducted with the local schools by indicating possible areas of improvement that each school might undertake" (1982, p. 6). The objectives help local school staffs identify areas of improvement.

The WRAIE generic improvement process, modified and adapted to take into account local conditions, consists of six steps:

--Assess your local school situation.
--Develop your school's improvement plan.
---Carry out information-gathering activities in your schools.
---Carry out preparatory activities.
---Carry out your start-up improvement activities.
---Evaluate the improvement activities. (1982, p. 6).

Schools may use a centralized improvement strategy in which the principal and an improvement committee direct the improvement activities by initiating, implementing, and eventually evaluating an improvement plan. A decentralized improvement strategy would have the principal and the educational improvement committee coordinate the staff's activities in designing, implementing, and evaluating a plan. A combined strategy involves using a centralized strategy at first, then shifting to a decentralized strategy.

In a report of a summative evaluation of WRISE published in 1982, Klausmeier noted:

The results . . . indicate that the usability and the effectiveness of the six-step improvement process are generally regarded as high to very high by local school principals. The usability and effectiveness of the WRISE materials are generally regarded as high by local school staff members. The WRISE comprehensive and enabling objectives are perceived by teachers as indicating desirable directions for the improvement of secondary education. The materials were
used in the schools mainly during regular school hours and the main purpose was to gain information or to start planning an area of improvement (1982, p. vii).

A much more detailed report of longitudinal case studies of five schools--two middle schools, one junior high school, and two senior high schools--was issued in May, 1983 (Klausmeier et al., 1983). The schools varied, not only in level, but in size, setting (urban, suburban, and rural), and race, ethnicity, and social class of the students. The project extended over a six-year period beginning with formulation of a conceptual design for the improvement and renewal of secondary education and continuing with planning and implementing a program and evaluating its outcomes.

The WRISE project included both development and research activities. The goal of the development aspect was to begin or refine the school's improvement capability, the administrative-organization arrangements, and change strategies designed to attain particular student outcomes. The purpose of the research activities was to determine the extent to which the school's improvement capability was realized.

Detailed case studies of the five schools are presented to describe the school improvement efforts.
over the six-year period, beginning with a description of the staff and students, data gathered and analyzed by the staff, planned and unplanned changes, results related to educational achievement and to affective outcomes, and staff changes. A four-phase research method was used: (1) the formulation and initial validation of a conceptual design for improving secondary education; (2) the collection of educational achievement data as a basis for identifying subject fields, grade levels, and mental ability quartiles of students for whom achievement was lower than desired in order to set goals for raising achievement of those whose achievement was lower than desired and maintaining achievement level for those performing satisfactorily; (3) analysis of the data on each student on a cross-sectional basis to study achievements of students of the same grade in the school and analysis of longitudinal cohort data; and (4) relating changes in student outcomes to the implementation of improvement strategies and to unanticipated events which had occurred in order to draw causal inferences.

The results were examined in terms of sex differences in achievement: Detailed comparisons are made with the "effective schools" research. On the basis
of the data, Klausmeier and his colleagues concluded that "implementation of the goal-setting strategy appeared to be the determining factor in bringing about consistently higher student achievement while implementing the other strategies maintained the same level of achievement from year to year" (1983, p. 263). Student attendance and attitudes were positive in all five schools but seemed to improve slightly when goals were set to improve them. The conclusion drawn concerning the process was: "Based upon the consistently positive results, it is concluded that the design provides relevant guidelines for the renewal and improvement of secondary education. In this context, it is considered to be validated as both usable and effective. Even though the number of schools was small, the uniformity of the results across those schools of greatly different characteristics in different locales is noteworthy" (1983, p. 263).

Klausmeier believes that his design focused on a school building and establishing its own educational improvement capability. School effectiveness research, on the other hand, identifies characteristics of effective schools but provides no guidelines which schools can employ to become effective. The WRISE
program, he asserts, "specifies organization structures and processes by which a school identifies areas of desired improvement and then sets goals and plans and carries out improvement activities to attain these goals. Thus, a school that has developed an improvement capability is able to address any characteristic of effective schooling that it may select as well as other areas of improvement" (1983, p. 264).

