

Educating Students for the 21st Century

Over the next decade there will be significant and beneficial restructuring of America's kindergarten-12th grade (K-12) education system. Minnesota has a striking opportunity to be a leader of this effort and to achieve major gains in the quality and cost-effectiveness of its education system. It should seize the opportunity.

CA:
Nov. 1984



minnesota
business
partnership, inc.

The Minnesota Business Partnership (MBP) was founded in 1977 with this purpose:

To help identify and analyze the state's longer-range economic issues and help set priorities and plans for action, and to participate in creating a political consensus between business and government and other groups in our society to help address these economic issues.

In 1985, the fundamental touchstone for the MBP still is increasing economic prosperity for citizens across the state. In our view, the best measures of prosperity are jobs and personal income. Because of the overriding importance of jobs and personal income, the MBP focuses its attention on issues which have the most significant impact on their growth.

Education is one of those issues. The performance of our companies depends on the ability of the people we attract to manage our businesses, and that ability is sharply influenced by the quality of their education. Minnesota offers numerous examples of how well our education institutions perform their varied tasks. But

the performance of our kindergarten-12th grade (K-12) education system in Minnesota and nationally is slipping as measured by objective criteria.

Because of this, the MBP commissioned a major study of K-12 education in Minnesota. Our consultants, BW Associates, have set forth a challenging agenda for education reform. We hope it will be debated vigorously and discussed widely. Above all else, we hope that it will force policy-makers to come to grips with the need for fundamentally restructuring education to meet the needs of the future.

One of the most striking qualities of Minnesotans is our genuine belief in our ability to work together to shape our future. We look forward to doing our fair share and more in making Minnesota the very best state in the nation.

H. B. Atwater, Jr.
Chairman and CEO
General Mills, Inc.
Chairman, Minnesota Business
Partnership

November 12, 1984

To the People of Minnesota:

The young people of our state face a future of enormous promise...and considerable challenge. A future that will provide ample rewards for the productive and innovative...yet require continual adaptation due to its rapid change and increasing complexity. A future that requires the best possible education.

The young people of Minnesota have a right to that education. And we owe them nothing less.

We members of the Minnesota Business Partnership decided nearly two years ago that we needed help in assessing the condition of Minnesota's kindergarten-12th grade (K-12) system. We commissioned BW Associates, a respected education consulting firm based in Berkeley, Calif., to analyze the system's effectiveness, and if necessary, make recommendations for improvement.

BW Associates' study confirmed the impressions of many in the state...that the K-12 system has produced good results over the years. But it also found cause for real concern...a long-term decline in test scores, increased remediation, and diminished skills in problem-solving, reasoning and communicating...the very skills our young people will need most.

The BW Associates' recommendations suggest to us that a fundamental restructuring of the system is required, based on:

- *student mastery of core courses in mathematics, science, social studies and communication skills, not time spent in class*
- *greater opportunity for teachers to teach, counsel and work with individual students*
- *measurement of student achievement and school effectiveness through statewide testing*
- *increased choice for students in grades 7-12 among elective programs and providers, consistent with their post-secondary interests*
- *vesting responsibility for school management and governance to the maximum possible extent in local schools and local communities*

The BW Associates' recommendations represent an integrated and detailed plan of action that can be implemented over time without serious dislocation. They incorporate many innovative reforms either used or tried with considerable success in Minnesota and other states.

The recommendations certainly will require adjustments on the part of many involved in Minnesota education, and we anticipate they will not be met with universal favor. Nevertheless, we believe they deserve careful consideration, and we hope they will be viewed as an integrated system of evolutionary reforms that can raise the K-12 system to an even higher level of efficiency and effectiveness.

BW Associates believes that Minnesota may be in a unique position to establish a new standard for academic excellence based on a wealth of fine teachers and administrators and an unwavering commitment to education among the people of this state.

We agree.

And we offer this report with the hope and expectation that it will make a significant contribution to preparing our young people for important contributions and personal satisfaction in this new era of our country's development.

Sincerely,



L. W. Lehr
Chairman and CEO
3M
Chairman, Minnesota Business
Partnership
Educational Quality Task Force

The Problem

The future requires higher student performance

There has been a slow but steady erosion in Minnesota student performance, with danger signals such as these accumulating for more than 20 years:

- Declining student test scores
- Sharply expanded remedial course work in post-secondary schools
- Growing employer dissatisfaction with the skills of new employees
- Young people who feel unchallenged and unfulfilled by their high school experience.

Education achievement in Minnesota and the United States has been drifting downward for many years. When statistical adjustments are made to account for differences in student test taking populations, Minnesota high school students now score only at the national average in verbal areas and only slightly above average in mathematics. Ten years ago, Minnesota high school students ranked higher relative to the nation.

Furthermore, this average is neither high enough in Minnesota, nor in the nation. Students can achieve more and learn more in-depth.

Employment opportunities are likely to be greatly influenced by global competition and the influx of new technologies into the workplace. Minnesota's continued economic prosperity will require highly skilled managers, scientists and technical experts as part of a work force that, on the whole, must think and solve problems creatively and learn continually.

