

ACADEMIC STANDARDS
IN PENNSYLVANIA

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KEY FINDINGS

By proposing voluntary state academic standards, Pennsylvania has joined a broad-based education reform movement that is sweeping the country. Over the last two years, 48 states have been developing common academic standards for their students. A commitment to standards-led reform has become quite strong across the nation. This report examines those approaches in greater detail and includes the following key findings:

- Although the academic standards set forth by Governor Ridge's Advisory Commission on Academic Standards this past June are voluntary, there has been some speculation that these goals will be made mandatory or that the state's participation in the federal Goals 2000 program will require that these standards be made mandatory. The Governor's education team has consistently maintained that the proposed standards be made voluntary and remain voluntary. A state is not required to adopt mandatory academic standards in order to participate in the Goals 2000 program.
- Federal funds received from the Goals 2000 program are too small to drive changes in the Ridge Administration's education reform plans. For example, in its 1994-95 fiscal year, the Commonwealth spent approximately \$12 billion on education; only three percent of this total represented federal funds. Only \$3.9 million of the federal monies were received from the Goals 2000 program. Therefore, the Goals 2000 funds were a mere one percent of the federal funding that Pennsylvania used for education in this fiscal year, and these funds were 1/300th of one percent of the total state education budget.
- The reasons for developing standards for all students were succinctly summarized by the National Council of Teachers of Mathematics in 1986. These reasons include ensuring quality, setting expectations, and establishing "criteria for excellence".
- Our nation has had a long history of setting academic standards. Sometimes these standards were overt and purposeful; at other times, implicit and haphazard. The public's desire for all children to have access to schools that offer a similar, high-quality education has been a major reason to establish standards.
- Since the 1960s, the widespread usage of standardized achievement tests relieved states and school districts of the necessity of consciously setting their own academic standards. Academic standards, however, became a national issue in 1975, when the College Board publicly noted that SAT scores had fallen steadily and sharply since 1963. They emerged as a national issue again in 1983, with the Reagan Administration's publication of *A Nation at Risk*. The United States has been struggling to reform and strengthen its primary and secondary education system since that time.

INTRODUCTION

During the last few years, one issue has emerged to dominate national, state, and local dialogue on education reform -- standards. Many people have come to believe that the best way to improve our schools is to set clear standards for what we want our students to learn and to use those standards to drive other changes in our educational system.

In the minds of many American teachers, the movement toward national standards and assessments seems like an unprecedented development. Conservative and liberal critics of this movement fear that it will lead to a federal takeover of curriculum; some observers, who are aware of the basic inertia of public education, argue that standards will not be able to improve education and will not be successfully developed and implemented.

BACKGROUND

Indeed, our nation has a long history of setting education standards. Sometimes these standards were overt and purposeful, at other times implicit and haphazard.¹ The current movement to develop standards is based upon a tradition of efforts to establish agreement on what American students should know, be able to do, and how to judge if the students have been able to achieve these ends.

The public's desire for all children to have access to schools that offer a similar, high quality education has been a major reason to establish standards. Throughout our national history, different types of standards have evolved to foster similarity in the quality of education by the following means:

- 1) The use of identical or similar textbooks;
- 2) The specification of requirements for high school graduation or college entrance;
- 3) The use of standardized achievement tests for promotion or college admission;
- 4) The prescription of curriculum patterns; and
- 5) The professionalization of teacher training, with shared norms and expectations (i.e., standards).²

Even though teachers periodically rebel against the constraints and stifling effects of standardization, conformity, and uniformity, teachers and lawmakers have spent a great deal of time attempting to create shared expectations, norms, and standards for the purposes of efficiency, equality, or both of these concepts. In fact, the effort to ensure equal access to a good education for all students requires some type of standards.

As early as the time period before the Revolutionary War, academic standards were present. During this time they existed by default since most students learned to read from a small number of books, such as *The New England Primer*. For decades, after the Revolution, Webster's blue-backed speller provided something resembling national

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standards. Webster's spellers set clear standards for spelling and pronunciation, and they were used by schools and by adults for self-education. In addition, Lindley Murray's *English Reader* was the text used across our new nation for the study of literature.

In fact, school reformers began to complain as early as the 1830s about the rapidly increasing number of textbooks in every field. Despite a proliferation of textbook options, the content of these books remained much alike. In some subject areas, such as reading, one or two series dominated the market, like McGuffey's reading books. Notably, the uniformity found in the textbooks extended to teaching methods.

Without any state or national testing systems, the only reliable standard for student performance in the United States during its infancy was provided by college admission requirements. Colleges had their own entrance requirements, and the president of the college or faculty members for specific subjects examined prospective students. With the passage of time, college entrance requirements became broader and more specific.

As the nation entered the final decade of the 19th century, however, many educators believed the addition of new subjects had turned the high school curriculum into an anarchic mess. Consequently, in 1892 in an effort to promote greater uniformity of curriculum in high schools, the National Education Association (NEA) created a panel called the "Committee of Ten" to make recommendations to improve the high school curriculum. The committee included Charles W. Eliot, Harvard University's president and one of the most esteemed educators of the era. While Eliot served as chairman of the committee, the committee's membership also included the U.S. Commissioner of Education and former superintendent of the St. Louis, MO school district, William T. Harris. Other members included four other college presidents, three high school principals, and one college professor.