The organizational structures and school processes which facilitate educational improvement, the WRISE program concludes, include the following:

--An Educational Improvement Committee consisting of the principal, a counselor, and representative teachers is established to take initiative for identifying areas of improvement each year and for implementing the improvement strategies.

--The instructional staff and students are organized into small groups for instruction.

--Educational advising is personalized by having teachers serve as educational advisors.

--A curriculum is provided that is structured but that can be adapted to take into account differing educational needs of students.

--Student input regarding their own educational and instructional programs is arranged.
---Test results and other evaluation information are used to improve student learning and teaching.

---Parent and community input regarding curriculum, instruction, and other matters is arranged.

---Class schedules are arranged to permit groups of teachers with mutual interests to have a common period during the school day.

---Inservice activities are conducted systematically and in a variety of ways, but especially during the teachers' common planning period.

---District officials work with the school in planning the improvement program and district support is provided for it (WRISE flyer, p. 5).

The WRISE program, like the Association for Supervision and Curriculum Development project on redefining general education in the high school, has a process orientation. On the basis of empirical data collected from the five schools over a period of years, the program is able to recommend a process for developing educational improvement capability, the capability for improving secondary education in terms of goals determined by individual schools. The data presented make a strong case for a goal-setting strategy for improvement.
Redefining General Education in the American High School is a project of the Association for Supervision and Curriculum Development (ASCD) and is headed by its Executive Director, Gordon Cawelti. From more than 100 applicants, 17 schools were selected to form a network to reexamine the meaning of general education in their own settings. After a meeting of the network schools at the Wingspread Conference Center in July, 1981, the participants returned to their own schools to organize their own faculties, students, parents, and communities in studies of what common learnings were needed by today's high school graduates. Most of the schools began with a rather broad definition of general education and then focused on the specific skills and competencies high school graduates should possess. Network school teams have met about twice a year since

"Network Schools Define What Students Need to Know," ASCD Curriculum Update, October 1983.
the initial Wingspread Conference to share the results of their studies. At their own schools, the study procedures have generally involved arriving at consensus on a definition or model of general education and then undertaking an inventory of present curricula as related to the agreed upon definition. The process has varied considerably as each school has devised its own procedures. As of October, 1983,

A few . . . have had revised graduation requirements adopted by their local board of education and have begun program implementation. Some are still at the discussion stage. . . . Most schools have developed their own definitions of general education often including a detailed list of 100 or more elements, and have examined their current offerings to assess whether these elements are being taught. However, they have not yet redesigned their course structures or asked local boards of education to approve major curriculum changes (Curriculum Update, 1983, p. 1).

The general process followed by the schools in attempting to reform their basic general education programs has been as follows:

I. Establishing the Process. The first step for project schools was making a public commitment to rethink their general studies curriculum and setting up the operational machinery to accomplish it. . . .
2. Selecting or Developing a Design. The next step taken by network schools was to choose a conception of general education on which to base further work. . . . No single model . . . was adopted by even a majority of the reporting schools. [The models included those of Ernest Boyer, Gordon Cawelti, The College Board, and Harry Broudy.]

3. Defining Specific Learnings. When there was reasonable agreement about the broad categories to be represented in the education of every student, the schools took steps to further define specific elements composing it. . . . These smaller pieces are referred to variously as elements, common learnings, goals, subgoals, objectives, skills, competencies, concepts, and outcomes.

4. Planning Curriculum. When they had identified the particulars they thought all students needed to learn, most schools in the ASCD network did not immediately begin planning new curriculum but instead had teachers, and sometimes students, inventory the extent to which the items were included in current courses. . . .

5. Recommending Changes to Board of Education. A necessary step in the curriculum development process is an official report to the local board of education recommending new course requirements and other changes. . . .