This glimpse into the future helps to place the current level of student performance in perspective. What was once good is now barely acceptable and will be inadequate as demands for more effective education increase. The challenge is not simply to prevent further erosion of Minnesota's present level of education, but to move to a new plateau — one that reflects a fuller realization of youth's potential and establishes Minnesota as the leader in the revitalization of American education.

What Must be Done

The BW plan's essential elements

Minnesota has a strong base on which to rebuild its education system. We have many fine teachers and capable administrators.

Our primary problem is that Minnesota schools are asked to do too much. The curriculum is too broad, covers material at insufficient depth, and lacks focus. As a result, students have difficulty learning, developing reasoning skills, and preparing for the future.

Also, teachers are burdened with too many non-teaching tasks. Consequently, they lack the opportunity to really get to know and work with each student.

Many students graduate ill-prepared for either work or further education.

Without changing the organization of schools, these problems will persist and, indeed, worsen in the face of future demand. Piecemeal reform or adding more money will not help. It is time for major restructuring.

This program offers a plan for educational excellence in Minnesota, which includes these essential elements:

- Learning based on mastery of core courses
- Reorganizing teaching roles and instructional management
- Restructuring grades 7-12 to provide *both* greater focus and student choice
- Measuring student performance and school effectiveness
- Decentralizing authority for school governance and management
- Keeping real (inflation-adjusted) spending constant while the program is being implemented

These kindergarten-12th grade (K-12) education reforms are described in greater detail on the following pages.

Educating Students For the 21st Century

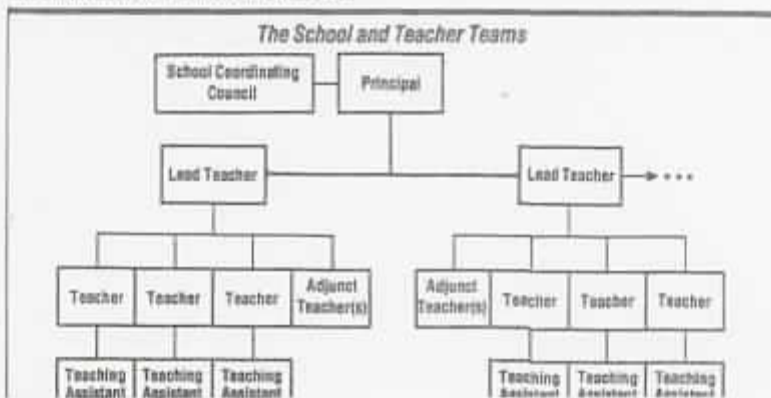
Learning based on mastery of core courses

Minnesota students can achieve more, learn more in-depth, and learn to learn. The first step is for education to aim for all students to achieve a high, agreed-upon level of competence in core subjects—communications (reading and writing), mathematics, science and social studies. Students from kindergarten - 10th grade would follow an individualized learning program designed to help them realize their full potential. Teachers would be specially trained to apply methods of learning geared to mastery of subjects and the needs of each student. Unlike the current system, grade promotions would be made on the basis of academic achievement, rather than time spent in class. All students would be expected to learn. Those who fall behind would receive extra help from teachers and other students. Those who can learn more would be given advanced work.

Reorganizing teaching roles and instructional management

The importance of the teaching function

must be elevated in every conceivable way to give teachers a new and deserved status. Non-teaching responsibilities now performed by teachers should be transferred to non-teaching personnel. The practical result of the new system would be a better ratio of students to teaching adults than in the current system. The use of high technology would be expanded as an education support tool, as would the practice of students instructing students. The plan proposes a different management of teaching that would emphasize teacher teams composed of a lead teacher, teachers, teaching assistants and adjunct teachers. Different levels of training and achievement would be required in each of the four roles. The teacher would manage all teacher teams. The principal and lead teachers would serve on a school coordinating council, which among other things would help select curriculum, organize teacher teams, and set guidelines for teacher team performance evaluations. Teachers themselves would have primary responsibility for evaluating teacher performance.



Educating Students For the 21st Century

Restructuring grades 7-12 to provide both greater focus and student choice

Students in grades 7-10 would concentrate on the core subjects, plus additional course work determined by the local school officials. In addition, they could choose elective courses, including those offered by other schools or approved outside providers. In grades 11 and 12, pupils would have the opportunity to choose from a variety of alternative education programs. Examples might include college preparatory programs in liberal arts or science/math, vocational/technical programs or performing arts concentrations. School districts would be encouraged to provide appropriate specialized offerings to their 11th and 12th grade students, as would other public or private vendors approved by the state. Counseling to assist student choice would be the responsibility of each student's teacher team.

