

STUDY OF EDUCATION IN NEVADA

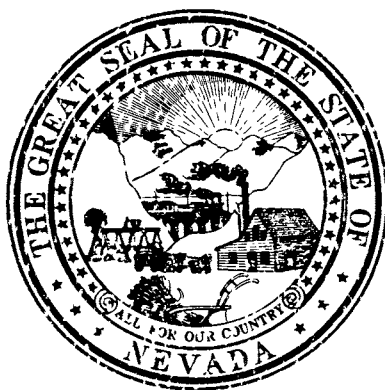


Bulletin No. 85-9

LEGISLATIVE COMMISSION
OF THE
LEGISLATIVE COUNSEL BUREAU
STATE OF NEVADA

August 1984

S T U D Y O F E D U C A T I O N I N N E V A D A



BULLETIN NO. 85-9

LEGISLATIVE COMMISSION
OF THE
LEGISLATIVE COUNSEL BUREAU
STATE OF NEVADA

AUGUST 1984

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SENATE CONCURRENT RESOLUTION—Directing the legislative commission to appoint a special committee to study education.

WHEREAS, The National Commission on Excellence has issued a public report describing the problems facing education in America; and

WHEREAS, The Commission's report proposes solutions to those problems; and

WHEREAS, The contents of this report are important to the people of Nevada and the system of education in Nevada; now, therefore, be it

Resolved by the Senate of the State of Nevada, the Assembly concurring, That the legislative commission is hereby directed to appoint a special committee to:

1. Study the report of the National Commission on Excellence and the recommendations in the report for improving education; and

2. Report the results of this study and any recommendations to the governor, the department of education, the school districts in Nevada and the legislative commission; and be it further

Resolved, That the results of the study and any recommendations for legislation be reported to the 63rd session of the legislature.

REPORT OF THE LEGISLATIVE COMMISSION

TO THE MEMBERS OF THE 63RD SESSION OF THE NEVADA LEGISLATURE:

This report is submitted in compliance with Senate Concurrent Resolution No. 55 of the 62nd session of the Nevada legislature which directs the legislative commission to appoint a special committee to study education. As required by the resolution, the special committee was directed to:

1. Study the recommendations for improving education as contained in A Nation at Risk, the report of the National Commission on Excellence in Education; and
2. Transmit the results of the study and any recommendations to the governor, the state department of education, the school districts in Nevada and the legislative commission.

The special committee appointed to conduct the study was further directed to report the results of the study and any recommendations for legislation to the 63rd session of the legislature. The legislative members of the special committee were:

Assemblyman Marvin M. Sedway, Chairman
Senator William H. Hernstadt, Vice Chairman
Assemblyman Robert G. Craddock
Assemblyman Jane F. Ham
Assemblyman Charles C. Perry

The special committee has attempted, in this report, to present its findings briefly and concisely. A great deal of data was gathered and reviewed in the course of this study. The data which bear directly upon recommendations in this report are included. The report is intended as a guide for all interested parties in addressing the needs and concerns of Nevada's educational system. All supporting documents and minutes are on file with the research library of the legislative counsel bureau and available to any member.

This report is transmitted to the members of the 63rd session of the Nevada legislature for their consideration and appropriate action.

Respectfully submitted,

Legislative Commission
Legislative Counsel Bureau
State of Nevada

Carson City, Nevada
August 1984

* * * * *

LEGISLATIVE COMMISSION

Senator James I. Gibson, Chairman

Senator Thomas J. Hickey	Assemblyman Louis W. Bergevin
Senator Robert E. Robinson	Assemblyman Joseph E. Dini, Jr.
Senator Randolph J. Townsend	Assemblyman John E. Jeffrey
Senator Sue Wagner	Assemblyman Michael O. Malone
	Assemblyman David D. Nicholas
	Assemblyman John M. Vergiels

SUMMARY OF RECOMMENDATIONS

This summary represents the major conclusions reached by the subcommittee. These conclusions are based upon suggestions which came from public hearings, representatives of educational organizations and institutions, research documents, and the experience of the members of the special committee.

The special committee recommends that:

CURRICULUM

1. The state board of education continue to prescribe the minimum number of credits to graduate. The special committee also recommends that the state board of education further define and emphasize course and curriculum content.

VOCATIONAL EDUCATION

2. The statutes be amended to change the term "vocational education" to "occupational education." (BDR 34-222)
3. The Joint Council on Vocational Education consist of a broader representation, including members from Nevada's tourism, gaming, and mining industries.
4. The legislature establish a capital equipment fund of \$3 million to which school districts may apply on a one-time basis for funds to provide them with adequate and up-to-date equipment for vocational education programs. (BDR S-240)
5. The legislature provide a basic support guarantee for vocational education on a program unit basis patterned after special education program units. (BDR S-243)
6. The statutes be amended to require each school district with a population of over 100,000 to establish a vocational education school. (BDR 34-222)
7. The 1985 session of the Nevada legislature adopt a resolution urging school districts with populations under 100,000 to cooperate in the establishment of regional vocational programs which make use of existing facilities. (BDR 223)

PROGRAMS FOR SPECIAL POPULATIONS

8. The legislature, when establishing basic support guarantees, increase the number of special education units by 60 in the first year of the 1985-87 biennium and by 40 in the second year over the number set for the 1984-85 school year.
9. The statutes be amended to permit educational services to all exceptional children as early as age 3.
(BDR 34-220)

STANDARDS AND EXPECTATIONS

10. The statutes be amended to require that kindergarten instruction be available to every age-eligible child.
(BDR 34-220)
11. The statutes be amended to permit any child who will arrive at the age of 4 years by September 30 to enter kindergarten. (BDR 34-220)
12. The statutes be amended to require compulsory education for children between 6 and 16 years of age. (BDR 34-220)
13. The statutes be amended to provide teachers with the sole authority to promote, or not promote, a student to the next grade. (BDR 34-220)
14. The section of the statutes that states that no pupil may be retained more than one time in the same grade be repealed. (BDR 34-220)

TEACHERS AND TEACHING

15. The statutes be amended to establish a grant/loan program for persons entering the teaching profession in critical subject areas and who agree to teach in those districts where teachers are most needed. The special committee further recommends that such a program be patterned after the Western Interstate Commission for Higher Education student loan fund. (BDR 34-217)
16. The statutes be amended to require persons desiring to teach for the first time in Nevada to pass a nationally recognized basic skills test and subject matter test in the area(s) in which they are seeking certification.
(BDR 34-216)

17. The statutes be amended to require that evaluation committees consist of the teacher being evaluated, his administrator, and his peers with the peer group constituting a majority. The special committee further recommends that the state board of education be required to develop the basic evaluation instrument and the instructions for its use. The special committee further recommends that the school districts be permitted to add additional evaluation criteria if those criteria are approved by the state board of education. (BDR 34-216)
18. The 1985 session of the Nevada legislature enact legislation to require an entry level base salary for teachers in all school districts of \$16,000 in 1985-86, \$17,000 in 1986-87, and \$18,000 in 1987-88 based on the number of work days (plus 5) in 1983-84; and to require that salary schedules be structured to permit annual increases in salary over an employment period of 20 years. The special committee further recommends that in each district all teachers receive salary increases commensurate with the entry level base salary increase. (BDR 34-215)
19. The statutes be amended to require school districts to provide more opportunities for teachers to interact on a professional basis to develop competency by increasing inservice training to a minimum of 5 days. (BDR 23-214)
20. The statutes be amended to broaden the scope of mandatory bargaining to include class size/class ratio, evaluation, discipline, and transfer procedures. (BDR 23-214)
21. School districts and individual schools reduce the administrative burden on teachers and other related intrusions into the school day in order to add time for teaching and learning.
22. The statutes be amended to require that any employee of a school district who observes an illegal act on school property report such act to the proper legal authorities. The special committee further recommends that any person who observes and fails to report an illegal act on school property be guilty of a misdemeanor. (BDR 23-214)
23. The legislature give strong consideration to increased financial support for instructional materials and supplies for the school districts.

STAFFING AND ADMINISTRATION

24. The statutes be amended to require a master's degree for certification as a school administrator beginning with the 1985-86 school year. The special committee further recommends that this requirement not apply to those persons already employed as school administrators. (BDR 34-221)
25. The state department of education be permitted to increase the size of its staff to provide better services to the local districts. The special committee further recommends that the additional staff include a library consultant.
26. Adequate counseling services for all pupils in elementary schools be available.

POSTSECONDARY EDUCATION

27. The community colleges in the State of Nevada continue to have an open admissions policy. The special committee further recommends that the statutes be amended to raise the admissions standards at the University of Nevada-Reno and the University of Nevada-Las Vegas to require a minimum grade point average on high school course work of 2.5 on a 4.0 scale and an acceptable score, as defined by the board of regents, on the American College Test (ACT) or Scholastic Aptitude Test (SAT). (BDR 34-218)
28. The statutes be amended to permit the commission on economic development to provide grants of money to postsecondary institutions for the establishment of training programs for new or existing industries in Nevada to meet the personnel needs of these industries. (BDR 18-219)

REPORT TO THE 63RD SESSION OF THE NEVADA LEGISLATURE
BY THE LEGISLATIVE COMMISSION'S SPECIAL
COMMITTEE TO STUDY EDUCATION

I. INTRODUCTION AND BACKGROUND

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. (18:5)*

The above quote from A Nation at Risk, prepared by the National Commission on Excellence in Education, and especially the phrase "* * * a rising tide of mediocrity that threatens our very future * * *," has served as a rallying cry for educational reform since the report was released in April 1983. As the New York Times reported in June 1983, the commission "brought the issue [of education] to the forefront of political debate with an urgency not felt since the Soviet satellite shook American confidence in its public schools in 1957." (33:11)

The 1983 session of the Nevada legislature, recognizing that "The contents of this report are important to the people of Nevada and the system of education in Nevada * * *," passed Senate Concurrent Resolution No. 55 (File 159, Statutes of Nevada 1983) which directs the legislative commission to appoint a special committee to study education. That resolution specifically directs the special committee to:

1. Study the report of the National Commission on Excellence in Education and the recommendations contained therein for improving education; and
2. Report the results of this study and any recommendations to the governor, the state department of education, the school districts in Nevada and the legislative commission.

*The numbers in parentheses at the end of sentences refer to items in the "Bibliography and Footnotes" section of this report. The number before the colon refers to the publication or footnote entry, and the number(s) after the colon refers to the page number(s) of the publication.

3. Transmit the results of the study and any recommendations for legislation to the 63rd session of the legislature.

In accordance with the mandates of S.C.R. 55, the legislative commission appointed a special committee composed of legislators to conduct the study and recommend appropriate actions to the 1985 session of the Nevada legislature. Legislative members of the special committee were: Assemblyman Marvin M. Sedway, chairman, Senator William H. Hernstadt, vice chairman, Assemblyman Robert G. Craddock, Assemblyman Jane F. Ham, and Assemblyman Charles C. Perry.

The special committee held three public hearings and two work sessions. The public hearings were held in Las Vegas, on November 15, 1983; Carson City, on January 20, 1984; and Elko, on March 24, 1984. The two work sessions to formulate the final recommendations were held in Las Vegas on June 8, and June 26, 1984.

The special committee compiled a wealth of materials during the course of the study including reports, periodical articles, and comparative state statistical data. These documents are cited in the "Bibliography and Footnotes" section of this report.

The special committee heard testimony from expert witnesses representing all facets of public education in Nevada and from all geographic areas of the state. The public hearings held around the state provided the special committee with a clearer understanding of the various needs and desires of Nevada's rural and urban local school districts. The point was made repeatedly to the special committee by private citizens and professional educators that the state should not mandate all educational requirements. Rather, school districts should have flexibility in meeting their educational responsibilities for their communities. All persons who signed the special committee's witness roster and also made presentations to the committee are listed in the "Credits" section of this report.

A. SUMMARY OF NATIONAL EDUCATION REPORTS

The Education Commission of the States (ECS)* has called 1983 "The Year of The Report." More than 20 major reports prepared by prestigious groups were issued expressing concern about how the American educational system is preparing "our children for life in this information era." (8:9) While

*See footnote on next page.

not a new phenomena, these "reform" or "excellence" reports have brought to the Nation's attention the fact that some teachers do not teach subjects adequately, students are not learning, test scores have been dropping, high school drop-out rates are high, colleges and universities are obliged to offer many remedial classes, textbooks have been simplified and course content has been reduced.

Preeminent among these reports, and summarized on the following pages, is A Nation at Risk which has been a catalyst in efforts to reverse the downward trend in American education. Other major reports have also stimulated the establishment of various task forces and study commissions and will be discussed briefly. As ECS has reported, "the strength of these reports lies not in furnishing specific solutions, but in redirecting attention to education, in outlining the magnitude of the problem, and in suggesting possible courses of action." (8:14)

1. A Nation At Risk**

In April 1983, after 18 months of study, the National Commission on Excellence in Education released its report, A Nation at Risk. In a mere 36 pages, this "open letter to the American people" has become one of the most publicized studies of education in recent history.

The bipartisan commission, appointed by United States Secretary of Education T. H. Bell in August 1981, was asked to examine the quality of education in the United States and report its findings to the Nation. Specific areas of inquiry were to include the assessment of the quality of teachers and of learning, a comparison of American schools with those of other advanced nations, and an identification of "problems which must be faced and overcome if we are successfully to pursue the course of excellence in education." (18:2) The commission was further directed to pay particular attention to teenage youth, and did so by focusing on high schools.

*The Education Commission of the States (ECS) is a nationwide interstate compact formed in 1965 with central offices in Denver, Colorado. Its purpose is to help governors, state legislators, state education officials and others to develop policies that will improve the quality of education at all levels. Membership includes 48 states, the District of Columbia, American Samoa, Puerto Rico and the United States Virgin Islands (see page 2).

**The text of A Nation at Risk is attached as Appendix A.

The commission found that our Nation is at risk because of declines in educational performance due in large part to "disturbing inadequacies in the way the educational process itself is often conducted." (18:18) The commission reports that the high school curriculum is diluted, diffuse and lacks a central purpose. Standards and expectations in high school are characterized as low and limited. Students' time is spent ineffectively and inefficiently. And, the commission finds that teaching is not attracting the most academically capable persons; that in important areas there are shortages; that teachers' salaries are poor; that teacher preparation is too heavily weighted; and that the professional life of a teacher is "on the whole unacceptable."

The commission felt that "(L)earning is the indispensable investment required for success in the information age we are entering (.)" and "that everyone is born with an urge to learn which can be nurtured * * *." Based on these premises, the commission made recommendations in five broad areas - curriculum, standards, time in schools, teachers and educational leadership.

With regard to the curriculum, the commission recommends that a high school diploma be granted only to students who take, at a minimum, 4 years of English, 3 years of mathematics, 3 years of science, 3 years of social studies, and a half year of computer science. An additional 2 years of foreign language study is recommended for those students planning to attend college.

According to the commission, standards must be raised and high expectations applied to students' academic performance and conduct. Among the steps the commission advocates is that 4-year colleges raise their admission standards and notify all prospective applicants of that fact.

Time in school should be spent more effectively, as well as increased by lengthening the school day or the school year. The commission also recommends that more homework be assigned; that rules of conduct be more rigorously enforced; and that academic progress, not age, be the basis of placement, grouping, promotion, and graduation.

The commission made a seven-part recommendation concerning teaching, including calling for higher salaries that would be sensitive to market demands and teacher performance. The commission also suggested that career ladders be developed for teachers and that such ladders distinguish among beginning, experienced, and master teachers.

With regard to leadership, the commission recommends that educators and elected officials be held responsible for pursuing these needed educational reforms, and that "citizens" should provide the necessary fiscal support.

The commission concluded its report with "A Final Word," a "plea" that all students, parents, teachers, school boards, governments, businesses, and other public entities, become involved and take responsibility for educational reform or risk perpetual mediocrity in our schools.

Most testimony received by the special committee and documents reviewed lauded A Nation at Risk, if for no other reason than because it has helped immensely in bringing educational reform to the forefront of American consciousness. There are, however, a few criticisms relative to the report. First, some persons feel that the report is an elitist document that fails to address the needs of the great majority of students which will complete their education at the secondary level. In fact, it was reported to the special committee that 84 percent of all jobs in America do not require an undergraduate college degree. (43:1)

Secondly, some believe that the scope of the report, which is aimed at secondary schools, is too narrow and that for reform to be effective, it must occur at all levels of education. And thirdly, there has been some criticism from teachers that the report is unfair in placing the blame for the identified problems solely on the teachers.

2. Other Recent Reports on Public Education

While seeking to offer recommendations for improving American education, reports produced by different organizations tend to have different orientations and are based on different research methodologies. Certain reports such as A Nation at Risk, Making the Grade and Action for Excellence relied on testimony and available research data in arriving at their recommendations. Also, the principal audience for A Nation at Risk appears to be the general public, and the recommendations are aimed at secondary schools which are primarily a state and local responsibility. The report from the Twentieth Century Fund, Making The Grade, focuses more on education in urban areas and the recommendations principally call for federal actions. Action for Excellence, the report of the Education Commission of the States' Task Force on Education for Economic Growth "ties education initiatives to international competitiveness and international policy." The recommendations of the Task Force are addressed jointly to businesses, labor, and the professions.

In contrast, Mortimer Adler's The Paideia Proposal, Boyer's High School: A Report on Secondary Education in America, and Goodlad's A Place Called School are based on research of a long duration and make recommendations which would dramatically restructure the present system of education.

Even though each of the above mentioned reports has differing perspectives and areas of concern, the Education Commission of the States (ECS) has identified a number of findings that are shared by most:

- All agree that the quality of our education system must be improved soon.
- All agree that quality and equity are inseparable issues, as Adler notes, "The best education for the best is the best education for all."
- All agree that local government, state government and the federal government have important roles to play in the improvement of public school education.
- Most mention (and probably all agree) that formal schooling is only one facet of education. It is in effect a license to continue lifelong learning through other public and private institutions and personal sources. Learning which takes place after formal schooling is completed is as central to renewed personal and social vigor and productivity as are the public schools.
- Most believe that schools and the larger community must work together; the challenge of renewal is a broad-scale social challenge not limited to the schools alone.
- Most underscore the belief that the strength of our education system lies in its decentralized structure and control by individual communities. Communities will differ in their approaches to renewal of educational equalities and those differences will guarantee innovation, creativity and imaginative solutions to our problems. (48:12)

As some findings in the recent reports of public school education are shared, there are a number of shared recommendations as well. As mentioned, however, different perspectives and focus has also led to differing recommendations in some areas. For a comparison of the recommendations of the reports mentioned earlier and several others, see the tabular display prepared by ECS, contained in this report as Appendix B.

B. OVERVIEW OF RECENT STUDIES OF EDUCATION IN OTHER STATES

As of April 1984, the Education Commission of the States counted 275 state-level task forces working on education in the past year. (33:15) The approaches adopted by the states from the work of these task forces differ in many ways, yet the efforts toward excellence in education is clearly a nationwide movement. The impetus for change created by the national reports, molded by the task forces, and refined by state legislatures is expected to continue through the 1984-85 legislative sessions. As one educator noted "First came the breast beating * * * then came the bandwagon * * * Now comes the perspective of the bottom line." (14:2104) This is not to suggest that states and local districts had not been working on reforms prior to the issuance of the national reports and task force studies. It is, however, the combination of these state and national activities that explains in large part the success of the current reform movement.

The actual reforms recently adopted in each state indeed add up to a significant national change. The report The Nation Responds summarizes some of the changes as follows:

- Forty-eight are considering new high school graduation requirements, 35 have approved changes.
- Twenty-one report initiatives to improve textbooks and instructional materials.
- Eight have approved lengthening the school day, seven, lengthening the school year, and 18 have mandates affecting the amount of time for instruction.
- Twenty-four are examining master teacher or career ladder programs, and six have begun statewide or pilot programs.
- Thirteen are considering changes in academic requirements for extracurricular and athletic programs, and five have already adopted more rigorous standards. (33:16)

It is important to note that the above-mentioned reform initiatives are recent changes as of early 1984. States with long established or ongoing school improvement activities are not included.

The Task Force on Education for Economic Growth, Education Commission of the States, recently reported to the National Governors' Association the following state activities:

- Reform plans are being developed in 46 states. Business-education partnerships have been formed in 45 states.
- Fourteen states have passed or are considering tax increases to fund educational improvements. Idaho's education budget is up 15 percent; South Carolina has added a penny sales tax to raise \$200 million for schools.
- Revised teacher pay plans, most based on performance, have been approved or are being considered in 23 states. Nebraska and Utah have adopted career ladders, Florida is implementing merit pay, and 16 states have raised teacher salaries 8 percent or more in the past year.
- Twenty-six states have revised curriculum, including new textbook selection policies.
- Forty-one states have increased graduation standards. Florida will require 24 high school credits to graduate, the most in America, beginning in 1987.
- Twenty-nine states have made teacher certification requirements more stringent. (52:5-43)

The task force also identified eight states as leaders in educational reform for their recent efforts in making improvements. The states are:

- Arkansas for requiring tests for all teachers, smaller classes, more course offerings.
- California for a program to prepare minorities for math, science and high-tech careers.
- Colorado for its Employability Skills Project aimed at basic job entry-level skills for every high school graduate.
- Florida for its comprehensive overhaul of public schools, including graduation requirements which the task force calls the stiffest in the United States.

- Massachusetts for a program that paid the way for 10,000 teachers and administrators to training programs developed by school staffs.
- North Carolina for adding \$300 million to the budget for teacher raises, a 26 pupil-per-teacher limit and competency-based curricula.
- Ohio for tougher minimum standards. Starting in 1987, students must have 18 high school credits to graduate and pass competency tests three times during their 12 years in public school.
- Tennessee for a five-step career ladder program for teachers, with annual salary incentives of \$500 to \$7,000. (52:5-43)

States, of course, will vary in their approaches to enacting educational reforms. Some, such as Arkansas, Florida, and Mississippi, have passed comprehensive education packages with concomitant tax increases. Other states, such as Tennessee, have designed an education package around a single policy, in this case, career ladders. Still other states have enacted legislation on a single subject. In Utah, legislation was passed to allow local school districts to submit plans for career ladders to the state department of education for approval.

The special committee specifically reviewed the recent reform acts of California, Florida, Oklahoma, Tennessee and Utah. From these states, the special committee was able to gauge the extent of change taking place in the states and determine what were the major concerns of other states. Comparisons of reforms in the above-mentioned states with the recommendations of the special committee will be discussed later in the context of each recommendation.

In addition to the number of reforms taking place at the state level, many local schools and school districts have initiated efforts to improve their educational system. A listing of sample activities is contained in The Nation Responds by the United States Department of Education. (33:148)

C. RECENT PUBLIC EDUCATION REFORM ACTIVITIES IN NEVADA

As previously mentioned, many states and local school districts have made positive educational reforms prior to, and independent of, A Nation at Risk. Since the Nevada

legislature only meets in odd-numbered years, it has not had an opportunity to respond to the report. The report has, however, served as an impetus in the creation of several study groups in Nevada at the state and local level, including the legislative commission's special committee to study education.

In testimony received by the special committee at the three public hearings, several school districts provided information in response to A Nation at Risk and also catalogued some recent improvements at the district level. The fact that the districts have responded without state mandates is a testament to local responsiveness to the educational needs of the students of the individual districts. Highlights of recent improvements communicated to the special committee include:

- Most local districts in Nevada require more credits for graduation than the minimum of 20 required by the Nevada state board of education. This is the case even though only 20 states require as many as 20 credits for graduation (see Table 1, page 13a).
- Most districts have implemented more stringent grade requirements for participation in extracurricular activities than are required by the regulations of the Nevada Interscholastic Activities Association.
- Many of the school districts have adopted new attendance regulations which deny credit for any high school course if the student has too many unexcused absences.
- Several school districts in Nevada are mandating the testing of pupils in addition to the Nevada state proficiency exam.
- The Elko County School District, by increasing each period of instruction from 48 to 50 minutes increased the effective length of the school year by 6 days.
- The Elko County School District has instituted an in-house suspension program with supervised rooms so that students can continue in their academic program even while suspended.
- Many of the districts have established professional development or staff development programs to improve the performance of teachers and administrators.

- Several districts have created programs to enable high school seniors to take courses at the community colleges for credit.
- Washoe County School District has adopted an Honors Diploma Program which calls for 23 credits for graduation.
- Most districts have made efforts to provide students with more "time on task" by eliminating disruptive interferences by the administration and for extra-curricular activities.

In addition to the above examples, local school districts have been active in recruiting parental and community support in developing guidelines for educational reform at the local level. It has been recognized that there presently exists a "window of opportunity" for changes in the educational climate of the Nation and that the local school districts have been responding to that opportunity.

At the state level, the state board of education recently approved an updated prescribed course of study for elementary schools and has begun work on the course of study for secondary schools. The board also plans to "expand the scope and increase the difficulty level of the high school proficiency tests." (31:1)

The state board of education and the University of Nevada board of regents have also formed the Joint Council on College Preparation which recently issued a report entitled Making High School Count (Appendix C). The report identifies "the skills and competencies that our young people need for success in a 4-year college program" and thereby serves as a handbook for those students planning to attend college.

The commission on professional standards was created by the 1979 legislature through Assembly Bill 388 (chapter 538, Statutes of Nevada 1979) to advise the state board of education with regard to standards for the teaching profession, certification, evaluation and recertification procedures. The commission has prepared a working paper on teacher competency assessment and will be making proposals to the state board of education in this area in the near future.

The state board of education and the University of Nevada board of regents have also established a Joint Council on Vocational Education Preparation. The purpose of the joint

council is to enhance articulation between secondary and postsecondary vocational programs in an effort to provide an appropriately trained labor force within the state. The joint council also plans to prepare a report that will describe course work competencies and other educational experiences needed to optimize the success of students in postsecondary vocational education programs.

II. FINDINGS AND RECOMMENDATIONS

The following sections of this report represent the special committee's recommendations and legislative proposals pertaining to education in Nevada. The recommendations cover a broad range of topics including curriculum, vocational education, programs for special populations, standards and expectations, teachers and teaching, morale and working conditions, staffing and administration, and postsecondary education. The special committee recognizes the inter-relatedness of many of the recommendations and strongly believes that adoption of these recommendations can have a significant positive effect on the climate of education in Nevada.

While cognizant of the responsibility of the legislature and state board of education for overseeing the state's schools, the special committee is also aware that the different districts have varying problems and needs in creating and maintaining effective schools. When one considers the fact that the student population of the school districts in Nevada for the 1983-84 school year ranged from 189 to over 89,000, the differences became apparent. In submitting these recommendations for consideration by the legislature, the special committee concurs with the "Declaration of legislative intent," contained in Nevada Revised Statutes (NRS) 385.005 which says, in part:

*** * * public education in the State of Nevada is essentially a matter for local control by local school districts.**

A. CURRICULUM

A Nation at Risk calls curriculum "the very 'stuff' of education." (18:18) But, comparing secondary school curriculum taken by students in 1964 through 1969 and 1976 through 1981, the commission found that they "have been homogenized, diluted, and diffused to the point that they no longer have a central purpose. In effect, we have a cafeteria-style

curriculum in which the appetizers and desserts can easily be mistaken for the main courses." The result of this "curriculum smorgasboard," according to the commission, is a steady decline in achievement scores, the increase in the number of needed remedial courses, and the development of "a new generation of Americans that is scientifically and technologically illiterate." (18:10) To assist in the reversal of this declining trend the commission, as mentioned earlier, made the following recommendation:

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 4 years of high school: (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. For the college-bound, 2 years of foreign language in high school are strongly recommended in addition to those taken earlier. (18:24)

Chapter 389 of Nevada Revised Statutes empowers the state board of education to prescribe the courses of study offered by the school districts. The statutes further specify that in order to graduate, a pupil must pass a course in American government and a course in American history. The total number of credits needed to graduate from high school in Nevada for the class of 1986 is 20, including 10 1/2 required credits and 9 1/2 elective credits. As noted earlier, the 20 required credits are a minimum for graduation and, as can be seen on Table 1, most school districts have adopted more stringent requirements. In comparison to other states (see Appendix D), the minimum of 20 required credits for graduation places Nevada in the top 20 with regard to the number of required credits.

The special committee felt that the effort on the part of the school districts to increase requirements, most before A Nation at Risk was written, precluded the need for recommended increases. The special committee did feel, however, that those students that are college-bound should take more basic academic subjects in high school as outlined in Making High School Count, prepared by the Nevada Joint Council on College Preparation, 1984 (see Appendix C).

Much of the testimony received by the special committee urged that no further curriculum requirements be mandated at this time for two reasons; first, it was felt that existing

TABLE 1

GRADUATION REQUIREMENTS FOR THE CLASS OF 1986

	English	Social Studies	Math	Science	PE/ Health	Other	Required	Electives	Total
<i>A Nation at Risk</i>	4	3	3	3	-----	½ ¹	-----	-----	---
State of Nevada.....	3	2 ²	2	1	2½	-----	10½	9½	20
Carson City.....	3	3	2	1	2½	3½ ³	15	6	21
Churchill.....	3	3	2	1	3	-----	12	9	21
Clark.....	3	3	2	1	2½	-----	11½	9½	21
Douglas.....	3	3	2	1	2½	2½ ⁴	14	7	21
Elko.....	4	3	2	2	2½	-----	13½	6½	20
Esmeralda ⁵	---	---	---	---	-----	-----	-----	-----	---
Eureka.....	3	3	2	3	2½	-----	13½	8½	22
Humboldt.....	3	2	2	1	2½	-----	10½	9½	20
Lander.....	4 ⁶	3	2	2 ⁷	3	-----	14	8	22
Lincoln.....	4	2	2	2	2½	-----	12½	10½	23
Lyon.....	4	3	2	1	2½	-----	12½	8½	21
Mineral.....	3	2	2	2	2½	-----	11½	9½	21
Nye.....	4	2	2	1	2½	1 ⁸	11½	9½	21
Pershing.....	4	2	2	2	3	1 ⁹	14	9	23
Storey.....	4	3	3	2	2½	½ ¹⁰	15	7	22
Washoe.....	4	3	2	1	2½	-----	12½	8½	21
White Pine.....	3	3	2	1	3	-----	12	9	21

¹The report recommends ½ credit computer literacy, foreign language proficiency is suggested for college bound.

²The secondary course of study specifies 1 credit each in American government and American history.

³Carson City students must choose 3½ credits from math, science, social studies, language arts or advanced vocational.

⁴Douglas requires ½ credit speech plus 2 credits chosen from math, science, speech/debate or English.

⁵There are no high schools in this district.

⁶Lander students may substitute 1 credit of foreign language for 1 credit of English.

⁷One science credit must be in biology.

⁸Tonopah only, 1 credit is required in home/family living.

⁹Pershing requires 1 credit in business education.

¹⁰Storey requires ½ credit in computer literacy.

This chart reflects the minimum graduation requirements prescribed by the Nevada State Board of Education and the local school district requirements that were in place before *A Nation at Risk* was written. The department of education is conducting a survey to find what changes local districts are proposing in response to the report. That information will be summarized in an upcoming edition.

course content should be enhanced before requiring more courses and, second, that more required courses would limit the number of electives students may take, especially in vocational areas and the arts.

To enhance course content, the state board of education has adopted regulations for an updated prescribed course of study for elementary schools to become mandatory in September of 1986 under force of law. The course of study "is not a set of minimum competencies, but rather a set of common goals for the child of average abilities. It sets standards of achievement for the average child. These standards are to be adopted and followed by every school district in the state.

A prescribed course of study for secondary schools is presently being developed and should be in effect for the 1989 graduating class.

In consideration of the actions discussed above and the desire to provide Nevada's local school districts with some flexibility with regard to curriculum, the special committee, therefore, recommends:

The state board of education continue to prescribe the minimum number of credits to graduate. The special committee also recommends that the state board of education further define and emphasize course and curriculum content.

