Recommendations of five reports for improving American public elementary and secondary education are listed in a format enabling comparisons to be made with respect to 11 major categories and numerous subcategories. Included are recommendations of the reports from the National Commission on Excellence in Education, the Twentieth Century Fund, the Education Commission of the States, the National Science Board, and the Carnegie Foundation for the Advancement of Teaching. The 12 major categories include curriculum; programs for special populations, college entrance requirements, performance standards for students, teachers, leadership and management, fiscal support, federal role, implementation plan, business/education partnerships, and sponsorship and membership of the groups producing the reports. (RH)
COMPARISON OF RECOMMENDATIONS
FROM SELECTED EDUCATION REFORM REPORTS

Congressional Research Service
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COMPARISON OF RECOMMENDATIONS FROM SELECTED EDUCATION REPORTS

Recommendations for improving American public elementary and secondary education have received much attention since the release of the report from the Secretary of Education's National Commission on Excellence in Education. Additional impetus to this discussion has been added by reports from the Twentieth Century Fund, the Education Commission of the States, the National Science Board, and the Carnegie Foundation for the Advancement of Teaching.

Each report has been sponsored by a different organization and appears to have a slightly different orientation. For example, the principal audience for the Excellence Commission's report would appear to be the general public, and the recommendations are primarily for secondary schools. The report from the Twentieth Century Fund focuses more on the concerns about education in urban areas, and the recommendations principally call for federal actions. The report from the Education Commission of the States was issued by the "Task Force on Education for Economic Growth." The recommendations have a broader focus and are addressed jointly to businesses, labor, and the professions. The National Science Board's Commission on Precollege Mathematics and Science Education was charged with providing recommendations for improving the quality of high school mathematics and science programs. Rather than being based on new field studies or a detailed analysis of a research data base, these four reports have tended to rely upon available research data and expert testimony in arriving at their recommendations. This tendency does not characterize the study of the American high school conducted by the Carnegie Foundation for the Advancement of Teaching. This report utilized data from the studies by James Coleman and John Goodlad referred to below. The Carnegie report's recommendations centered on high school programs, requirements, and teachers.

These five reports have been selected for comparison because of the comprehensiveness of their recommendations and the implications of the recommendations for public policy. Even though these completed reports appear to be directed toward both elementary and secondary schools, most of the recommendations relate to secondary schools. Little attention has been given to changes that may be needed in elementary schools so that they can provide the types of educational experiences needed by students if they are to succeed in the "new" high schools.

Other studies either have been completed or are underway. James Coleman's ongoing study, "High School and Beyond," focuses on educational processes and outcomes and includes a sample of 58,000 students from 1,000 public and private high schools. John Goodlad's "A Study of Schooling" is based on extensive site visits and longitudinal data from 5,000 classrooms. Theodore Sizer is completing "A Study of High Schools" for the National Association of Secondary School Principals; this study involves extensive observations gained from 65 high schools. The College Entrance Examination Board's Educational Equality Project has recently completed a study of the needed academic preparation for college in terms of what students need to know and be able to do in order to succeed in postsecondary education. Mortimer Adler also has completed work on the "Pioneers Proposal" that calls for a dramatic revision of the high school curriculum with greater attention being given to academic rigor and substance.

These five reports will be followed by others over the next several months. (See CRS Issue Brief 83106 for updated information.) On the following pages, recommendations from the reports have been grouped and compared by broad topic.
### Comparison of Recommendations from Select Education Reform Reports