Measuring student performance and school effectiveness

The State of Minnesota should develop uniform, statewide tests that would be given to all students at the end of elementary school, grade six, and at the end of the 10th grade. These tests would measure students' mastery of the core subjects and would provide a means for the public to assess the effectiveness of teachers and administrators. Testing administered at regular intervals in grades K-10 would help teacher teams develop or refine individual learning programs based on the student's progress. Unlike much of today's testing, the new examination would measure the depth of student learning and the ability to solve problems and think creatively.

<i>The New 7-12 System</i>					
Common High School				Specialized Education	
Grade					
7	8	9	10	11	12
Core Courses 50%				State Exam	Student Choice 100%
Local Option 33%					
Student Choice 17%					

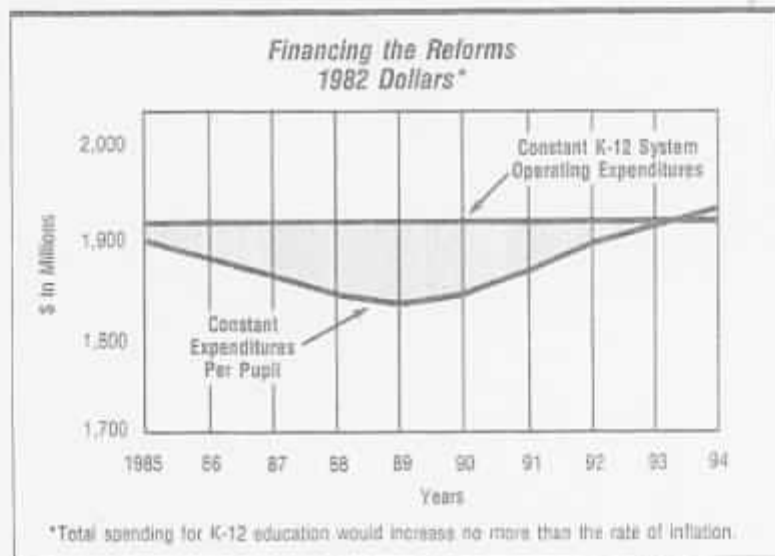
Educating Students For the 21st Century

Decentralizing authority for school governance, management and curriculum

To achieve a level of performance consistent with the goals and objectives of individual school communities, responsibility for managing the system should be at the level where the educational product is delivered. This is commonly referred to as site-based, or school-site management. It means that individual schools would establish governing bodies to guide the principal in shaping the educational style and elective offerings of each school. The district would establish overall policy, financial controls and the allocation of resources among individual schools in the district. This system recognizes the school principal's crucial role and provides for meaningful participation by those directly affected.

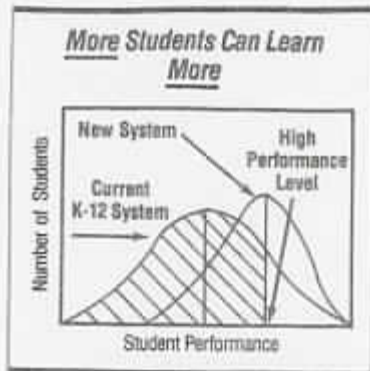
Keeping real (inflation-adjusted) spending levels the same while the program is being implemented

Given projected declines in high school student enrollments, the program can be implemented over a 7-10 year period with no increase in real (inflation-adjusted) spending. The districts would maintain approximately their present level of per-student spending, adjusted for inflation, while the dollars made available from declining enrollments would fund the transition costs of the system.



When All is Said and Done

The strongest argument for implementing the proposed education reform plan is the expected, substantial increase in student achievement. Research and experience in thousands of classrooms across the nation and in other countries indicate that the combination of changes recommended in this plan could result in the average student performing better than 80 percent of students in the current system. Moreover, Minnesota can expect that very few students will perform poorly, and many more will learn to solve problems and think creatively.



How do We Get There from Here?

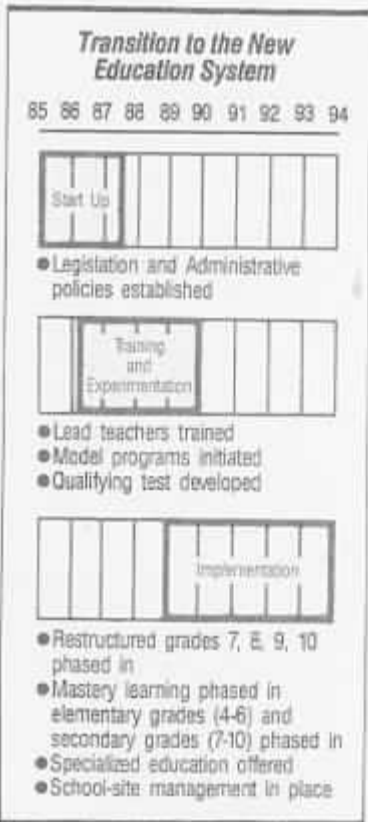
Creating a restructured, cost-effective kindergarten-12th grade (K-12) system centered on the education fundamentals for the 21st century will take time, but we must begin the process of change now.