6. Implementation. Only a few of the network schools have reached the implementation stage, but all
recognize that implementation is critical (ASCD Curriculum Update, 1983, pp. 2-4).

Among the models which were considered by the network schools for general education were the Harvard Committee's General Education in a Free Society; Broudy, Smith and Burnett's Democracy and Excellence in American Secondary Education; Boyer and Levine's A Quest for Common Learnings; and Cawelti's model. Having agreed on a definition or a model of general education, the schools then inventoried their current curricula in relation to the definitions. As one school reported, the present course structure stressed all aspects of general education which had been identified as essential but, because of the nature of the elective system, not all students were receiving instruction in all areas. Another school designed an instrument to inventory the school's curriculum and its relationship to a new definition of general education as a basis for "changing, creating or eliminating courses and changing graduation requirements" (Curriculum Update, 1982, p. 3). For the most part, schools found considerable discrepancy between those aspects of general education which they considered essential and what was actually being taught,
especially in the area of the "life skills" in contrast to academic skills. Through policy changes, staff development, and curriculum development activities, the schools are attempting to close the gaps between definition and curriculum.

ASCD's Executive Director, Gordon Cawelti, has offered the Cawelti High School General Education Model, featuring five clusters of knowledge which he believes are required for life in the twenty-first century. The fundamental question about general education in Cawelti's model, he suggests, is: "To what extent do the required courses in this high school reflect a balanced concern for instructional experiences in these five clusters of knowledge?" (Cawelti, 1982, p. 571). Acknowledging that there are other ways of organizing knowledge, he argues that "some framework must be derived by consensus at the outset if a strong program of general education is to be designed" (Cawelti, 1982, p. 571). A number of significant curricular and instructional issues are involved in the redesign of general education. These include:

How much time must be spent on a topic (such as environment education) in order to have an enduring effect? If the high school only requires, for example, one or two years of science, how does one
decide which science concepts are most important? With knowledge accumulating at an accelerating rate, how do we justify sampling smaller and smaller portions of knowledge with the same number of units required for graduation? And should the general education program be the same for the college preparatory student as the vocational student? (Cawelti, 1982, p. 571).

As of October, 1983, among the network schools' accomplishments were the following:

1. Most schools will increase the total number of courses required for graduation while reducing the number of electives, indicating that consensus can be reached with respect to a common body of knowledge.

2. Believing that with the knowledge explosion, high school seniors should not be taking part-time course loads, several schools will require seniors to take a full course load regardless of the number of credits they have already accumulated.

3. Most schools will increase their science and mathematics requirements, moving from a one- to a two-year requirement for all students.

4. There was a disagreement on whether schools should seek evidence of student learning or depend only on exposure to the elements of general education. Schools which decided on competency rather than exposure have developed criterion-referenced tests.
FIGURE 2

High School General Education Model.

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<tr>
<th>Cultural Studies</th>
<th>Citizenship—Societal Studies</th>
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<td><strong>Subjects:</strong></td>
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<td>Literature</td>
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<td><strong>Concepts, Issues, Topics:</strong></td>
<td><strong>Concepts, Issues, Topics:</strong></td>
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<td>Historical Relevance</td>
<td>Evaluate Issues</td>
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<td>Performance</td>
<td>Participation Skills</td>
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<td>Critical Consumption</td>
<td>Rights and Responsibilities</td>
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<td>Creative Expression</td>
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<td>Disarmament</td>
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Learning—Communicating—Thinking Skills

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<td>Computer Literacy</td>
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<td>Reading</td>
<td>Locational Skills</td>
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Science—Technology

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<td>Chemistry</td>
<td>Conservation</td>
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<td>Resource Scarcity</td>
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<td>Earth Science</td>
<td>Genetic Engineering</td>
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Health-Recreation-Leisure

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<td>Sex Education</td>
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<td>Science</td>
<td>Drug Education</td>
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<td>Home Economics</td>
<td>Parenting</td>
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(Cawelti, 1982, p. 571)
5. Network schools reaffirmed a commitment to require and teach basic learning skills, including such areas as speaking and listening, computer literacy, and study habits, as part of the general education of all students. The schools assumed responsibility for instruction in the basic skills when student competencies had not been acquired in pre-secondary programs and were developing measures of competencies in a number of cognitive skill areas prior to graduation.