In order to fulfill its charge, the Committee of Ten began its work by surveying 40 high schools to discover what courses were being taught. The Committee of Ten was the first national blue ribbon panel to study the curriculum of high school. The report of the Committee of Ten was a two-fold effort -- to establish new curricular standards for high schools and to alter the admission standards for college and universities. The Committee's final report was very effective in changing standards in both high schools and institutions of higher learning in the years following its release. The Committee went about its work by organizing nine subject matter conferences to examine each major subject and to make recommendations on how it should be taught, how teachers should be prepared, when it should be introduced, and how many hours each week and how many years should be devoted to each subject.

The Committee of Ten's final report proposed that all children, not just those who were college-bound, had the intellectual capacity to benefit from an education that included foreign languages, mathematics, history, science, and English. The Committee saw this as a curriculum that would prepare all children for a rich and full life, not as a college-preparatory curriculum. In response to the report, the NEA founded the Committee on College-Entrance Requirements to promote the acceptance of the Committee's recommendations.

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An additional result of the 1890s movement to create uniform standards for high school graduation and college entry was the College Entrance Examination board. The College Board's purpose was to organize a common examination system for college admission. So the private sector took responsibility for creating a standard-setting process -- a process that provided high schools freedom to design their own curricula and colleges freedom to admit whomever they desired. This arrangement fulfilled Eliot's two-fold vision of uniform standards with flexible programs.³

The College Entrance Examination Board of the Middle States and Maryland held its first examination in June 1901 in nine subjects: chemistry, English, French, German, Greek, history, Latin, mathematics, and physics. These examinations were based on standards set by recognized national committees such as the Modern Language Association and the American Historical Association. The scholarly organizations, however, soon proved to be uninterested in secondary school teaching. In order to contend with the issue of standards in each subject area, the College Entrance Examination Board soon established its own "committee of review" to set standards in each subject. This committee performed this function by regularly convening special commissions of school and college teachers to review and revise these standards for each discipline.

During the second decade of this century another strain of thought on standards emerged. This new movement was led by secondary teachers and members of schools of education who objected to university domination of standards. Reacting to this movement, the NEA organized the Commission on the Reorganization of Secondary Education (CRSE). This group formulated new sets of standards that differed sharply from the academic emphasis placed on standards by the Committee of Ten and the College Board. The CRSE ultimately released a report on standards entitled *Cardinal Principles*.

While the Committee of Ten and the CRSE both believed that their recommendations were based on the principles of a democratic society, the two groups ended their journeys in much different places. The Committee of Ten believed that all students should be education in the same way regardless of their life goals or family background; the CRSE believed that standards and curricula should be tailored and differentiated to meet the needs of society. Over time a compromise was forged, the principles of the Committee of Ten were applied to the academic track and the principles of the CRSE were applied to the vocational and general track.

Throughout most of the 20th century, the issue of academic standards was defined by college admission requirements. These requirements consisted of colleges' entrance requirements and college entrance examinations. After 1941, the emergence of the machine-scored Scholastic Aptitude Test (SAT) meant that the standard-setting force of the traditional, i.e., written, college entrance examination was eliminated and, second, the standard-implementing activities of those scholars and teachers who met annually to read those exams was ended. With its focus locked on mathematics and verbal skills, the SAT has been virtually curriculum-free. While the advent of the SAT undermined academic standards, the development and usage of advanced placement (AP) exams and achievement tests supported educational standards.

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Since the 1960s, the widespread usage of standardized achievement tests relieved states and school districts of the necessity of consciously setting their own academic standards. As Diane Ravitch has observed, "...educators relegated the all-important task of deciding what children should know and be able to do to commercial testmakers."⁴

Similar patterns can be seen with textbooks and the role they have served as a standardizing element in American education. Some observers believe that anywhere from 75 to 90 percent of classroom instructional time is driven by textbook programs.⁵

The academic standards that are the most widely accepted in America are those that have been entrenched in the commercial textbooks and tests. In reality, we have had multiple standards, which have been dependent upon the curriculum track in which the students were enrolled, whether they planned to go to college, and whether they have applied to a selective college.

Educational standards materialized as a national issue in 1975 when the College Board drew attention to the fact that SAT scores had fallen steadily and sharply since 1963. The College board appointed a study panel that reported in 1977 that score declines had first been caused by the diversification of the pool of test takers, but this drop in performance levels was then accelerated by changes in school policies and procedures. For example, the dilution of the academic curriculum, lower enrollments in advanced courses, social promotion, less homework, and grade inflation. The panel stressed that high schools had lowered expectations for almost all students in a response to what was perceived as the needs of a more diverse student body.⁶

Not only were SAT scores declining during the late 1960s and most of the 1970s, but scores on almost every other standardized test in the nation were also dropping. Some states began to study the effectiveness of their education programs. Fifteen Southern states took the lead in this view as they joined efforts to form the Southern Regional Education Board (SREB). A special task force of SREB issued a manifesto in 1981 entitled *A Need for Quality*. This document urged that higher standards for teachers and students be adopted. Due to its concern over the climate of low expectations in education, the SREB called for strengthening high school curricula as well as college entrance requirements.