In 1985, the Legislature will be asked to consider the following first steps:

- Limiting the state's role in establishing what is taught, how it is taught, and other details on the way in which teaching occurs to a requirement that schools focus their curricula on mastery of basic subjects (reading comprehension, writing, math, science and social studies) through 10th grade
- A required statewide test to measure mastery of these basics
- Legislation to enable the creation of teacher teams headed by lead teachers and to provide training in mastery learning.
- Legislation enabling pilot programs in school-site management

In addition, the BW Associates report demonstrates that its proposed reforms can be achieved and paid for while limiting the growth in the aggregate level of state funding for K-12 education to the rate of inflation without reducing the level of per pupil support, because of projected enrollment declines over the next several years.

The plan, *Educating Students for the 21st Century*, presents Minnesota with a clear opportunity to set a national precedent for educational excellence. If these initiatives are accepted in 1985, important progress toward a more effective K-12 system will be made. The remaining reforms can then be phased in over the next 7-10 years, according to the following implementation schedule:



The Student Performance Problem in More Detail

Evidence suggests a diminishing return on Minnesota's investment in kindergarten-12th grade (K-12) public education — and it is Minnesota children who are being shortchanged.

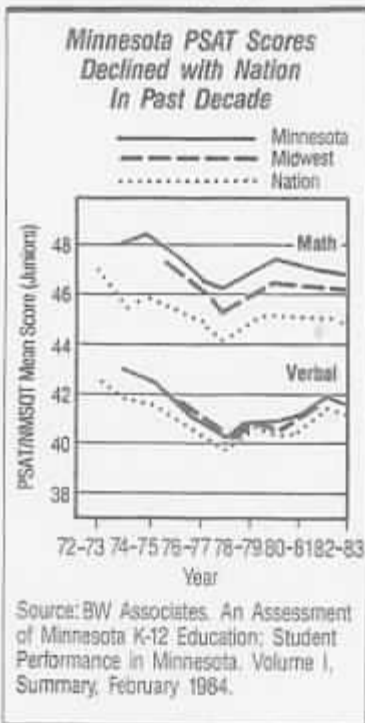
This comes as unexpected news to a state with long-standing pride in its commitment to academic excellence. Minnesota traditionally has been a leader in terms of its nationwide percentage of students completing high school and its exemplary performance on national tests.

Even so, our education performance appears to be declining, along with the nation's. Statistics show that while Minnesota students' performance is still strong, it is not as strong as it once was. And, even more important, it appears to be weakening.

Warning signals from Minnesota's present educational system include the sharply increased need for remedial coursework in post-secondary schools and increasing percentages of young people who feel unchallenged and unfulfilled by their high school experience, as determined through interviews with students and teachers.

A more obvious sign of the system's growing ineffectiveness is one detected by the 1984 BW Associates study of K-12 education in Minnesota: a decline in Minnesota students' national test scores.

Data for college-bound students show that Minnesota students perform about the same as those of the Midwest and the nation in verbal skills, but they have declined with the rest of the nation over the past decade. In mathematics, Minnesota scores are slightly above average but have also demonstrated the same patterns of decline as have other states.



An analysis of Scholastic Aptitude Test (SAT) and American College Testing (ACT) data over the last decade indicates "a marked decline in Minnesota's average verbal score and a slight decline in mathematics," according to BW Associates. In other words, the state's highest achieving students are not doing as well as they once did. An analysis of scores on the Minnesota state test, the Minnesota Educational Assessment of Progress (MEAP), also shows that high school students may be deficient in essential higher-order thinking and reasoning skills.

"Higher order" skills are those required to conduct such basic tasks as calculating mortgage rates, writing clear letters and interpreting written directions. Paul Berman of BW Associates points out that "today's higher order skills will be tomorrow's basic intellectual requirements." As our society becomes more and more complex, deficiencies in these areas become increasingly critical. And yet, when a group of Minnesota 17-year-olds was recently asked to identify the main idea in a written passage, only 31 percent were able to answer correctly.

Consider this performance in light of a 1984 survey of Minnesota Business Partnership (MBP) companies. In that study, 84 percent of the respondents identified writing as the most important area for improvement. That is, MBP respondents viewed writing skills as a key requirement to function well in most occupations. Nevertheless, 42 percent of the companies said that 10 percent or more of their new professional and technical employees do not have adequate writing skills when hired.

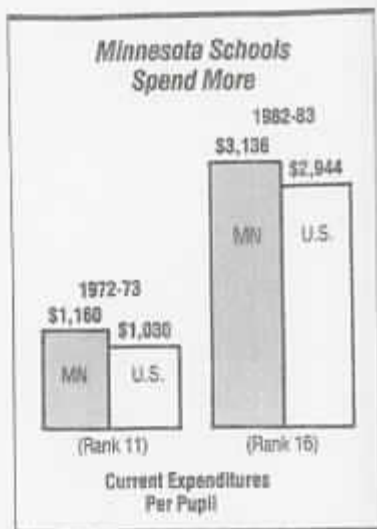
Clearly, these trends must be reversed if our students are to enter successfully a global marketplace that is becoming ever-more rigorous and competitive.