B. VOCATIONAL EDUCATION

The national reports discussed earlier and summarized in Appendix B either neglect to discuss vocational education or are ambivalent about the value of such curricula. A Nation at Risk speaks to vocational education in the context of the following broad recommendation:

The curriculum should provide students with programs requiring rigorous effort in subjects that advance students' personal, educational and occupational goals, such as the fine and performing arts and vocational education. (18:26)

The special committee feels that vocational education is indeed important for those students who do not intend to pursue a postsecondary education. As was reported to the special committee, "of every 10 students who do graduate from high school, only five will attend a community college or university and, of these five, only two will ever grad-

uate with a baccalaureate degree. Between five and eight of every 10 young perons are in need of vocational education and training at the high school level." (44:1) In addition, the special committee believes that the entire economy of Nevada can be positively effected by strong job training programs at the high school level.

The Clark County School District currently has the state's only two vocational education high schools. The Southern Nevada Vocational Technical Center is a comprehensive high school where students take both "basic" courses and vocational classes. The Area Trade Center serves as a "magnet" campus that students attend for vocational training only. Other courses for the students are taught at "home" campuses. (44:11) The success of these two schools, and similar schools across the Nation, has convinced the special committee that an investment in this area would be beneficial to the State of Nevada.

The special committee finds, however, that there presently exists a misunderstanding of what constitutes meaningful vocational education. The special committee believes, therefore, that in changing the term "vocational education" to "occupational education," students and parents will have a better understanding of the goals of such an education. It is also hoped that such a change will help foster a greater appreciation of job training and help remove the stigma of vocational education as a track for less academically oriented students. Additionally, such a change in terms may help distinguish between actual occupational education and avocational or industrial arts courses.

The special committee, therefore, recommends:

The statutes be amended to change the term "vocational education" to "occupational education." (BDR 34-222)

As previously mentioned, the Nevada state department of education and the University of Nevada board of regents have formed the Joint Council on Vocational Education. The special committee is of the opinion that the joint council, to be effective, must represent those industries that are critical for the maintenance and expansion of Nevada's economy.

The special committee, therefore, recommends:

The Joint Council on Vocational Education consist of a broader representation, including members from Nevada's tourism, gaming, and mining industries.

The special committee is well aware that in order to provide meaningful and effective job training there must be adequate equipment, skilled instruction, and a low teacher/pupil ratio.

With regard to equipment, the special committee believes that individual districts and schools should determine which programs are most important for their students and should determine their own needs for equipment. The special committee also realizes that enhancing equipment capabilities is very difficult with existing school district budgets.

The special committee, therefore, recommends:

The legislature establish a capital equipment fund of \$3 million to which school districts may apply on a one-time basis for funds to provide them with adequate and up-to-date equipment for vocational education programs. (BDR S-240)*

In addition to the above-mentioned one-time equipment fund, the special committee believes that a basic support guarantee is warranted for vocational education for two reasons. First, the special committee is aware of the added costs of providing meaningful curricula with skilled instructors and equipment maintenance. Second, vocational education programs have historically been some of the earliest educational programs to be abolished when funds are scarce.

The special committee, therefore, recommends:

The legislature provide a basic support guarantee for vocational education on a program unit basis patterned after special education program units. (BDR S-243)**

Based upon the success of the vocational education programs discussed previously in Clark County, the special committee feels that school districts with large populations should offer similar programs. A study is presently being conducted by the Washoe County School District to determine the efficacy of establishing such a school in that county.

*See Appendix E for an estimate of the amount required for the capital equipment fund prepared by the state department of education.

**See Appendix F for the unit cost formula prepared by the state department of education.

With regard to the smaller school districts, the special committee believes it is to the benefit of those districts to establish improved and expanded vocational education programs. The special committee, however, recognizes the funding and logistical problems of establishing such programs and, therefore, is not recommending a mandate but rather is strongly encouraging cooperation by the smaller districts.

The special committee, therefore, recommends:

The statutes be amended to require each school district with a population of over 100,000 to establish a vocational education school. (BDR 34-222)

The 1985 session of the Nevada legislature adopt a resolution urging school districts with populations under 100,000 to cooperate in the establishment of regional vocational programs which make use of existing facilities. (BDR 223)

C. PROGRAMS FOR SPECIAL POPULATIONS

The major concern of the special committee with regard to special education was ensuring program access to those children in need of special education programs. From testimony received, the special committee determined that there are two areas in which the legislature should respond to this concern of access: (1) increasing the number of special education units and (2) permitting children in need of special programs to enter those programs at an earlier age.

According to data gathered by the U.S. Department of Education, Office of Special Education, the national average of handicapped students served in the United States and territories was 9.94 percent for 1981-82 and 10.03 percent for 1982-83. In the same periods, 1981-82 and 1982-83, the State of Nevada served 7.891 percent and 8.409 percent of the student population as handicapped students, respectively. The percentage of handicapped students served in Nevada has actually increased more than a full percentage point from 1980-81 when it was 7.55 percent to the 1983-84 school year when the percentage was 8.597 percent. As these data show, Nevada has made good progress in serving handicapped students but most states still serve a substantially larger percentage.

Based on these data, the special committee deliberated on whether to fund more special education units or to seek a new funding formula. Referring to a study on the financing of public education conducted in 1981 by the state department of education, the special committee elected to follow a recommendation that said in part " * * * that the 'unit' funding method currently used for providing services for the educationally handicapped be continued." (29:2) The committee, therefore, chose to recommend the continuation of the present method of funding while attempting to serve a percentage of handicapped children near the national average.

The special committee, therefore, recommends:

The legislature, when establishing basic support guarantees, increase the number of special education units by 60 in the first year of the 1985-87 biennium and by 40 in the second year over the number set for the 1984-85 school year.

Nevada Revised Statutes 388.490, "Ages of admissions to special programs," specifies the particular ages at which certain categories of handicapped children may be enrolled in the special programs. At the present time only aurally handicapped, visually handicapped, mentally retarded or academically talented minors may be admitted to special education programs under the age of 5 years. The special committee concurred with the superintendent of public instruction when he testified that "(R)esearch has established that early intervention for these youngsters pays great dividends." In consideration of this statement, and the fact that funding support is available for handicapped children from the age of 3 years under Public Law 94-142 (21:46), the special committee chose to remove the restrictions under NRS 388.490.

The special committee, therefore, recommends:

The statutes be amended to permit educational services to all exceptional children as early as age 3.
(BDR 34-220)

D. STANDARDS AND EXPECTATIONS

As discussed above, the special committee feels that early intervention and educational opportunities for students can be a positive force in a child's development. The special committee also concurred with a recommendation of A Nation at Risk which states:

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. (18:30)

The special committee believes that early educational opportunities for Nevada's children can best be accomplished by offering kindergarten instruction to all children at an earlier age.

The special committee, therefore, recommends:

The statutes be amended to require that kindergarten instruction be available to every age-eligible child. (BDR 34-220)

The statutes be amended to permit any child who will arrive at the age of 4 years by September 30 to enter kindergarten. (BDR 34-220)

At the present time, compulsory school attendance is required between the ages of 7 and 17 in Nevada. If children in Nevada are to be permitted to enter kindergarten at an earlier age, the special committee believes that the compulsory attendance ages should also be lowered.

The special committee, therefore, recommends:

The statutes be amended to require compulsory education for children between 6 and 16 years of age.* (BDR 34-220)

Additionally, the special committee believes that "social promotion" is not only detrimental to the individual pupil but also to the class as a whole and the best judge of whether or not to promote a student is the classroom teacher. The special committee is aware that the retention of a student is not always beneficial. The special committee believes, however, that the best interests of individual students and entire classrooms are served by not allowing automatic promotion. The special committee feels that every child that must be retained should be carefully assisted by the local school districts in every way possible to ensure academic progression.

*See Appendix G for a table listing compulsory attendance ages for the 50 states.

The special committee, therefore, recommends:

The statutes be amended to provide teachers with the sole authority to promote, or not promote, a student to the next grade. (BDR 34-220)

The section of the statutes that states that no pupil may be retained more than one time in the same grade be repealed. (BDR 34-220)

E. TEACHERS AND TEACHING

Throughout the interim study, the special committee heard testimony and reviewed materials that emphasized "teachers as a crucial link to school improvement." (43:1) A major goal of the special committee, therefore, was to propose a set of recommendations that would bring qualified persons into the teaching profession and, at the same time, create an atmosphere in which those persons would be able to perform to their capabilities.

1. Loans and Grants

A number of states have tried to attract better qualified students into the teaching profession. Two of the most popular methods are offering scholarships in exchange for 5-year teaching commitments and offering low interest loans to qualified education majors such as in Kentucky and Louisiana. (73:4)

A Nation at Risk offers the following recommendation in this area:

Incentives, such as grants and loans, should be made available to attract outstanding students to the teaching profession, particularly in those areas of critical shortage. (18:31)

The special committee believes that the creation of a grant/loan program for persons entering the teaching profession could have a positive effect on filling those positions in critical subject areas and in districts where teachers are most needed. Recognizing that there presently exists a severe shortage of mathematics and science teachers, the special committee nevertheless did not want to restrict loans to those subject areas. The special committee felt that the state department of education should have the flexibility to review where and in what subjects teachers will be needed in future years and offer grants/loans accordingly.

In proposing such a program, the special committee thought it wise to use an example of a successful program already in operation. Such a program exists in Nevada in the form of the Western Interstate Commission for Higher Education (WICHE) student loan fund. The provisions for this fund are contained in NRS 397.063, "Western Interstate Commission for Higher Education student loan fund," through NRS 397.065, "Repayment of state contributions for stipends."

The special committee, therefore, recommends:

The statutes be amended to establish a grant/loan program for persons entering the teaching profession in critical subject areas and who agree to teach in those districts where teachers are most needed. The special committee further recommends that such a program be patterned after the Western Interstate Commission for Higher Education student loan fund. (BDR 34-217)

2. Certification

"Professional standards that apply to teacher education programs and the rules and regulations that govern certification decisions determined in large part the quality of beginning teachers in the United States. The quality of this teaching force clearly has been declining." (79:29)

This succinct statement in The Condition of Teaching expresses one of the many concerns regarding education; many teachers entering the profession are simply not qualified as has been demonstrated by comparative test scores of education majors with other students in college and the achievement of the pupils they teach. The special committee recognizes that a combination of factors has contributed to this decline and at the same time feels strongly that it will take a combination of reforms to reverse this trend. One such effort is in the testing of these persons who wish to teach in Nevada. As A Nation at Risk states:

Persons preparing to teach should be required to meet high educational standards, to demonstrate an aptitude for teaching, and to demonstrate competence in an academic discipline. (18:30)

According to The Nation Responds (33:146), 47 states have proposed or adopted reforms in the area of teacher preparation/certification. In Nevada, the professional

standards commission serves as an advisory body to the state board of education in recommending standards for the teaching profession including certification and recertification (Assembly Bill 388, Statutes of Nevada 1979). Additionally, as mentioned earlier, the commission has been working in the area of teacher competency assessment tests and will be making formal recommendations as to their use.

In concert with these efforts already underway in assuring teacher competency, the special committee feels that it is important to ascertain the knowledge level of persons teaching for the first time in Nevada. This is especially important because only about one-third of Nevada's teachers were educated in Nevada. (41:7) Thus, while incoming teachers may meet the prescribed certification requirements of the state board of education, their actual command of basic skills and their subject area is not known without testing.

To avoid the high costs in developing tests, the special committee felt that nationally recognized tests should be used. The special committee chose not to specify the tests to be taken, such as the National Teachers Examination (NTE), primarily because of the possibility that new tests will be developed in the future. In 1983, 18 states required some type of testing as part of the certification process (79:92-93) including eight states that require the testing of basic skills.

The special committee, therefore, recommends:

The statutes be amended to require persons desiring to teach for the first time in Nevada to pass a nationally recognized basic skills test and subject matter test in the area(s) in which they are seeking certification.
(BDR 34-216)

3. Evaluation

Nevada Revised Statutes 391.3125, "Evaluation of teachers, certificated school support personnel," provides for the evaluation of teachers and certificated school support personnel. The special committee was concerned with subsection 1 which states in part:

* * * It is the intent of the legislature that a uniform system be developed for objective evaluation of teachers * * *

The special committee believes that the evaluation procedure could be improved with a few changes in the evaluation procedure.

First, the special committee believes that an "objective evaluation instrument" can be developed by the state board of education while providing the school districts with the authority to further develop the instrument. Second, the special committee believes that it is in the best interest of the teachers to be evaluated by a majority of their peers. Existing practice allows administrators to determine the membership of an evaluation committee.

The special committee, therefore, recommends:

The statutes be amended to require that evaluation committees consist of the teacher being evaluated, his administrator, and his peers with the peer group constituting a majority. The special committee further recommends that the state board of education be required to develop the basic evaluation instrument and the instructions for its use. Furthermore, local school districts should be permitted to add additional evaluation criteria if approved by the state board of education. (BDR 34-216)

4. Salaries

Virtually every presentation made to the special committee and document received by the special committee made some reference calling for salary increases for teachers. Merit pay, master teachers, mentor teachers, salary supplements, performance pay and differential pay were some examples of pay plans discussed by the special committee. A Nation at Risk simply recommends that:

Salaries for the teaching profession should be increased and should be professionally competitive, market-sensitive, and performance-based. (18:30)

In recently revised statistics prepared by the American Federation of Teachers, the average salary for public school teachers in Nevada was \$22,067 for the 1982-83 school year. This amount placed Nevada number 13 in a ranking of the 50 states and the District of Columbia. (5:10) However, when one considers that 60 percent of Nevada's teachers and administrators have worked in the system for at least 6 years (23:12), the average salary does not compare favorably with many professions. Compensation for classroom teachers in

Nevada for the 1983-84 school year actually range from an entry level of \$13,000 in Esmeralda County to a high of \$29,171 in Clark County.

The special committee believes that it is premature and ill-advised for the state to adopt any major restructuring of teachers' pay schedules at this time. In particular, past experience with merit pay plans has been largely unsuccessful as demonstrated by the fact that at least 183 school systems in 36 states have experimented with a merit plan or incentive plan for teachers and have discontinued such plans. (62:44-48) In addition, the special committee feels that the evaluation procedures critical to establishing "career ladders" are as yet not adequately tested in those states adopting career ladders.

The special committee focused on how salary adjustments may be used to attract and retain qualified and competent teachers. To accomplish these goals, the special committee proposed increasing entry level salaries and providing salary increments for teachers beyond the present 12 to 14 year periods. The rationale for these actions is first, to make the entry level salaries more competitive with other professions. Second, the special committee believes that to retain competent teachers, salaries comparable to school administrators and persons in other fields with many years of service must be offered. In this regard the special committee heard testimony from many witnesses bemoaning the fact that experienced and capable teachers were lost to administration due to the increased salary benefits.

The special committee, therefore, recommends:

The 1985 session of the Nevada legislature enact legislation to require an entry level base salary for teachers in all school districts of \$16,000 in 1985-86, \$17,000 in 1986-87, and \$18,000 in 1987-88 based on the number of work days (plus 5) in 1983-84; and to require that salary schedules be structured to permit annual increases in salary over an employment period of 20 years. The special committee further recommends that in each district all teachers receive salary increases commensurate with the entry level base salary increase. (BDR 34-215)

The additional 5 days included in the above recommendation will be discussed later under the heading "Inservice Training."

5. Morale and Working Conditions

As mentioned previously, A Nation at Risk found that "the professional working life of teachers is on the whole unacceptable." (18:22) As Goodlad reports in A Place Called School, "it was personal frustration and dissatisfaction in the teaching situation that appeared to bother teachers the most." (3:172) Goodlad further concluded that "(T)alk of securing and maintaining a stable corps of understanding teachers is empty rhetoric unless serious efforts are made to study and remedy the conditions likely to drive out those already recruited. The relatively low monetary return for teaching makes it even more urgent to enhance the appeal of teaching as satisfying human work by improving work conditions." (3:173)

Doctor Susan J. Rosenholtz of Vanderbilt University in a paper prepared for the Tennessee General Assembly's Select Committee on Education and in a presentation to the 1984 annual meeting of the Education Commission of the States (ECS) reported two major findings in this area: (1) a major impediment to improving teachers' effectiveness is their professional isolation from colleagues; and (2) teachers acquire and perfect teaching skills more readily in settings where there is mutual sharing of ideas, materials, and problems among colleagues. (37:128)

The testimony received by the special committee supported the research findings of Goodlad and Rosenholtz and thereby led the special committee to look to those areas where the legislature may assist in improving working conditions.

a. Inservice Training

As part of the salary increase recommendation discussed above, an extra 5 days were added to the current contract periods. Repeatedly, the special committee heard testimony with regard to the professional isolation of teachers. Again, Goodlad found that "(T)eaching may be a more lonely and socially circumscribing vocation than we realize." (3:171) Teachers are most often restricted to their own classes without the professional interaction available in most vocations. This lack of time to interact even extends through the lunch hour which is so cherished by most professionals.

The special committee recognizes the importance of staff development, interaction with other professionals and the value of being able to observe other professionals practice their trade. The special committee therefore considers it an important addition to the school year to provide teachers with more opportunities for professional development. The special committee hopes that the addition of 5 days, if adopted, will be used creatively and, innovatively in assisting teachers in becoming more capable in the realm of pedagogy.

The special committee, therefore, recommends:

The statutes be amended to require school districts to provide more opportunities for teachers to interact on a professional basis to develop competency by increasing inservice training to a minimum of 5 days. (BDR 23-214)

b. Collective Bargaining

In 1969, the Nevada legislature adopted the Local Government Employee-Management Relations Act. A section of that act, Nevada Revised Statutes 288.150, "Negotiations by employer with recognized employee organization: Subjects of mandatory bargaining; matters reserved to employer with negotiation," limits the scope of mandatory bargaining. The special committee believes that there are certain other areas in addition to those specified in the act that are important to the working conditions of teachers and consequently should be added to the statutes.

The special committee, therefore, recommends:

The statutes be amended to broaden the scope of mandatory bargaining to include class size/class ratio, evaluation, discipline, and transfer procedures. (BDR 23-214)

c. Class Time

Much discussion at the local, state, and national level has revolved around the questions of lengthening the school day or school year. A Nation at Risk recommends that "School districts and state legislatures should strongly consider 7-hour school days, as well as a 200- to 220-day school year." (18:29) The basis for this recommendation is primarily the fact that other industrialized countries tend to require longer school days and school years.

According to The Nation Responds (33:144-146), 13 states are considering a longer school day and eight states have approved a longer school day. A longer school year is being considered by 14 states and seven states have already adopted such a change. In reviewing the changes either proposed or adopted; however, one finds that the minimum of 180 days of free instruction required in Nevada (NRS 388.090) is the standard to which some states, such as California and Tennessee, are approaching. Also, the longer school year approved in states such as Arkansas and New York are for staff development as is recommended by the special committee for Nevada in (a) on page 26.

The special committee believes that the first step to improved instructional time is not to lengthen the day or school year for students but to make the best of the time already available. As A Nation at Risk states:

Administrative burdens on the teacher and related intrusions into the school day should be reduced to add time for teaching and learning.

As previously mentioned, the special committee is cognizant of efforts to allow more "time on task" by the local districts and individual schools. The special committee applauds these efforts and hopes that such efforts by administrators and teachers across the state can enhance the quality of the time in the classroom.

The special committee, therefore, recommends:

School districts and individual schools reduce the administrative burden on teachers and other related intrusions into the school day in order to add time for teaching and learning.

d. Discipline

The special committee is aware that school districts and individual schools have made efforts to hold students more responsible for their actions in the schools. New policies with regard to absenteeism and in-house suspensions are but two examples. The special committee believes, however, that there still exists a reluctance to report unlawful behav-

ior on school campuses. It is the opinion of the special committee that such a reluctance helps foster an attitude of disrespect and disobedience on the part of some students. The special committee feels it is necessary, therefore, to send a message to any such recalcitrant student that illegal acts will not be tolerated on school property.

The special committee, therefore, recommends:

The statutes be amended to require that any employee of a school district who observes an illegal act on school property report such act to the proper legal authorities. The special committee further recommends that any person who observes and fails to report an illegal act on school property be guilty of a misdemeanor.
(BDR 23-214)

e. Instructional Materials

As Superintendent of Public Instruction Ted Sanders testified, "While the teacher is the essential ingredient for excellence, the textbook is often the determinant of the curriculum offered to students." The funding of instructional materials and supplies is one area that has suffered considerably in recent years as the result of the financial crisis facing most school districts. One of the findings of A Nation at Risk was the following:

Expenditures for textbooks and other instructional materials have declined by 50 percent over the past 17 years. While some recommend a level of spending on texts of between 5 and 10 percent of the operating costs of schools, the budgets for basal texts and related materials have been dropping during the past decade and a half to only 0.7 percent today.
(18:21)

According to estimates by the state department of education, Nevada's expenditures are only slightly above the national average at 0.9 percent. Appendix I shows, however, that the average expenditure per pupil for the 17 school districts is about equal to the price for one hardcover book for a secondary school student.

Beyond the straight costs for texts, the special committee heard testimony (45) detailing the inadequate financial support Nevada's classroom teachers receive for basic materials such as paper, pencils, crayons, chalk and so on. The special committee is sensitive to the teachers that must scrimp, save and conduct fund raising activities just to provide the basic necessary instructional materials.

The special committee, therefore, recommends:

The legislature give strong consideration to increased financial support for instructional materials and supplies for the school districts.

F. STAFFING AND ADMINISTRATION

1. Certification of School Administrators

Nevada Revised Statutes 391.110 1(a) currently requires that the superintendent of schools in school districts having more than 7,000 pupils have at least a master's degree in school administration or education. In reviewing the criteria for certification as a school administrator, the special committee agreed with the state board of education that all persons certified as school administrators should possess a master's degree. (31:3) The special committee does feel, however, that a graduate degree obtained in any subject area demonstrates the desired achievement and competence and, therefore, certification should not be restricted to those with master's degrees in school administration or education.

The special committee, therefore, recommends:

The statutes be amended to require a master's degree for certification as a school administrator beginning with the 1985-86 school year. The special committee further recommends that this requirement not apply to those persons already employed as school administrators.
(BDR 34-221)

2. Personnel for the State Department of Education

Since 1977, the number of authorized positions for the Nevada department of education has decreased from 106 to 76. These positions were lost as a result of restrictions in state funding and the passage of the Education Consolidation and Improvement Act at the federal level which decreased

the funds available for state departments of education. Of the 76 authorized positions for 1983-84, three remain vacant because of mandated salary savings.*

Testimony received by the special committee supported the need of the state department of education to provide assistance to local school districts in the areas of planning, statistical information and consultive services. This need is especially pronounced in the rural districts where the shortage of technical personnel and the funding for such personnel is most critical. Appendix H lists those positions the state department of education deems the most essential in assisting the local school districts with their instructional needs.

3. Library Consultant

In addition to the positions enumerated by the state department of education, the special committee received testimony strongly advocating the creation of a library consultant at the state level. This individual would serve as the resource person in the state department of education and as a liaison with the school districts. The special committee supports the creation of such a position, especially in light of the fact that Nevada is the only state without a library coordinator in its department of education. (39:2)

The special committee, therefore, recommends:

The state department of education be permitted to increase staff to provide better services to the local districts. The special committee further recommends that additional staff include a library consultant.

4. Counseling Services

The special committee feels that increased staff and support is needed across the state in the provision of counseling services in the elementary schools. At the present time there are very few counselors working in our elementary schools and their work loads are such that it is difficult for them to provide needed individualized counseling services. Recognizing the benefit of early intervention in the

*See Appendix H for personnel information provided by the state department of education.

mental and emotional problems of children, the special committee strongly encourages the local school districts to concentrate greater resources on elementary counseling services.

The special committee, therefore, recommends:

Adequate counseling services for all pupils in elementary schools be available.

G. POSTSECONDARY EDUCATION

1. Entrance Requirements

The special committee believes that entrance requirements to the University of Nevada-Reno and the University of Nevada-Las Vegas have been too liberal to the detriment of the academic integrity of those institutions. The admission of students that are ill prepared, the special committee believes, only increases the need for remedial courses and has a deleterious effect on the quality of all courses. Much of the testimony received by the special committee supports this position and the point was made to the special committee that there is a correlation between higher admission standards at the university and the competency level of graduates from secondary schools. (41) The only negative comments with regard to raising admission standards were in the context of the existing funding formula and how decreased admissions may effect state financial support.

A Nation at Risk addresses the points noted above in the following manner:

Schools, colleges and universities should adopt more rigorous and measurable standards, and higher expectations, for academic performance and student conduct, and 4-year colleges and universities should 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. (18:27)

While supporting increased admission standards at UNR and UNLV, the special committee also recognized the important role of Nevada's community colleges in providing educational opportunities for the citizens of Nevada. Specifically, the special committee believes that entrance to the community colleges should be available for vocational and avocational course offerings as well as to prepare students to transfer to a university.

The special committee, therefore, recommends:

The community colleges in the State of Nevada continue to have an open admissions policy. The special committee further recommends that the statutes be amended to raise the admissions standards at the University of Nevada-Reno and the University of Nevada-Las Vegas to require a minimum grade point average on high school course work of 2.5 on a 4.0 scale and an acceptable score, as defined by the board of regents, on the American College Test (ACT) or the Scholastic Aptitude Test (SAT). (BDR 34-218)

2. Personnel Training

As mentioned above, the special committee favors utilizing the resources of the community colleges to aid in the vocational/occupational training of Nevada's citizens. With the emphasis on economic development and diversification in Nevada, it is crucial that different entities work together to provide a skilled labor force and attract new business to the state.

One of the most successful efforts, operating in Oklahoma and other states, is to establish what are known as "quick-start" programs. (44:18) By establishing a program to deliver a trained work force to a new or existing industry the entire economic base is expanded and revitalized.

The special committee, therefore, recommends:

The statutes be amended to permit the commission on economic development to provide grants of money to postsecondary institutions for the establishment of training programs for new or existing industries in Nevada to meet the personnel needs of these industries. (BDR 18-219)

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APPENDIX A

A Nation at Risk: The Imperative for Educational Reform,
by the National Commission on Excellence in Education,
April 1983

A Nation At Risk:

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Letter of Transmittal

Honorable T. H. Bell
Secretary of Education
U.S. Department of Education
Washington, D.C. 20202

April 26, 1983

Dear Mr. Secretary:

On August 26, 1981, you created the National Commission on Excellence in Education and directed it to present a report on the quality of education in America to you and to the American people by April of 1983.

It has been my privilege to chair this endeavor and on behalf of the members of the Commission it is my pleasure to transmit this report, *A Nation at Risk: The Imperative for Educational Reform*.

Our purpose has been to help define the problems afflicting American education and to provide solutions, not search for scapegoats. We addressed the main issues as we saw them, but have not attempted to treat the subordinate matters in any detail. We were forthright in our discussions and have been candid in our report regarding both the strengths and weaknesses of American education.

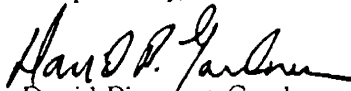
The Commission deeply believes that the problems we have discerned in American education can be both understood and corrected if the people of our country, together with those who have public responsibility in the matter, care enough and are courageous enough to do what is required.

Each member of the Commission appreciates your leadership in having asked this diverse group of persons to examine one of the central issues which will define our Nation's future. We especially welcomed your confidence throughout the course of our deliberations and your anticipation of a report free of political partisanship.

It is our collective and earnest hope that you will continue to provide leadership in this effort by assuring wide dissemination and full discussion of this report, and by encouraging appropriate action throughout the country. We believe that materials compiled by the Commission in the course of its work constitute a major resource for all persons interested in American education.

The other Commissioners and I sincerely appreciate the opportunity to have served our country as members of the National Commission on Excellence in Education, and on their behalf I remain,

Respectfully,


David Pierpont Gardner
Chairman

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Introduction

Secretary of Education T. H. Bell created the National Commission on Excellence in Education on August 26, 1981, directing it to examine the quality of education in the United States and to make a report to the Nation and to him within 18 months of its first meeting. In accordance with the Secretary's instructions, this report contains practical recommendations for educational improvement and fulfills the Commission's responsibilities under the terms of its charter.

The Commission was created as a result of the Secretary's concern about "the widespread public perception that something is seriously remiss in our educational system." Soliciting the "support of all who care about our future," the Secretary noted that he was establishing the Commission based on his "responsibility to provide leadership, constructive criticism, and effective assistance to schools and universities."

The Commission's charter contained several specific charges to which we have given particular attention. These 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; and
 - ☐ defining problems which must be faced and overcome if we are successfully to pursue the course of excellence in education.

The Commission's charter directed it to pay particular attention to teenage youth, and we have done so largely by focusing on high schools. Selective attention was given to the formative years spent in elementary schools, to higher education, and to vocational and technical programs. We refer those interested in the need for similar reform in higher education to the recent report of the American Council on Education, *To Strengthen the Quality of Higher Education*.

In going about its work the Commission has relied in the main upon five sources of information:

- papers commissioned from experts on a variety of educational issues;
- administrators, teachers, students, representatives of professional and public groups, parents, business leaders, public officials, and scholars who testified at eight meetings of the full Commission, six public hearings, two panel discussions, a symposium, and a series of meetings organized by the Department of Education's Regional Offices;
- existing analyses of problems in education;
- letters from concerned citizens, teachers, and administrators who volunteered extensive comments on problems and possibilities in American education; and

-
- descriptions of notable programs and promising approaches in education.

To these public-minded citizens who took the trouble to share their concerns with us—frequently at their own expense in time, money, and effort—we extend our thanks. In all cases, we have benefited from their advice and taken their views into account; how we have treated their suggestions is, of course, our responsibility alone. In addition, we are grateful to the individuals in schools, universities, foundations, business, government, and communities throughout the United States who provided the facilities and staff so necessary to the success of our many public functions.

The Commission was impressed during the course of its activities by the diversity of opinion it received regarding the condition of American education and by conflicting views about what should be done. In many ways, the membership of the Commission itself reflected that diversity and difference of opinion during the course of its work. This report, nevertheless, gives evidence that men and women of good will can agree on common goals and on ways to pursue them.

The Commission's charter, the authors and topics of commissioned papers, a list of the public events, and a roster of the Commission's staff are included in the appendices which complete this volume.

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 utmost. This promise means that all children by virtue of their own efforts, competently guided, can hope to attain the mature and informed judgment needed to secure gainful employment, and to manage their own lives, thereby serving not only their own interests but also the progress of society itself.

A Nation At Risk

Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. This report is concerned with only one of the many causes and dimensions of the problem, but it is the one 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. What was unimaginable a generation ago has begun to occur—others are matching and surpassing our educational attainments.

If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves. We have even squandered the gains in student achievement made in the wake of the Sputnik challenge. Moreover, we have dismantled essential support systems which helped make those gains possible. We have, in effect, been committing an act of unthinking, unilateral educational disarmament.

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. This report, the result of 18 months of study, seeks to generate reform of our educational system in fundamental ways and to renew the Nation's commitment to schools and colleges of high quality throughout the length and breadth of our land.

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 on our schools and colleges often exact an educational cost as well as a financial one.

On the occasion of the Commission's first meeting, President Reagan noted the central importance of education in American life when he said: "Certainly there are few areas of American life as important to our society, to our people, and to our families as our schools and colleges." This report, therefore, is as much an open letter to the American people as it is a report to the Secretary of Education. We are confident that the American people, properly informed, will do what is right for their children and for the generations to come.