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<tr>
<td>Graduation Requirements</td>
<td>All students seeking a diploma should be required to complete (a) 4 years of English; (b) 3 years of mathematics, (c) 3 years of science, (d) 3 years of social studies; and (e) one-half year of computer science.</td>
<td>The Federal Government should clearly state that the most important objective of elementary and secondary education in the United States is the development of literacy in the English language.</td>
<td>The school curriculum should be strengthened. States and communities should identify skills they expect the schools to impart.</td>
<td>Schools should return to the basins of reading, writing, and arithmetic, but also should add the &quot;new basics&quot; of communication and higher problem-solving skills, scientific and technological literacy, and computer literacy.</td>
<td>Graduation from high school should have clearly established goals that focus on the mastery of language, preparation for work and further education, and community service.</td>
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<tr>
<td>Education Commission of the States</td>
<td>Rigorous programs should be provided to advance students' personal, educational, and occupational goals, such as the fine and performing arts and vocational education.</td>
<td>Elementary schools should provide a sound base in English language development and writing, computational and problem-solving skills, science, social studies, foreign languages, and the arts.</td>
<td>Educational objectives should focus on mathematics, science, and technology for all students.</td>
<td>Educational objectives should emphasize the collection of data, communication of results, and formulation and testing of solutions.</td>
<td>In addition to English, social studies, science, and mathematics, the high school curriculum should include foreign languages, the arts, non-Western studies, technology, computer literacy, and the arts.</td>
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<tr>
<td>Language</td>
<td>High school students should complete at least (1) 3 years of science and technology, including one year of algebra; (2) 3 years of science and mathematics, including one year of algebra, and one year of computer science; (3) 2 years of science; (4) 2 units of mathematics; (5) 1/2 unit of technology; (6) 1/2 unit of health; (7) 1/2 unit semester on work; and (8) 1/2 unit semester on independent social issue project that draws upon their high school experiences.</td>
<td>Courses not only in mathematics and science, but also in all disciplines, must be strengthened and improved. The goal should be both higher standards and greater motivational power—elimination of &quot;soft&quot; non-essential courses, more enthusiastic involvement of students in learning, encouragement of mastery of skills beyond the basics, e.g., problem-solving, analysis, interpretation, and persuasive writing.</td>
<td>Educational objectives should emphasize the collection of data, communication of results, and formulation and testing of solutions.</td>
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* Educational Commission of the States
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<th>High School Graduation (cont'd.)</th>
<th>Twenty-first Century Fund</th>
<th>ELS Economic Growth</th>
<th>National Science Board</th>
<th>Carnegie Foundation</th>
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<tr>
<td>Course Content</td>
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<td>Proficiency in a Second Language</td>
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<td>Time</td>
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<td>Textbooks and Instructional Materials</td>
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For the college-bound, 2 years of foreign language in high school are strongly recommended. (Detailed implementing recommendations are included for each subject area.)

Every American public school student should have the opportunity to acquire proficiency in a second language.

Every State should increase the duration and intensity of academic learning time. Students should be introduced earlier to such critical subjects as science. Schools should examine each school year, especially the twelfth grade, to ensure that time is not wasted.

School districts and State legislatures should strongly consider 7-hour school days, as well as a 200- to 220-day school year.

Additional instructional time should be found to meet the needs of slow learners, the gifted, and others who need more instructional diversity than can be provided in the conventional school day and year.

Textbooks and tools of learning and teaching should be upgraded and updated to assure more rigorous content and to reflect current applications of technology, the most scholarship, and research findings. Funds should be made available to develop tests for the disadvantaged, learning disabled, and gifted and talented.

<table>
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<tr>
<th>Excellence Commission</th>
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<tr>
<td>(A list of &quot;Basic Skills and Competencies for Productive Employment&quot; is contained in the Appendix.)</td>
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Both States and localities should consider lengthening the school year and the school day by extending teachers' contracts.

Learning time should be increased by establishing a wider range of learning opportunities beyond the normal school day and year.

Secondary school students should be provided with course outlines. Textbooks and curriculum materials should be sufficient and up-to-date.

Public and private support for educational television programs on science should be increased, and time should be provided by commercial stations as well as cable and local television stations.

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<tr>
<td>A &quot;new Carnegie unit&quot; service requirement involving school or community volunteer work should be added.</td>
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</table>

Details are provided concerning the content emphasis of the core curriculum.

A list of "Basic Skills and Competencies for Productive Employment" is contained in the Appendix.)

Every State should increase the duration and intensity of academic learning time. Students should be introduced earlier to such critical subjects as science. Schools should examine each school year, especially the twelfth grade, to ensure that time is not wasted.

Every American public school student should have the opportunity to acquire proficiency in a second language.

Significantly more time should be devoted to learning the "new basics."

School districts and States should strongly consider 7-hour school days, as well as a 200- to 220-day school year.

Time available for learning should be expanded through better classroom management and organization of the school day.

Additional instructional time should be found to meet the needs of slow learners, the gifted, and others who need more instructional diversity than can be provided in the conventional school day and year.

Textbooks and tools of learning and teaching should be upgraded and updated to assure more rigorous content and to reflect current applications of technology, the most scholarship, and research findings.

Funds should be made available to develop tests for the disadvantaged, learning disabled, and gifted and talented.

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<tr>
<td>Time</td>
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To provide more time for the study of mathematics, science, and technology, the school day, week, and/or year must be substantially lengthened.

Secondary school students should be provided with course outlines. Textbooks and curriculum materials should be sufficient and up-to-date.

Public and private support for educational television programs on science should be increased, and time should be provided by commercial stations as well as cable and local television stations.