Will the Plan Require More Spending?

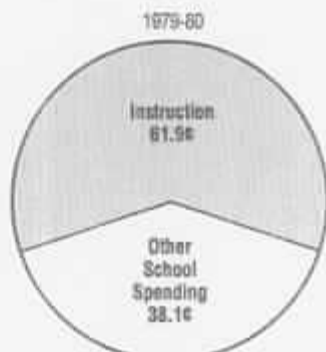
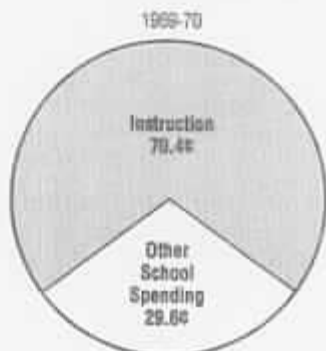
No. The plan would cost no more than the current system. But it would be more cost-effective because of higher student achievement.

There will be costs associated with the transition from the old system to the new. However, given projected declines in high school student enrollments, the program can be implemented over a 7-10 year period, with no increase in real (inflation-adjusted) spending.

Furthermore, additional spending is not needed because Minnesota is already generous with its funding of elementary and secondary education. In fact, Minnesota elementary and secondary schools spend more on a per pupil basis than most in the country. What's more, per pupil expenditures in real (inflation-adjusted) dollars increased 21.8 percent between 1973 and 1983.



**Less of Minnesota's
Education Dollar Goes to
Instruction than
10 Years Ago**



Share of Minnesota Public
School Spending

Other school spending includes transportation, food programs, student activities, plant operations and maintenance, fixed charges, administration and tuition/transfers.

Source: BW Associates, "An Assessment of Minnesota K-12 Education; The

If there is a problem in school spending, it is in how funds are being allocated. Public schools in this state reduced the share of their budgets allocated to actual instruction during the 1970s.

A key factor in the shift of school spending from instruction to other activities is the increased use of categorical aids by state government. Categorical aids are targeted to fund a specific service, such as transportation. The relative increase in categorical aids spending means that local school districts have less control over their spending. In summary, more of the state and local tax dollar is being allocated to state-mandated programs and less to improving the basic education of all students.

The Experts Behind the Study

BW ASSOCIATES

The programs and goals adopted by the Minnesota Business Partnership (MBP) over the years are direct expressions of its members' concerns. The philosophy of the MBP has always been to draw on the knowledge and experience of experts as the basis for formulating credible public policy agendas, based on those concerns. The study of kindergarten-12th grade (K-12) education in Minnesota is in that tradition.

In 1983, the MBP retained BW Associates, a California consulting firm, to conduct an in-depth study of education in Minnesota and to develop a comprehensive, long-term plan for its improvement.

BW Associates was formed in 1980 and specializes in education research and policy analysis. One of the firm's most notable accomplishments is its study of California's K-12 education system for the California Business Roundtable. This study played a major role in the development of education policy by the California business group and was the basis for many of the changes enacted by the California Legislature in 1983.

BW Associates has since completed their analysis and recommendations concerning Minnesota's K-12 system. The result is a definitive analysis of the K-12 public education system in this state, along with a well-founded, concrete set of progressive recommendations for revitalizing its education structure.

More on the Subject

Questions and answers regarding the BW Report on K-12 education in Minnesota

The reforms proposed by BW Associates depart enough from present practice to raise legitimate concerns about their impact. The following questions and answers address a broad spectrum of those concerns and should serve to alleviate them.

Overriding Concerns

1 Q. Would student performance really improve enough to justify the major changes being recommended in this plan?

A. Yes. In situations where mastery learning programs have been carefully implemented, student performance has increased dramatically. As explained in the BW Associates report on kindergarten-12th grade (K-12) education in Minnesota, it is estimated that by shifting to mastery learning, the average student in the proposed system could achieve at a higher level than 80 percent of students in the current system. In addition, the reforms would increase parent and community involvement in schools, which has a direct

effect on school performance. Teacher preparation would become more challenging. The job would pay more, and the field would be more professionally organized. This all adds up to heightened student learning.

2 Q. Is Minnesota's education system in crisis? Why seek major reform?

A. The evidence is convincing that student academic performance peaked in the mid-1970s and has been declining since, even though education funding has increased. Minnesota has rarely waited for a crisis to materialize before taking action. This state must take advantage of its opportunity to act now before the future overwhelms its education system.

3 Q. Under the proposed reforms, what happens to the school-based athletic and social activities that are so essential to the well-rounded development of youth and to community cohesion?

A. In the transition years, little change is anticipated. As the system changes, the activities would continue as they are now in grades 7-10. Once the new system is in place, districts would have the option to maintain current co-curricular programs in grades 11 and 12 — and it appears that

many, if not most, would. In addition, because of the greater flexibility proposed for grades 11 and 12, the schools and districts would have the option to shift selected activities to community-based organizations, in order to concentrate on education priorities.