The Risk

History is not kind to idlers. The time is long past when America's destiny was assured simply by an abundance of natural resources and inexhaustible human enthusiasm, and by our relative isolation from the malignant problems of older civilizations. The world is indeed one global village. We live among determined, well-educated, and strongly motivated competitors. We compete with them for international standing and markets, not only with products but also with the ideas of our laboratories and neighborhood workshops. America's position in the world may once have been reasonably secure with only a few exceptionally well-trained men and women. It is no longer.

The risk is not only that the Japanese make automobiles more efficiently than Americans and have government subsidies for development and export. It is not just that the South Koreans recently built the world's most efficient steel

mill, or that American machine tools, once the pride of the world, are being displaced by German products. It is also that these developments signify a redistribution of trained capability throughout the globe. Knowledge, learning, information, and skilled intelligence are the new raw materials of international commerce and are today spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers, and blue jeans did earlier. If only to keep and improve on the slim competitive edge we still retain in world markets, we must dedicate ourselves to the reform of our educational system for the benefit of all—old and young alike, affluent and poor, majority and minority. Learning is the indispensable investment required for success in the “information age” we are entering.

Our concern, however, goes well beyond matters such as industry and commerce. It also includes the intellectual, moral, and spiritual strengths of our people which knit together the very fabric of our society. The people of the United States need to know that individuals in our society who do not possess the levels of skill, literacy, and training essential to this new era will be effectively disenfranchised, not simply from the material rewards that accompany competent performance, but also from the chance to participate fully in our national life. A high level of shared education is essential to a free, democratic society and to the fostering of a common culture, especially in a country that prides itself on pluralism and individual freedom.

For our country to function, citizens must be able to reach some common understandings on complex issues, often on short notice and on the basis of conflicting or incomplete evidence. Education helps form these common understandings, a point Thomas Jefferson made long ago in his justly famous dictum:

I know no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them but to inform their discretion.

The people of the United States have a right to know that the information age is not a new era, but an era that has already begun. The people of the United States have a right to know that the information age is not a new era, but an era that has already begun. The people of the United States have a right to know that the information age is not a new era, but an era that has already begun.

Part of what is at risk is the promise first made on this continent: 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 utmost. This promise means that all children by virtue of their own efforts, competently guided, can hope to attain the mature and informed judgment needed to secure gainful employment and to manage their own lives, thereby serving not only their own interests but also the progress of society itself.

Indicators of the Risk

The educational dimensions of the risk before us have been amply documented in testimony received by the Commission. For example:

- International comparisons of student achievement, completed a decade ago, reveal that on 19 academic tests American students were never first or second and, in comparison with other industrialized nations, were last seven times.
- Some 23 million American adults are functionally illiterate by the simplest tests of everyday reading, writing, and comprehension.
- About 13 percent of all 17-year-olds in the United States can be considered functionally illiterate. Functional illiteracy among minority youth may run as high as 40 percent.
- Average achievement of high school students on most standardized tests is now lower than 26 years ago when Sputnik was launched.
- Over half the population of gifted students do not match their tested ability with comparable achievement in school.
- The College Board's Scholastic Aptitude Tests (SAT) demonstrate a virtually unbroken decline from 1963 to

1980. Average verbal scores fell over 50 points and average mathematics scores dropped nearly 40 points.

- College Board achievement tests also reveal consistent declines in recent years in such subjects as physics and English.
- Both the number and proportion of students demonstrating superior achievement on the SATs (i.e., those with scores of 650 or higher) have also dramatically declined.
- Many 17-year-olds do not possess the "higher order" intellectual skills we should expect of them. Nearly 40 percent cannot draw inferences from written material; only one-fifth can write a persuasive essay; and only one-third can solve a mathematics problem requiring several steps.
- There was a steady decline in science achievement scores of U.S. 17-year-olds as measured by national assessments of science in 1969, 1973, and 1977.
- Between 1975 and 1980, remedial mathematics courses in public 4-year colleges increased by 72 percent and now constitute one-quarter of all mathematics courses taught in those institutions.
- Average tested achievement of students graduating from college is also lower.
- Business and military leaders complain that they are required to spend millions of dollars on costly remedial education and training programs in such basic skills as reading, writing, spelling, and computation. The Department of the Navy, for example, reported to the Commission that one-quarter of its recent recruits cannot read at the ninth grade level, the minimum needed simply to understand written safety instructions. Without remedial work they cannot even begin, much less complete, the sophisticated training essential in much of the modern military.

Many of these problems have not been solved. The Commission believes that the current situation is a result of a number of factors, including a decline in the quality of the basic education provided in the United States, a decline in the quality of the higher education provided in the United States, and a decline in the quality of the training provided in the United States. The Commission believes that these problems can be solved by a number of measures, including a commitment to the improvement of the basic education provided in the United States, a commitment to the improvement of the higher education provided in the United States, and a commitment to the improvement of the training provided in the United States.

These deficiencies come at a time when the demand for highly skilled workers in new fields is accelerating rapidly. For example:

- Computers and computer-controlled equipment are penetrating every aspect of our lives—homes, factories, and offices.
- One estimate indicates that by the turn of the century millions of jobs will involve laser technology and robotics.
- Technology is radically transforming a host of other occupations. They include health care, medical science, energy production, food processing, construction, and the building, repair, and maintenance of sophisticated scientific, educational, military, and industrial equipment.

Analysts examining these indicators of student performance and the demands for new skills have made some chilling observations. Educational researcher Paul Hurd concluded at the end of a thorough national survey of student achievement that within the context of the modern scientific revolution, "We are raising a new generation of Americans that is scientifically and technologically illiterate." In a similar vein, John Slaughter, a former Director of the National Science Foundation, warned of "a growing chasm between a small scientific and technological elite and a citizenry ill-informed, indeed uninformed, on issues with a science component."

But the problem does not stop there, nor do all observers see it the same way. Some worry that schools may emphasize such rudiments as reading and computation at the expense of other essential skills such as comprehension, analysis, solving problems, and drawing conclusions. Still others are concerned that an over-emphasis on technical and occupational skills will leave little time for studying the arts and humanities that so enrich daily life, help maintain civility, and develop a sense of community. Knowledge of the humanities, they maintain, must be harnessed to science and technology if the latter are to remain creative and humane, just as the humanities need to be informed by science and technology if

they are to remain relevant to the human condition. Another analyst, Paul Copperman, has drawn a sobering conclusion. Until now, he has noted:

Each generation of Americans has outstripped its parents in education, in literacy, and in economic attainment. For the first time in the history of our country, the educational skills of one generation will not surpass, will not equal, will not even approach, those of their parents.

It is important, of course, to recognize that *the average citizen* today is better educated and more knowledgeable than the average citizen of a generation ago—more literate, and exposed to more mathematics, literature, and science. The positive impact of this fact on the well-being of our country and the lives of our people cannot be overstated. Nevertheless, *the average graduate* of our schools and colleges today is not as well-educated as the average graduate of 25 or 35 years ago, when a much smaller proportion of our population completed high school and college. The negative impact of this fact likewise cannot be overstated.

redevelopment of the nation from the 1950s to the 1970s. The nation's economic growth was slowed by a combination of factors, including the oil crisis of 1973, the Vietnam War, and the rise of the counterculture. The nation's educational system was also facing challenges, including the rise of the civil rights movement and the need for more equitable education for all students.

Hope and Frustration

Statistics and their interpretation by experts show only the surface dimension of the difficulties we face. Beneath them lies a tension between hope and frustration that characterizes current attitudes about education at every level.

We have heard the voices of high school and college students, school board members, and teachers; of leaders of industry, minority groups, and higher education; of parents and State officials. We could hear the hope evident in their commitment to quality education and in their descriptions of outstanding programs and schools. We could also hear the intensity of their frustration, a growing impatience with shoddiness in many walks of American life, and the complaint that this shoddiness is too often reflected in our schools and colleges. Their frustration threatens to overwhelm their hope.

What lies behind this emerging national sense of frustration can be described as both a dimming of personal expect-

tations and the fear of losing a shared vision for America.

On the personal level the student, the parent, and the caring teacher all perceive that a basic promise is not being kept. More and more young people emerge from high school ready neither for college nor for work. This predicament becomes more acute as the knowledge base continues its rapid expansion, the number of traditional jobs shrinks, and new jobs demand greater sophistication and preparation.

On a broader scale, we sense that this undertone of frustration has significant political implications, for it cuts across ages, generations, races, and political and economic groups. We have come to understand that the public will demand that educational and political leaders act forcefully and effectively on these issues. Indeed, such demands have already appeared and could well become a unifying national preoccupation. This unity, however, can be achieved only if we avoid the unproductive tendency of some to search for scapegoats among the victims, such as the beleaguered teachers.

On the positive side is the significant movement by political and educational leaders to search for solutions—so far centering largely on the nearly desperate need for increased support for the teaching of mathematics and science. This movement is but a start on what we believe is a larger and more educationally encompassing need to improve teaching and learning in fields such as English, history, geography, economics, and foreign languages. We believe this movement must be broadened and directed toward reform and excellence throughout education.

Excellence in Education

We define “excellence” to mean several related things. 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 school and in the workplace. 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.

We do not believe that a public commitment to excellence and educational reform must be made at the expense of a strong public commitment to the equitable treatment of our diverse population. The twin goals of equity and high-quality schooling have profound and practical meaning for our economy and society, and we cannot permit one to yield to the other either in principle or in practice. To do so would deny young people their chance to learn and live according to their aspirations and abilities. It also would lead to a generalized accommodation to mediocrity in our society on the one hand or the creation of an undemocratic elitism on the other.

Our goal must be to develop the talents of all to their fullest. Attaining that goal requires that we expect and assist all students to work to the limits of their capabilities. We should expect schools to have genuinely high standards rather than minimum ones, and parents to support and encourage their children to make the most of their talents and abilities.

The search for solutions to our educational problems must also include a commitment to life-long learning. The task of rebuilding our system of learning is enormous and must be properly understood and taken seriously: Although a million and a half new workers enter the economy each year from our schools and colleges, the adults working today will still make up about 75 percent of the workforce in the year 2000. These workers, and new entrants into the workforce, will need further education and retraining if they—and we as a Nation—are to thrive and prosper.

The Learning Society

In a world of ever-accelerating competition and change in the conditions of the workplace, of ever-greater danger, and of ever-larger opportunities for those prepared to meet them, educational reform should focus on the goal of creating a Learning Society. At the heart of such a society 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. Such a society has as a basic

foundation the idea that education is important not only because of what it contributes to one's career goals but also because of the value it adds to the general quality of one's life. Also at the heart of the Learning Society are educational opportunities extending far beyond the traditional institutions of learning, our schools and colleges. They extend into homes and workplaces; into libraries, art galleries, museums, and science centers; indeed, into every place where the individual can develop and mature in work and life. In our view, formal schooling in youth is the essential foundation for learning throughout one's life. But without life-long learning, one's skills will become rapidly dated.

In contrast to the ideal of the Learning Society, however, we find that for too many people education means doing the minimum work necessary for the moment, then coasting through life on what may have been learned in its first quarter. But this should not surprise us because we tend to express our educational standards and expectations largely in terms of "minimum requirements." And where there should be a coherent continuum of learning, we have none, but instead an often incoherent, outdated patchwork quilt. Many individual, sometimes heroic, examples of schools and colleges of great merit do exist. Our findings and testimony confirm the vitality of a number of notable schools and programs, but their very distinction stands out against a vast mass shaped by tensions and pressures that inhibit systematic academic and vocational achievement for the majority of students. In some metropolitan areas basic literacy has become the goal rather than the starting point. In some colleges maintaining enrollments is of greater day-to-day concern than maintaining rigorous academic standards. And the ideal of academic excellence as the primary goal of schooling seems to be fading across the board in American education.

Thus, we issue this call to all who care about America and its future: to parents and students; to teachers, administrators, and school board members; to colleges and industry; to union members and military leaders; to governors and State legislators; to the President; to members of Congress and other public officials; to members of learned and scientific societies; to the print and electronic media; to concerned citizens everywhere. America is at risk.

The Tools at Hand

- the natural abilities of the young that cry out to be developed and the undiminished concern of parents for the well-being of their children;
- the commitment of the Nation to high retention rates in schools and colleges and to full access to education for all;
- the persistent and authentic American dream that superior performance can raise one's state in life and shape one's own future;
- the dedication, against all odds, that keeps teachers serving in schools and colleges, even as the rewards diminish;
- our better understanding of learning and teaching and the implications of this knowledge for school practice, and the numerous examples of local success as a result of superior effort and effective dissemination;
- the ingenuity of our policymakers, scientists, State and local educators, and scholars in formulating solutions once problems are better understood;
- the traditional belief that paying for education is an investment in ever-renewable human resources that are more durable and flexible than capital plant and

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equipment, and the availability in this country of sufficient financial means to invest in education;

- the equally sound tradition, from the Northwest Ordinance of 1787 until today, that the Federal Government should supplement State, local, and other resources to foster key national educational goals; and
- the voluntary efforts of individuals, businesses, and parent and civic groups to cooperate in strengthening educational programs.

These raw materials, combined with the unparalleled array of educational organizations in America, offer us the possibility to create a Learning Society, in which public, private, and parochial schools; colleges and universities; vocational and technical schools and institutes; libraries; science centers, museums, and other cultural institutions; and corporate training and retraining programs offer opportunities and choices for all to learn throughout life.

The Public's Commitment

Of all the tools at hand, the public's support for education is the most powerful. In a message to a National Academy of Sciences meeting in May 1982, President Reagan commented on this fact when he said:

This public awareness—and I hope public action—is long overdue. . . . This country was built on American respect for education. . . . Our challenge now is to create a resurgence of that thirst for education that typifies our Nation's history.

The most recent (1982) Gallup Poll of the *Public's Attitudes Toward the Public Schools* strongly supported a theme heard during our hearings: People are steadfast in their belief that education is the major foundation for the future strength of this country. They even considered education more important than developing the best industrial system or the strong-

generating the great ideas and material benefits for all mankind. The citizen is dismayed at a steady 15-year decline in industrial productivity, as one great American industry after another falls to world competition. The citizen wants the country to act on the belief, expressed in our hearings and by the large majority in the Gallup Poll, that education should be at the top of the Nation's agenda.

Findings

We conclude that declines in educational performance are in large part the result of disturbing inadequacies in the way the educational process itself is often conducted. The findings that follow, culled from a much more extensive list, reflect four important aspects of the educational process: content, expectations, time, and teaching.

Findings Regarding Content

By content we mean the very "stuff" of education, the curriculum. Because of our concern about the curriculum, the Commission examined patterns of courses high school students took in 1964-69 compared with course patterns in 1976-81. On the basis of these analyses we conclude:

- Secondary school curricula have been homogenized, diluted, and diffused to the point that they no longer have a central purpose. In effect, we have a cafeteria-style curriculum in which the appetizers and desserts can easily be mistaken for the main courses. Students have migrated from vocational and college preparatory programs to "general track" courses in large numbers. The proportion of students taking a general program of study has increased from 12 percent in 1964 to 42 percent in 1979.
- This curricular smorgasbord, combined with extensive student choice, explains a great deal about where we find ourselves today. We offer intermediate algebra, but only 31 percent of our recent high school graduates complete it; we offer French I, but only 13 percent complete it; and we offer geography, but only

16 percent complete it. Calculus is available in schools enrolling about 60 percent of all students, but only 6 percent of all students complete it.

- Twenty-five percent of the credits earned by general track high school students are in physical and health education, work experience outside the school, remedial English and mathematics, and personal service and development courses, such as training for adulthood and marriage.

Findings Regarding Expectations

We define expectations in terms of the level of knowledge, abilities, and skills school and college graduates should possess. They also refer to the time, hard work, behavior, self-discipline, and motivation that are essential for high student achievement. Such expectations are expressed to students in several different ways:

- by grades, which reflect the degree to which students demonstrate their mastery of subject matter;
- through high school and college graduation requirements, which tell students which subjects are most important;
- by the presence or absence of rigorous examinations requiring students to demonstrate their mastery of content and skill before receiving a diploma or a degree;
- by college admissions requirements, which reinforce high school standards; and
- by the difficulty of the subject matter students confront in their texts and assigned readings.

Our analyses in each of these areas indicate notable deficiencies:

- The amount of homework for high school seniors has decreased (two-thirds report less than 1 hour a night)

and grades have risen as average student achievement has been declining.

- In many other industrialized nations, courses in mathematics (other than arithmetic or general mathematics), biology, chemistry, physics, and geography start in grade 6 and are required of *all* students. The time spent on these subjects, based on class hours, is about three times that spent by even the most science-oriented U.S. students, i.e., those who select 4 years of science and mathematics in secondary school.
- A 1980 State-by-State survey of high school diploma requirements reveals that only eight States require high schools to offer foreign language instruction, but none requires students to take the courses. Thirty-five States require only 1 year of mathematics, and 36 require only 1 year of science for a diploma.
- In 13 States, 50 percent or more of the units required for high school graduation may be electives chosen by the student. Given this freedom to choose the substance of half or more of their education, many students opt for less demanding personal service courses, such as bachelor living.
- "Minimum competency" examinations (now required in 37 States) fall short of what is needed, as the "minimum" tends to become the "maximum," thus lowering educational standards for all.
- One-fifth of all 4-year public colleges in the United States must accept every high school graduate within the State regardless of program followed or grades, thereby serving notice to high school students that they can expect to attend college even if they do not follow a demanding course of study in high school or perform well.
- About 23 percent of our more selective colleges and universities reported that their general level of selectivity declined during the 1970s, and 29 percent reported reducing the number of specific high school

courses required for admission (usually by dropping foreign language requirements, which are now specified as a condition for admission by only one-fifth of our institutions of higher education).

- Too few experienced teachers and scholars are involved in writing textbooks. During the past decade or so a large number of texts have been “written down” by their publishers to ever-lower reading levels in response to perceived market demands.
- A recent study by Education Products Information Exchange revealed that a majority of students were able to master 80 percent of the material in some of their subject-matter texts before they had even opened the books. Many books do not challenge the students to whom they are assigned.
- Expenditures for textbooks and other instructional materials have declined by 50 percent over the past 17 years. While some recommend a level of spending on texts of between 5 and 10 percent of the operating costs of schools, the budgets for basal texts and related materials have been dropping during the past decade and a half to only 0.7 percent today.

Findings Regarding Time

Evidence presented to the Commission demonstrates three disturbing facts about the use that American schools and students make of time: (1) compared to other nations, American students spend much less time on school work; (2) time spent in the classroom and on homework is often used ineffectively; and (3) schools are not doing enough to help students develop either the study skills required to use time well or the willingness to spend more time on school work.

- In England and other industrialized countries, it is not unusual for academic high school students to spend 8 hours a day at school, 220 days per year. In the United States, by contrast, the typical school day lasts 6 hours and the school year is 180 days.

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- In many schools, the time spent learning how to cook and drive counts as much toward a high school diploma as the time spent studying mathematics, English, chemistry, U.S. history, or biology.
 - A study of the school week in the United States found that some schools provided students only 17 hours of academic instruction during the week, and the average school provided about 22.
 - A California study of individual classrooms found that because of poor management of classroom time, some elementary students received only one-fifth of the instruction others received in reading comprehension.
 - In most schools, the teaching of study skills is haphazard and unplanned. Consequently, many students complete high school and enter college without disciplined and systematic study habits.

Findings Regarding Teaching

The Commission found that not enough of the academically able students are being attracted to teaching; that teacher preparation programs need substantial improvement; that the professional working life of teachers is on the whole unacceptable; and that a serious shortage of teachers exists in key fields.

- Too many teachers are being drawn from the bottom quarter of graduating high school and college students.
- The teacher preparation curriculum is weighted heavily with courses in "educational methods" at the expense of courses in subjects to be taught. A survey of 1,350 institutions training teachers indicated that 41 percent of the time of elementary school teacher candidates is spent in education courses, which reduces the amount of time available for subject matter courses.
- The average salary after 12 years of teaching is only

\$17,000 per year, and many teachers are required to supplement their income with part-time and summer employment. In addition, individual teachers have little influence in such critical professional decisions as, for example, textbook selection.

- Despite widespread publicity about an overpopulation of teachers, severe shortages of certain kinds of teachers exist: in the fields of mathematics, science, and foreign languages; and among specialists in education for gifted and talented, language minority, and handicapped students.
- The shortage of teachers in mathematics and science is particularly severe. A 1981 survey of 45 States revealed shortages of mathematics teachers in 43 States, critical shortages of earth sciences teachers in 33 States, and of physics teachers everywhere.
- Half of the newly employed mathematics, science, and English teachers are not qualified to teach these subjects; fewer than one-third of U.S. high schools offer physics taught by qualified teachers.

Recommendations

In light of the urgent need for improvement, both immediate and long term, this Commission has agreed on a set of recommendations that the American people can begin to act on now, that can be implemented over the next several years, and that promise lasting reform. The topics are familiar; there is little mystery about what we believe must be done. Many schools, districts, and States are already giving serious and constructive attention to these matters, even though their plans may differ from our recommendations in some details.

We wish to note that we refer to public, private, and parochial schools and colleges alike. All are valuable national resources. Examples of actions similar to those recommended below can be found in each of them.

We must emphasize that the variety of student aspirations, abilities, and preparation requires that appropriate content be available to satisfy diverse needs. Attention must be directed to both the nature of the content available and to the needs of particular learners. The most gifted students, for example, may need a curriculum enriched and accelerated beyond even the needs of other students of high ability. Similarly, educationally disadvantaged students may require special curriculum materials, smaller classes, or individual tutoring to help them master the material presented. Nevertheless, there remains a common expectation: We must demand the best effort and performance from all students, whether they are gifted or less able, affluent or disadvantaged, whether destined for college, the farm, or industry.

Our recommendations are based on the beliefs that everyone can learn, that everyone is born with an *urge* to learn which can be nurtured, that a solid high school education is within the reach of virtually all, and that life-long learning will equip people with the skills required for new careers and for citizenship.

Recommendation A: Content

We recommend 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 4 years of high school: (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. For the college-bound, 2 years of foreign language in high school are strongly recommended in addition to those taken earlier.

Whatever the student's educational or work objectives, knowledge of the New Basics is the foundation of success for the after-school years and, therefore, forms the core of the modern curriculum. A high level of shared education in these Basics, together with work in the fine and performing arts and foreign languages, constitutes the mind and spirit of our cul-

ture. The following Implementing Recommendations are intended as illustrative descriptions. They are included here to clarify what we mean by the essentials of a strong curriculum.

Implementing Recommendations

1. The teaching of *English* in high school should equip graduates to: (a) comprehend, interpret, evaluate, and use what they read; (b) write well-organized, effective papers; (c) listen effectively and discuss ideas intelligently; and (d) know our literary heritage and how it enhances imagination and ethical understanding, and how it relates to the customs, ideas, and values of today's life and culture.
2. The teaching of *mathematics* in high school should equip graduates to: (a) understand geometric and algebraic concepts; (b) understand elementary probability and statistics; (c) apply mathematics in everyday situations; and (d) estimate, approximate, measure, and test the accuracy of their calculations. In addition to the traditional sequence of studies available for college-bound students, new, equally demanding mathematics curricula need to be developed for those who do not plan to continue their formal education immediately.
3. The teaching of *science* in high school should provide graduates with an introduction to: (a) the concepts, laws, and processes of the physical and biological sciences; (b) the methods of scientific inquiry and reasoning; (c) the application of scientific knowledge to everyday life; and (d) the social and environmental implications of scientific and technological development. Science courses must be revised and updated for both the college-bound and those not intending to go to college. An example of such work is the American Chemical Society's "Chemistry in the Community" program.
4. The teaching of *social studies* in high school should be designed to: (a) enable students to fix their places and

possibilities within the larger social and cultural structure; (b) understand the broad sweep of both ancient and contemporary ideas that have shaped our world; and (c) understand the fundamentals of how our economic system works and how our political system functions; and (d) grasp the difference between free and repressive societies. An understanding of each of these areas is requisite to the informed and committed exercise of citizenship in our free society.

5. The teaching of *computer science* in high school should equip graduates to: (a) understand the computer as an information, computation, and communication device; (b) use the computer in the study of the other Basics and for personal and work-related purposes; and (c) understand the world of computers, electronics, and related technologies.

In addition to the New Basics, other important curriculum matters must be addressed.

6. Achieving proficiency in a *foreign language* ordinarily requires from 4 to 6 years of study and should, therefore, be started in the elementary grades. We believe it is desirable that students achieve such proficiency because study of a foreign language introduces students to non-English-speaking cultures, heightens awareness and comprehension of one's native tongue, and serves the Nation's needs in commerce, diplomacy, defense, and education.
7. The high school curriculum should also provide students with programs requiring rigorous effort in subjects that advance students' personal, educational, and occupational goals, such as the fine and performing arts and vocational education. These areas complement the New Basics, and they should demand the same level of performance as the Basics.
8. The curriculum in the crucial eight grades leading to the high school years should be specifically designed to provide a sound base for study in those and later years in such areas as English language development

and writing, computational and problem solving skills, science, social studies, foreign language, and the arts. These years should foster an enthusiasm for learning and the development of the individual's gifts and talents.

9. We encourage the continuation of efforts by groups such as the American Chemical Society, the American Association for the Advancement of Science, the Modern Language Association, and the National Councils of Teachers of English and Teachers of Mathematics, to revise, update, improve, and make available new and more diverse curricular materials. We applaud the consortia of educators and scientific, industrial, and scholarly societies that cooperate to improve the school curriculum.

Recommendation B: Standards and Expectations

We recommend 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.

Implementing Recommendations

1. Grades should be indicators of academic achievement so they can be relied on as evidence of a student's readiness for further study.
2. Four-year colleges and universities should raise their admissions requirements and advise all potential applicants of the standards for admission in terms of specific courses required, performance in these areas, and levels of achievement on standardized achievement tests in each of the five Basics and, where applicable, foreign languages.

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3. Standardized tests of achievement (not to be confused with aptitude tests) should be administered at major transition points from one level of schooling to another and particularly from high school to college or work. The purposes of these tests would be to: (a) certify the student's credentials; (b) identify the need for remedial intervention; and (c) identify the opportunity for advanced or accelerated work. The tests should be administered as part of a nationwide (but not Federal) system of State and local standardized tests. This system should include other diagnostic procedures that assist teachers and students to evaluate student progress.
 4. Textbooks and other tools of learning and teaching should be upgraded and updated to assure more rigorous content. We call upon university scientists, scholars, and members of professional societies, in collaboration with master teachers, to help in this task, as they did in the post-Sputnik era. They should assist willing publishers in developing the products or publish their own alternatives where there are persistent inadequacies.
 5. In considering textbooks for adoption, States and school districts should: (a) evaluate texts and other materials on their ability to present rigorous and challenging material clearly; and (b) require publishers to furnish evaluation data on the material's effectiveness.
 6. Because no textbook in any subject can be geared to the needs of all students, funds should be made available to support text development in "thin-market" areas, such as those for disadvantaged students, the learning disabled, and the gifted and talented.
 7. To assure quality, all publishers should furnish evidence of the quality and appropriateness of textbooks, based on results from field trials and credible evaluations. In view of the enormous numbers and varieties

of texts available, more widespread consumer information services for purchasers are badly needed.

8. New instructional materials should reflect the most current applications of technology in appropriate curriculum areas, the best scholarship in each discipline, and research in learning and teaching.

Recommendation C: Time

We recommend 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.

Implementing Recommendations

1. Students in high schools should be assigned far more homework than is now the case.
2. Instruction in effective study and work skills, which are essential if school and independent time is to be used efficiently, should be introduced in the early grades and continued throughout the student's schooling.
3. School districts and State legislatures should strongly consider 7-hour school days, as well as a 200- to 220-day school year.
4. The time available for learning should be expanded through better classroom management and organization of the school day. If necessary, additional time should be found to meet the special needs of slow learners, the gifted, and others who need more instructional diversity than can be accommodated during a conventional school day or school year.
5. The burden on teachers for maintaining discipline should be reduced through the development of firm and fair codes of student conduct that are enforced consistently, and by considering alternative class-

rooms, programs, and schools to meet the needs of continually disruptive students.

6. Attendance policies with clear incentives and sanctions should be used to reduce the amount of time lost through student absenteeism and tardiness.
7. Administrative burdens on the teacher and related intrusions into the school day should be reduced to add time for teaching and learning.
8. 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.

Recommendation D: Teaching

This recommendation *consists of seven parts. Each is intended to improve the preparation of teachers or to make teaching a more rewarding and respected profession. Each of the seven stands on its own and should not be considered solely as an implementing recommendation.*

1. Persons preparing to teach should be required to meet high educational standards, to demonstrate an aptitude for teaching, and to demonstrate competence in an academic discipline. Colleges and universities offering teacher preparation programs should be judged by how well their graduates meet these criteria.
2. Salaries for the teaching profession should be increased and should be professionally competitive, market-sensitive, and performance-based. Salary, promotion, tenure, and retention decisions should be tied to an effective evaluation system that includes peer review so that superior teachers can be rewarded, average ones encouraged, and poor ones either improved or terminated.

-
3. School boards should adopt an 11-month contract for teachers. This would ensure time for curriculum and professional development, programs for students with special needs, and a more adequate level of teacher compensation.
 4. 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.
 5. Substantial nonschool personnel resources should be employed to help solve the immediate problem of the shortage of mathematics and science teachers. Qualified individuals including recent graduates with mathematics and science degrees, graduate students, and industrial and retired scientists could, with appropriate preparation, immediately begin teaching in these fields. A number of our leading science centers have the capacity to begin educating and retraining teachers immediately. Other areas of critical teacher need, such as English, must also be addressed.
 6. Incentives, such as grants and loans, should be made available to attract outstanding students to the teaching profession, particularly in those areas of critical shortage.
 7. Master teachers should be involved in designing teacher preparation programs and in supervising teachers during their probationary years.

Recommendation E: Leadership and Fiscal Support

We recommend 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 we propose.

Implementing Recommendations

1. Principals and superintendents must play a crucial leadership role in developing school and community support for the reforms we propose, and school boards must provide them with the professional development and other support required to carry out their leadership role effectively. The Commission stresses the distinction between leadership skills involving persuasion, setting goals and developing community consensus behind them, and managerial and supervisory skills. Although the latter are necessary, we believe that school boards must consciously develop leadership skills at the school and district levels if the reforms we propose are to be achieved.
2. State and local officials, including school board members, governors, and legislators, have *the primary responsibility* for financing and governing the schools, and should incorporate the reforms we propose in their educational policies and fiscal planning.
3. 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, the socioeconomically disadvantaged, minority and language minority students, and the handicapped. In combination these groups include both national resources and the Nation's youth who are most at risk.

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4. In addition, we believe the Federal Government's role includes several functions of national consequence that States and localities alone are unlikely to be able to meet: protecting constitutional and civil rights for students and school personnel; collecting data, statistics, and information about education generally; supporting curriculum improvement and research on teaching, learning, and the management of schools; supporting teacher training in areas of critical shortage or key national needs; and providing student financial assistance and research and graduate training. We believe the assistance of the Federal Government should be provided with a minimum of administrative burden and intrusiveness.
 5. The Federal Government has *the primary responsibility* to identify the national interest in education. It should also help fund and support efforts to protect and promote that interest. It must provide the national leadership to ensure that the Nation's public and private resources are marshaled to address the issues discussed in this report.
 6. This Commission calls upon educators, parents, and public officials at all levels to assist in bringing about the educational reform proposed in this report. We also call upon citizens to provide the financial support necessary to accomplish these purposes. Excellence costs. But in the long run mediocrity costs far more.

America Can Do It

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. The American educational system has responded to previous challenges with remarkable success. In the 19th century our land-grant colleges and universities provided the research and training that developed our Nation's natural resources and the rich agricultural bounty of the American farm. From the late 1800s through mid-20th century, American schools provided the educated workforce needed to seal the success of the Industrial

Revolution and to provide the margin of victory in two world wars. In the early part of this century and continuing to this very day, our schools have absorbed vast waves of immigrants and educated them and their children to productive citizenship. Similarly, the Nation's Black colleges have provided opportunity and undergraduate education to the vast majority of college-educated Black Americans.