Less reliance should be placed on textbooks and more on primary source materials.

Technology, especially computers, should not be purchased until the district has a utilization plan and is confident that adequate software is available. Computer resources should be related to instructional objectives, and emphasis should be placed on the social importance of computers.
<table>
<thead>
<tr>
<th>Textbook Adoption</th>
<th>Guidance</th>
<th>Homework</th>
<th>Effective Study and Work Skills</th>
<th>Programs for Special Populations</th>
<th>Special Fellowships for Academies</th>
<th>College Entrance Requirements</th>
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<tr>
<td>In adopting textbooks, States and localities should evaluate texts on the basis of their capacity to present rigorous and challenging material clearly and require publishers to furnish data on effectiveness.</td>
<td>Guidance services should be upgraded and promote the elimination of discrimination. Specific school personnel should be obligated to inform students of college entrance requirements.</td>
<td>States should ease their control over textbook selection and transfer authority to the local level, with teachers having a far greater voice in selecting texts and materials.</td>
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<td>Students in high schools should be assigned homework.</td>
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<td>Effective study and work skills should be introduced in the early grades and continued throughout the student's schooling.</td>
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<td>The Federal Government, in cooperation with States and localities, should help meet the needs of key groups of students such as the gifted and talented, economically disadvantaged, minority and language minority students, and the handicapped.</td>
<td>Participation of young women and minorities should be increased in courses where they are underrepresented.</td>
<td>Programs should be developed to identify and eliminate barriers to full educational opportunity for all youth. Schools should offer appropriate sequences of courses for students at various levels of ability.</td>
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<td>Academically gifted students should be identified and challenged.</td>
<td>Programs should be developed to identify and eliminate barriers to full educational opportunity for all youth. Schools should offer appropriate sequences of courses for students at various levels of ability.</td>
<td>- No comparable provision-</td>
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<td>- No comparable provision-</td>
<td>Handicapped children should be specifically included in Programs for education and economic growth.</td>
<td>Federal funds should be used to establish 1,000 exemplary elementary and 1,000 exemplary secondary schools.</td>
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<td>Four-year colleges and universities should raise their admission standards in line with the recommended requirements for high school graduation.</td>
<td>Colleges and universities should raise their entrance requirements.</td>
<td>Steps should be taken to phase in college entrance requirements of four years of science and four years of mathematics.</td>
<td>States should ease their control over textbook selection and transfer authority to the local level, with teachers having a far greater voice in selecting texts and materials.</td>
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<td>PERFORMANCE FOR STUDENTS</td>
<td>Twentieth Century Fund</td>
<td>SCS Economic Growth</td>
<td>National Science Board</td>
<td>Carnegie Foundation</td>
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<td>Grades should be reliable indicators of a student's readiness for further study.</td>
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<td>No comparable provision</td>
<td>Expectations should be high, standards clear, evaluation fair, no students held accountable</td>
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<td>Standardized Tests</td>
<td>No comparable provision</td>
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<td>A new student achievement and assessment test (SAT) should be developed. The achievement portion would be based on the course curriculum and the assessment portion would be designed to help students make better informed choices.</td>
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<td>Placement and grouping of students, as well as promotion and graduation policies, should be guided by the academic progress of students and their instructional needs, rather than by rigid adherence to age.</td>
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<td>No comparable provision</td>
<td>The English proficiency of all students should be assessed before students enter high school. Remedial programs should be provided for those who are deficient</td>
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<td>Attendance policies with clear incentives and sanctions should be used to reduce the amount of time lost through student absenteeism and tardiness.</td>
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<td>No comparable provision</td>
<td>A clear attendance policy with sanctions should be adopted.</td>
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<td>Discipline</td>
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<td>No comparable provision</td>
<td>School officials should support teachers in the maintenance of discipline on the basis of a clearly stated code of conduct.</td>
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<td>Teacher preparation should be improved, and teaching should be made a more rewarding profession.</td>
<td>A major federal initiative should be undertaken that emphasizes the critical importance of quality teachers in America's schools.</td>
<td>Schools and school districts should improve methods for hiring, training, and paying teachers.</td>
<td>Working conditions for teachers should be improved, teaching loads reduced, interruptions and extra duties eliminated, preparation improved, and planning time of 40 minutes per day provided.</td>
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<td>States and school systems should establish requirements concerning discipline, grades, and other matters.</td>
<td>Effective programs should be established to monitor student progress through periodic testing of general achievement and specific skills. The testing program should be linked to a carefully designed program of remediation and enrichment for students who need special help.</td>
<td>Social promotions (i.e., based on chronologically age and physical size) should be curtailed.</td>
<td>Student Progress should be measured by tests of general achievement and specific skills with promotion based on mastery, not age.</td>
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<td>States and local districts should establish firm, explicit, and demanding requirements concerning student grades.</td>
<td>States and school systems, principal's teachers, and parents should work to reduce student absences and school failures. Efforts to deal with absenteeism and dropouts should include revitalizing course materials and making educational schedules flexible enough to accommodate students with special problems.</td>
<td>States and local districts should adopt rigorous discipline policies that reflect the district's goals and expectations. Rules should be applied consistently and impartially, and state laws modified to permit effective discipline in the schools.</td>
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<td>The burden on teachers to maintain discipline should be reduced by developing and enforcing firm and fair conduct codes, and by considering alternative rooms, programs, and schools for disruptive students.</td>
<td>States and local school districts should establish firm, explicit, and demanding requirements concerning student discipline.</td>
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Teacher Preparation
- Persons preparing to teach should be required to meet high educational standards, and to demonstrate competence in academic disciplines.
- Master teachers should be involved in designing teacher preparation programs.
- Resources should be used to solve the problem of a shortage of mathematicians and science teachers.
- Efforts should be made to have qualified persons with academic training in mathematics and science eligible to teach. Other areas of critical need, such as English, must also be addressed.
- School boards, administrators, and teachers should cooperate to develop career ladders for teachers that distinguish among the beginning instructor, the experienced teacher, and the master teacher.
- Colleges and universities should be judged on the performance of their graduates.