4 Q. Are there places in Minnesota where parts of the plan have already been implemented? If so, how successful are they?

A. Of the major components of the plan, it is diagnostic testing that has been most fully implemented. Also, the Bemidji, Minneapolis, North St. Paul and Roseville districts all have incorporated mastery learning into their approach to education. There are also many other programs in place that are compatible with the reforms and could easily mesh with the new system, for example:

- Minneapolis Magnet Program
- Educational Cooperatives Service Units shared teaching on special subjects (ECSUs)
- Teacher partnerships in the Buffalo School District
- School management projects funded by the Northwest Area Foundation

- McKnight Foundation and Public School Incentives

- Teacher sharing on a regional basis among smaller school districts

- The use of technology to provide students learning opportunities on specialized subjects

5 Q. Are there other states or areas in the country that have moved toward the education reforms proposed in this plan?

A. New York has a well-used state qualifying exam. Chicago's mastery learning program in reading is also exemplary. And numerous states apply variations of the teaching team concept, for example, California. However, the recommended program is unique because it links several of these reform elements into a comprehensive proposal.

6 Q. The restructuring of grades and the provisions for student choice in the plan are directed at high schools. What about elementary schools?

A. The best way to improve Minnesota elementary schools is to reform instruction and management. The plan would do this by establishing high standards for all elementary grades, requiring the statewide

test at the end of grade 6, phasing in mastery learning in grades 4-6, setting up teacher teams, providing teacher assistants, installing school-site management and requiring elementary school boards of education.

7 Q. How does the proposed K-12 education system mesh with programs at the state and national higher education level?

A. The higher education system includes extremely selective colleges and universities, as well as institutions which are open to everyone, regardless of academic history. In the past decade, remedial course offerings in Minnesota post-secondary institutions have increased dramatically, with most offering high school and pre-high school math, reading and writing. It is anticipated that students, whether they go to vocational/technical institutes or to college, would be better prepared for them than under the current system. Students could attend Area Vocational Technical Institutes (AVTIs) for their 11th and 12th grade specialized education, or go to intensive college preparatory programs, which would increase their chances of entering

selective institutions. We anticipate closer cooperation among all levels of education and elimination of duplication.

8 Q. How would state-mandated services be affected under the new education system, if it is implemented?

A. The plan complies with state law affecting these services. The BW Associates plan reforms are based on the principle of education equality for all students. The proposed reforms would seek to provide equity and opportunity through the mastery learning approach. With this approach, more special needs could be met in the classroom.

9 Q. What about desegregation requirements?

A. All of the reforms can and would be accomplished in keeping with the legal guidelines surrounding integration. The new system would go even further toward equal education opportunity by assuring that every student masters the same core subject matter.

Restructuring the Learning Process

10 Q. Who would be responsible for determining core subject matter?

A. The essential goals of the core learning program — science, math, communications (reading and writing) and social studies — would be state-mandated, with input from teachers, parents, administrators, students and board members. Specific requirements would be developed by districts and schools.

11 Q. Why is mastery learning so important?

A. The mastery learning concept provides a set of assumptions and techniques related to the learning process that have proven extremely effective in increasing student performance. The concept assumes that all students are capable of a high level of academic proficiency, if they are provided with clear expectations, instruction suited to their own learning needs, frequent testing and feedback, and individual attention. Students who fall behind receive more attention until they catch up. Advanced students receive more material in-depth and have the opportunity to teach others. The entire class, both teachers and students, are motivated to ensure that all students master the subject matter materials prior to promotion.

12 Q. Who would create the statewide tests for accountability?

A. The Minnesota Department of Education would have primary responsibility for creating the tests, working closely with teachers and with testing specialists. Once the tests are developed, their use would be authorized by the state Board of Education, which would maintain any public data necessary to ascertain results, in conjunction with the state Department of Education.

13 Q. Would a student's performance on the 10th grade state qualifying test be used as the basis for graduation or as the basis for the stipend to fund 11th and 12th grade education alternatives?

A. No. Graduation requirements would be determined by the district. The same holds true for the sixth grade elementary test. The requirements for receiving the stipend would be:

1. The student must take the 10th grade statewide qualifying test
- and—
2. The student must be over 16 or have completed local graduation requirements.

The qualifying test serves only to clarify expectations and measure performance. One would receive the stipend no matter how he or she scores on it.

14 Q. How many times would a student be allowed to take the state qualifying test at the end of the 10th grade?

A. There would be no restrictions placed on the number of times a student can take the test, other than the frequency of its scheduled administration. Students would be encouraged to re-take the test if they scored low, as a means to increase mastery of core subject matter.

15 Q. How would a student's performance on the state qualifying test affect his or her options for further study or work? Would the test be used to determine which academic or career track a student pursues?

A. The impact of the student's score on his or her future education and employment opportunities would depend on the manner in which employers and educational institutions choose to utilize this information. Employers, as well as providers of specialized and higher education, may set minimum scores for hiring or admissions purposes, as they see fit. However, the state would ensure that public institutions do not use test scores in a discriminatory way.