6. Network schools were reaching consensus on the meaning of a balanced curriculum. Several schools, for instance, were requiring courses in the fine arts areas for the first time. Others were defining computer literacy as a basic skill, were adding experiences in global interdependence, and were increasing the attention paid to the impact of technology on society.

7. Beyond deliberating the number of units to be required for graduation in various fields, there was considerable attention to defining what the content changes should be. Teachers were often asked to rank or weight the value of proposed content changes as a basis for determining what would be included.

The project directors reported that some aspects of the program went less well than they had anticipated: university scholars' collaboration was generally negligible, little attention was paid to the planning for the future, few schools developed
interdisciplinary curricula although some explored possibilities, none of the schools adopted strong foreign language requirements and, in some instances, legislation at the state level seemed to preempt local planning.

The ASCD project is essentially a process which seems to generate considerable faculty involvement in redesigning general education at the local level. As the report points out: "The process compelled attention to balance; faculties deliberated on the percentage of time that should be spent in each area of common learnings" (Curriculum Update, 1983, p. 7). The project establishes a network of schools, all of which focus on redefining and redesigning general education. Unlike many other projects in reform, the ASCD project does not make proposals or recommendations. Rather, it is aimed at stimulating local redesign of general education through local efforts supported by a network arrangement. The leaders believe that "the enthusiasm and commitment of team members from the ASCD network schools show that the results of this project will undoubtedly be more enduring than recommendations coming from 'on high'" (Curriculum Update, 1983, p. 7).

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The Cawelti model for high school general education proposed by the ASCD Executive Secretary is one of several general education models which are being considered and is proposed as a basis for local study, not a recommendation for all high schools.
XV. The Scarsdale Group*

Sixty-one representatives of college preparatory high schools participated in a two-day conference convened by Thomas Sobol, superintendent of the Scarsdale Public Schools, in October 1980. The group consisted of principals, superintendents, curriculum directors, and other administrators from school districts with basically college-preparatory student bodies. They discussed the perennial question: "What should schools that are essentially college preparatory seek to help their students to be or to do?" (p. 1). Sobol observed that the group realized that it could not "talk intelligently about curricula without talking about the nature of our students, about the teachers who mediate between students and curricular experience, and about the nature of the high school institution itself" (p. 2). The discussions were organized around the four elements: students, teachers, curriculum, and the high school as an institution.

The discussion focused on how students and teachers feel about schooling and why they feel the way they do.

do. One student, for instance, asked: "Why am I doing all this? What does it mean to me? Is it right for me?" Teachers on a panel asked in different ways: "What is the value of my work for me and for others?" (p. 4). One participant commented: "It is perhaps a cruel irony . . . that the script for success that these affluent adolescents find constricting and emotionally lacking, the have-not, inner city teenagers strive desperately to follow" (p. 8).

The conference group examined the tensions, pressures, and expectations of students and teachers in mainly well-off suburban college-preparatory high schools. The pressures come from the economy and from changes in society in general: "Both groups [students and teachers] are subject to the anxieties of the age--inflation, alienation, nuclear holocaust. More students come from broken families and live with only one parent. Families themselves feel increasing pressures" (p. 11). The conference group noted that there are greater expectations from schools which increasingly have fewer resources to satisfy the demands made on them. While the belief has become widespread in the past decades that "schools could meet almost all individual needs by adding teachers and facilities,"
painful choices must now be made and schools are now faced with revising some cherished assumptions (p. 14).