Teacher Certification
- No comparable provision

Teacher Education Institutions
- Teacher salaries should be increased and made profession-ally competitive and market sensitive.
- School boards should adopt a 1-month contract for teachers.
- Teacher salaries should be performance based.

Teacher Salaries or Grants
- No comparable provision

The Twenty First Century Fund
- Every State and local school district, with the fullest participation of teachers, should drastically improve methods of training teachers.
- States, singly or in cooperation with one another, should establish better pre-service and in-service education programs for teachers.
- Teacher certification processes should be changed to make it possible for qualified "outsiders" to serve in the schools.
- Teacher certificiation processes should be changed to make it possible for qualified "outsiders" to serve in the schools.
- States should create career ladders for teachers.
- Each State should substantially restructure and renew its teacher training programs, and should upgrade the quality of the teacher training curriculum so that entering teachers will meet higher standards.
- States should require teachers to have computer skills.
- Liberal arts colleges should assume a greater role in training elementary and secondary school teachers.
- The use of science museums in teacher preparation programs should be encouraged.
- Institutions should establish higher admissions, curriculum, and graduation standards for future teachers.
- Schools should explore means of adjusting pay in order to compete for and retain teachers in shortage areas.
- Competitive grants "Teacher Excellence Awards" should be established in every school. Travel funds and summer study grants should be provided for experienced teachers.

ECS Economic Growth
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<thead>
<tr>
<th>Teacher Performance</th>
<th>Recognition of Teachers</th>
<th>Loans/Grants for Prospective Teachers</th>
<th>Leadership and Management</th>
<th>Principals</th>
<th>School Boards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary, promotion, tenure, and retention decisions should be tied to an effective evaluation system that includes peer review so that superior teachers may be rewarded, average ones may be encouraged, and poor ones may be either improved or terminated.</td>
<td>- No comparable provision -</td>
<td>Incentives, such as grants and loans, should be made available to attract outstanding students into the teaching profession.</td>
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<td>The master teacher proposal is designed to &quot;pave the way for reconsideration of merit based personnel systems.&quot;</td>
<td>- No comparable provision -</td>
<td>A scholarship program should be used to augment the supply of teachers in mathematics and science as well as in foreign languages.</td>
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Boards of education and higher education officials should cooperate with teachers and administrators on ways to measure the effectiveness of teachers and reward outstanding performance. Procedures should be tightened for deciding which teachers to retain and dismiss.

States, communities, the media, and businesses should devise new ways to honor teachers.

Excellent teachers should be recognized through publicity and financial awards.

Every school district should develop programs for recognizing outstanding teachers.

Evaluation of teacher performance should be largely controlled by teachers judged to be outstanding in the classroom.

A two-week professional development term should be added to the school year, with compensation.

Incentives should be used to attract the most able people into teaching.

States should set higher standards for recruiting, training, and monitoring the performance of principals.

Excellent teachers should be recognized through publicity and financial awards.