16 Q. Who would have access to the results of the statewide qualifying test, and how would they conceivably use them?

A. Individual scores on the qualifying test are personal and confidential. As such, they may be requested as part of job or schooling applications, but would not be made public without the student's permission. However, aggregate scores by school, class and subject matter would be public information, and would be available to provide a basis for judging the performance of schools.

17 Q. How would the system benefit the rural schools and districts, as opposed to urban and suburban districts with their varied and accessible opportunities for study outside the school?

A. Rural, even more than urban, schools would benefit from being able to concentrate their resources on mastery of the core areas, rather than providing extensive mandated course offerings. Also, even the smallest and remotest of districts exist within communities that provide rich learning resources, for example, agricultural extension, 4-H youth development programs and small businesses. Students could utilize these resources for credit. In addition, adjacent districts could specialize. Educational Cooperatives Service Units (ECSUs) could expand, and more resources could be allocated to technology to expand the information base of local schools.

18 Q. *How would the system assure the competency of education providers outside the school?*

A. Organizations seeking to provide specialized education for grades 11 and 12 would need to be accredited by a statewide authorizing agency. Applicants would be provided information on educational objectives, program staffing, qualifications and accounting procedures. This registration would provide a base of information to check against possible complaints. The authorizing agency would develop guidelines to assist district and local school boards in reviewing qualifications of outside providers for grades 7-10, which these boards would certify as meeting acceptable standards of quality.

Reorganization of Teaching

19 Q. *How would the teaching role change under this plan?*

A. Teachers would be part of differentiated teams, headed by lead teachers and supervised by the principal. The counseling role would be integrated into the teacher team. Paperwork would be delegated to teaching assistants. Curriculum offerings would be derived through the school coordinating council and teacher team meetings. Training, staff development and evaluation would emphasize effective use of mastery learning to increase student achievement, especially in higher order skills.

20 Q. *How would the infusion of "adjunct" teachers, most of whom would have dual careers, benefit the new education system?*

A. Adjunct teachers would be persons the schools identify as having special expertise that would be beneficial to students. They would be hired on flexible, short-term contracts to bring this expertise into the classroom. They would be people from business, industry, the professions, crafts or trades who could link student learning to the "real world." Thus, they would provide insight into the practical applications of knowledge within the context of the working environment. They could also share some of the latest knowledge developments.

21 Q. *How would the plan's reforms benefit teachers?*

A. The plan proposes that teachers receive salary increases that could amount to more than 70 percent over a 10-year phase-in of the reforms (assuming an inflation rate of 5 percent). The raises include a cost of living adjustment and a 6 percent increase in salary. Lead teachers would in addition receive a 20 percent raise. Teachers would have more control over their professional activities. Opportunities for advancement would exist within the profession. New teachers would be more stringently selected and rigorously trained. Teachers would work closely with other teachers, increasing their access to support, criticism and, hence, professional growth.

22 Q. *Would there be an increase in number of students per teacher?*

A. There would be more adults with teaching responsibilities, thus the number of students assigned to teaching adults would be reduced.

23 Q. *How would teacher training be shaped?*

A. Teachers would need a master's degree, consisting of a two-year professional preparation program concentrating on mastery learning and practical teaching experience. Teacher candidates would have to pass a state examination, serve a three-year apprenticeship with a lead teacher, and be evaluated by a teacher assessment panel.

24 Q. *What "non-teaching" functions would be transferred to others in the system? When?*

A. Teaching assistants would take over many of the "non-teaching" functions. They would help prepare and distribute curriculum materials, assist teachers with classroom management and everyday clerical tasks (for example, attendance), correct and record results from student diagnostic tests, and assist with homework assessment.

Decentralization of School Management

25 Q. *What functions would the local school boards and school coordinating councils perform? How would they be set apart from the district school boards?*

A. School coordinating councils would be composed of the principal, department heads and lead teachers. They would select the curriculum, subject to the approval of school-level community boards; organize teacher teams and class assignments; and establish school schedules and guidelines for teacher team performance evaluations and staff development. School-level governing boards would be made up of parents and members of the local community. These governing boards would be elected by the public and at least half of the members would be parents. They would oversee the school coordinating councils. One board would be elected for each school in the district, which would still have a district school board.

26 Q. *How would the role of district school boards change under the proposed plan?*

A. District school boards would be charged with hiring the superintendent and setting overall district policy. The board would determine the fiscal support needed to be raised by local taxes. Allocations of funding to each school would be made according to agreed upon goals and objectives. As a general rule, it is anticipated that district school boards would focus more attention on educational policy, determining the standards for performance and graduation. Relatively less time would be devoted to the school's line-by-line budget and operating decisions.

27 Q. *How would the role of district superintendents change under the proposed plan?*

A. Superintendents would select principals subject to acceptance by school governing councils. In addition, the superintendent's role would include overseeing the performance of each school; assisting in the creation of acceptable standards of performance; assisting in the development of specialized courses; and securing qualified providers.