More recently, our institutions of higher education have provided the scientists and skilled technicians who helped us transcend the boundaries of our planet. In the last 30 years, the schools have been a major vehicle for expanded social opportunity, and now graduate 75 percent of our young people from high school. Indeed, the proportion of Americans of college age enrolled in higher education is nearly twice that of Japan and far exceeds other nations such as France, West Germany, and the Soviet Union. Moreover, when international comparisons were last made a decade ago, the top 9 percent of American students compared favorably in achievement with their peers in other countries.

In addition, many large urban areas in recent years report that average student achievement in elementary schools is improving. More and more schools are also offering advanced placement programs and programs for gifted and talented students, and more and more students are enrolling in them.

We are the inheritors of a past that gives us every reason to believe that we will succeed.

A Word to Parents and Students

The task of assuring the success of our recommendations does not fall to the schools and colleges alone. Obviously, faculty members and administrators, along with policymakers and the mass media, will play a crucial role in the reform of the educational system. But even more important is the role of parents and students, and to them we speak directly.

To Parents

You know that you cannot confidently launch your children into

today's world unless they are of strong character and well-educated in the use of language, science, and mathematics. They must possess a deep respect for intelligence, achievement, and learning, and the skills needed to use them; for setting goals; and for disciplined work. That respect must be accompanied by an intolerance for the shoddy and second-rate masquerading as "good enough."

You have the right to demand for your children the best our schools and colleges can provide. Your vigilance and your refusal to be satisfied with less than the best are the imperative first step. But your right to a proper education for your children carries a double responsibility. As surely as you are your child's first and most influential teacher, your child's ideas about education and its significance begin with you. You must be a *living* example of what you expect your children to honor and to emulate. Moreover, you bear a responsibility to participate actively in your child's education. You should encourage more diligent study and discourage satisfaction with mediocrity and the attitude that says "let it slide"; monitor your child's study; encourage good study habits; encourage your child to take more demanding rather than less demanding courses; nurture your child's curiosity, creativity, and confidence; and be an active participant in the work of the schools. Above all, exhibit a commitment to continued learning in your own life. Finally, help your children understand that excellence in education cannot be achieved without intellectual and moral integrity coupled with hard work and commitment. Children will look to their parents and teachers as models of such virtues.

To Students

You forfeit your chance for life at its fullest when you withhold your best effort in learning. When you give only the minimum to learning, you receive only the minimum in return. 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. When you work to your full capacity, you can hope to attain the knowledge and skills that will enable you to create your future and control your destiny. If you do not, you will have your future thrust upon you by others. Take hold of your life, apply your gifts and talents, work with dedication

It is the American ideal of us that is at stake. To each of us that there is a positive to add to it.

and self-discipline. Have high expectations for yourself and convert every challenge into an opportunity.

A Final Word

This is not the first or only commission on education, and some of our findings are surely not new, but old business that now at last must be done. For no one can doubt that the United States is under challenge from many quarters.

Children born today can expect to graduate from high school in the year 2000. We dedicate our report not only to these children, but also to those now in school and others to come. We firmly believe that a movement of America's schools in the direction called for by our recommendations will prepare these children for far more effective lives in a far stronger America.

Our final word, perhaps better characterized as a plea, is that all segments of our population give attention to the implementation of our recommendations. Our present plight did not appear overnight, and the responsibility for our current situation is widespread. Reform of our educational system will take time and unwavering commitment. It will require equally widespread, energetic, and dedicated action. For example, we call upon the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, Science Service, National Science Foundation, Social Science Research Council, American Council of Learned Societies, National Endowment for the Humanities, National Endowment for the Arts, and other scholarly, scientific, and learned societies for their help in this effort. Help should come from students themselves; from parents, teachers, and school boards; from colleges and universities; from local, State, and Federal officials; from teachers' and administrators' organizations; from industrial and labor councils; and from other groups with interest in and responsibility for educational reform.

It is their America, and the America of all of us, that is at risk; it is to each of us that this imperative is addressed. 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 be either secured or forfeited. Americans have succeeded before and so we shall again.

APPENDIX B

A Summary of Major Reports on Education, by the
Education Commission of the States,
November 1983



A Summary of Major Reports on Education

Education Commission of the States
Suite 300, 1860 Lincoln Street
Denver, Colorado 80295
303-830-3600

November 1983

Additional copies of this publication may be ordered from the
ECS Distribution Center at the Denver offices. Ask for EG-83-4,
priced at \$8.00 each. Prepayment or authorized purchase
orders required.



List of Reports Reviewed

Adler, Mortimer Jerome *The Paideia Proposal*. New York: Macmillan Publishing Co., 1982. \$2.95

Boyer, Ernest L. *High School. A Report on Secondary Education in America*. New York: Harper & Row, 1983. \$15.00

Business-Higher Education Forum *America's Competitive Challenge: The Need for a National Response*. Washington, D.C., 1983. \$17.50, 202-833-4716.

College Entrance Examination Board. *Academic Preparation for College: What Students Need to Know and Be Able to Do*. New York, 1983. No charge, 212-582-6210.

Goodlad, John I. *A Place Called School: Prospects for the Future*. St. Louis, Missouri: McGraw-Hill, 1983. \$18.95.

National Commission on Excellence in Education *A Nation at Risk. The Imperative for Educational Reform*. Washington, D.C.: Government Printing Office, 1983. Stock #065-000-00177-2, \$4.50, 202-773-3238.

National Science Board Commission on Precollege Education in Mathematics, Science and Technology *Educating Americans for the 21st Century*. Washington, D.C.: National Science Foundation, 1983. 202-357-7700.

Southern Regional Education Board *Meeting the Need for Quality Action in the South*. Atlanta, Georgia, 1983. \$3.00, 404-875-9211

Task Force on Education for Economic Growth *Action For Excellence: A Comprehensive Plan to Improve Our Nation's Schools*. Denver, Colorado: Education Commission of the States, 1983. \$5.00, 303-830-3600.

Twentieth Century Fund. *Report of the Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy*. New York, 1983. \$6.00, 212-535-4441

In the months ahead, the recommendations of further reports will also be summarized and made available as addenda to this report

Copies of this report are available from the Education Commission of the States Distribution Center, 300 Lincoln Tower, 1860 Lincoln Street, Denver, Colorado 80295, for \$8.00. Discount available for bulk orders





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Introduction

1983 has been the Year of the Report on Education. Hardly a month has passed without the release of a major report by a prestigious group of citizens concerned about the state of American education. And sprinkled between the major releases have been dozens of state task force reports, interim studies and articles about school renewal, effective schools, business-school partnerships or ways to meet the education needs of a rapidly changing society.

So voluminous has been the production of information about education and how to improve it that many people interested in the subject have been unable to keep up with the reading or unable to discern common themes among the recommendations. Since over 175 state task forces are already tackling complex education reform issues and many legislatures are putting education reform on their 1984 agendas, this is an opportune time to synthesize major report recommendations and look for consensus, common themes and areas of controversy.

Accordingly, the Education Commission of the States (ECS) has condensed the recommendations of 10 major reports in this summary and will update the summary periodically as major reports continue to emerge.

A document such as this can never replace the original reports, of course. We strongly recommend that readers use this summary as an *overview* and a *starting point*, not an end in itself. The reports we have summarized here are rich in details that elude easy summary. Many of them are powerfully written and carefully build contexts for their recommendations; when the

contexts are stripped away, the recommendations appear distorted or stronger or weaker than they are in fact. One of the reports, *Making the Grade* by Twentieth Century Fund, presents both consensus recommendations and dissenting points of view, making it difficult to summarize without misrepresenting one or another panel member's point of view.

Yet another reason to be wary of a synthesis of these report recommendations is that they emanate from very different groups of people with different perspectives and agendas. Two of the reports — Goodlad's *A Place Called School* and Boyer's *High School* are based upon research studies and field work. They present detailed observational data about schools as they are today, and the authors' recommendations for improvement grow out of those data. Both Goodlad and Boyer would argue that we must understand the schools concretely before we attempt to change them or our reforms simply will not work.

If Goodlad's and Boyer's recommendations grow out of the concrete realities of schooling, the other report recommendations grow out of the realities of social change and the need for reform. These "blue ribbon" reports begin with macro-perspectives — usually the national or international economic situation — and deduce recommendations from those perspectives. Moreover, the blue-ribbon reports even differ among themselves in focus and agenda. *A Nation at Risk*, the report of the National Commission on Excellence in Education, was based upon hearings held around the country by a diverse group of educators and upon a number of

commissioned papers, primarily from the postsecondary community. Like seven of the eight blue-ribbon groups, the Excellence Commission focused upon elementary and secondary education.

The Business-Higher Education Forum, which issued *America's Competitive Challenge*, is composed of corporate and university chief executives. The forum was primarily concerned with national education policy as it relates to American economic competitiveness in the world economy. The report embraces a range of national policy actions with respect to trade, capital investment, technological innovation, human resources, industry initiatives, university initiatives and joint industry-university initiatives. Thus, it is not strictly an education reform report and, to the extent that it does deal with education issues, it addresses postsecondary initiatives, not elementary/secondary.

Action for Excellence, the report of the Education Commission of the States' Task Force on Education for Economic Growth, also ties education initiatives to international competitiveness and economic policy. The task force membership largely consists of governors and business leaders, although legislators, educators and organization leaders are also included. In addition to making general recommendations about improving elementary/secondary education, the task force published nine brochures detailing more specific steps to be taken by governors, legislators, chief state school officers, state boards of education, local boards of education, school superintendents, principals and state higher education executive officers.

The Paideia Proposal, written by Mortimer Adler, reflects the views of the Paideia Group, a panel of distinguished educators in higher education, elementary/secondary education and education-related foundations. More than the other reports it presents a coherent *philosophy* of education in the ideal, concerning itself with how all students should learn and all teachers should teach. It is a manifesto concerned more with what we should be aiming to achieve than with current conditions in schools and the economy or with the details of how we could set out to reach its goals.



Making the Grade, the report of the Task Force on Federal Elementary and Secondary Education Policy of the Twentieth Century Fund, a non-profit research foundation, is the only report to focus exclusively on the federal role in education. Accordingly, the emphasis is upon policy, not practice; and since federal education policy is a matter about which there are conflicting perspectives, the task force found it necessary to include dissenting comments along with consensus recommendations.

The National Science Board Commission on Precollege Education in Mathematics, Science and Technology focused, as its name indicates, on only some aspects of education in its report, *Educating Americans for the 21st Century*. Nevertheless, its recommendations are broad and include observations about the importance of the humanities and communication skills for science students as well as for students in general.*

Academic Preparation for College, published by the Educational Equality Project of the College Board, is included in this summary because it is more specific than any of the other reports about what students should know and be able to do after 12 years of education. Although its thrust is clearly different from the other reports, it complements them nicely precisely because it is so detailed, especially on curricular matters

Finally, we have included a regional report, *Meeting the Need for Quality: Action in the South*, by the Southern Regional Education Board, to remind readers that action is already taking place and there are many exemplary projects and policy initiatives from which we have already learned a great deal.

Apples and oranges — research studies, commissions, panels, foun-

dations, greatly differing perspectives and values — and yet all of the reports address in their unique ways the common subject of American education. And undergirding them, for all their differences, are a number of shared assumptions:

- All agree that the quality of our education system must be improved and must be improved now
- All agree that quality and equity are inseparable issues, as Adler puts it, "The best education for the best is the best education for all"
- All agree that education is inextricably tied to larger social, political and economic issues and that education renewal is key to American renewal.
- All agree that local government, state government and the federal government have important roles to play in renewal.
- Most mention (and probably all agree) that schooling is only one facet of education in this country and that lifelong learning through a host of public and private institutions and personal means will continue to be as central to renewed vigor and productivity as are schools.
- Most believe that schools and the larger community must work together; the challenge of renewal is a broad-scale social challenge not limited to the schools alone
- Most underscore the belief that the strength of our education system lies in its decentralized structure and control by individual communities; communities will differ in their approaches to renewal and those differences will guarantee innovation, creativity and imaginative solutions to our problems.

As we will see shortly, those shared assumptions lead to a number of

shared recommendations as well. In order to present both shared and unshared recommendations as coherently as possible, we have grouped them into four major categories: recommendations about curriculum, about teachers and teaching, about school organization and management and about the appropriate processes of reform and the roles various sectors can play in bringing about renewal. Although such a grouping may make it easier to compare recommendations, it poses an artificial barrier to understanding a fundamental assumption shared by virtually all the reports: that changes should not be considered in isolation from one another. Recommendations for curricular changes have implications for teacher preparation and use of time, and these have implications for how the school is organized and managed, and so on. Change strategies must be holistic in conception if they are to be successful. Furthermore, some recommendations are hard to place in a single category, since they involve interactions of teachers, administrators, curriculum and support systems outside the school

Keep in mind, then, the fact that the categories are somewhat arbitrary and exist only to help the reader organize the information in a preliminary way.

Many groups have issued education reports and many more — most recently the Forum of Education Organization Leaders — have issued responses to their recommendations. In the coming months the Education Commission will continue to keep track of reports and responses and make summaries of them available to constituents and the general public.

*The National Science Board, which sets policy for the National Science Foundation, has received and accepted the report of one commission. In this summary, the report is referred to by its title or as the National Science Foundation report



Recommendations About Curriculum

All high school students should be required to learn five new basics, according to the *Nation at Risk* report, which then recommends specific numbers of courses in specific disciplines: four years in English, three years in mathematics, three years in science, three years in social studies and one-half year in computer science. *The Paideia Proposal*, on the other hand, recommends no specific courses but rather a system of learning and teaching that crosses course boundaries. Although these two approaches may at first glance seem to have little in common, there is nonetheless some broad agreement in the reports (widely different starting points notwithstanding) about goals, core curriculum, language mastery, computers and vocational education. Areas of general agreement are outlined below, as are some apparent limits to agreement. A real source of optimism is the liveliness of interest in curricular matters and agreement at the very broadest level that, in the words of *The Paideia Proposal*, "the best education for the best is the best education for all."

Goals

Schools' goals are mired in a "conceptual swamp," writes Goodlad; schools are expected to meet, in the curriculum and elsewhere in the schooling process, goals that are too cluttered and too global. Goals must be clarified, agrees Boyer. Other reports sound this theme as well. But agreement on the importance of clear goals may be more widespread than agreement on the goals themselves, since many of the groups issuing reports in effect propose their own goals for education. Groups with a strong

interest in science and technology tend to emphasize those areas and downplay the humanities; groups that view education primarily as preparation for work tend to downplay goals having to do with personal fulfillment — and so on. Nevertheless there is strong support for the proposition that schools must continue to develop academic competencies, foster vocational skills and awareness, contribute to personal fulfillment and cultivate civic responsibility.

Core Curriculum

Agreement is general that all students should complete a core curriculum. The conclusion may not be new, but it is nonetheless significant in reports prepared by diverse groups for diverse purposes. Single-subject or single-method solutions to curriculum problems generally are not being proposed, and there seems to be some agreement that extraneous elements ("soft, nonessential courses," in the words of the ECS report) must be eliminated.

Already disagreements are apparent about the definition of "core curriculum," however, and they are likely to continue. Some reports describe the core as courses that should be required (and requirements vary). Goodlad takes a different approach, saying that a core curriculum should consist not of common courses but of a common set of concepts, principles, skills and ways of knowing. *The Paideia Proposal* recommends a common course of study based on three types of learning and teaching: acquisition of organized knowledge through didactic instruction, development of intellectual skills through

coaching, and understanding of ideas and values through Socratic questioning and active participation. Other reports avoid problems of definition, recommending simply that the curriculum be strengthened.

Complicating problems of definition are convictions that some areas of learning should be more equal than others — convictions like one expressed in the report of the Business-Higher Education Forum: that engineering schools should reemphasize manufacturing engineering. Further, saying that a core curriculum is desirable is a different matter from instituting one, and conflicts may arise as difficult decisions are faced about how — or whether — schools can continue meeting numerous other demands as they develop or strengthen a core curriculum.

Mastery of Language

Two reports state unambiguously the importance of mastering language. This is the number-one priority, according to Boyer. Literacy in the English language is the most important objective of elementary and secondary education in the United States, according to the Twentieth Century Fund. Other reports assign a perhaps surprisingly high value to language (National Commission on Excellence in Education, National Science Foundation, Goodlad, Business-Higher Education Forum), given that many of them were issued by groups whose interest in business/economics, mathematics and science might have been expected to produce narrower curricular recommendations.

Computers and New Technology

Interest in determining what part computers should play in the curriculum is fairly widespread. A sense of possibilities to be explored predominates, uncertainty remains about how computers are best used in the curriculum.



In general, the use of technology seems to receive less emphasis in reports that deal extensively with how students learn (e.g., Boyer and Goodlad) than in reports prepared by groups that have less direct contact with schools. Note, too, that discussion of the possibilities of computers is not limited to considerations of curriculum. Interest surfaces, for example, in the National Science Foundation recommendation that students training to be K-12 teachers become computer-literate.

Vocational Education

Some reports suggest that vocational education be eliminated as a separate track, on the grounds that it is not an effective way to train students for work (a result best achieved by general education, says *The Paideia Proposal*) and that it has had other problems (minorities are overrepresented in vocational education, says Goodlad). Other reports explicitly or implicitly put

vocational education outside the core curriculum. Agreement is less than complete, however, and the report of the Business-Higher Education Forum expresses a point of view (apropos of higher education) that doubtless has some support: immediate utility (e.g., more relevant industrial subjects to study) rather narrowly defined is in some circumstances preferable to general education.

There are, however, limits to consensus. Although the reports generally stress the importance of a core curriculum and of general education, various special educational topics or groups continue to have strong supporters. Some reports recommend accelerated courses for gifted students, for example, others address the concerns of the handicapped.

Disagreement is both possible and probable over recommendations specific to a specific report — over the soundness of Paideia theories, for

example, or the exact allocation of required courses in *A Nation At Risk*, or the assertion in *Making the Grade* that federal funds now going to bilingual programs should be used to teach non-English-speaking children to speak, read and write English.

Perhaps most important, the reports generally do not limit recommendations to what is needed to develop technical or intellectual elites. They assume instead that better education means better general education for all students. One equally general potential for controversy remains: "Better general education for all students" is easier to agree on than to bring about, which makes disagreement over means both inevitable and understandable. Widespread and serious discussion of means may, however, be ultimately more productive than premature unanimity.

Recommendations About Teachers and Teaching

Agreement is general that getting better teachers into schools — and keeping them in schools, functioning effectively — are vitally important to improving education. Evidence of this general agreement is the attention the reports devote to better training, better compensation, better working conditions, certification, connecting teachers with the outside world, and teaching — concerns that are described further below.

Across the reports and within reports, recommendations for attracting good teachers and for retaining them are of two broad types — suggestions to encourage improvement (e.g., better training, better possibilities for career advancement) and suggestions to require improvement (e.g., higher standards for certification, dismissal of ineffective teachers). That is, the reports as a group testify to the popularity of the two-pronged attack; magnets should be used to attract good teachers, and screens should be used to keep out bad teachers. Unresolved by the reports, for the most part, is the problem of appropriately mixing assistance with regulation so that the two approaches are not counterproductive.

Better Training

Many of the reports stress the importance of better training for teachers. They suggest ways to improve the training of prospective teachers (by, for example, restructuring and renewing education school curricula, as the ECS report recommends) and also ways to further the professional development of practicing teachers. Boyer, for example, recommends cadet-teacher programs for students

and, for practicing teachers, a two-week “teacher professional development term” and a “summer study term” with extra pay. An emphasis on academic training in particular is discernible in a number of reports. *The Paideia Proposal* recommends a strong liberal education as the best training for teaching; Boyer recommends that prospective teachers complete courses in an academic core in four years, then spend a fifth year learning about education. Also discernible is a changing attitude about education courses, found in the National Science Foundation’s proposal that prospective teachers complete only a limited number of education courses, for example, and in Boyer’s suggestion that teachers-in-training make more and earlier school visits.

Better and Different Compensation

Many of the reports agree that scholarships, loans or other financial incentives should be made available to able, highly qualified students who might not otherwise be attracted into teaching. Boyer may be most specific in proposing full tuition scholarships for the top 5% of students going into teaching, but other reports make the same general point.

Much broader in scope, more ambitious, doubtless more problematic yet also more consequential are recommendations that the teaching profession be restructured. The National Science Foundation report points out that compensation calculations must include considerations of intangible benefits like opportunity for promotion

and length of work year. This synthesizing approach reappears in other reports recommending that “career paths” or “career ladders” be established that link differentiated compensation to differentiated teaching responsibilities.

Agreement has not yet been reached about how many steps there should be along a career path or how many rungs on a career ladder. Some reports talk of “master teachers,” for example, others of “head teachers, residents and interns,” others of “associate teachers and senior teachers.” There is some agreement, however, that teachers further down the path or up the ladder should have different responsibilities from beginning teachers; suggested most often is supervisory responsibility for less experienced teachers (Note, however, that the National Science Foundation report — in recommending that teaching salaries be “professionally competitive” and “market-sensitive” — introduces a criterion for compensation based not on performance in schools but on economics in the world outside.) There is also agreement that promotion to higher levels of responsibility should be based on systems of performance evaluation, not yet clearly defined but described in several reports as including review by fellow teachers. The ECS report stands alone in saying that ineffective teachers should be dismissed, although considerations of how, when and if this should happen are implicit in recommendations elsewhere.

Given the major consequences that restructuring the teaching profession holds for hundreds of thousands of teachers, thousands of districts, and all of public education, precisely how professional structures would work becomes a matter of great interest. The possibilities (and perhaps the need) for debate become correspondingly great. Discussions already under way indicate that agreement may not come easily or quickly.

It may also prove difficult to combine better pay for all teachers with better pay for better teachers. This approach (proposed, for example, in the Boyer, National Commission on Excellence in Education, National Science Foundation and ECS reports) may have



inherent contradictions, and it is far easier to recommend better pay than to finance it

Better Working Conditions

Recommendations for improving working conditions for teachers cluster in three areas: providing teachers with more time for preparation, limiting nonacademic duties and distractions, and supporting the work teachers do in the classroom with school policies for making that work pleasanter and more productive. Goodlad suggests, for example, that teachers be allowed a 20-day summer planning period. Boyer proposes not only that teachers have a period each day for planning but also that their class load be limited to four classes and one period of helping students individually. (He also proposes that teachers be relieved of hall monitoring and that they be given special funds for special projects.) The National Commission on Excellence in Education recommends that school boards hire teachers for 11 months and suggests a number of ways, many of them echoed in the ECS report, that schoolwide policy can foster better working conditions: firm, fair codes of student behavior should be enforced consistently, for example, and attendance policies should have clear incentives and sanctions.

Certification

Widespread interest in exploring the possibilities of creating a complex, many-layered career structure for teaching seems to coexist with wide-

spread interest in somehow simplifying the certification process, improving it, or making it more flexible. The Southern Regional Education Board report recommends, for example, that the complexity of certification be reduced, that states move to a common certification test, and that the graduate courses teachers take for recertification relate to teaching assignments. Other reports repeat similar themes, although specifics vary, and several reports (e.g., Boyer, the National Commission on Excellence in Education and the National Science Foundation) make a particular point of recommending that ways be found to let outside experts teach (for example, guest lecturers, members of teaching teams or part-time teachers).

Connecting Teachers With the Outside World

Less numerous than suggestions for bringing outside experts into teaching but nevertheless significant are suggestions for connecting teachers with the outside world. Boyer, who supports the idea of credentialing part-time teachers, also recommends in-and-out teaching terms and establishing a teacher travel fund in each school. The National Science Foundation report calls on outside organizations like government, business and the military to explore ways to extend the employment year for teachers.

Teaching

Some of the reports make recommendations to teachers rather than about

them. (Recommendations of this sort are outside the scope of some reports, however, and the reports as a whole deal less with what happens when a teacher is in a classroom than with developments that precede or follow that central educational event.) Goodlad's recommendations are the most comprehensive. Teachers should, he says, make more use of mastery learning, teach in different ways (using different media to serve different purposes and to meet the needs of different students), diagnose student problems, give clear instructions, give helpful feedback, use time efficiently, provide personal attention, keep students engaged and teach higher-order skills. Reports that are less detailed in this area nonetheless make the same general points: teachers should be more flexible, and they should encourage students to engage actively in learning.

One final overall comment

about recommendations for teachers and teaching seems appropriate. It may prove significant that the recommendations have been prepared by groups that may include teachers but predominantly consist of people outside teaching. This doubtless creates some possibilities for controversy, as teachers and groups of teachers respond to suggestions made by outsiders. But it probably also creates greater potential for progress in some areas. The reports as a group testify to the breadth of support for improving compensation for teachers, for example — improvement that would be much less likely if it were supported only by teachers.



instead of by achievement is endorsed by *A Nation at Risk* and *Action for Excellence*

Recommendations About School Organization and Management

Recommendations in this area for the most part fall into three major categories: administrative policy, staffing, and structure of the school day/week/year. Consensus is broader about the importance of addressing a particular problem than about how to resolve it effectively. The reports reviewed present 30 distinct recommendations, more than half of them (17) made in only one report.

Administrative Policy

Recommendations about administrative policy focus on the use of resources inside and outside schools, on increased emphasis in certain subject areas and on improved services to students.

Boyer, Goodlad and the Business-Higher Education Forum urge schools to use outside facilities and talent to improve and expand their offerings. This recommendation, though limited in endorsement here, is an underlying assumption in most, if not all, of the major reports under review.

The call for partnerships and shared responsibility for schools may indeed be the greatest commonality in the reports as a whole and the best guide to action in education for years to come.

Recommendations for an increased emphasis in certain subject areas focus on mathematics, science and technology. Boyer even calls for the creation of residential mathematics and science academies. This emphasis is consistent with the popular view of education largely as a means of economic growth. The lively debate about specialization versus the liberal

arts or the appropriate role of the humanities does not surface here. Goodlad does, however, recommend that as much time be spent on literature and language each week as on mathematics and science. In a broader context, it is interesting to note that several of the more widely publicized reports call for less specialization by teachers in training yet seem to call for more specialization by students. Clearly, policy makers are challenged to assure balance between curriculum guidelines for teachers and for students.

Some recommendations for improving services to students have implications for all students, some pertain to particular student populations. Among the former are Boyer's call for expanded guidance services and smaller classes, Goodlad's blueprint for four phases of schooling, and calls in these and other reports for more homework, the elimination and social promotions, and the establishment of firm, fair codes of discipline and attendance. Recommendations on homework, the elimination of tracking and social promotions, and discipline and attendance made in two or more of the reports reflect moderate consensus. None of the five major reports that address tracking and social promotions (*High School, A Place Called School, A Nation at Risk, The Paideia Proposal* and *Action for Excellence*) calls for eliminating both tracking and social promotions, two recommendations seemingly on a collision course. The recommendation to eliminate tracking comes from *High School, A Place Called School*, and *The Paideia Proposal*; the recommendation to end placement by age

Recommendations to improve services for targeted populations are broad in scope but few in number. *High School, A Place Called School* and *Making the Grade* agree on the creation of schools within schools to meet the needs of special students. To the extent that these recommendations clash with recommendations to eliminate tracking, they present another challenge to policy makers. *High School* stands alone in recommending a reentry program for drop-outs, *Action for Excellence* stands alone in calling for an expansion of programs for gifted and handicapped students as well as for increased participation of minorities and women in mathematics and science.

In general, recommendations about administrative policy are broad in focus, limited in consensus and, in at least two instances, potentially contradictory.

Staffing

Widely held views of the primacy of the principal's role in the school are reflected in recommendations offered by *High School, A Place Called School, The Paideia Proposal, Action for Excellence* and the Southern Regional Education Board. *High School* recommends that training for principals be the same as core training for teachers. *The Paideia Proposal* and *Action for Excellence* maintain that the principal should be viewed as the head teacher. *A Place Called School* directly opposes this view, stating that there is simply too much to be done for a principal to function as an instructional leader. A related recommendation from the Southern Regional Education Board suggests that on-the-job internships be required in all education administration programs so that new principals learn to follow the example of strong principals. *Action for Excellence* echoes a recommendation made elsewhere in other reports: create an equitable teacher evaluation system that periodically tests achievement and skills.



Structure of the School Day/Week/Year

Broad recommendations in this area call for flexibility in the scheduling of classes, a closer look at how time is spent in schools and consideration of extending the school day and year. Three of the 10 reports recommend extending the school day or year: *A Nation at Risk*, *Educating Americans for the 21st Century* and *Action for Excellence*. *A Place Called School* says that we must first see to it that we are using the present amount of time efficiently. And, in a recommendation that reflects his in-depth study of schools, Goodlad goes so far as to suggest how many hours of instruction should be devoted to particular topics each week: 18% of a student's time should be devoted to literature and language, 18% to mathematics and

science, 15% to social studies and society, 15% to the arts, 15% to vocational education and career preparation and 10% to areas of individual choice. Such specificity, though rare, is not limited to Goodlad. (*Educating Americans for the 21st Century* also recommends very specifically that students spend 60 minutes a day on mathematics and 30 minutes a day on science.) More far-reaching than Goodlad's proposal for allocating student time is his proposal for the restructuring of schooling. Goodlad calls for four phases of schooling tied to age rather than to ability groupings.

Recommendations about school organization and management are many, but consensus is limited. The recommendations that have received the widest publicity call for examining the concept of an

extended school day or year, ensuring the primacy of the principal in the school, and increasing time devoted to the subjects the *Nation at Risk* report calls the "new basics "

Somewhat threatening to the possibility for greater consensus over the long term is the tendency, already evident, to debate the specific merits of a specific recommendation without taking into account the context in which the recommendation was developed and offered. A case in point is Goodlad's proposal to subdivide schooling into four phases based on age. Critics have been quick to point out the organizational and financial difficulties of carrying out this proposal but perhaps not quick enough to see the proposal in context — or to seek opportunities to build consensus.

Recommendations About Process and Roles: Groups Outside the School

Recommendations about roles that groups outside the school are urged to play are presented below by type of group (federal government, state governments, school districts, colleges and universities, businesses and other leaders outside education). Although these are traditional categories, and the ones most often used in the reports, subdividing roles in this fashion does create some problems in the reports themselves and therefore in this synthesis. Perhaps the most significant problem: judging whether recommendations are coherent and workable can be difficult when responsibilities are allocated by level rather than across levels or throughout the education system.

Although recommendations about "process" are considered below as well as recommendations about "roles," the reports as a whole deemphasize process (*how* improvement should come about) in favor of more general points about what improvement seems desirable.

Particularly interesting in the reports are the recommendations about process or roles that groups make about themselves. When, for example, the National Science Foundation states that it should take the lead in promoting curriculum evaluation and development for mathematics, science and technology, the recommendation may have greater solidity and hold greater promise for action than if a group other than the National Science Foundation made the same point.

The Federal Government

With two exceptions (the College Board and Southern Regional Educational Board reports), all of the reports speak to appropriate roles for the federal government. Most of the recommendations focus upon the federal role with respect to special student groups, teachers, research and funding initiatives

The reports generally concur that the federal government should continue to meet the needs and protect the rights of key groups of students. Mentioned specifically were poor, handicapped, gifted, sociologically disadvantaged, minority, language-minority and graduate engineering students.