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<td><strong>Educators, Parents, and Citizens</strong></td>
<td><strong>The Commission calls upon educators, parents, and citizens at all levels to assist in bringing about the reforms proposed in this report.</strong></td>
<td><strong>The Federal Government must continue to help meet the special needs of poor and minority students while taking the lead in meeting the general and overwhelming need for educational quality.</strong></td>
<td><strong>Educational excellence is a national imperative that requires a high level of commitment from all sectors of society.</strong></td>
<td><strong>Citizen participation in schools should be increased, and advisory councils and volunteer programs should be formed in all schools.</strong></td>
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<td><strong>States and Localities</strong></td>
<td><strong>Citizens should provide the fiscal support and stability required to bring about the reforms.</strong></td>
<td><strong>Schools should make the best possible use of resources. More funds are needed from all sources for selective investments in efforts that promote quality.</strong></td>
<td><strong>State and local governments should bear most of the expense of elementary and secondary education, with Federal funds being used to address critical national issues.</strong></td>
<td><strong>States and local governments must work together to help bring excellence to the Nation's public schools.</strong></td>
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<td>The Federal Government's role includes several functions of national consequence that States and localities are unlikely to be able to meet: protecting the constitutional and civil rights of students and personnel; collecting data, statistics, and general information about education; supporting teacher training in these areas of shortage or key national needs; and providing student financial assistance and research and graduate training. Assistance should be provided with a minimum of administrative burden and intrusiveness.</td>
<td>The executive and legislative branches of the Federal Government are called upon to emphasize the need for better schools and a better education for young Americans.</td>
<td>(See &quot;FEDERAL ROLE&quot; under &quot;FISCAL SUPPORT&quot; above.)</td>
<td>The President should appoint a National Education Council consisting of representatives from a cross-section of national interests. This group would identify national educational goals and assessment mechanisms for every state, school district, and school and report annually on the status of American education and its progress toward the goals.</td>
<td>The secretary of Education should name a National Commission on Computer Instruction to evaluate computer software. (See &quot;FEDERAL ROLE&quot; under &quot;FISCAL SUPPORT&quot; above.)</td>
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<td>Federal Research Efforts</td>
<td>The Federal Government should promote and support proficiency in English for all children in the public schools, but especially for those who do not speak English, or have only a limited command of English. Federal attention and assistance should go to economically depressed localities with concentrations of immigrant and/or impoverished groups as well as those who already are making strong efforts to improve their educational performance. The Federal Government should emphasize programs to develop basic scientific literacy among all citizens and programs to provide advanced training in mathematics and science for secondary school students. (Also, see &quot;TEACHERS&quot; above.) Federal support should be provided for specific research activities such as basic data, educational performance, evaluation of Federal education programs, and fundamental research into learning processes.</td>
<td>Federal funds should be used to conduct research on teaching and learning at the basic and classroom levels, with particular attention to the integration of educational technology into the educational process.</td>
<td>Federal monies should be used to expand the survey of high school students to include a sampling of graduates from all high schools at four year intervals to learn about post-high school placement and experiences.</td>
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Each State should develop and implement a plan for improving education in grades K-12. Each governor should appoint a broadly inclusive task force on education for economic growth. This task force should develop an implementation plan for the State. Each local school district also should develop its own implementation plan.

The National Science Board Commission on Precollege Education in Mathematics, Science, and Technology. The Board is the policy-making body for the National Science Foundation.

Businesses should be invited to participate in cooperative programs that involve sharing and contributions of equipment.

Provisions and opportunities should be provided for students to see science and technology in actual operation in plants. Public and private employers should furnish some summer or year-round employment for mathematics, science, and technology teachers.

Local school boards should foster public/private partnerships to facilitate constructive change.

Partnerships for improving education should be formed with participation by businesses, labor, and the professions. Public officials, higher education officials, and school officials should establish their own partnerships.

Schools should draw on industry, universities, and public agencies as sources of teaching assistance.

Businesses and schools should establish programs to aid high-risk students as well as the gifted. Funds should be provided for recognition of outstanding teachers, staff development, and improvement of school facilities.

Each college or university should form a comprehensive partnership with one or more secondary schools.

To expand learning opportunities, schools should establish connections with libraries, museums, art galleries, colleges, and industrial laboratories.

Carnegie Foundation for the Advancement of Teaching and the Atlantic Richfield Foundation.

Various groups were involved in the field studies and preparation of the report. The principal group was the National High School Panel consisting of 28 members, 9 of whom were from higher education, and 11 of whom represented elementary and secondary education.

Z. Forbes Jordan
Senior Specialist in Education
Office of Senior Specialists
September 23, 1983

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