28 Q. *How would the role of the state Department of Education change under the proposed plan?*

A. The state Department of Education would be responsible for assessing the overall performance of Minnesota's K-12 system. Based upon analysis of the qualifying test results and other input from teachers, administrators and parents, the Department of Education would report regularly to the state Legislature and the state Board of Education on necessary changes in the system to increase student performance. The Department of Education would have the responsibility for developing teacher training and for assessing the quality of outside providers with whom school districts could contract for particular course work. As is presently the case, it is expected that most data permitting ongoing assessment of performance would be collected, analyzed and reported by the Department of Education.

29 Q. *How would the role of education committees in the state House of Representatives and Senate change under the proposed plan?*

A. Education committees in the Legislature would concentrate on overall financing needs for K-12 education in Minnesota. As is presently the case, the committees would be responsible for developing an overall state financing plan for recommendation to the governor. Because of the higher level of accountability and better student performance, it is expected that the committees would also focus on broad education policy issues.

Concerns About Financing

30 Q. What are the details concerning funding of the transition and the new system?

A. The new education system would be no more costly than the current system, but would generate much higher student performance. Secondary school enrollments are projected to decline by 10 percent. The plan recommends that as this happens schools reduce their expenditures per student and that statewide K-12 education revenues be maintained at a stable funding level over the next decade. The resulting surplus, \$360 million (1982 dollars), would pay for the total transition costs.

31 Q. Given declining enrollments, how would the number of teachers change to make the system more cost-effective?

A. There would **not** be an addition of teachers. Rather, roles would be differentiated and more adults with teaching responsibilities would be added. The cost-effectiveness is gained by varying the ratio of students to teaching adults for different instructional purposes and by adding semi-professionals who could perform tasks currently done by teachers at less cost.

A Study on Education

HOW AND WHY

BW Associates conducted their study of kindergarten-12th grade (K-12) education in Minnesota in two phases. Phase I examined the current status of K-12 education in Minnesota, addressing the following statewide issues:

- The availability and adequacy of K-12 student performance data
- The academic performance of K-12 students
- The preparation of students for college and work
- The cost of K-12 education compared to costs in other states

During Phase II of the study, BW Associates developed their plan for improving K-12 education in Minnesota.

Throughout the year-and-a-half-long study, completed in October 1984, BW Associates' methodology included

examining literature and analyzing all available data. But mainly, they listened to the observations and opinions of those directly involved with education in Minnesota — teachers, principals, parents and students.

The BW Associates team completed its work in October 1984. Their results came to the Minnesota Business Partnership in several parts:

- An Assessment of Minnesota K-12 Education: Student Performance
Volume 1, Summary
Volume 2, Findings
Volume 3, Appendix
- The Cost of Minnesota K-12 Education
- Demand and Supply of Public School Teachers in Minnesota

BW Associates' plan is truly unique because it not only proposes a way to bring education into the 21st century, but it also provides a cost-effective opportunity to do so.

MBP Educational Quality (K-12) Task Force

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Apogee Enterprises, Inc.	Russell H. Baumgardner	William G. Gardner
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**Minnesota Business
Partnership, Inc.**



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The Minnesota Business Partnership is an association of chief executive officers of Minnesota-based corporations. It has two basic purposes:

- * To help identify and analyze the state's longer-range economic issues and help set priorities and plans for action
- * To participate in creating a political consensus between business and government and other groups in our society to help address these economic issues

To obtain copies of the BW Associates report on K-12 education in its entirety, contact: The Minnesota Business Partnership, 2406 IDS Center, Minneapolis, MN 55402. (612) 370-0840.

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Acknowledgments

We acknowledge the significant contributions of time and ideas from the staff of the state Legislature, the state Department of Education and statewide education leaders.

Special thanks go to 3M; Northwest Airlines, Inc.; Republic Airlines, Inc.; Carlson Companies, Inc.; Webb Company; Northern States Power; and First Bank System, Inc. for assistance, printing and materials.

A Mission for Minnesota Schools

The focus of our schools must be on students and learning.

The purpose of Minnesota's schools, kindergarten-12th grade (K-12), should be to facilitate each student learning to his or her highest level of attainment so he or she graduates skilled in the process of critical thinking, prepared for the responsibilities of citizenship and able to enter the work force. This purpose pertains whether a student continues in a formal post-secondary education program or moves immediately into the work force. Learning should provide students with basic skills, acquaint them with the wealth of knowledge that the human mind has discovered, and motivate them to use this knowledge, which will form the basis for enlarging their understanding of the world around them and for expanding the intellectual capacity and skills, which they will call upon during a life-long process of learning.

Formalized knowledge should be acquired through the study of curriculum that looks to the fundamentals of reading, writing, mathematics, science, citizenship and the arts, and prepares students for a world of rapid technological change in an increasingly competitive global economy.

Developed by: The Minnesota Business Partnership Educational Quality (K-12) Task Force