Four reports call on the federal government to help improve the supply of teachers. Three reports (*A Nation at Risk*, *Educating Americans for the 21st Century*, *America's Competitive Challenge*) recommend that the federal government recruit and train teachers in areas of critical need, i.e., mathematics, science and technology; *High School* recommends the establishment of a National Teacher Service with tuition scholarships provided by the federal government

Four reports agree that the federal government should collect information about education and conduct research on teaching, learning and the management of schools. *Making the Grade* goes beyond the recommendations of *A Nation at Risk*, *Educating Americans for the 21st Century* and *Action for Excellence* to call specifically for federal collection of data on performance of teachers, students and schools and for evaluation of all

federally sponsored education programs. *A Nation at Risk* and *Educating Americans for the 21st Century* agree that the federal government should support curriculum development.

Recommendations for federal funding initiatives are numerous and varied. Boyer calls for the adoption of a national policy of full employment and the establishment of a "School Building and Equipment Fund." The Business-Higher Education Forum calls for a comprehensive national program for displaced workers, to be financed by employers, employees and the federal government. The Forum also calls for tax incentives to stimulate investment by industry in training and retraining workers and for the establishment of "Individual Training Accounts" (similar to Individual Retirement Accounts) that encourage people to save money to train or retrain themselves. Boyer urges the establishment of a National Commission on Computer Instruction, a National Film Library and regional Federal Technology Centers. The National Science Foundation urges the federal government to promote the use of science museums for education.

State Governments

Recommendations about the role states should play in improving the schools are fewer but broader than recommendations about the federal role. Goodlad has the most to say: states should develop long-term agendas for education, clarify roles and expectations, offer technical assistance, provide moral and financial support to school districts, clear roadblocks to progress and coordinate data gathering. The National Science Foundation concurs that states should offer technical assistance to districts, and further urges that states develop teacher training programs with colleges and universities, establish at least one regional training and resource center, and set rigorous standards for certification and for high school graduation. Boyer and Goodlad also stress the importance of internships, and Boyer recommends that states establish school-college coordination panels. The ECS task force calls for states and communities to form alliances and task



forces to identify goals and critical skills

School Districts

Goodlad urges districts to hire and develop good principals, conduct studies, assess costs, empower each school to renew itself and establish centers to study pedagogy and curriculum. Boyer agrees on the importance of good principals, recommending that principals be given greater control of the budget, the allocation of resources and the selection and rewarding of teachers. Augmenting its recommendation that states set standards for certification of high school graduation, the National Science Foundation further recommends that districts set rigorous standards for grade promotion.

Colleges and Universities

Boyer and the College Board share the conviction that colleges and universities should establish partnerships with high schools. So does the National Science Foundation, which delineated some rather specific modes of cooperation: liberal arts

colleges and academic departments should assume a much greater role in training of teachers, basic education courses should incorporate current findings of behavioral and social science, colleges and universities should stiffen entrance requirements in higher mathematics and science

Leaders Outside Education

Action for Excellence very strongly urges the involvement of business people and other leaders outside of education in improving our schools, and *High School, A Place Called School, Educating Americans for the 21st Century, Action for Excellence* and *A Nation at Risk*, all issue an invitation to business leaders to become more active, not only in supporting schools financially, but also in developing curricula and programs and in sharing nonfinancial resources.

Educating Americans for the 21st Century makes special mention of science museums, which it describes as potential training sites, and of broadcasts of scientific programs, for which it recommends substantial

public and private financial support. *A Nation at Risk* calls on publishers to provide more information to textbook purchasers.

There is across these reports an undertone of conflicting mandates. On the one hand, there is wide agreement that school improvement begins at the school level. But, on the other hand, many of the role and process recommendations focus on what the federal government should do to improve schools. There is broad agreement that the federal government should continue providing for the needs of key groups of students. While the responsibilities of states for these matters are little mentioned, states instead are urged to define goals, raise standards and provide technical, financial and moral assistance to districts. Districts are asked to set rigorous standards for promotion and to support strong, autonomous principals. Generally, recommendations to leaders outside of government and education invite businesses and business people to assume a greater role in improving our schools.



Tables:
Notes on Major Recommendations



A Place Called School, John I. Goodlad

Report	Curriculum	Teachers/Teaching	School Organization/Management	Process/Roles
<p>Sponsor: 14 foundations and agencies</p> <p>Time Frame: Research done in late seventies, reported in 1983</p> <p>Data Base: A study of schooling 38 schools in 7 states, 8,600 parents, 1,350 teachers, 17,000 students, and 1,000 classrooms</p> <p>Focus and Scope: Public schools only, K-12</p> <p>Status: Work completed</p> <p>Assumptions:</p> <ul style="list-style-type: none"> • Many signs of hope in renewal of schools • No simple fixes • Schools are complex ecosystems, each with its own ambience • Need to know more about schools and their problems before you can reform them • Improvement must happen one school at a time • No single set of recommendations applies to all schools • Nation needs its schools — but not necessarily the schools we have known • Reforms cannot be thrust on schools by policy, policy must cultivate capacity of schools to renew themselves • Environment of school must contribute to social, civic, personal and cultural goals • Individuality, flexibility, creativity, originality must be fostered by schools 	<p>Academic</p> <ul style="list-style-type: none"> • Too much emphasis on facts and low-level skills • Not enough discussing, writing, problem solving, analysis, etc • Big gap between ideals and practice must be narrowed Teachers say they are teaching higher-order skills but they are not Facts must be tied to concepts • Core curriculum — not a common set of topics but a common set of concepts, principles, skills and ways of knowing <p>Vocational</p> <ul style="list-style-type: none"> • Voc-ed does not train for work, so do away with that rationale • Correct minority overrepresentation in voc-ed • Voc-ed could be used to teach through hands-on experience • Students must be more able to switch back and forth between vocational and academic • The best preparation for work is general education 	<ul style="list-style-type: none"> • Teachers should be better able to <ul style="list-style-type: none"> – Teach in different ways for different purposes – Vary medium, groupings, etc – Diagnose student problems – Give clear instructions – Give positive, helpful feedback – Use time efficiently – Provide personal attention to student – Get and keep students engaged – Teach higher-order skills • Teachers need more planning time • Career ladders would help teaching head teachers, residents and interns • More use of mastery learning principles would help • Create 20-day summer planning time for teachers 	<ul style="list-style-type: none"> • Schools should get more self conscious about <ul style="list-style-type: none"> – How resources are allocated across subjects – How time is spent – How teachers are teaching • Teachers too isolated, must be reorganized, collaborate more • Eliminate tracking • Principal can't really be instructional leader — too much to do • Do time audits, aim for 25 hours of instruction per week • Fewer well-used hours are better than more sterile hours • Aim for <ul style="list-style-type: none"> – 18% of student's time on literature and language – 18% of student's time on math and science – 15% social studies, society – 15% arts – 15% voc-ed/career preparation – 10% individual choice • Develop schools within schools • Create four phases of schooling: <ul style="list-style-type: none"> – Ages 4–7, primary 8–11, elementary 12–15, secondary 16–18, service, work/study • Create nongraded mini-schools, four teachers per 100 students • Make better use of technology • Create mentor programs • Develop partnerships, networks • Create policy and planning groups 	<ul style="list-style-type: none"> • District — hire and develop good principals conduct studies, assess costs and empower each school to renew self • State — develop long-term agenda, clarify roles of state, district, local • State — lead and challenge <ul style="list-style-type: none"> – Clear expectations – Moral and financial support – Technical assistance – Coordinate data-gathering agencies – Clear road blocks – Legitimate reform – Develop tools for renewal – Disseminate knowledge about alternative pedagogy, curricular design, etc – Establish centers to study pedagogy and curriculum

High School, Ernest Boyer

Report

Sponsor: Carnegie Foundation for Advancement of Teaching

Time Frame: 1980-83

Data Base: Goodlad's "A Study of Schooling", Coleman's "High School and Beyond", field study of 15 high schools, 25 observers, 2,000 hours of school visits

Focus and Scope: Public schools only, high schools only, schools as **educational** institutions

Status: Work completed

Assumptions:

- Quality and equity inseparable
- We are asking too little from students and schools
- This is best opportunity for school renewal we will get in this century
 - Dramatic changes in American life
 - More interdependent world
- Our best schools are among the best in the world
- Much good activity already taking place
- Schools serve four goals
 - Develop capacity to think critically, communicate effectively
 - Help students learn about selves and human heritage
 - Prepare students for work and further education
 - Help students fulfill social, civic obligations
- Individuality, independence, active participation in learning must be fostered and supported by the school environment

Curriculum

Academic

- Goals must be clarified
- Mastery of language #1 priority
- Writing most important
- No more than 20 children in writing class
- Language proficiency assessment before high school, summer remediation
- One semester speech
- Core curriculum: Literature, arts, foreign language, history (U.S., western civilization or nonwestern civilization), groups and institutions (civics), science, mathematics, technology
- Interdisciplinary approach
- Senior Independent Project
- Elective cluster
- Learn **about** computers
- Learn **with** computers
- Learn **from** computers
- Accelerated courses for gifted

Vocational

- Voc-ed promise unfulfilled
- Abolish three-track system — academic, vocational, general
- Connect more with other institutions to get career education

Courses

- The meaning of Vocation (Seminar on Work)
- Health
- Mobile career classroom
- Service term — students serve community for credit

Teachers/Teaching

- Teacher load = four classes and one period for helping individual students or small groups
- Teachers should have at least one hour a day for preparation and record keeping
- Exemption from monitoring halls, lunchrooms, etc
- Teacher Excellence Fund in each school, enabling teachers to carry out special projects
- Good teachers should be recognized, rewarded publicly
- Average salary should be increased 25% over inflation during next three years
- Cadet teacher program for students
- Two-week Teacher Professional Development Term
- Teacher Travel Fund in each school
- Summer Study Term with extra pay
- Career path: associate teacher, senior teacher, evaluation by other teachers
- Credentialing separate from college, requires written exam, references
- Skilled part-time professionals: lectureship program, partnerships with business and industry, in-and-out teaching terms, part-time practitioner credential
- Need greater variety of teaching styles eliciting more active student involvement
- Teachers should have higher expectations for selves, students

(continued)

School Organization/Management

- Guidance counseling must be expanded — more counselors, fewer children/counselor
- More flexible class schedule for larger blocks of time
- Small schools use off-campus, mobile facilities to expand offerings
- Large schools (2,000 +) should create schools within schools
- Residential academies in math and science
- Reentry program for dropouts
- Eliminate tracking
- Principal training should be same as teachers' core training

Process/Roles

- **Parents:** Parent-Teacher-Student Advisory Council, Parent Volunteer Program and Citizens for Public Schools
- **Districts** give principals more control over budgets, resource allocation, selection and rewarding of teachers
- **States** should ease control over textbook selection and transfer that power back to districts or locals
- **States** establish School-College Coordination Panel
- **State** Board of Examiners for Teachers, majority being senior teachers
- **National** Teacher Service — federal tuition scholarship for teachers, three-year service
- **National** Commission on Computer Instruction
- **Federal** Technology Resource Centers in each region
- **National** Film Library
- **Federal** government — continue Title I
- **Federal** government School Building and Equipment Fund to provide short-term, low interest loans for rehabilitation and lab equipment
- Every **college** or **university** establish partnership with a high school
- **Business** can provide volunteer tutorial program, enrichment opportunities, cash awards for outstanding teachers, grants for outstanding principals, training facilities and help upgrade

Report	Curriculum	Teachers/Teaching	School Organization/ Management	Process/Roles
		<ul style="list-style-type: none"> • More source materials, fewer textbooks • Full tuition scholarships for top 5% going into teaching • Teachers complete core learning in academic area • 3.0 average to get into teacher program • School visits during junior, senior years • Fifth year education core: Schooling in America, Learning Theory and Research, Teaching of Writing, Technology and Its Uses, Classroom Observation and Teaching, and interdisciplinary seminars 		

A Nation at Risk, National Commission on Excellence/U.S. Department of Education

Report

Sponsor: National Commission on Excellence/U.S. Department of Education

Members: 18 members — educators, business leaders

Time Frame: 1982-83

Data Base: Commissioned papers, public testimony offered both orally and in writing, and panel discussions

Focus and Scope: To assess quality of time and learning, make comparisons with other advanced nations, examine relationship of college admission to high school graduation, identify successful secondary programs, assess degree to which changes in last 25 years have affected student achievement, define problems to be faced and overcome if we are to pursue excellence

Status: Being reconvened, December 1983

Assumptions:

- Learning is lifelong
- Need for overall improvement
- Quality and equality not mutually exclusive
- Diversity, meeting individual needs still a value
- Education tied to larger societal goals, issues
- Federal government has an important unique role in identifying, promoting and supporting the national interest in education

Curriculum

Academic

- State and local high school graduation requirements should be strengthened
- All students should be required to take five new basics: four years, English; three years, mathematics; three years, science; three years, social studies; and one-half year of computer science. For the college-bound, two years of foreign language in high school are also strongly recommended
- Study of foreign language should be started in elementary grades
- High school curriculum should also include subjects that advance students' personal, educational, occupational goals such as fine arts, vocational and performing arts
- Encourage continued efforts to revise, update, improve curricular materials

Teachers/Teaching

- Grades should be indicators of academic achievement
- Textbooks and other tools of learning and teaching should be upgraded and university scientists, scholars and members of professional groups should help
- Funds should be made available to support texts in "thin" market areas such as those for the learning disabled, gifted or talented
- Persons preparing to teach should meet high education standards, demonstrate an aptitude for teaching and competence in an academic discipline. College and university teacher preparation programs should be judged by how well their graduates meet these criteria
- Create career ladder with master teachers, probationary periods, etc
- Master teachers should be involved in designing teacher preparation programs and in supervising teachers during their probationary years
- Salaries for the teaching profession should be increased, professionally competitive, market-sensitive and performance-based. Salary, promotion, tenure and retention should be tied to an effective evaluation system that includes peer review
- School boards should adopt an 11-month contract for teachers. This would ensure

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School Organization/Management

- Standardized achievement tests should be administered at major transition points, particularly from high school to college or work
- Four-year colleges and universities should raise their admission standards and advise applicants of specific courses, performance and levels of achievement required
- High school students should be assigned far more homework
- Instruction in effective study and work skills should be introduced in the early grades and continued throughout school year
- School districts and state legislatures 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 time should be found to meet the needs of students who need more instructional diversity (i.e., gifted, slow learners, etc.)
- Burden on teachers for maintaining discipline should be reduced through the development of firm and fair codes of student conduct that are enforced consistently and, where indicated, alternative placement in rooms, programs or schools should be considered

(continued)

Process/Roles

- **Citizens** should hold educators and elected officials responsible for providing necessary leadership. Citizens should provide fiscal support and stability required to bring about proposed reforms
- **Principals and superintendents** should develop school and community support for proposed reforms. School boards should develop leadership skills
- **State and local** officials including school board members, governors and legislators have primary responsibility for financing and governing schools and should incorporate reforms in their education policies and fiscal planning
- **Federal government**, in cooperation with states and localities, should help meet the needs of key groups of students such as gifted, socioeconomically disadvantaged, minority and language minority students
- **Federal** role includes
 - Protecting constitutional and civil rights for students and personnel
 - Collecting data and information about education generally
 - Supporting curriculum development and research on teaching, learning and the management of schools
 - Supporting teacher training in areas of critical shortage or key national needs
 - Providing student financial

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Report	Curriculum	Teachers/Teaching	School Organization/ Management	Process/Roles
		<p>time for curriculum and professional development, programs for students with special needs and a more adequate level of teacher compensation</p> <ul style="list-style-type: none"> • School boards, administrators and teachers should cooperate to develop career ladders that distinguish among beginning, experienced and master teachers • Incentives should be made available to attract outstanding students to the teaching profession, particularly in areas of critical shortage • Nonschool personnel resources should be employed to help solve immediate problem of shortages of math and science teachers. A number of our leading science centers can begin educating and training teachers immediately 	<ul style="list-style-type: none"> • Attendance policies with clear incentives and sanctions should be used to reduce time lost through student tardiness and absenteeism • Administrative burdens on the teachers and intrusions on the school day should be reduced to add time for teaching and learning • Placement, grouping of students, promotion and graduation policies should be guided by the academic progress of students and their instructional needs, not their age 	<p>assistance and research and graduate training</p> <ul style="list-style-type: none"> • Federal government has the primary responsibility to identify the national interest in education. It should also help fund and support efforts to protect and promote that interest and provide the national leadership to ensure the nation's public and private resources are marshaled to address the issues • Four-year colleges and universities should raise their admission standards and advise applicants of specific courses, performance and levels of achievement required • Textbook publishers should provide widespread consumer information services for materials purchasers



America's Competitive Challenge — The Need for a National Response, Business-Higher Education Forum

Report

Sponsor: Business-Higher Education Forum

Membership: The Business-Higher Education Forum is made up of top corporate executives and university presidents

Focus and Scope: Prepared at the request of President Reagan Directs the President to make industrial competitiveness one of the top economic goals for the United States

Time Frame: Now

Assumptions: While the report is primarily centered on economic matters, education is an essential ingredient for technological innovation and economic competitiveness. Report calls for education training and retraining for millions of people to keep abreast of new job needs. Industry and university cooperation will be needed to make the United States competitive in world markets

Curriculum

Academic

Curriculum recommendations directed to postsecondary institutions

- Expanded study programs
- Curricular requirements in the fields of language, culture and social political institutions
- Postsecondary business schools should expand teaching and research goals to bolster industrial R&D efforts, technological innovation and high productivity and high quality. Engineering schools should reemphasize manufacturing engineering

Teachers/Teaching

No reference was made to the training or quality of teachers

School Organization/ Management

- Industry and university cooperation
- Transfer of research results to the commercial world
- More relevant industrial subjects to study
- Collaborative problem-oriented research
- An acceleration of the commercialization of the work of universities and industrial firms to be accomplished by new institutions in cooperative relationships
- Business and higher education should work together to develop better trend data on technological change

Process/Roles

- Comprehensive **national** displaced workers program modeled after the G.I. Bill, with education vouchers jointly financed by employers and employees and the federal government
- Tax incentives to stimulate additional investment by **industry** in education training and retraining of workers
- Individual training accounts (ITAs) similar to individual retirement account (IRA) to give incentives for individuals to save for their own training and retraining needs
- Special loans to graduate engineering students who agree to teach
- Support from public and private sectors to train secondary school science and mathematics teachers

Action for Excellence, Task Force on Education for Economic Growth

Report	Curriculum	Teachers/Teaching	School Organization/Management	Process/Roles
<p>Sponsor: Education Commission of the States</p> <p>Members: 41 business leaders, educators, governors and legislators</p> <p>Time Frame: Report published in June 1983</p> <p>Data Base: Task Force deliberations, commissioned papers</p> <p>Focus: K-12 education, national economy and international competition</p> <p>Status: Continuing</p> <p>Assumptions:</p> <ul style="list-style-type: none"> ● Education tied to larger economic issues <ul style="list-style-type: none"> – National survival – International competition Japan, West Germany and others challenging America's position – Structural unemployment – Obsolescence of skills – Importance of highly skilled human resources – Future success as a nation depends on our ability to improve education ● Education important for everyone All citizens have a stake in how effectively we meet the challenge All have a stake in economic health and growth ● Upgrade definition of basic skills, recognize importance of technology Advancement of technology will greatly affect job opportunities and "learning to learn" skills Just basic skills (continued) 	<p>Academic</p> <ul style="list-style-type: none"> ● Strengthen the curriculum, K-12, not only in math and science, but in all disciplines, provide richer substance and greater motivational program, eliminate soft, nonessential courses ● Increase participation of women and minorities in math and science 	<ul style="list-style-type: none"> ● Every state and local education agency should "drastically improve methods for recruiting, training and paying teachers " <ul style="list-style-type: none"> – Competitive pay – Scholarships – Other financial incentives – Extraordinary rewards for extraordinary teachers ● Create career ladders ● Create equitable systems for assessing teachers ● Establish better preservice and inservice education programs <ul style="list-style-type: none"> – Restructure and renew curriculum – Manage and apply technology ● Media and business should create new forms of recognition <ul style="list-style-type: none"> – Special scholarships – Financial awards – Other tributes ● Improve process for certification of teachers and administrators <ul style="list-style-type: none"> – Higher standards – Flexible standards ● Tighten selection procedures, dismiss ineffective teachers 	<ul style="list-style-type: none"> ● Expand programs for gifted ● Reduce absenteeism and dropouts ● Improve programs for handicapped ● Equalize resources ● Create firm, explicit and demanding requirements regarding discipline, attendance, homework and grades Contracts among schools/students/parents ● Increase academic time <ul style="list-style-type: none"> – Limit class size – Examine school year for wasted time – Make learning time more effective ● Consider longer school day and year ● Develop periodic testing of achievement and skills <ul style="list-style-type: none"> – Link tests to remediation – Abolish social promotions ● Use effective management techniques ● Make better use of existing resources ● Provide more money ● Make principal instructional leader ● Relate pay for principals to responsibility and performance ● Create higher standards for recruiting, training and monitoring performance of principals 	<ul style="list-style-type: none"> ● Each school district should develop a plan ● States and communities should identify skills ● State task force should build alliances ● Federal role — access, student aid, research ● Governor, legislators, state boards, business should develop school improvement plan ● Leaders outside education should take specific steps to improve schools <ul style="list-style-type: none"> – Marshal resources – Communicate skills ● Create partnerships with business <ul style="list-style-type: none"> – Team teaching – Courses



Action for Excellence (continued)

Report	Curriculum	Teachers/Teaching	School Organization/ Management	Process/Roles
will lead to economic stagnation ● Need for closer relationship between business, labor and education ● States and districts are major focus of action				



The Paideia Proposal, Mortimer Adler

Report	Curriculum	Teachers/Teaching	School Organization/ Management	Process/Roles
<p>Sponsor: Paideia Group</p> <p>Members: 22 educators and scholars</p> <p>Time Frame: Published in 1982</p> <p>Data Base: Group deliberations</p> <p>Focus and Scope: Public schools, K-12</p> <p>Status: Continuing</p> <p>Assumptions:</p> <ul style="list-style-type: none"> • Quality and equity inseparable • Current system still inequitable because it puts some children on high track, some on low • "The best education for the best is the best education for all" • Every child can learn, there are no unteachable children • Education is lifelong, schooling is only part of it 	<p>Academic</p> <ul style="list-style-type: none"> • No electives • Same three-part course of study for all <p><i>Part One</i></p> <ul style="list-style-type: none"> – Acquisition of organized knowledge by means of didactic instruction, lectures and responses, textbooks and other aids in three areas of subject matter: language, literature and the fine arts, mathematics and natural science, history, geography and other social studies <p><i>Part Two</i></p> <ul style="list-style-type: none"> – Development of intellectual skills and skills of learning by coaching, exercises and supervised practice in reading, writing, speaking, listening, calculating, problem-solving, observing, measuring, estimating, exercising critical judgment <p><i>Part Three</i></p> <ul style="list-style-type: none"> – Enlarged understanding of ideas and values by means of Socratic questioning and active participation in the discussion of books (not textbooks) and other works of art and involvement in artistic activities, e.g., music, drama, visual arts <p>(The three parts do not correspond to separate courses, nor is one kind of teaching and learning necessarily confined to any one class. Quality instruction involves all three types of learning.)</p> <p>(continued)</p>	<ul style="list-style-type: none"> • Teachers should engage students more actively in their learning • Raise status, working conditions, pay of teachers • Liberal education best preparation for teachers • Teachers must learn how to teach in the three ways outlined for the core curriculum 	<ul style="list-style-type: none"> • Eliminate tracking • Provide more than 50-minute class for certain kinds of teaching • Principal must be head teacher 	<ul style="list-style-type: none"> • Schools must renew themselves with help but not interference from governments • Federal government — national policy of full employment • Federal government should not interfere, but help schools renew themselves

The Paideia Proposal (continued)

Report	Curriculum	Teachers/Teaching	School Organization/ Management	Process/Roles
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Vocational

- No **specific** voc-ed — best preparation is a good general education
- Plus physical education, health, cooking, etc

Making the Grade, Twentieth Century Fund

Report	Curriculum	Teachers/Teaching	School Organization/ Management	Process/Roles
<p>Sponsor: Twentieth Century Fund</p> <p>Members: 11 educators</p> <p>Time Frame: Convened October 1981 and disbanded December 1982</p> <p>Date Base: Task Force deliberations</p> <p>Focus and Scope: To put forward proposals for a new federal policy on elementary and secondary schooling</p> <p>Status: Work completed</p> <p>Assumptions:</p> <ul style="list-style-type: none"> • Education tied to larger societal issues (economic and political) • Public schools are the mainstay of the system • Need overall improvement in schools • The federal government is in the best position to focus public attention on vital importance of quality in schools • Equality and excellence are not mutually exclusive • The federal government must meet special needs of poor and minority students • Good schools grow from the ground up 	<p>Academic</p> <ul style="list-style-type: none"> • 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 • Federal funds now going to bilingual programs should be used to teach non-English-speaking children how to speak, read and write English* • Every American public school student should have opportunity to acquire proficiency in a second language* • Federal government should emphasize programs to develop basic scientific literacy among all citizens and to provide advanced training in science and mathematics for secondary school students • Core curriculum of reading, writing, calculating, computers, science, foreign languages and civics 	<ul style="list-style-type: none"> • Establish national master teachers program, funded by the federal government, that recognizes and rewards teaching excellence* 	<ul style="list-style-type: none"> • Special federal fellowships should be awarded to school districts to encourage the creation of small individualized programs staffed by certified teachers and run as small-scale academies for students unable to learn in the present setting 	<ul style="list-style-type: none"> • Executive and legislative branches of the federal government should emphasize the need for better schools and a better education for all young Americans • Federal impact aid, originally aimed at helping cushion the burden imposed on local school facilities by the children of military personnel, should be reformulated to focus on school districts that are overburdened by substantial numbers of immigrant children • Continue federal efforts to provide special education programs for the poor and handicapped • Categorical programs required by the federal government should be paid for from the federal treasury • Federal support for <ul style="list-style-type: none"> – The collection of factual information about various aspects of the education system – The collection of information about the educational performance of students, teachers, and schools across the nation – Evaluation of federally sponsored education programs – Fundamental research into the learning process

*For dissenting opinions, please see the original text

Educating Americans for the 21st Century, National Science Board Commission on Precollege Education in Mathematics, Science and Technology

Report

Sponsor: National Science Foundation

Members: 20 educators, scientists, government officials and business/industry

Time Frame: Established April 1982; reported September 1983

Data Base: Hearings, reports by professional associations and other sources

Focus and Scope: Specific recommendations, solutions, 12-year timetable, costs. Emphasis on early experience — on improving what is taught and learned at elementary/secondary levels in mathematics, science and technology

Status: Work completed

Assumptions:

- The nation should reaffirm its commitment to full opportunity and full achievement by all
- Nation is failing to provide its children with the intellectual tools needed for the 21st century
- New "basics" are needed by all students, not just the gifted and fortunate
- Goal 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

Curriculum

Academic

- "Basics" of the 21st century include not only reading, writing, arithmetic, but also communication and higher problem-solving skills, and scientific and technological literacy
- All secondary school students should be required to take at least three years of mathematics and of science and technology, including one year of algebra and one semester of computer science. All secondary schools should offer advanced mathematics and science courses. This requirement should be in place by September 1, 1985

Teachers/Teaching

- Top priority must be retraining, obtaining and retaining teachers of high quality in mathematics, science and technology, and providing them with a work environment in which they can be effective
- Raise standards for new teachers. Attract and retain superior talent, provide better training, better working conditions, and better compensation for high quality teachers
- Elementary mathematics and science teachers should have a strong liberal arts background, college training in mathematics and the biological and physical sciences, a limited number of effective education courses, and practice-teaching under a qualified teacher
- Secondary school mathematics and science teachers should have a full major in college mathematics and science, a limited number of effective education courses, and practice-teaching under a qualified teacher
- Both elementary and secondary teachers should be computer-literate. Teacher training should incorporate calculators and computers in mathematics and science instruction
- State and local school systems should draw upon the staffs of industry, universities, the military and other government departments, and retired

(continued)

School Organization/Management

- Provide greater administrative and parental support for discipline and attendance, fewer classroom interruptions, needed equipment, materials and specialized support staff
- **School districts** should revise elementary school schedules to provide consistent and sustained attention to mathematics, science and technology a minimum of 60 minutes per day of mathematics and 30 minutes per day of science in grades K-6, a full year of mathematics and science in grades 7 and 8
- Every **state** should establish rigorous standards for high school graduation, and local school districts should provide rigorous standards for grade promotion
- More time for mathematics, science and technology throughout the elementary and secondary grades. This would require that the school day, week and/or year be substantially lengthened

Process/Roles

- The **National Science Foundation** should lead in promoting curriculum evaluation and development for mathematics, science and technology. It should work closely with classroom teachers, technical experts from business and government, school boards and educational researchers, as well as with professional societies
- The **National Science Foundation** should provide seed money to develop training programs using the new information technologies
- The **National Science Foundation** should lead in evaluating progress in the application of new technologies, supporting prototype demonstrations, disseminating information, and supporting research on integration of educational technologies with the curriculum. These plans should not interfere with private initiatives now under way
- **Federal** government should anticipate an initial investment of approximately \$1.51 billion for the first full year the recommended federal initiatives are in place (\$829 million of this amount to be disbursed over three years at the rate of \$276 million per year). During succeeding years the federal appropriation to decline — to approximately \$680 million in the second year and \$331 million in the sixth year

(continued)

Educating Americans for the 21st Century (continued)

Report	Curriculum	Teachers/Teaching	School Organization/ Management	Process/Roles
		<p>scientists to provide qualified teaching assistance. Local systems should take actions to facilitate the entry and classroom training of such special teachers</p> <ul style="list-style-type: none"> • School systems should explore means to adjust compensation, to compete for and retain high quality teachers in fields like mathematics, science and technology. Compensation calculations must include intangible benefits such as the length of the work year, promotion potential and similar factors • Local school systems, military and other governmental entities, and the private sector should explore ways to extend teachers' employment year while providing supplementary income and revitalizing experience • Provide means for teachers to move up a salary and status ladder without leaving the classroom 		<ul style="list-style-type: none"> • State governments should develop teacher training and retraining programs in cooperation with colleges and universities. The potential of science museums as sites for such programs should be recognized, encouraged and supported • Every state should establish at least one regional training and resource center where teachers can obtain supporting services such as computer instruction and software and curriculum evaluation • States should adopt rigorous certification standards, but not standards that create artificial bars to entry of qualified individuals into teaching • States should establish regional computer centers for teacher education and encourage computer use in the classroom for teaching and administration • The federal government should support research on the process of teaching and learning at both the basic level and the level of classroom application • It is a federal responsibility to assure that appropriate retraining is available. Inservice and summer training programs should be established with federal support. The Commission estimates the cost to the federal government of initiatives for retraining mathematics, science and technology teachers to be \$349 million per year for five years • The national and state education councils and school boards should work with school districts and schools to develop plans for implement- <p>(continued)</p>

Educating Americans for the 21st Century (continued)

Report	Curriculum	Teachers/Teaching	School Organization/ Management	Process/Roles
				<p>ing computer technologies in the classroom</p> <ul style="list-style-type: none"> • Science broadcasts warrant continued and substantial federal support as well as corporate and other private support • Federal regulation of commercial stations should require a specific period of educational programming for children • The federal government should provide supplementary support to encourage a full spectrum of community and educational activities by science museums • Liberal arts colleges and academic departments need to assume a much greater role in training elementary and secondary teachers. Basic education courses should be revised to incorporate current findings in the behavioral and social sciences • Professional societies, schools, states and the nation should find ways to recognize the performance and value of the excellent teacher • Colleges and universities should phase in higher mathematics and science entrance requirements, including a second year of algebra, coursework covering probability and statistics, four years of high school science, including physics and chemistry, and one semester of computer science • Top executives in the computer, communication, and information retrieval and transfer industries should develop plans that, in a good, economical and quick way, enable school systems to use the technology