Three dilemmas were discussed, each of which "involves balancing the student, and his or her individual needs, against stubborn forces: college entrance requirements; institutional management; and the world outside" (p. 16). These dilemmas were seen as (1) intellect vs. feeling, (2) the individual vs. the institution, and (3) the school vs. "the real world."

Administrators, it was pointed out, must often make choices between "what students see as their personal needs, on the one hand, and the objectives of the school as an institution, on the other. They must reconcile the individual search for meaning with institutional integrity" (p. 20). They feel the pressure of college admissions as much as their students and teachers do: "whatever their goals, high schools find their success measured by their number of college acceptances" (p. 16). While agreeing that schools must seek ways to help students touch what they perceive as the "real world," the conference group noted that "heavy academic demands often impede giving adequate time and attention to personal needs and feelings or opening up schoolhouse walls."
Conference participants were reminded that students do not learn only from the lesson plan: "They also learn from the routine of the school, from the way people behave toward one another, and from the values and attitudes that are accepted and admired" (p. 25). The school's atmosphere or its climate constitutes a "hidden curriculum" which must support the objectives of learning. One important element of that hidden curriculum, it was noted, is the way authority is exercised: "Through the limits, boundaries, and expectations it sets for personal behavior and performance, the high school makes both implicit and explicit statements about what it values" (p. 25). Participants urged that schools should nurture intellectual honesty and a sense of decency by setting a model to be followed by students. Theodore Sizer observed that "Intellectually honest people and schools are clear and consistent about authority and limits, what they propose to do and what they can't do" (p. 27). He argued that if schools wanted students to be scholarly, the staff itself must be scholarly, and that decency is only learned by experiencing it.

Teachers are also affected by the hidden curriculum, the school climate. Scholarship, intellectual
honesty, decency, and a sense of community are values which must be represented by the school to its faculty: "If [the school] wishes students to adopt intellectual values, the school must treat teachers as people of intellect" (p. 31). Teachers must have incentives and opportunities to plan together, to share ideas, and to develop a sense of community. Most conference members agreed that "a public school could indeed become a model for these values and wondered whether society as a whole was ready for them" (p. 32).

Conference members suggested that there were changes they believed their schools must make in the 1980s. Although they felt that they were giving more weight to individual values than they had in the past, they "agreed generally that they must do more to help students to find personal meaning—perhaps through more sense of community—and touch the world outside" (p. 33). The acknowledged the importance of the hidden curriculum and asked: "How could the school help overcome fears of failure and create a climate in which both individualism and a sense of community could grow?" (p. 34). They wondered whether new school structures might be designed "to allow students to be more helpful to one another and teachers to be more
effective?" (p. 34). Most of the conference group pondered the question as to how "to reconcile the requirements of high standards with compassion for all students, to nourish individuality while stimulating intellectual growth" (p. 34).

The mainly male administrators were reminded by a female participant that the developmental sequences and patterns of girls and women differed from those of boys and men and that there were issues of self-development and relationships which needed attention.

The question which originally sparked the conference had been: "How will Harvard's new Core Curriculum affect the college preparatory high schools?" (pp. 36-37). Nevertheless, curriculum questions were barely touched and the conference participants "did not tackle the question of what high school students should be learning or what skills they should be acquiring. They did not discuss curricular options nor, as Harvard did, what it means to be an educated person in the latter part of the twentieth century" (p. 37). Instead, they placed those questions on agendas for the future.

Although convened originally to discuss the Harvard Core Curriculum's impact on a group of wealthy school district and independent college preparatory
high schools, the conference discussion focused on the school climate and the interpersonal relationships within the schools rather than on the curriculum. The issues were explored from the viewpoint of chief school administrators who, as one principal put it, "are consumed with the issues of management and, therefore, out of touch with the day-to-day lives of our pupils" (p. 36). The participants agreed that although their schools were somewhat atypical, "many of the issues they discussed—moral values, the nature of authority, the needs of the individual, the purposes of academic education—concern all schools... All educators contend with them" (p. 36).