Academic Preparation for College: What Students Need to Know and Be Able to Do, The College Board

Report

Sponsor: The College Board
Members: Serving over a 10-year period are hundreds of secondary and postsecondary educators, administrators, counselors, parents and representatives of professional organizations
Time Frame: The Educational Equality Project is a 10-year effort by the College Board, started in 1980 under College Board's Office of Academic Affairs and has involved hundreds of people in consensus-building
Data Base: Working committees
Focus and Scope: Designed to strengthen academic quality of secondary education and ensure equality of opportunity for postsecondary education for all students. Report details what college-bound students need to know and be able to do for success in college. Recommendations apply to students, educators and parents
Status: Continuing until 1990
Assumptions: The title of the project is meant to include both equality and quality, but more emphasis is given to quality with only implied recommendations for equality

Curriculum

Academic
 Great detail on academic competencies and academic subjects. Broad intellectual skills essential for effective work in all fields of college study are
 • Reading
 • Writing
 • Speaking and listening
 • Mathematics
 • Reasoning and studying
 These competencies are interrelated and interdependent with the basic academic subject areas
 Basic academic subjects. report outlines what successful college students will need to know and be able to do in English, the arts, mathematics, science, social studies and foreign language

Teachers/Teaching

Teacher preparation not mentioned as such
 • Teachers should teach writing skills in every subject
 • Teachers need to be aware of connections between a particular subject and the basic academic competencies

School Organization/Management

College Board report gives no detailed recommendations in this area

Process/Roles

- Establish a **network** of high schools and colleges for the exchange of ideas and mutual support in achieving higher outcomes



Meeting the Need for Quality: Action in the South, Southern Regional Education Board

Report	Curriculum	Teachers/Teaching	School Organization/ Management	Process/Roles
<p>Sponsor: Southern Regional Education Board (SREB)</p> <p>Members: 17 members of the SREB served on the task force</p> <p>Time Frame: In 1981 the SREB finished a report called "The Need for Quality" issued by one of its own task forces on higher education in the schools. They accepted this task force report but extended the work of the group another two years and asked for the report again in 1983. The second report, released in the summer of 1983, entitled "Meeting the Need for Quality: Action in the South" was a progress report showing what action in the South was taken and what priorities still remain for further action.</p> <p>Data Base: Task Force deliberations</p> <p>Focus and Scope: Generally the report focused on higher academic standards for high school graduation, higher college admission standards, higher college admission standards and higher standards for selection of teachers, including increased cooperation between higher education and the school of teacher education.</p> <p>Status: Ongoing</p> <p>Assumptions: This report represents an effort by SREB to achieve education reform in southern schools and colleges.</p>	<p>Academic</p> <ul style="list-style-type: none"> • New mathematics requirements must serve needs of college-bound, along with revitalizing the total mathematics program <p>Vocational</p> <ul style="list-style-type: none"> • States should appraise vocational education, looking at duplication of programs between various levels and market relevancy of vocational education 	<ul style="list-style-type: none"> • Create better teacher selection process, including higher admission standards • Reward outstanding teachers • Create loans or scholarships for academically superior students going into the teaching profession • Improve college teacher education programs • College teacher preparation programs should be closely involved with the schools • Reduce complexity of certification • States should move to a common teacher certification test • Colleges should ensure that graduate programs in education match the standards for admission to other advanced degree graduate programs • Graduate courses taken by teachers for recertification should be relevant to the teaching assignment 	<ul style="list-style-type: none"> • Individuals selected for school administration programs should display the behaviors possessed by strong principals in the field • On-the-job internships should be a strong requirement for all educational administration programs 	<ul style="list-style-type: none"> • State board should develop guidelines for use of computers in the schools

APPENDIX C

Report of the Nevada Joint Council on College Preparation
entitled Making School Count, 1984



MAKING HIGH SCHOOL COUNT:

1984

Report of the Nevada Joint Council on College Preparation

**The University of Nevada System
Board of Regents
and
The State Board of Education**

The Nevada Joint Council on College Preparation

Co-Chairmen

JoAnn Sheerin
University Board of Regents

Janice Clarke
State Board of Education

Members

Dr. Gregory Betts, Superintendent
Douglas County School District

Mr. David Dunn, Student Representative
State Board of Education

Ms. Barbara Ferguson, Teacher
Humboldt County

Dr. Alan Gubanich, Associate Professor
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Mrs. Shirley Holst, Trustee
Clark County School District

Dr. John Irstfeld, Professor, English
University of Nevada Las Vegas

Dr. Dale Johnston, Dean of Educational
Services
Clark County Community College

Ms. Jacqueline Jones, Principal
Wooster High School, Reno

Mrs. Joan Kenney, Regent
University Board of Regents

Mr. Bill Taylor, Teacher
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Dr. Richard Kunkel, Dean
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Dr. Myrna Matranga, Deputy
Superintendent
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Dr. Frank D. Meyers, Dean
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Dr. Anthony Miranda, Professor
*Anthropology of Education
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Mrs. Vivienne Morris, Member
Nevada Board of Education

Dr. Paul Page, Dean
*College of Arts and Science
University of Nevada Reno*

Mrs. Sandra Rose, Student
Representative
University Board of Regents

Mr. Ted Sanders, Superintendent of Public Instruction
State of Nevada

Dr. Warren Fox, Vice Chancellor for Academic Affairs
University of Nevada System

Ms. Elizabeth King, Technical Writer

1984

Making High School Count

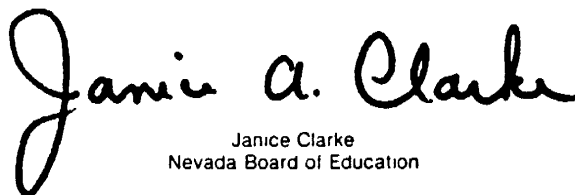
Introduction

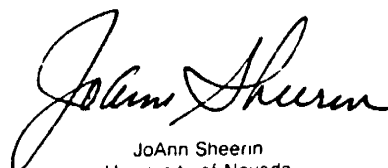
The Joint Council on College Preparation was formed by the State Board of Education and the University of Nevada Board of Regents to assure that Nevada students have a fair chance to succeed in higher education. The task of the Joint Council was to identify the skills and competencies that our young people need for success in a four-year college program.

The Joint Council has worked hard to produce a report that will be useful to students and their parents, and also teachers, counselors, administrators, university faculty, local school boards, the State Board of Education, and University of Nevada Board of Regents. It combines the best judgments of a wide variety of Nevadans, both in and out of education, gained from questionnaires, interviews, and student hearings.

The Joint Council recognizes that not every college will require all of the competencies, but by following the recommendations in this proposal, students will meet or exceed entrance requirements to most colleges or universities in this country.

We believe that improving the preparation of students for college is necessary to fulfill our national commitment of equal access to higher education. This report will help Nevada students to constructive and decisive steps to make their high school years count.


Janice Clarke
Nevada Board of Education


JoAnn Sheerin
University of Nevada
Board of Regents

The Report of The Nevada Joint Council on College Preparation

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I.

Basic Academic Subjects

Preparing for college is a serious task which requires planning and hard work. The most systematic way to acquire the competencies needed for success in college is to take a sound course of basic academic subjects in high school. Some of these competencies can be attained in ways other than formal schooling, but careful selection of courses and sustained study before college are essential.

The recommended courses listed below reflect minimums only. Each subject area that follows describes in more detail specific skills, competencies, and knowledge that students should acquire.

- **Four years of English** with heavy emphasis on composition, rhetoric, and American, English, and world literature.
- **Three years of mathematics** including algebra and geometry. Four years of mathematics for majors in math and science related fields.
- **Three years of science** including biology, chemistry, and physics; at least two years should be in a laboratory science. Four years of science for majors in science or related fields.
- **Four years of social studies** including world history and geography, United States history, economics, government, and law.
- **Two years of the same foreign language.** Four years of foreign language for majors in foreign language, history, or literature.
- **One year of visual arts or performing arts.**
- **Computer education.**

English

College-bound students must be proficient in reading, writing, speaking, and listening. In high school these skills are acquired primarily through a rigorous four-year college preparatory English program.

Through the study of various types of literature, such as short stories, plays, poetry, and novels, students learn to read critically and analytically, to recognize assumptions and implications, and to evaluate ideas. They gain an awareness of other cultures and the ability to read with understanding; they become more imaginative and more active in responding to literature.

Through composition and rhetoric, students recognize writing as a process that involves many steps and learn to write appropriately for different occasions, audiences, and purposes. They learn to use writing as a means of clarifying their ideas, and to use, with skill and assurance, the conventions of written English.

Academic preparation should include:

Literature

- Basic familiarity with major works of American and world literature.
- Familiarity with major literary forms including the novel, short story, drama, biography, essay, and poem.

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- Ability to recognize values and universal themes in literature and the relation of literature to the social conditions in which it was produced.
 - Knowledge of trends in literary history including both oral and written traditions.
 - Ability to recognize specific uses of language in literature including style, figurative language, tone, mood, point of view, symbols, imagery, and allusion.
 - Familiarity with basic forms of literary response including interpretation, analysis and synthesis.

Composition

- Frequent and regular writing assignments of varying length and purpose that require the identification of ideas, drafting, revising, and editing to a final product. Assignments should require writing in standard English with control of the conventions of edited American English including sentence structure, grammar, punctuation, and spelling.
- Practice in writing for a variety of audiences using informative, persuasive, and critical styles.
- Ability to employ basic research techniques to gather information and to quote, paraphrase, and summarize from other sources with proper attribution

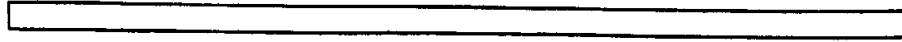
Oral Communication

- Regular practice in classroom speaking, including prepared and spontaneous presentations and question-and-answer exchanges with listeners.
- Ability to recognize and use different rhetorical approaches such as informing, persuading, imagining, and socializing, and to select appropriate approaches for various situations.
- Ability to adapt message and form of address to different purposes, audiences, and contexts of the communication.
- Regular practice in listening to oral presentations, accurately identifying the speaker's essential points, and separating fact from opinion in the presentation.

Mathematics

The importance of mathematics to the college-bound student cannot be overstated. It is, as the College Board of New York states in *Academic Preparation for College*, the "indispensable language of science and technology . . . business and finance." Those students who have a strong preparation in mathematics will have an intellectual edge in our high tech information age. They will have a wider range of college choices.

College entrants need more than basic mathematics preparation. These students should have at least three years of high school mathematics, including algebra and geometry. Students interested in careers in business, agriculture, natural sciences, engineering, mining, mathematics, computer science, medical sciences or architecture should take four years mathematics that will develop more extensive knowledge and skills.



Minimum preparation in mathematics includes competence in each of the following areas:

- Computation with whole numbers, rational numbers, and integers in standard or scientific notation, and common radicals; knowledge of order of operations and use of grouping symbols.
- Properties of the real number system and the meaning of operations defined on real numbers.
- Use of mathematical symbols for variables including single and double subscripted variables, functions, relations, and operations.
- Algebraic manipulations of linear and polynomial equations and inequalities, rational expressions, and absolute values.
- Coordinate graphing of linear and quadratic functions and relations.
- Measurement, including estimation, direct and indirect measurement, and derived units of measure.
- Fundamental properties of geometric figures in two and three dimensions, and relationships among geometric figures.
- Exponents and exponential and logarithmic functions.
- The nature of axiomatic systems and mathematical proof.
- Use of mathematical relationships and methods to solve problems.

Science

The College Board 1983 Report states, "Science — the study of the natural world — is both useful and rewarding in its own right. It provides a sense of the order in the universe and is one of civilization's major intellectual achievements. It is fueled by the same creativity required for art, music, or literature. It relies on curiosity, objectivity, and healthy skepticism. The study of science, then, is excellent preparation for college regardless of students' intended field of concentration."

As well as developing important skills, the study of science prepares students to understand social and technological issues such as nuclear power, genetic engineering, or robotics. In a society that relies more and more on science and technology, students must have a strong, basic understanding of science to function effectively. Students planning careers in agriculture, biology, chemistry, physics, mining, engineering, or medical sciences should additionally take advanced science classes in their areas of interest.

Preparation in the sciences should provide:

- Understanding of the diversity of natural phenomena and the methods of studying and classifying them.
- Recognition of the interrelationships and interdependence of living organisms, and the role of a biological organism in a physical world.
- Understanding of the scientific method of investigation and the role of observation and experimentation in the advancement of knowledge.

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- Experience in gathering scientific data through laboratory and field work.
 - Ability to construct tables and graphs from given data, and to interpret data presented in tables and graphs.
 - Ability to draw conclusions and inferences from data.
 - Ability to communicate observations and experimental results both quantitatively, through use of mathematical relationships, and qualitatively, in clear and concise spoken or written language.
 - Appreciation of the unifying concepts and principles within the Natural Sciences.
 - Awareness of the philosophical, ethical, political, and economic impacts of science and technology.
 - Awareness of concerns about the current and future impacts of science and technology on society.

Courses in the science curriculum should include the basic concepts, principles, and factual information in the following areas:

Biology:

Molecular and cellular biology
Genetics
Plant and animal diversity and the principles of classification
Structure and function of plants and animals
Population biology
Organic evolution
Ecology
Animal behavior

Chemistry:

Structure of matter
States of matter
Reactions of matter (acids, bases, oxidation — reduction, electro-chemistry, equilibrium, kinetics, thermodynamics)
Chemical classification
Introductory organic chemistry

Physics:

Principles of mechanics
Laws of conservation
Basics of waves
Fundamentals of electricity and magnetism
Atomic and nuclear physics

Social Studies

The social studies have a set of complex and overlapping systems — social economic, political, and cultural. A unique combination of these systems forms our society. To prepare for roles as responsible citizens, students must know how modern societies function, and how these societies evolved. Through social studies, students gain knowledge and an awareness of our own society and of those past, and they gain analytical skills important for college success. Social studies can help students place the arts and sciences in context, and provide a foundation for advanced work in history, anthropology, economics, geography, political science, psychology, and sociology.

Preparation in world history and geography should provide:

- Knowledge of major contemporary societies and cultures and their geography.
- Knowledge of the chronology and significance of major events and movements in world history.
- Knowledge of major contemporary trends, such as nationalism and urbanism.

Preparation in United States history should provide:

- Knowledge of relationships between events and historical movements in the United States and in the world.
- Understanding of the interactions among people of different national origins, races, cultures, and how such interaction has shaped American history.
- Knowledge of the major political and economic institutions and their historical development.
- Knowledge of the social and cultural fields of history.

Course work in economics should provide:

- Knowledge of the free enterprise system and of competing philosophies.
- Knowledge of effective consumer economics and personal financial planning.

Government and law studies should provide:

- Knowledge of the roles of municipal, state, and federal governments and the duties of citizenship.
- Knowledge of America's major political institutions and philosophies, and of the Constitution and branches of government.

Foreign Language

College-bound students should take at least two years of the same foreign language. The study of languages helps to prepare a student for more successful university work by providing a clearer understanding of the structure and power of one's own language. Such study improves sensitivity to other cultures and other ways of thinking and verbalizing ideas, and enhances access to more information in every academic and professional field.

A student should develop the following skills in at least one second language:

- Aural comprehension, i.e., the ability to understand and transcribe correctly spoken or dictated passage.
- Ability to read prose passages, at least with the aid of a dictionary.
- Ability to conduct a conversation with correct pronunciation and intonation.
- Grasp of basic conversational idioms.
- Ability to compose a paragraph with correct spelling and punctuation.
- Possession of a functional vocabulary for travel and social encounters, or for study in a particular academic or professional field.
- Some knowledge of, and sensitivity to, other aspects of a foreign country besides the language and literature such as climate and geography, history, music, art, theatre, cultural traditions, social and religious conventions, industry and economy, politics and the legal system, and prominent personalities.
- Ability to cite areas of similarity and contrast between English and the second language.

These skills can be acquired in one or more of the following ways:

- At least two, and preferably three or four years of classroom study.
- Living with a bilingual family
- An extended visit to another country with daily practice in speaking, reading and writing the foreign language.
- Study at foreign language "villages" and institutes in the United States.

Fine Arts

The fine arts provide a necessary balance, especially in this age of high technology. They celebrate humanity. They are the means by which we can express our unique experiences, our innermost thoughts, and our intimate feelings. They provide both creative insights and responses, for our own society and for other societies, and for other times.

Participation in the visual or performing arts leads to more imaginative, flexible ways of thinking and of seeing; it builds self-confidence and self-discipline.

Appreciation of the arts is an important part of the study of history, social sciences, and language arts. Students should be exposed to these areas so their cultural backgrounds develop as their academic skills grow. Appropriate references to the arts should be incorporated in all curricular areas.

Preparation in the arts should provide:

- Understanding and appreciation of the unique qualities of each of the arts.
- Appreciation of how people from various cultures have used the arts to express themselves.
- Understanding and appreciation of different artistic styles and works from representative historical periods and cultures.

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- Some knowledge of the social and intellectual influences affecting artistic form.
 - The ability to use the skills, media, tools, and processes required to express oneself in one or more of the arts.
 - Use of community resources related to the arts whenever possible.

Computer Education

Students entering college need to know how to use computers. This may be accomplished in a computer education class or as a part of a learning experience in another setting. Computer education should allow the student to.

- Understand the essential functions of a computer and the principles on which it operates.
- Recognize the basic purposes of major hardware and software elements.
- Use computers as basic tools for problem solving, finding information, and organizing.
- Understand computer terminology and how to use computers for such tasks as word processing, number processing, and self-instruction.
- Understand both social and economic implications of computer technology.
- Recognize the need to develop and evaluate ethics related to computer use.

II.

General Competencies for College

Students should develop a number of general skills that are essential for successful college study. These general competencies supplement the mastery of more specific subject matter as detailed in Section II: English, mathematics, science, social studies, foreign language, fine arts, and computer education. Such skills are not the province of any particular subject area, but are found throughout the standard disciplines of knowledge and serve as critical links to all learning. Students who possess these general competencies demonstrate that they have the basic tools for learning and are most likely to have a successful college career. The following list of general competencies reflects the recommendations of a number of national educational and professional associations. Entering college freshmen should have:

In **organizing, study, and research**, the ability to

- Set study goals and priorities consistent with stated course objectives and one's own progress.
- Take thorough, well-organized lecture notes.
- Manage study time to meet deadlines.
- Follow instructions accurately.
- Know how to prepare for and take a variety of tests.
- Develop memory skills.
- Accept and learn from constructive criticism.
- Synthesize knowledge and apply it to new situations.
- Use libraries effectively and efficiently.
- Use a typewriter and word processor.

In **reading**, the ability to

- Identify and comprehend the main and subordinate ideas in a written work and summarize the ideas in one's own words.
- Recognize different purposes and methods of writing, identify a writer's point of view and tone, and interpret implied as well as literal meanings.
- Separate one's personal opinions and assumptions from those of a writer
- Vary reading speed and method including survey, skim, review, question, and master, according to the type of material and one's purpose of reading.
- Use the features of books and other reference materials such as the table of contents, preface, introduction, titles and subtitles, index, glossary, appendix, and bibliography.
- Define unfamiliar words by using contextual clues or by using a dictionary.
- Understand the differences between denotation and connotation, abstract and concrete, literal and figurative expression.

In **writing**, the ability to

- Use the processes of pre-writing, writing, and rewriting.
- Identify or generate ideas for topics.
- Organize, select, and relate ideas pertinent to a topic.

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- Outline identified ideas and develop them into coherent paragraphs.
 - Organize paragraphs into a logical sequence so the central idea is developed to a logical conclusion.
 - Write standard English sentences with correct sentence structure, grammar, spelling, punctuation, and capitalization.
 - Vary writing style for different audiences and purposes.
 - Use a variety of forms including essays, letters, poems, and journals.
 - Read one's own writing critically and correct errors.
 - Present one's own ideas as separate from but related to the ideas of others, including the proper use of documentation.
 - Support one's opinions and conclusions with appropriate use of evidence. Be able to quote, paraphrase, and summarize data.
 - Use dictionaries and other reference materials for checking words as well as facts.

In **speaking and listening**, the ability to

- Participate critically and constructively in the exchange of ideas,
- Ask and answer questions coherently and concisely.
- Follow instructions.
- Identify and comprehend the main ideas in lectures and discussions and report accurately what others have said.
- Identify and develop ideas about a topic for the purpose of speaking to a group, choose and organize related ideas, present them clearly in standard English, and evaluate similar presentations by others.
- Use words, pronunciation, and grammar appropriate to the audience, situation and purpose.
- Evaluate a speaker's intent as compared with content, and recognize non-verbal cues.

In dealing with **quantitative and spatial concepts**, the ability to

- Perform arithmetic operations accurately including addition, subtraction, multiplication, and division using rational numbers, fractions, decimals, and integers.
- Use measurements in both standard and metric units.
- Understand and use ratios, proportions, percentages, roots and powers, algebra, and geometry to formulate and solve problems in everyday situations
- Select and use appropriate approaches and the tools of mental computation, paper-and-pencil techniques, calculator, computer in solving problems.
- Determine the reasonableness of results through estimation and approximation.
- Understand the language and notation of mathematics, formulate problems into mathematical statements using algebraic language, and express quantitative ideas with precision.

In **reasoning and investigation**, the ability to

- Draw logical conclusions from written and oral sources as well as from observation of natural events.

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- Defend one's own conclusions logically.
 - Identify and formulate problems; propose and evaluate ways to solve them.
 - Recognize and use inductive and deductive reasoning
 - Recognize major fallacies in reasoning.
 - Comprehend, develop, and apply concepts and generalizations within and between subject areas.
 - Distinguish between fact and opinion.
 - Solve problems where method of solution is not recommended by the teacher or the textbook.

Notes to Students

- Make a commitment to your future **right now!** Develop a four-year plan to make high school count.

- Consult your counselor for career, aptitude and interest inventories that may be available to help you better understand yourself.

- Avail yourself of every opportunity to learn about careers by volunteer work, attending career fairs and interviewing persons in fields that interest you.

- If you have chosen a career, work with your counselor and consult the catalogs from colleges and universities that offer the program you want. Some colleges may require additional course work and competencies for entrance, so be sure to check.

- Develop study skills early in high school to assist with the learning of all subject areas.

Notes to Parents

- Get involved; help plan your student's four-year academic program so that options for college and careers can be kept open.
- Communicate with the teachers and administrators.
- Show an interest in your student's curriculum and progress; encourage and help with homework.
- Set aside a quiet place and time for completing homework.
- Encourage your student to participate in a wide variety of activities, including student government, school clubs, high school publications, community service, work, and travel.
- Provide exposure to visual and performing arts through trips to museums, concerts, and the theatre.
- Explore higher education possibilities including visits to college campuses.

Notes to Local School Districts

All districts should

- Implement a program of early identification of college bound students. Enter into a four-year contract with parents and students designed for the college-bound student.
- Assure time in each student's schedule for career and academic counseling.
- Raise expectations: teachers and administrators need to demand more of their students and to maintain high standards.
- Encourage communication between teachers, administrators, and parents.
- Communicate the value of education to students and encourage an atmosphere of academic curiosity.
- Provide students with career information in their field of interest.
- Override historical stereotyping; direct advisement for college education should be provided **all** students of ability. For students lacking skills in the English language, provide special counseling.
- When possible, offer advanced placement classes for college bound.
- Examine the district's curriculum, comparing it to the recommendations outlined in this report and make appropriate changes.

Notes to the State Board of Education

- Expand communications between high schools and institutions of higher education regarding college expectations and standards. This should include organizing forums between high school and college faculties in each discipline.
 - Provide statewide workshops and conferences for college-bound students, parents, teachers, and administrators, to cover college programs available and college expectations.
 - Examine the high school course of study to assure students have access to academic programs consistent with this report.

Notes to the Board of Regents

- Study admission standards at the State Universities. Set entrance requirements which are generally consistent with this report.
- Ask each department within the universities to identify the minimal competencies expected of a student in order to satisfactorily complete the work of that department.
- Assure that adequate lead time be allowed before any requirements are changed.
- Report back to high schools on the first year academic performance of their former students. Encourage the development of profiles of successful and unsuccessful students.
- Encourage faculty in higher education, as a part of their community service, to visit high schools in their area to provide technical assistance in specific subject areas and consult with teachers, students, and administrators about curricular matters which affect college performance.

Sponsored by

- The University of Nevada System Board of Regents •
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APPENDIX D

Chart from "State Education Leader" by the Education
Commission of the States entitled High School
Graduation Course Requirements in the
50 States, Winter 1984

A Leader
Feeder

High School Graduation Course Requirements in the 50 States

(Numbers Refer to Years of Instruction)

State	Language Arts	Social Studies	Mathematics	Science	PE/Health	Electives	Other	Total	Grade Span	Notes
Alabama	4	3	2	1	3½	6½		20	9-12	Effective for 9th grade in fall of 1982
Alaska	1	1	1	1	1			19	9-12	Local boards determine electives and other
Arizona	4	2	2	2		9½	½—essentials of the free enterprise system	20	9-12	
Arkansas	4	1			1		10	16	9-12	Changes anticipated in 1984
California	3	3	2	2	2		1—fine arts or foreign language	13	9-12	Districts compare their offerings with a state model; usually exceed 13 units
Colorado										Local boards determine requirements. Colorado has constitutional prohibitions against state requirement
Connecticut								18	9-12	Local districts determine the components of the 18 required units. The state requires districts to offer 11 subject areas. The state board is currently reviewing proposals for specific subject requirements with a total of 20 units
Delaware	4	3	2	2	1½	6½		19	9-12	Requirements effective for the graduating class of 1987
District of Columbia	4	2	2	2	1½	8	1—foreign language	20½	9-12	Electives must include life skills seminar
Comprehensive	4	2	2	2	1½	1½	1—foreign language; 9—specialized preparation	23	9-12	Electives must include life skills seminar
Florida	4	3	3	3	1	9	½—practical arts; ½—fine arts	24	9-12	Will increase total requirements yearly until 24 units are reached for graduating class of 1986-87
Georgia	4	3	2	2	1	8	1—fine arts, vocational education or computer technology	21	9-12	
Hawaii	4	4	2	2	1½	6	½—guidance	20	9-12	
Idaho	4	2	2	2½	1½	6	1—reading/speech; 1—humanities	20	9-12	Requirements effective for graduating class of 1988. Will increase thereafter
Illinois	3	2	2	1	4	1	½—consumer education	16	9-12	Requirements differ in 3- and 4-year high schools. Local districts determine remaining units and may exceed the 16 units. Effective 1984-85
Indiana	4	2	2	2	1½	8		19½	9-12	Requirements effective for graduating class of 1989
Iowa		1½			1				9-12	Local boards determine additional requirements
Kansas	4	3	2	2	1	8		20	9-12	These requirements effective for the 1988 graduating class
Kentucky	3	2	3	3	1	8		20	9-12	Requirements effective for the graduating class of 1986-87
Louisiana	4	2	3	2	2	8½	½—free enterprise system	22	9-12	
Mass	4	1								American history required. Local boards determine other requirements
Maryland	4	3	2	2	1	8		20	9-12	New requirements have been recommended
Massachusetts		1			4					American history required. Local boards determine additional requirements. The possibility of more state regulations is being studied
Michigan		½								Local boards determine additional requirements. New graduation requirements are being studied
Minnesota	3	2			1			15	10-12	Local boards determine remainder of units
Mississippi	3	2½	1	1		8½		16	9-12	
Missouri	1	1	1	1	1	11	2—English, social studies, math or science; 1—practical arts; 1—fine arts	20	9-12	20 units must be cooperatively planned by students, parents and the school to meet individual needs of the student. Requirements will be updated in 1984

High School Graduation (continued)

State	Language Arts	Social Studies	Mathematics	Science	PE/Health	Electives	Other	Total	Grade Span	Notes
Montana	4	2	2	2	1	2	1—fine arts; 2—practical arts	16	9-12	The superintendent has recommended raising total to 18
Nebraska									9-12	160 semester hours required. Local boards determine specific subject area requirements. Requirements currently under study
Nevada	3	2	2	1	2½	9½		20	9-12	Requirements effective for graduating class of 1985-86
New Hampshire	4	2	1	1		8		16	9-12	New graduation requirements have been proposed
New Jersey	4	2	2	1	4		1—fine, practical or performing arts; ½—career exploration	14½	9-12	U.S. history is required
New Mexico	4	2	2	2	1	9	1—practical or fine arts	21	9-12	Requirements effective for graduating class of 1986-87. Local board specifies competencies for required subjects
New York										
Local diploma	4	3	1	1	½	6½		16	9-12	The Board of Regents has recommended new requirements
Regents diploma	4	3	1	1	½	8½		18	9-12	
North Carolina	4	2	2	2	1	9		20	9-12	
North Dakota	4	3	2	2	1	7		19	9-12	These requirements are effective for graduating class of 1984-85
Ohio	3	2	2	1	1	9		18	9-12	
Oklahoma	4	2	2	2		10		20	9-12	
Oregon	3	3½	1	1	2	9	½—career development; 1—fine arts or foreign language	21	9-12	The state board of education is contemplating major revisions in 1984
Pennsylvania	3	2	1	1				13	10-12	Local boards determine remaining requirements. Proposed regulations would raise the total to 21 units for grades 9-12
Rhode Island										
General	4	1	1	1		9		16	9-12	In the future, competency requirements for all students will be phased in. College-bound requirements effective for entering freshmen in 1984-85
College-bound	4	2	3	2		4	2—foreign language; ½—arts; ½—computer literacy	18	9-12	
South Carolina	4	3	3	2	1	7		20	9-12	Requirements effective for graduating class of 1987
South Dakota	4	2	2	2		8		18	9-12	The state board is currently considering revisions in the requirements
Tennessee	4	1½	2	2	1½	9		20	9-12	Requirements effective for the graduating class of 1987
Texas	3	2½	2	2	2	6½		18	9-12	A major revision of the curriculum is expected in 1984
Utah	3	2	1	1	1½	6½		15	10-12	New requirements for grades 9-12, with 24 units being proposed
Vermont										Local boards determine requirements. However, new state requirements will be adopted in 1984
Virginia	4	3	2	2	2	6	1—additional science or math	20	9-12	Requirements effective for entering freshmen in 1984-85
Washington	9	7½	6	6		16½	3—occupational education	48	9-12	Requirements effective for entering freshmen in 1985-86. NOTE: each unit equals 60 hours of instruction. Therefore, 3 units equal approximately 1 year
West Virginia	4	3	2	1	2	8		20	9-12	Requirements effective for the graduating class of 1983
Wisconsin										Local boards determine requirements
Wyoming		1						18	9-12 or 10-12	Local boards determine remaining requirements

Prepared by Chris Phipps, BCS Clearinghouse, and Patricia Flatau-Monquens, BCS Governance Center. Based on a 50-state survey conducted November/December 1983. BCS is developing an instrument, to be updated regularly, on this topic.

APPENDIX E

Memorandum prepared by the Nevada State Department of
Education Estimating the Amounts Needed for a
Vocational Education Equipment Fund

VOCATIONAL EDUCATION EQUIPMENT NEED

In a study conducted during the 1983-84 school year, school districts and community colleges reported the following information pertaining to needed equipment for vocational education.

Equipment determined to be in poor condition
and in need of replacement

School Districts	\$2,374,361
Community Colleges	<u>596,329</u>
	<u>\$2,970,690</u>

Equipment needed for purposes of expanding
and developing new programs of vocational
education, 1985-86

School Districts	\$ 739,554
Community Colleges	<u>774,080</u>
	<u>\$1,513,634</u>

Currently, 34% of all school district-owned education equipment,
valued at \$13,244,901, is at least ten years old.

APPENDIX F

Memorandum prepared by the Nevada State Department
of Education Recommending a Unit Formula for
Vocational Education

ADDED COST REIMBURSEMENT PLAN FOR VOCATIONAL EDUCATION PROGRAMS
IN COMPREHENSIVE HIGH SCHOOLS AND AREA VOCATIONAL CENTERS IN NEVADA
-- A STUDY

INTRODUCTION:

This report is an initial study regarding the development of an "added cost reimbursement plan" for vocational education at the high school level in Nevada. Information from other states, which have either initiated such a funding plan or who are in the planning stages for such a funding plan, has been included as supportive material. These states include: Arizona, Utah, New York, Oklahoma, Idaho, Oregon and at the postsecondary level--Texas.

The "added costs" concept for reimbursing vocational education programs utilizes as its basic assumption that there are added costs associated with instruction in vocational programs as compared to the cost of instruction in "general education" programs. In addition there will be variance in the degree of "added costs" between specific vocational programs within a district and within the state.

Based upon a review of the literature from other states (except New York), and it would appear to hold true in Nevada, the range of costs within and between vocational programs is based upon the following factors:

- a. Class size
- b. Faculty compensation
- c. Method of Program Delivery
- d. Use of single purpose facilities
- e. Instructional supply and Equipment needs

Each of the states previously identified dealt with the operations and maintenance costs (including instructional salaries) under the "added cost" concept. The issue of large outlays of money for capital equipment and facilities was handled by separate set asides for which districts could apply

via the project application format.

Need for "Added Cost" Reimbursement:

Vocational education at the secondary level is financed through a combination of local, state, and federal funds. These sources fluctuate from funding year to funding year and there is a need to develop a stable base of funding for vocational education in our state. Also most funding sources are based upon the general education cost of pupils rather than the added costs associated with the instruction of pupils in vocational education programs.

In order to offer high quality vocational education programs which can be supportive and responsive to the state's direction for economic development and diversification, new strategies and means for providing support for these programs is critical.

Calculating the "Added Cost" Reimbursement:

In determining the "added cost" for vocational programs each state, except for New York, used some variation of the following process:

- a. Identification of vocational education teachers and their salaries by program by school.
- b. Determination of the number of periods per day each teacher spends in approved vocational courses per school.
- c. Proration of teacher salaries and benefits based on #b above.
- d. Identification of supplies, capital outlay (replacement equipment) and other expenditures for vocational courses.
- e. Computation of total costs by program.
- f. Identification of pupil enrollment per period in each vocational course.
- g. Compututation of per period pupil cost by program.
- h. Computation of general education program instructional cost per pupil-period.

- i. Determination of "added cost" per pupil-period for vocational education programs (vocational cost minus general education program cost).
- j. Multiplication of per-pupil cost by the number of pupils served for each district and program category.
- k. Summation of the results of step j across all districts.
- l. Division by the sum of all pupils served in each program category.
- m. Identification of the lowest cost category; assign a weight of 1.00.
- n. Computation of weightings for each category by dividing the weighted average cost (from step l) by the lowest weighted average cost among the program categories (from step m).

In addition several states added one more step in order to address the differences between large and small size districts:

Weightings by Size of District

- a. Arrangement of school districts into defined size categories (i.e. less than 1,000 ADA, 1,000-2,999, 3,000-9,999, 10,000-14,000, etc.).
- b. Identification of median costs for each program category within each size grouping.
- c. Identification of lowest median cost among the programs and size groupings assign a weight of 1.00.
- d. Computation of weightings for each category by dividing the median cost by the lowest median cost among program categories.

All states' information reviewed to date utilized variations of the above process to come up with an "added cost" allocation to be awarded based upon dollars per pupil per each vocational program, or percent over base per each vocational program.

Figures used to determine "general education unit" and "vocational educa-

tion unit" were generally based upon an analysis of two to three years historical expenditure data.

In reviewing the data from Oklahoma, Arizona, Idaho and Utah, the vocational programs with the highest cost ratios were as follows:

	Oklahoma	Utah	Arizona	Idaho
Trade and Industrial (Trade and Technical)	#1	#1	#2	#1
Vocational Agriculture	#2	#2	#1	#2
Business and Office	#3	#3	#7	#3
Distributive Education	#5	#4	#6	#5
Health Occupations	#4	--	#4	#6
Home Economics	#6	#5	#5	#4
Industrial Arts	--	--	#3	--

Application of an "Added Cost" Reimbursement Plan for Nevada High School

Vocational Programs:

Following interviews with some vocational educators in Nevada, it seems evident that the factors impacting costs of vocational education (class size, faculty compensation, facilities, etc.) identified by other states would also be true factors in Nevada.

Examples of specific comments regarding funding areas are as follows:

- a. Computer purchase, maintenance, and software costs
- b. Equipment maintenance and instructional supplies/materials (consumables) costs in Electronics, Construction Trades and Diesel Mechanics

- c. Replacement schedule for obsolete and worn out equipment--all programs
- d. Additional staffing costs in the direct instructional delivery (extended contracts, lower student/teacher ratios, part time aides/assistants)
- e. New program development funds--curriculum development and facility renovation/modification

As part of this study, a sample school district in Nevada was utilized for review as a means to determine whether or not appropriate data was available and readily at hand for working the "added cost" formula. The formula as previously outlined is relatively simple to work, but the integrity of the final numbers from any formula is contingent upon the original data.

Status of Data Needed:

Enrollment Data

The enrollment data for this district, and it appears for other districts, for FY 83 is readily available and reliable. For previous fiscal years, the enrollment data is available, but because of several changes in reporting requirements, it is not clearly comparable with FY 83 data.

Financial Data

While the district carefully tracks all federal fund expenditures in vocational programs, the data on expenditures in nonfederal categories, other than teacher salaries, is not readily available. In conferences with fiscal and program personnel, it is evident that the hardware and software is capable of performing the tracking, but a significant amount of item coding would need to be done before vocational expenditure data could be imputed and analyzed.

An assumption could be made that this situation would hold true in other districts in the state.

The district reviewed is able to develop added cost figures based upon income and budget rather than expenditures. The question to be answered is whether

or not projected budgets closely simulate the actual expenditures. Again, the use of budgets as a base for the added cost formula would require some further work as many different budgets, object codes and their definitions seem to flow into each vocational program.

Other Factors:

During discussions with various levels of vocational education personnel, it became a recurring point that the standards for what should constitute "approved vocational education courses" is not clearly understood or not mutually agreeable to all parties.

Recommendations for Pursuing an "Added Cost" Reimbursement Plan for Nevada:

It seems appropriate to pursue an added cost study for vocational education in Nevada as a strategy for developing a stable vocational funding base and providing supplemental funds for those vocational programs with higher costs.

In order to pursue such a plan the following recommendations are made:

1. Continue vocational enrollment collection as established in FY 83 and 84.
2. Develop a plan for data collection and reporting by the districts which will track all vocational expenditures by program category by school and by district. Once the initial tracking system is developed and the data base established, the information gathered could be updated on a biennial basis.

The expenditure information should be reported annually over a two year period to the state department of education for the purposes of the added cost study.

3. A forum of all concerned vocational educators and their counterparts in the state vocational education department should be established to clarify once and for all the standards for approved vocational courses and to reach mutual agreement upon the standards.

An Interim Method for Applying an "Added Cost" Reimbursement Plan:

Because of the priority and urgency to meet the "added cost" needs of secondary vocational education in our state, an interim method of calculating the funding should be instituted. This interim process would allow for time to "gear up" for the more concrete reimbursement plan previously identified.

A. Calculating the "Interim Added Cost" Reimbursement Plan:*

1. Identify average secondary teacher's salary, including fringe
2. Identify average secondary vocational education teacher's salary, including fringe
3. Identify state public secondary school enrollment
4. Identify number of public secondary teachers, statewide
5. Compute public secondary pupil/teacher ratio, statewide
 - (a) Step #3 divided by step #4
6. Identify number of unduplicated FTE secondary vocational education students (for 1983-84 includes steps #6 and #7 on worksheet, Appendix A)
7. Identify number of unduplicated FTE secondary vocational education teachers, statewide
8. Compute public secondary vocational education pupil/teacher ratio, statewide
 - (a) Step #6 divided by step #7
9. Compute vocational education added cost factor
 - (a) Results of step #5 divided by results of step #8
10. Subtract base of 1 from results of step #9
11. Compute the public secondary vocational education added unit cost
 - (a) Step #2 multiplied by results of step #10

* See Appendix A for 1983-84 Formula

12. Compute the total vocational education added unit costs, statewide

(a) Results of step #11 multiplied by FTE public secondary vocational education teachers, as identified in step #7

Real data from 1983-84 was applied to the above formula and is worked through in Appendix A of this report.

The total vocational education added units costs for the state based upon 1983-84 data equals \$6,330,866.85.

This amount would be an interim solution to the added costs needs of vocational education in our state. Again, this is recommended as a temporary step for the 1984-86 biennium, until such time as the formula based upon actual expenditures can be implemented.

APPENDIX A

Public Secondary Vocational Education--Added Costs Worksheet for 1983-84

1. Average secondary teacher salary, 1983-84:
(Base salary \$23,103 from 5-1-84 NEA report
worksheet plus 15 percent fringe) \$26,568.00

2. Average secondary vocational education teacher salary,
1983-84:
(Base salary \$22,023 from 5-1-84 NEA report
worksheet plus 15 percent fringe) \$25,326.45

3. Total state public secondary school enrollment, 1983-84
(per Research Bulletin Vol. 25, #1, pg. 2 March 1984)
Grades 7-12 67,763 (7-12)

4. Public secondary teachers, 1983-84 3,289
(includes all secondary, except Special Education
per NEA worksheet 1983-84, 5-1-84, plus Bill
Trabert VEDS for vocational education teachers)

5. Average public secondary pupil/teacher ratio 1983-84
(67,763 ÷ 3289) = 's 20.60:1
(pupils) (teachers)

6. Total unduplicated vocational enrollment, 9-12
1983-84 16,596
(per Bill Trabert 8-10-84)

7. Vocational enrollment by vocational periods
(1983-84 VEDS enrollment/class size reports)

14,853	x (1)	= 's	14,853
868	x (2)	= 's	1,736
513	x (3)	= 's	1,539
363	x (4)	= 's	1,448
			19,576 - 5 =

3,915.2 (FTE students)

8. Public unduplicated secondary vocational education
teachers, 1983-84 (per Bill Trabert 8-2-84 from
1983-84 VEDS; Ag thru T & I, both Part A & B, plus
3 districts not collected in VEDS) (does not
include Industrial Arts) 333.30 FTE

9. Average public vocational education pupil/teacher
ratio 1983-84
(3915.2 ÷ 333.30) = 's 11.75:1
(pupils) (teachers)

1983-84 DATA

COMPUTATIONS--ADDED COSTS FOR VOCATIONAL EDUCATION

1. $\frac{20.62}{11.75}$ (secondary pupil-teacher ratio)
(vocational ed. pupil-teacher ratio) 2. = 1.75 - 1 (Base for either general
education or vocational ed)
3. = 's .75 (Additional factor for voc.ed.
above base of 1)
4. .75 x \$25,326.45 = \$18,994.50
(added cost factor) (average 1983-84
voc.ed. teachers
salary plus 15
percent fringe) (added unit cost for
each voc. unit = 's
1 FTE voc. teacher)
5. \$18,994.50 x 's \$ 330.30 = 's \$6,330,866.85
(voc.ed. unit) (# of 1983-84 FTE
voc. teachers) (total added unit
cost to state for
public secondary
voc.ed.)

APPENDIX G

Table Listing the Ages for Compulsory and Permissive
School Attendance and for Admission to the First
Grade, by State: 1978 (Updated July 1983),
by the U.S. Department of Education,
National Institute of Education

Table 27.—Ages for compulsory and permissive school attendance and for admission to the first grade, by State: 1978

State	Compulsory attendance ¹	Attendance permitted ²	Admission to first grade	
			Age	By what date
1	2	3	4	5
Alabama.....	7-18	---	---	---
Alaska.....	7-18	---	6	Nov. 2
Arizona.....	8-18	6-21	6	Jan. 1
Arkansas.....	7-18	6-21	6	Oct. 1
California.....	6-18	---	6	---
Colorado.....	7-18	6-21	6	---
Connecticut.....	7-18	5-21	6	Jan. 1
Delaware.....	6-18	6-21	---	---
District of Columbia.....	7-18	---	6	Dec. 31
Florida.....	7-18	---	6	Jan. 1
Georgia.....	7-18	---	6	Dec. 1
Hawaii.....	6-18	---	6	Dec. 1
Idaho.....	7-18	5-21	6	Oct. 16
Illinois.....	7-18	---	6	Dec. 1
Indiana.....	7-18	---	6	---
Iowa.....	7-18	5-21	6	---
Kansas.....	7-18	5-21	6	Sept. 1
Kentucky.....	7-18	---	6	---
Louisiana.....	7-18	---	6	Jan. 1
Maine.....	7-17	5-20	6	Oct. 15
Maryland.....	6-18	5-20	6	Dec. 31
Massachusetts.....	6-18	---	6	Sept. 1
Michigan.....	6-18	5-20	6	Dec. 1
Minnesota.....	7-18	5-21	6	Sept. 1
Mississippi ⁴	6-14	6-20	6	Sept. 1
Missouri.....	7-18	5-20	6	Oct. 1
Montana.....	7-18	6-21	6	---
Nebraska.....	7-18	---	6	Oct. 15
Nevada.....	7-17	6-17	6	Sept. 30
New Hampshire.....	6-18	---	6	Sept. 30
New Jersey.....	6-18	5-20	6	---
New Mexico.....	8-17	---	6	Sept. 1
New York.....	6-18	5-21	---	---
North Carolina.....	7-18	---	6	Oct. 1
North Dakota.....	7-18	6-21	6	Oct. 1
Ohio.....	6-18	---	6	Sept. 13
Oklahoma.....	7-18	5-21	6	Nov. 1
Oregon.....	7-18	6-21	6	Nov. 15
Pennsylvania.....	8-17	6-18	(⁵)	Sept. 1
Rhode Island.....	7-18	---	6	Dec. 31
South Carolina.....	7-18	6-21	6	Nov. 1
South Dakota.....	7-18	5-21	6	Nov. 1
Tennessee.....	7-18	6-21	6	Oct. 31
Texas.....	7-17	5-21	6	Sept. 1
Utah.....	6-18	---	6	---
Vermont.....	7-18	---	6	---
Virginia.....	6-17	5-20	6	Dec. 31
Washington.....	8-18	6-21	6	Nov. 1
West Virginia.....	7-18	---	6	Nov. 1
Wisconsin.....	7-18	6-20	6	Dec. 1
Wyoming.....	7-18	6-21	6	Sept. 15

¹ During these years (inclusive) a child must attend school unless some approved basis for exemption exists

² During these years (inclusive) a child may attend school on a tuition free basis

³ Lower and upper levels established by the State Board of Education

⁴ Information updated in July 1983. The compulsory attendance regulations are being implemented gradually over a period of several years

⁵ 5 years and 7 months

SOURCE: U.S. Department of Education, National Institute of Education, *State Legal Standards for the Provision of Public Education*, supplemented by unpublished information available in the National Center for Education Statistics

APPENDIX H

Memoranda prepared by the Nevada State Department of
Education Proposing the Addition of New Personnel
in the Department

Department of Education positions were lost as a result of restrictions in state funding and the Education Consolidation and Improvement Act at the federal level which resulted in diminished funds for the purpose of strengthening departments of education.

The State Board of Education proposed biennial budget outlines the responsibilities of new positions requested. These positions total 10.5 which include the following professional and support staff for a total to be recommended of 85.5.

Responsibilities to be assumed by the new positions include the following:

1. Educational Consultant, Computer Technology
2. Educational Consultant, School Improvement
3. Educational Consultant, Academically Talented Programs
4. Administrative Aide to support new consultants
5. Senior Research Analyst, Guide and Monitor Educational Data
6. Educational Consultant, Vocational Guidance
7. Educational Consultant, State Vocational Programs
including Distributive Education and Cooperative Education
8. Educational Consultant, Postsecondary Education
9. Auditor, School Lunch Programs
10. Administrative Aide to provide support to the new
vocational education positions

<u>Fiscal Year</u>	<u>Number of Positions</u>
1971-72	101
1972-73	98
1974-75	98
1975-76	104
1976-77	106
1977-78	83
1978-79	96
1979-80	92.5
1980-81	92.5
1981-82	82.5
1982-83	76
1983-84	76 *

* Three positions have been held vacant due to legislatively imposed salary savings.

COMPARISON OF STATE & NON-STATE FUNDED POSITIONS
IN THE DEPARTMENT OF EDUCATION

<u>Year</u>	<u>Authorized Positions</u>	<u>State Funded</u>	<u>%</u>	<u>Non-State</u>	<u>%</u>
1976-77	106	46.70	44	59.30	56
1983-84	76	28.23	37	47.77	63

APPENDIX I

Chart Detailing the Average Costs for Textbooks and
Library Costs in Nevada's School Districts; and
Chart Illustrating the Inflation Index
for Hardcover Books for the
Years 1975 through 1982

TEXTBOOK AND LIBRARY COSTS

FY 1982-83

County	Unweighted Enrollment	Textbook Costs	Textbook Costs Per Pupil	Library Costs	Library Costs Per Pupil	Total Textbook and Library Costs	Total Textbook and Library Expenditure Per Pupil
Carson City	5,456	\$185,755	\$ 34.05	\$ 20,702	\$ 3.79	\$ 206,457	\$ 37.84
Churchill	2,798	28,762	10.28	29,518	10.55	58,280	20.83
Clark	89,680	1,572,015	17.53	258,642	28.84	1,830,657	20.41
Douglas	3,648	133,143	36.50	19,644	5.38	152,787	41.88
Elko	4,218	69,679	16.52	13,943	3.31	83,622	19.85
Esmeralda	182	8,000	43.96	15,770	86.65	23,770	130.60
Eureka	175	20,367	116.38	1,350	7.71	21,717	124.10
Humboldt	2,184	66,836	30.60	12,493	5.72	79,329	36.32
Lander	1,167	26,635	22.82	7,932	6.80	34,567	29.62
Lincoln	963	45,013	46.74	4,889	5.07	49,902	51.82
Lyon	2,963	94,136	31.77	33,011	11.14	127,147	42.91
Mineral	1,180	31,376	26.59	6,421	5.44	37,797	32.03
Nye	2,487	52,236	21.00	298,080	119.86	350,316	140.86
Pershing	704	9,889	14.04	2,705	3.84	12,594	17.89
Storey	241	10,099	41.90	26,415	109.60	36,514	151.51
Washoe	31,420	767,145	24.42	202,359	6.44	969,504	30.86
White Pine	1,638	29,345	17.92	10,613	6.48	39,958	24.39
Totals	151,104	3,150,431	20.85	964,487	6.38	4,114,918	27.23

The effects of inflation on textbooks, library books, periodicals and audio-visual materials are reflected within the overall school price index. The table that follows illustrates their inflation index for hard cover books for the years 1975-82.

Average prices and indexes for library materials and textbooks, fiscal years 1975-1982.

1975 = 100

		Hardcover books				
		Elementary		Secondary		
Year		Avg ¹		Avg ²		
Calendar	Fiscal	price	Index	price	Index	Index ³
1974	1975	\$5.01	100.0	\$14.09	100.0	100.0
1975	1976	5.82	116.2	16.19	114.9	115.6
1976	1977	5.87	117.2	17.20	122.1	119.5
1977	1978	6.64	132.5	18.03	128.0	130.4
1978	1979	6.59	131.5	20.10	142.7	136.8
1979	1980	7.13	142.3	22.80	161.8	151.5
1980	1981	8.21	163.9	23.57	167.3	165.5
1981	1982	8.29	165.5	25.48	180.8	172.7

*Estimates.

¹Juvenile book category (age 8 or younger, fiction).

²All book categories.

³Weighted average: elementary (K-6) books, 53 percent; secondary (7-12) books, 47 percent. Weights based on data reported in the National Center for Education Statistics' *Statistics of Public School Library Media Centers, 1973-74 survey*.

APPENDIX J

Suggested Legislation

		<u>Page</u>
BDR 18-219.....	Authorizes commission on economic development to grant money to postsecondary educational institutions to develop programs for vocational education	185
BDR 23-214.....	Adds terms and conditions of employment for employees of county school districts	187
BDR 34-215.....	Increases salaries of teachers	199
BDR 34-216.....	Requires passage of certain tests by prospective teachers and changes procedure for evaluation	203
BDR 34-217.....	Creates program for financial assistance to certain persons who will teach in Nevada	207
BDR 34-218.....	Establishes minimum qualifications for admittance to certain branches of University of Nevada	211
BDR 34-220.....	Makes various changes regarding pupils	213
BDR 34-221.....	Establishes minimum educational qualification for school administrators ..	219
BDR 34-222.....	Requires establishment of school for vocational education by certain school districts and changes terminology in statutes	221
BDR 223.....	Urges school districts in smaller counties to cooperate for provision of vocational education	239
BDR S-240.....	Makes appropriation to state board for vocational education for allocation to county school districts	241
BDR S-243.....	Makes appropriation for programs of vocational education	243

SUMMARY--Authorizes commission on economic development to grant money to postsecondary educational institutions to develop programs for vocational education. (BDR 18-219)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: Yes.

AN ACT relating to vocational education; authorizing the commission on economic development to grant money to postsecondary educational institutions to develop programs designed to teach skills needed for new or existing businesses; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 231 of NRS is hereby amended by adding thereto a new section to read as follows:

The commission on economic development, to the extent of legislative appropriations, may grant money to a postsecondary educational institution to develop a program for vocational education which is designed to teach skills in a short time to persons who are needed for employment by new or existing businesses.

SUMMARY--Adds terms and conditions of employment for employees of county school districts. (BDR 23-214)

FISCAL NOTE: Effect on Local Government: Yes.
Effect on the State or on Industrial Insurance: Yes.

AN ACT relating to public employees; adding certain subjects for mandatory bargaining; requiring time for the professional development of teachers; requiring the reporting of a criminal act under certain circumstances; providing a penalty; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 288 of NRS is hereby amended by adding thereto a new section to read as follows:

1. In addition to the subjects contained in subsection 2 of NRS 288.150, the following subjects are within the scope of mandatory bargaining between a county school district and the designated representative of a recognized teachers' organization:

- (a) The ratio of pupils to a teacher in a class;
- (b) The evaluation of the performance of a teacher;
- (c) Time allotted for a teacher's preparation;
- (d) The discipline of pupils; and
- (e) The transfer of teachers.

2. An employment contract between a county school district and a recognized teachers' organization must authorize a minimum of 5 days credited as required working days which are devoted exclusively to the professional development of teachers through conferences, clinics or similar opportunities for the exchange of professional views and the observation of methods of instruction.

Sec. 2. NRS 288.150 is hereby amended to read as follows:

288.150 1. Except as provided in subsection 4, it is the duty of every local government employer to negotiate in good faith through a representative or representatives of its own choosing concerning the mandatory subjects of bargaining set forth in subsection 2 with the designated representatives of the recognized employee organization, if any, for each appropriate bargaining unit among its employees. If either party so requests, agreements reached shall be reduced to writing. Where any officer of a local government employer, other than a member of the governing body, is elected by the people and directs the work of any local government employee, such officer is the proper person to negotiate, directly or through a representative or representatives of his own choosing, in the first instance concerning any employee whose work is directed by him, but may refer to

the governing body or its chosen representative or representatives any matter beyond the scope of his authority.

2. [The] Except as otherwise provided in section 1 of this act, the scope of mandatory bargaining is limited to:

(a) Salary or wage rates or other forms of direct monetary compensation.

(b) Sick leave.

(c) Vacation leave.

(d) Holidays.

(e) Other paid or nonpaid leaves of absence.

(f) Insurance benefits.

(g) Total hours of work required of an employee on each work day or work week.

(h) Total number of days' work required of an employee in a work year.

(i) Discharge and disciplinary procedures.

(j) Recognition clause.

(k) The method used to classify employees in the bargaining unit.

(l) Deduction of dues for the recognized employee organization.

(m) Protection of employees in the bargaining unit from discrimination because of participation in recognized

employee organizations consistent with the provisions of this chapter.

(n) No-strike provisions consistent with the provisions of this chapter.

(o) Grievance and arbitration procedures for resolution of disputes relating to interpretation or application of collective bargaining agreements.

(p) General savings clauses.

(q) Duration of collective bargaining agreements.

(r) Safety of the employee.

(s) [Teacher preparation time.

(t)] Procedures for reduction in work force.

3. Those subject matters which are not within the scope of mandatory bargaining and which are reserved to the local government employer without negotiation include:

(a) [The] Except as otherwise provided in section 1 of this act, the right to hire, direct, assign or transfer an employee, but excluding the right to assign or transfer an employee as a form of discipline.

(b) The right to reduce in force or lay off any employee because of lack of work or lack of funds, subject to paragraph [(t)] (s) of subsection 2.

(c) The right to determine:

(1) Appropriate staffing levels and work performance standards, except for safety considerations;

(2) The content of the workday, including without limitation workload factors, except for safety considerations;

(3) The quality and quantity of services to be offered to the public; and

(4) The means and methods of offering those services.

(d) Safety of the public.

4. Notwithstanding the provisions of any collective bargaining agreement negotiated pursuant to this chapter, a local government employer is entitled to take whatever actions may be necessary to carry out its responsibilities in situations of emergency such as a riot, military action, natural disaster or civil disorder. Such actions may include the suspension of any collective bargaining agreement for the duration of the emergency. Any action taken under the provisions of this subsection shall not be construed as a failure to negotiate in good faith.

5. The provisions of this chapter, including without limitation the provisions of this section, recognize and declare the ultimate right and responsibility of the local government employer to manage its operation in the most

efficient manner consistent with the best interests of all its citizens, its taxpayers and its employees.

6. This section does not preclude, but this chapter does not require the local government employer to negotiate subject matters enumerated in subsection 3 which are outside the scope of mandatory bargaining. The local government employer shall discuss subject matters outside the scope of mandatory bargaining but it is not required to negotiate such matters.

7. Contract provisions presently existing in signed and ratified agreements as of May 15, 1975, at 12 p.m. shall remain negotiable.

Sec. 3. NRS 288.200 is hereby amended to read as follows:

288.200 Except in cases to which NRS 288.205 and 288.215 apply:

1. If:

(a) The parties have participated in mediation and by May 1, have not reached agreement; or

(b) The bargaining unit represented by the employee organization contains fewer than 30 persons, either party to the dispute, at any time up to June 1, may submit the dispute to an impartial factfinder for his findings and recommendations. His findings and recommendations

are not binding on the parties except as provided in subsections 5, 6 and 9. The mediator of a dispute may also be chosen by the parties to serve as the factfinder.

2. If the parties are unable to agree on an impartial factfinder within 5 days, either party may request from the American Arbitration Association or the Federal Mediation and Conciliation Service a list of seven potential factfinders. If the parties are unable to agree upon which arbitration service should be used, the Federal Mediation and Conciliation Service must be used. The parties shall select their factfinder from this list by alternately striking one name until the name of only one factfinder remains, who will be the factfinder to hear the dispute in question. The employee organization shall strike the first name.

3. The local government employer and employee organization each shall pay one-half of the cost of factfinding. Each party shall pay its own costs of preparation and presentation of its case in factfinding.

4. A schedule of dates and times for the hearing must be established before June 20 and the factfinder shall report his findings and recommendations to the parties to the dispute within 30 days after the conclusion of the factfinding hearing.

5. The parties to the dispute may agree, before the submission of the dispute to factfinding, to make the findings and recommendations on all or any specified issues final and binding on the parties.

6. If the parties do not agree on whether to make the findings and recommendations of the factfinder final and binding, either party may request the formation of a panel to determine whether the findings and recommendations of a factfinder on all or any specified issues in a particular dispute which are within the scope of subsection 9 are to be final and binding. The determination must be made upon the concurrence of at least two members of the panel and not later than August 10 unless that date is extended by the commissioner of the board. Each panel shall, when making its determination, consider whether the parties have bargained in good faith and whether it believes the parties can resolve any remaining issues. Any panel may also consider the actions taken by the parties in response to any previous factfinding between these parties, the best interests of the state and all its citizens, the potential fiscal effect both within and outside the political subdivision, and any danger to the safety of the people of the state or a political subdivision.

7. Except as provided in subsection 8, any factfinder, whether his recommendations are to be binding or not, shall base his recommendations or award on the following criteria:

(a) A preliminary determination must be made as to the financial ability of the local government employer based on all existing available revenues as established by the local government employer, and with due regard for the obligation of the local government employer to provide facilities and services guaranteeing the health, welfare and safety of the people residing within the political subdivision.

(b) Once the factfinder has determined in accordance with paragraph (a) that there is a current financial ability to grant monetary benefits, he shall use normal criteria for interest disputes regarding the terms and provisions to be included in an agreement in assessing the reasonableness of the position of each party as to each issue in dispute and he shall consider whether the board found that either party had bargained in bad faith.

The factfinder's report must contain the facts upon which he based his determination of financial ability to grant monetary benefits and his recommendations or award.

8. Any sum of money which is maintained in a fund whose balance is required by law to be:

(a) Used only for a specific purpose other than the payment of compensation to the bargaining unit affected; or

(b) Carried forward to the succeeding fiscal year in any designated amount, to the extent of that amount, must not be counted in determining the financial ability of a local government employer and must not be used to pay any monetary benefits recommended or awarded by the factfinder.

9. The issues which may be included in a panel's order pursuant to subsection 6 are:

(a) Those enumerated in section 1 of this act and subsection 2 of NRS 288.150 as the subjects of mandatory bargaining, unless precluded for that year by an existing collective bargaining agreement between the parties; and

(b) Those which an existing collective bargaining agreement between the parties makes subject to negotiation in that year.

This subsection does not preclude the voluntary submission of other issues by the parties pursuant to subsection 5.

Sec. 4. Chapter 391 of NRS is hereby amended by adding thereto a new section to read as follows:

An employee of a county school district who observes an illegal act committed on school property shall report the

illegal act to the proper legal authority. Such an employee
who fails to do so is guilty of a misdemeanor.

SUMMARY--Increases salaries of teachers. (BDR 34-215)

FISCAL NOTE: Effect on Local Government: Yes.
Effect on the State or on Industrial
Insurance: Yes.

AN ACT relating to public schools; establishing the minimum number of incremental increases required on a schedule for salaries; setting a minimum salary for certain school years; requiring commensurate increases on the schedules of salaries for certain school years; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. NRS 391.120 is hereby amended to read as follows:

391.120 1. Boards of trustees of the school districts in this state may employ legally qualified teachers and other certificated personnel and may determine their salaries , in a manner consistent with any statutory requirements, and the length of the term of school for which they are employed. These conditions and any other conditions agreed upon by the parties [shall] must be embodied in a written contract, or notice of reemployment, to be approved by the board of trustees and accepted and signed by the employee. A copy of the contract or notice of reemployment,

properly written, must be delivered to each teacher or other certificated employee not later than the opening of the term of school.

2. A board of trustees [may not employ] shall not:

(a) Fix a schedule for the salaries of teachers which limits the permissible number of annual incremental increases to less than 20; or

(b) Employ teachers or other certificated personnel for any school year commencing after the expiration of the time for which any member of the board of trustees was elected or appointed.

3. It is unlawful for the board of trustees of any school district to employ any teacher who is not legally qualified to teach all the grades which the teacher is engaged to teach.

4. Notice of the employment of a person as a teacher or other certificated employee must be given to the department in the form prescribed by the superintendent of public instruction before the employee may start to perform under the terms of the contract.

Sec. 2. 1. A board of trustees of a county school district shall not set the minimum salary for a person employed full time as a teacher at an amount:

(a) Less than \$16,000 for the school year 1985-86;

(b) Less than \$17,000 for the school year 1986-87; and

(c) Less than \$18,000 for the school year 1987-88.

2. The board of trustees of each county school district shall

increase each salary listed on the schedule of salaries for teachers employed full time for the school year 1985-86 by an amount which is at least equal to the difference between \$16,000 and the minimum salary paid to a teacher employed full time in that district for the school year 1983-84.

3. For the compensation of teachers employed full time for the school year 1986-87, the board of trustees of each county school district shall increase each salary which was listed on the schedule of teachers' salaries for the school year 1985-86 by at least \$1,000.

4. For the compensation of teachers employed full time for the school year 1987-88, the board of trustees of each county school district shall increase each salary which was listed on the schedule of teachers' salaries for the school year 1986-87 by at least \$1,000.

5. To receive the compensation provided for in subsections 1 to 4, inclusive, a board of trustees of a county school district shall not require a teacher to work a number of days which exceeds the number required of teachers in that district for the school year 1983-84 plus 5 days.

6. The increases in compensation provided for in this act are not intended to preclude or result in the denial or reduction of any other increases which would usually be awarded for such reasons as merit or an increase in the cost of living.

7. For the purposes of this section, "employed full time" means employment pursuant to a contract which requires service for at least 180 days.

SUMMARY--Requires passage of certain tests by prospective teachers and changes procedure for evaluation.
(BDR 34-216)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: Yes.

AN ACT relating to education; requiring prospective teachers to pass certain tests before they may be certified; changing the procedure for evaluating the performance of persons holding a certificate issued by the superintendent of public instruction; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 391 of NRS is hereby amended by adding thereto a new section to read as follows:

The superintendent of public instruction shall not issue an initial certificate to a person who has not passed a nationally recognized test of his:

1. Basic skills in teaching; and
2. Knowledge of the subject for which he is seeking certification.

Sec. 2. NRS 391.3125 is hereby amended to read as follows:

391.3125 1. [It is the intent of the legislature that a uniform system be developed for objective evaluation of teachers and certificated school support personnel in each school district.

2. Each board of school trustees, following consultation and involvement of elected representatives of teacher personnel or their designees, shall develop an objective evaluation policy which may include self, student, administrative or peer evaluation or any combination thereof. In like manner, counselors, librarians and other certificated school support personnel shall be evaluated on forms developed specifically for their respective specialties. A copy of the evaluation policy adopted by the board of trustees shall be filed with the department of education.] The state board of education shall develop the forms and related instructions which must be used to evaluate the performance of teachers and other persons who hold a certificate issued by the superintendent of public instruction. The forms for the evaluation of counselors, librarians, administrators and other persons who hold a certificate authorizing functions other than teaching must be specifically developed for the respective specialties. Each board of school trustees may include additional criteria for evaluation, if each criterion is approved by the state board of education.

2. Each such evaluation must be made objectively by a committee which consists of the person being evaluated, his immediate supervisor, and persons employed similarly to him. For the evaluation of a teacher, the fellow teachers must constitute a majority of the members of the committee.

3. The probationary period must include a conference and a written evaluation for the probationary employee no later than:

- (a) November 1;
- (b) January 1;
- (c) March 1; and
- (d) May 1,

of the school year.

4. Each postprobationary teacher [shall] must be evaluated at least once each year.

5. The evaluation of a probationary teacher or a postprobationary teacher [shall, if necessary,] must, if applicable, include recommendations for improvements in teaching performance. A reasonable effort [shall] must be made to assist the teacher to correct deficiencies noted in the evaluation. The teacher [shall] is entitled to receive a copy of each evaluation not later than 15 days after the evaluation. A copy of the evaluation and the teacher's response [shall] must become a permanent attachment to the teacher's personnel file.

SUMMARY--Creates program for financial assistance to certain persons who will teach in Nevada. (BDR 34-217)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: Yes.

AN ACT relating to education; creating a program of financial assistance for certain persons who will teach in Nevada; imposing related duties on the state board of education; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
, AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 387 of NRS is hereby amended by adding thereto the provisions set forth as sections 2 to 5, inclusive, of this act.

Sec. 2. 1. The program for financial assistance for the education of teachers is hereby created.

2. The state board shall adopt regulations regarding the administration of the program and qualifications of applicants.

Sec. 3. 1. The state board shall compile and revise as needed a list of:

(a) Each subject or method of instruction for which the number of qualified teachers is insufficient to meet Nevada's present or predicted educational needs.

(b) The county school districts which:

(1) Have an insufficient number of qualified persons who are willing to teach in the district; and

(2) Are located more than 50 miles from the corporate boundaries of Carson City, Reno and Las Vegas.

2. The state board, to the extent of legislative appropriations, shall make loans to any qualified applicant who has resided in Nevada for at least 1 year before submitting the application and who:

(a) Upon completion of his education, would qualify for a certificate as a teacher of a particular subject or as a teacher able to use a particular method of instruction which is listed by the state board pursuant to subsection 1; or

(b) Agrees to teach in a rural area of Nevada listed by the state board pursuant to subsection 1 for a period of 3 years within 5 years after completing his education.

3. The state board, to the extent of legislative appropriations, may grant money to any qualified applicant who:

(a) Has been employed in this state for 3 years as a teacher;

(b) Desires to enroll in courses which upon completion would qualify him for a certificate as a teacher of a particular subject or as a teacher able to use a method of instruction listed by the state board pursuant to subsection 1; and

(c) If offered employment, agrees to teach the subject or use

the method in Nevada for a period of 3 years immediately following the completion of his retraining.

Sec. 4. 1. The amount of such a grant or loan made by the state board must not exceed an amount which equals the cost of the recipient's books and educational materials plus 50 percent of his annual tuition and other fees for registration.

2. A loan bears interest at 5 percent per annum from the date the borrower first receives any part of the money lent. The borrower shall repay the loan with interest following the termination of his education in accordance with the following schedule:

(a) Within 5 years for a loan which totals less than \$10,000;

(b) Within 8 years for a loan which totals \$10,000 or more but less than \$20,000; or

(c) Within 10 years for a loan which totals \$20,000 or more.

3. The recipient of a grant who is unable or unwilling to meet the conditions of the grant for required service shall repay the state board for the grant, with interest, under the terms set forth for loans in subsection 2 and any other terms set forth at the time the grant is made.

Sec. 5. The state board may adopt regulations which provide for the:

1. Forgiveness of not more than one-half of the principal and accrued interest on a loan upon the completion by the borrower of not less than 3 years of employment in Nevada as a teacher:

(a) In a rural area;

(b) Of a subject; or

(c) Who uses a particular method of instruction,

which is listed by the state board pursuant to section 3 of this act.

2. Reduction, for good cause shown, of the period of service in Nevada required as a condition of a grant or loan.

3. Extension, for good cause shown, of the time for completing the required service for persons who are obligated to serve as a condition of their loan or grant.

4. Acceleration of the time for repayment of a loan if a borrower does not or is not able to meet any conditions of the loan.

SUMMARY--Establishes minimum qualifications for admittance to certain branches of University of Nevada. (BDR 34-218)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

AN ACT relating to the University of Nevada; establishing minimum qualifications for admission to the Reno and Las Vegas branches; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. NRS 396.530 is hereby amended to read as follows:

396.530 1. [There shall be no discrimination in the admission of students on account of sex, race or color.

2. No person shall be admitted who is not of good moral character, and who has not arrived at the age of 15 years, and passed such an examination as shall be prescribed by the board of regents.

3. No person under the age of 15 years shall be taught in the university.] The board of regents shall not discriminate in the admission of students on account of sex, race or color.

2. Except as otherwise provided in subsection 3, the board of regents shall not admit a person to the branch of the University of Nevada at Reno or Las Vegas unless he:

- (a) Is 15 years of age or older;
- (b) Is of good moral character;
- (c) Achieved an acceptable score as determined by the board of regents on the American College Test or the Scholastic Aptitude Test; and
- (d) Achieved an average grade of 2.5 on a scale of 4.0, or its equivalent, in his courses in high school.

3. The requirements listed in paragraphs (c) and (d) of subsection 2 do not apply to a person who:

- (a) Has earned 24 hours of credit which are eligible for transfer to the branch and for which he achieved an average grade of 2.0 on a scale of 4.0, or its equivalent; or
- (b) Does not seek to receive credit for his attendance at a course.

SUMMARY--Makes various changes regarding pupils. (BDR 34-220)

FISCAL NOTE: Effect on Local Government: Yes.
Effect on the State or on Industrial
Insurance: Yes.

AN ACT relating to pupils; requiring the establishment of kindergartens; changing the minimum age of attendance for a handicapped minor; changing the ages of compulsory attendance; making the teacher solely responsible for the decision to promote or retain; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. NRS 388.060 is hereby amended to read as follows:

388.060 1. The board of trustees of [a] each school district [, with the approval of the superintendent of public instruction, may] shall establish, equip and maintain [a kindergarten] one or more kindergartens [in a school attendance area.] to serve the school district.

2. Any child who will arrive at the age of [5] 4 years by September 30 may be admitted to kindergarten at the beginning of the school year and his enrollment [shall] must be counted for [apportionment purposes.] the purpose of apportionment.

3. If a child will not arrive at the age of [5] 4 years by

September 30, the child [shall] must not be admitted to kindergarten until the beginning of the school year following his [5th] fourth birthday.

[4. The board of trustees of a school district in which a kindergarten is to be established under the provisions of this Title of NRS shall budget for such purposes by including the costs in the next regular budget for the school district.]

Sec. 2. NRS 388.490 is hereby amended to read as follows:

388.490 [1. Except as provided in subsections 2, 3, 4 and 5, handicapped minors may be admitted at the age of 5 years to special programs established for such minors, and their enrollment or attendance may be counted for apportionment purposes.

2. Aurally handicapped minors may be admitted at any age under 5 to special programs established for such minors, and their enrollment or attendance may be counted for apportionment purposes.

3. Visually handicapped minors may be admitted at any age under 5 to special programs established for such minors, and their enrollment or attendance may be counted for apportionment purposes.

4. Academically talented minors may be admitted at the age of 4 years to special programs established for such minors, and their enrollment or attendance may be counted for apportionment purposes.

5. Mentally retarded minors may be admitted at the age of 3 years to special programs established for such minors, and their enrollment or attendance may be counted for apportionment purposes.] A handicapped minor may be admitted at the age of 3 years to a special program established for the instruction of handicapped minors. His enrollment must be counted for the purpose of apportionment.

Sec. 3. NRS 392.040 is hereby amended to read as follows:

392.040 1. Except as otherwise provided by law, each parent, guardian, or other person in the State of Nevada having control or charge of [any] a child between the ages of [7 and 17] 6 and 16 years shall send [such] the child to a public school during all the time [such] the public school is in session in the school district in which [such] the child resides.

2. Any child who will arrive at the age of [6] 5 years by September 30 must be admitted to a regular school program, and may be admitted to the first grade at the beginning of the school year, and his enrollment [shall] must be counted for [apportionment purposes.] the purpose of apportionment. If a child will not arrive at the age of [6] 5 years by September 30, the child [shall] must not be admitted to the first grade until the beginning of the school year following his [6th] fifth birthday.

3. Whenever a child who has arrived at the age of [6] 5 years

but not at the age of [7] 6 years is enrolled in a public school, each parent, guardian or other person in the State of Nevada having control or charge of [such] the child shall send the child to the public school during all the time [such] the school is in session. This requirement for attendance does not apply to any child under the age of [7] 6 years who has not yet been enrolled or has been formally withdrawn from enrollment in public school.

Sec. 4. NRS 392.110 is hereby amended to read as follows:

392.110 1. Any child between the ages of 14 and [17] 16 years who has completed the work of the first eight grades may be excused from full-time school attendance and may be permitted to enter proper employment or apprenticeship, by the written authority of the board of trustees excusing the child from such attendance. The board's written authority [shall] must state the reason [or reasons for such] for the excuse.

2. In [all such cases no] each such case the employer or other person shall not employ or contract for the services or time of [such] the child until the child presents a written permit therefor from the [attendance officer or] board of trustees. The permit [shall] must be kept on file by the employer, and upon the termination of employment [shall] must be returned by the employer to the board of trustees [or other authority] issuing it.

Sec. 5. NRS 392.120 is hereby amended to read as follows:

392.120 1. Any parent, guardian or other person who makes a false statement concerning the age or school attendance of a child under [17] 16 years of age who is under his control or charge, if the false statement [being] is made with the intent to deceive [under] concerning a matter governed by NRS 392.040 to 392.120, inclusive, or [under] NRS 392.130 to 392.220, inclusive, [shall be] is guilty of a misdemeanor.

2. Any teacher, principal or superintendent of any public school [is authorized to] may require the parent or guardian of any pupil enrolled in his school to furnish a birth certificate or other satisfactory evidence of the age of the pupil.

Sec. 6. NRS 392.125 is hereby amended to read as follows:

392.125 1. Before any pupil enrolled in a public school may be retained in the same grade rather than promoted to the next higher grade for the succeeding school year, the pupil's teacher and principal must make a reasonable effort to arrange a meeting and to meet with his parents or guardian to discuss the reasons and circumstances.

2. The teacher [and the principal in joint agreement have] has the final authority to retain a pupil in the same grade for the succeeding school year.

[3. No pupil may be retained more than one time in the same grade.]

Sec. 7. NRS 392.160 is hereby amended to read as follows:

392.160 1. Any peace officer, the attendance officer, or any other school officer shall, during school hours, take into custody without warrant:

(a) Any child between the ages of [7 and 17] 6 and 16 years;
and

(b) Any child who has arrived at the age of [6] 5 years but not at the age of [7] 6 years and is enrolled in a public school, who has been reported to him by the teacher, superintendent of schools or other school officer as an absentee from instruction upon which he is lawfully required to attend.

2. During school hours, the officer having custody shall forthwith deliver the child to the superintendent of schools, principal or other school officer at the child's school of attendance. After school hours, he shall deliver the child to the parent, guardian or other person having control or charge of the child.

SUMMARY--Establishes minimum educational qualification for school administrators. (BDR 34-221)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

AN ACT relating to education; establishing the minimum educational qualification for a special certificate authorizing the performance of administrative services; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 391 of NRS is hereby amended by adding thereto a new section to read as follows:

1. The superintendent of public instruction shall not issue an initial special certificate which authorizes the performance of administrative services to a person who does not hold at least a master's degree, which may be in any subject.

2. The board of trustees of a school district shall not employ initially, after July 1, 1985, any person in an administrative capacity who does not hold at least a master's degree.

SUMMARY--Requires establishment of school for vocational education by certain school districts and changes terminology in statutes. (BDR 34-222)

FISCAL NOTE: Effect on Local Government: Yes.
Effect on the State or on Industrial Insurance: No.

AN ACT relating to vocational education; requiring the boards of trustees of certain school districts to establish schools for vocational education; changing the statutory terminology; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. NRS 385.010 is hereby amended to read as follows:

385.010 1. A department of education is hereby created.

2. The department consists of the state board of education, the state board for [vocational] occupational education and the superintendent of public instruction.

3. The superintendent of public instruction is the executive head of the department.

Sec. 2. NRS 387.050 is hereby amended to read as follows:

387.050 1. The State of Nevada accepts the provisions of, and all of the money provided by, the Vocational Education Act of 1963, and any amendments thereof or supplements thereto.

2. In addition to the provisions of subsection 1, the state

board for [vocational] occupational education may accept , and adopt regulations or establish policies for the disbursement of , money appropriated by any Act of Congress and apportioned to the State of Nevada for use in connection with the [vocational education program.] program for occupational education.

3. In accepting the benefits of the Acts of Congress referred to in subsections 1 and 2, the State of Nevada agrees to comply with all of their provisions and to observe all of their requirements.

4. The state treasurer is designated custodian of all money received by the State of Nevada from the appropriations made by the Acts of Congress referred to in subsections 1 and 2, and he may receive and provide for the proper custody thereof and make disbursements therefrom in the manner provided in the acts and for the purposes therein specified on warrants of the state controller issued upon the order of the executive officer of the state board for [vocational] occupational education.

5. On warrants of the state controller issued upon the order of the executive officer of the state board for [vocational] occupational education pursuant to regulations or policies of the board, the state treasurer shall also pay out any money appropriated by the State of Nevada [for the purpose of carrying] to carry out the provisions of this section.

Sec. 3. NRS 388.330 is hereby amended to read as follows:

388.330 The state board for [vocational education shall consist] occupational education consists of the members of the state board of education.

Sec. 4. NRS 388.340 is hereby amended to read as follows:

388.340 1. The superintendent of public instruction shall serve as executive officer of the state board for [vocational] occupational education.

2. The executive officer shall:

(a) Employ personnel for such positions as are approved by the state board for [vocational] occupational education and necessary to carry out properly the provisions of this Title relating to [vocational] occupational education.

(b) Carry into effect [such] the regulations [as] of the state board for [vocational education may require.] occupational education.

(c) Maintain an office for the board.

(d) Keep all records of the board in the office of the board.

Sec. 5. NRS 388.350 is hereby amended to read as follows:

388.350 The state board for [vocational] occupational education may hold at least four meetings regularly in each year at the state capital, coincident with the meetings of the state board of education.

Sec. 6. NRS 388.360 is hereby amended to read as follows:

388.360 The state board for [vocational] occupational education may:

1. Cooperate with any federal agency, board or department designated to administer the Acts of Congress apportioning federal [vocational education] money to the State of Nevada [.] for occupational education.

2. Establish policies and adopt regulations for the administration of any legislation enacted pursuant thereto by the State of Nevada.

3. Establish policies and adopt regulations for the administration of money provided by the Federal Government and the State of Nevada for the promotion, extension and improvement of [vocational] occupational education in [agricultural subjects, trade and industrial subjects, home economics subjects, distributive occupation subjects, practical nursing subjects, vocational guidance services and other subjects which may be included in the vocational education program in the State of] Nevada.

4. Establish policies or regulations and formulate plans for the promotion of [vocational] occupational education in such subjects as are an essential and integral part of the [public school] system of public education in the State of Nevada.

5. Establish policies to provide for the preparation of teachers of such programs and subjects.

6. Approve positions for such [officials and assistants] persons as may be necessary to administer the federal act and provisions of this Title enacted pursuant thereto for the State of Nevada.

7. Direct its executive officer to make studies and investigations relating to [vocational] occupational education.

8. Establish policies to promote and aid in the establishment by local communities of schools, departments or classes giving training in [vocational] occupational subjects.

9. Cooperate with local communities in the maintenance of such schools, departments or classes.

10. Prescribe qualifications for the teachers, directors and supervisors of [vocational] occupational subjects.

11. Provide for the certification of such teachers, directors and supervisors.

12. Establish policies or regulations to cooperate in the maintenance of classes supported and controlled by the public for the preparation of the teachers, directors and supervisors of [vocational] occupational subjects, or maintain such classes under its own direction and control.

13. Establish by regulation the qualifications required for

persons engaged in the training of [vocational] occupational teachers.

Sec. 7. NRS 388.365 is hereby amended to read as follows:

388.365 1. All gifts of money which the state board for [vocational] occupational education is authorized to accept must be deposited in a permanent trust fund in the state treasury designated as the [vocational education] gift fund [.] for occupational education.

2. The money available in the [vocational education gift] fund must be used only for the purpose specified by the donor, within the scope of the board's powers and duties. The board may adopt regulations or establish policies for the disbursement of money from the fund in accordance with the terms of the gift or bequest on warrants of the state controller issued upon the orders of the executive officer of the state board for [vocational] occupational education. Any expenditures pursuant to this section may include matching state and federal money available for [vocational] occupational education.

3. If all or part of the money accepted by the board from a donor is not expended before the end of the fiscal year in which the gift was accepted, the remaining balance of the amount donated must remain in the [vocational education gift] fund until needed for the purpose specified by the donor.

Sec. 8. NRS 388.370 is hereby amended to read as follows:

388.370 The executive officer of the state board for [vocational] occupational education shall make a report biennially to the governor.

Sec. 9. NRS 388.380 is hereby amended to read as follows:

388.380 [Any] The board of trustees of a school district in a county whose population is 100,000 or more shall and any other board of trustees of a school district may:

1. Establish and maintain [vocational] occupational schools or classes giving instruction in [agricultural subjects, trade and industrial subjects, home economics subjects, distributive occupation subjects, practical nursing subjects, vocational guidance services and such other subjects as may be included in the vocational education program in the State of Nevada.] the subjects approved by the state board for occupational education.

2. Raise and expend money for the establishment and maintenance of [such vocational] occupational schools or classes . [in the same manner in which moneys are raised and expended for other public school purposes. Moneys so raised may be expended in providing vocational education as outlined in this Title of NRS.]

Sec. 10. NRS 388.390 is hereby amended to read as follows:

388.390 [Whenever any] When the board of trustees of a school

district has organized a [vocational] school or classes for occupational education in accordance with the regulations adopted by the state board for [vocational education, which vocational] occupational education and the school or classes have been approved by the executive officer of the state board for [vocational] occupational education, the school district is entitled to share in federal and state money available for the promotion of [vocational] occupational education in the amount determined by the executive officer of the state board for [vocational] occupational education, in accordance with the regulations and policies of the board.

Sec. 11. NRS 388.400 is hereby amended to read as follows:

388.400 1. The money for [vocational education, which consists of agricultural education, trade and industrial education, home economics education, distributive education, practical nursing education, and such other phases of vocational education as the state board for vocational education may approve for adoption in Nevada schools, shall] occupational education must be provided for and raised in the manner specified in NRS 387.050 and 388.330 to 388.400, inclusive.

2. The state treasurer is custodian of [such] the money and he shall make disbursements therefrom on warrants of the state controller issued upon the order of the executive officer of the state board for [vocational] occupational education.

Sec. 12. NRS 231.064 is hereby amended to read as follows:

231.064 In addition to its other duties, the commission on economic development shall:

1. Investigate and study conditions affecting Nevada business, industry and commerce, and engage in technical studies, scientific investigations, statistical research and educational activities necessary or useful for the proper execution of the function of the division in promoting and developing Nevada business, industry and commerce, both within and outside the state.

2. Conduct or encourage research designed to further new and more extensive uses of the natural and other resources of the state and designed to develop new products and industrial processes.

3. Serve as a center of public information for the State of Nevada by answering general inquiries concerning the resources and economic, residential and recreational advantages of this state and by furnishing information and data on these and related subjects.

4. Prepare and publish pamphlets and other descriptive material designed to promote industrial development in Nevada, including a regularly revised industrial directory for the state.

5. Plan and develop an effective service for business information, both for the direct assistance of business and industry of

the state and for the encouragement of business and industry outside the state to use economic facilities within the state, including readily accessible information on state and local taxes, local zoning regulations and environmental standards, the availability and cost of real estate, labor, energy, transportation and [vocational training] occupational education and related subjects.

Sec. 13. NRS 233D.060 is hereby amended to read as follows:

233D.060 The council shall:

1. Study the needs of all children and assist in planning for the improvement and most effective use of voluntary and tax-supported programs at the state and local levels.
2. Study programs for children in Nevada and in other states, and make reports and advise public and private bodies throughout the state on matters relevant to the protection, growth and development of children.
3. Advise state departments concerning programs relating to the well-being of children.
4. Make recommendations on needed legislative action on behalf of children.
5. Promote adequate educational services and training programs for children, including exceptional children, in all parts of the state.

6. Promote social service and [vocational] occupational guidance, training and placement for all children who require them, including exceptional children and those youth who leave school [prior to high school graduation,] without being graduated from high school, and promote adequate special facilities for children maladjusted to their home surroundings.

7. Promote adequate provisions throughout the state for diagnosis and treatment of children who may require special medical services.

8. Conduct statewide conferences concerning programs for children and youth services.

9. Publish such pamphlets and other material as it deems necessary or desirable concerning the work of the council and make an appropriate charge therefor.

Sec. 14. NRS 277.065 is hereby amended to read as follows:

277.065 1. Within the limits of [appropriated money,] legislative appropriations, the department of education, the county school districts of the various counties of the state, the Nevada youth training center bureau and the Nevada girls training center bureau of the youth services division of the department of human resources may enter into cooperative arrangements for the purpose

of improving the quality of the academic and [vocational] occupational education provided at the Nevada youth training center and Nevada girls training center.

2. This authorization includes the right to pay over money appropriated to the Nevada youth training center or Nevada girls training center to the department of education or to a county school district when necessary to accomplish the purpose of this section.

Sec. 15. NRS 435.230 is hereby amended to read as follows:

435.230 In order to qualify for the aid provided for by NRS 435.130 to 435.320, inclusive, a center must:

1. File an application with the division for a certificate of qualification, which [shall] must include:

(a) The name and address of the center.

(b) The names, addresses and qualifications of the administrative personnel of the center.

(c) An outline of the educational, [vocational and care] occupational and therapeutic program to be offered.

(d) The number of [enrollees or expected enrollees.] persons enrolled or expected.

(e) An affidavit that the center is nonsectarian and a non-profit organization under the Internal Revenue Code of 1954 as amended (26 U.S.C. § 501(c)(3)).

(f) The number and qualifications of [staff personnel.] the staff.

(g) A complete and detailed proposed financial statement for the operations for the coming year.

(h) Any other information which the division may [, in its discretion,] require.

2. Each year after the original application is made under subsection 1, file an application for renewal of the certificate of qualification, which [shall] must contain:

(a) The information required by subsection 1.

(b) The total number of [staff members, enrollees] members of the staff, persons enrolled, and days of care and training that the center provided during the previous year.

(c) The number [of enrollees] enrolled and days of care and training that the center provided during the previous year to [such enrollees] those enrolled who qualify for aid under the terms of NRS 435.130 to 435.320, inclusive, and the standards established by the division.

(d) A financial statement clearly showing all income received by the center during the previous year and the sources thereof.

(e) Any other information that the division may [, in its discretion,] require.

3. Be inspected by a member or authorized agent of the division to determine [if] whether the center's facilities are proper and adequate.

4. Keep accurate records of daily attendance [records] and establish uniform financial statements and bookkeeping procedures as prescribed by the division.

5. Maintain standards not inconsistent with those required by NRS 435.130 to 435.320, inclusive, or established by the division to qualify for [funds] money from other sources, such as United Fund and United States Government programs.

6. Before certifying an [enrollee] applicant for enrollment as mentally retarded, require:

- (a) A documentary history of retarded overall functioning; and
- (b) Substantiation, through evaluation by a qualified diagnostic team.

7. Meet all other standards set by the division.

Sec. 16. NRS 435.300 is hereby amended to read as follows:

435.300 1. No center may receive aid under the provisions of NRS 435.130 to 435.320, inclusive, for [enrollees] persons enrolled who would otherwise qualify for care or training under [programs] a program offered to the mentally or functionally retarded in the school district in which [the enrollee] that person lives or by the county where [the enrollee] he lives.

2. The provisions of subsection 1 do not preclude aid on account of [enrollees] persons who are receiving [vocational] occupational education at any center in conjunction with a school's program of special education . [program.]

Sec. 17. NRS 563.030 is hereby amended to read as follows:

563.030 1. One member of the board [shall] must be a member of the teaching staff of the college of agriculture of the University of Nevada System;

2. One member of the board [shall] must be a member of the staff of the agricultural extension department of the public service division of the University of Nevada System;

3. One member of the board [shall] must be a member of the staff of the state board for [vocational] occupational education; and

4. Four members of the board [shall] must be persons concerned with the raising and improving of livestock in the State of Nevada, not necessarily stock raisers, selected as follows:

(a) Two persons [from the] whose interest is in cattle and sheep ; [industry;]

(b) One person [from the horse industry;] whose interest is in horses; and

(c) One person [from the dairy industry.] whose interest is in dairying.

All members [shall] must be residents of the State of Nevada.

Sec. 18. NRS 563.100 is hereby amended to read as follows:

563.100 1. The Nevada junior livestock show board shall each year conduct the junior livestock show, the Nevada youth livestock and dairy show and the Nevada state horse program at places to be determined by the board.

2. To enter any exhibition named in subsection 1, a person must be:

(a) Certified by the state 4-H club leader or the state supervisor of [vocational] occupational agricultural education; and

(b) Under 19 years of age except that the board, upon considering the requirements of a specific event involved may allow entry by a person 19 years of age or older who is registered as a regular student in an animal science course under the University of Nevada System.

3. Entries of animals in any exhibition named in subsection 1 are limited to those owned or controlled according to [exhibition requirements.] the requirements of the exhibition.

Sec. 19. NRS 610.030 is hereby amended to read as follows:

610.030 1. A state apprenticeship council composed of seven members is hereby created.

2. The labor commissioner shall appoint:

(a) Three members who are representatives from employer associations.

(b) Three members who are representatives from employee organizations.

(c) One member who is a representative from the general public, who, before his appointment, must first receive the unanimous approval of the members appointed under the provisions of paragraphs (a) and (b) of this subsection.

3. The state official who has been designated by the state board for [vocational] occupational education as being in charge of trade and industrial education [shall be] is an ex officio member of the state apprenticeship council but [without a] may not vote.

Sec. 20. The legislative counsel, in preparing the supplement to the Nevada Revised Statutes, with respect to any section which is not amended by this act or is enacted or further amended by another act shall appropriately correct any references in a manner consistent with this act.

SUMMARY--Urges school districts in smaller counties to cooperate for provision of vocational education. (BDR 223)

CONCURRENT RESOLUTION--Urging the school districts in the smaller counties to cooperate with each other to establish regional programs for vocational education.

WHEREAS, Of every ten pupils who are graduated from high school, only five will attend a community college or university and only two will attain a baccalaureate; and

WHEREAS, Eighty-four percent of all jobs in the United States do not require a baccalaureate; and

WHEREAS, Vocational education during high school can provide pupils with the training and development required for the vast majority of jobs in this state; and

WHEREAS, A program of vocational education can aid an area's economic development by providing trained and more productive potential employees suitable to attract new businesses; and

WHEREAS, Nevada's smaller counties are economically unable to establish individual programs for vocational education; and

WHEREAS, Cooperative programs of vocational education which use existing facilities would be more economically feasible; now, therefore, be it

RESOLVED BY THE OF THE STATE OF NEVADA, THE

CONCURRING, That the school districts in counties whose

respective populations are less than 100,000 are urged to work in cooperation to establish regional programs for vocational education using existing facilities; and be it further

RESOLVED, That copies of this resolution be prepared and transmitted forthwith by the legislative counsel to the board of trustees of each school district in a county whose population is less than 100,000.

SUMMARY--Makes appropriation to state board for vocational education for allocation to county school districts.
(BDR S-240)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance:
Contains Appropriation.

AN ACT making an appropriation to the state board for vocational education for allocation to county school districts for the purchase of equipment for vocational education; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. There is hereby appropriated from the state general fund to the state board for vocational education the sum of \$3,000,000 for allocation to the county school districts for the purchase of equipment for vocational programs.

Sec. 2. The money appropriated by this act may be used only for that by the school districts to which it is allocated. Each county school district may submit one request for such an allocation.

Sec. 3. Any remaining balance of the appropriation made by section 1 of this act must not be committed for expenditure after June 30, 1987, and reverts to the state general fund as soon as all payments of money committed have been made.

SUMMARY--Makes appropriation for programs of vocational education. (BDR S-243)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: Contains Appropriation.

AN ACT making an appropriation to the state distributive school fund for programs of vocational education; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. 1. There is hereby appropriated from the state general fund to the state distributive school fund created pursuant to NRS 387.030 the sum of \$6,330,866.85 for apportionment by the state board of education to the county school districts for the promotion, extension and improvement of programs of vocational education.

2. Any remaining balance of the appropriation made by section 1 of this act must not be committed for expenditure after June 30, 1987, and reverts to the state general fund as soon as all payments of money committed have been made.