The year 1983 became a watershed year in education reform with the publication of *A Nation at Risk*, a report of the National Commission on Excellence in Education. The Commission, which had been established by President Reagan, warned of "a rising tide of mediocrity that threatens our very future as a Nation and as a people." The report presented many indicators of low educational achievement as well as criticizing other traits of our primary and secondary education system such as low expectations, low standards, weak curricula, and a pervasive lack of seriousness of educational purpose. The primary recommendation of the Commission was that "state and local high school graduate requirements be strengthened."

A Nation at Risk spurred state action and public concern over the nation's quality of education. Numerous states created task forces, study groups and commissions to raise their graduation requirements. Through the efforts of the SREB, many southern states

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had anticipated both the results and the prescriptions in the work of the National Commission on Excellence in Education. Governors, such as Lamar Alexander of Tennessee and Richard Riley of South Carolina, took the lead in formulating reform efforts that focused on the creation of educational standards and assessments. This new state based education reform movement maintained that reform should focus on results, rather than on process or inputs, and that states should work toward higher levels of educational achievement while lessening and eliminating a variety of regulations and requirements on schools. In 1986, these two governors worked together with the National Governors' Association to produce a document that detailed how the statehouses perceived the health and vitality of our education system. The report was entitled *Time for Results*, and it promised less regulation of schools in return for better results. The governors most involved with educational reforms began the process of creating standards -- *what students should know and be able to do* -- and assessment measures to determine if these standards are being met.

This state-led education reform movement mirrored a seemingly commonsense notion that the campaign to improve education should start with an agreement on what students are expected to learn -- content standards. Historically, this agreement has been expressed in Carnegie units, defined by states as years of a subject needed to graduate. The Southern education reform movement along with other reformers such as Bill Honig, California's education superintendent, moved from Carnegie units to more specific requirements -- a process of standard setting in which what children should know and be able to do is clearly set forth. This process, of course, also entailed another movement to formulate some reliable and accurate means of measuring student progress toward achieving these goals.

In 1986 the National Council of Teachers of Mathematics (NCTM) initiated a movement to develop a new K-12 mathematics curriculum. This was the NCTM reaction to criticisms about the state of mathematics education in *A Nation at Risk* and in several other national reports on science and mathematics pedagogy. The NCTM created the Commission on Standards for School Mathematics, which worked throughout the course of the next two years, and it issued its recommended standards in 1989. This effort had included thousands of math teachers, teachers, mathematicians, education administrators, and curriculum coordinators.

The NCTM presented three reasons for developing standards. These reasons are presented below:

- * To ensure quality,
- * To set expectations, and
- * To establish "criteria for excellence."⁷

The final reason expressed NCTM's desire to replace low minimum standards with a new goal that would spark creative change. Notably, the NCTM standards were intended for all students, not just college bound students.

President Bush's Administration continued the campaign for education reform that had been ignited by President Reagan. President Bush's Secretary of Education, Lamar Alexander, convinced Congress in 1991 to establish a bipartisan commission called the

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National Council in Education Standards and Testing. The co-chairs of this Council were Republican Governor Carroll Campbell of South Carolina and Democratic Governor Roy Romer of Colorado. The 32-member Council included members of Congress and the Administration as well as educators. After six months of hard work, the Council reported that "high national standards tied to assessments are desirable. In the absence of well-defined and demanding standards, education in the United States has gravitated toward de facto national minimum expectations."⁸ The Council emphasized that national standards should be voluntary, not mandated by Washington. Further, the Council urged that these standards should be geared to high expectations, not minimum competencies, as well as giving a direction for education rather than a national curriculum.

This movement for standards-based education reform was continued by the Clinton Administration. Shortly after beginning his first term in 1993, President Clinton set forth "Goals 2000." The purpose of Goals 2000 was to stimulate the development of content standards, performance standards, and "opportunity to learn" standards, i.e., measures of the conditions of teaching and learning. Goals 2000 legislation was adopted by Congress in 1994, and the National Education Standards and Improvement Council was created to certify national and state standards.

Since the historical background on standards has been discussed, clear definitions of some of the terms and concepts would be useful.

DEFINITIONS

Standards are statements of what students should know and be able to do as a result of their schooling. Standards are statements against which one can judge the quality of curricula, instruction, and school and student performance. In essence, standards are statements of what one believes is important.⁹ Other concepts that are utilized in this study are defined below:

Content Standards -- Content standards are statements that clearly define what students should know and be able to do in various subject areas and at different points in their education.

Performance Standards -- Performance standards provide concrete examples and explicit definitions of how well students must learn the material represented by content standards. Performance "levels" may also be used to define students' demonstrated proficiency at various points as the progress toward a standard.

Assessment -- Assessment is the measurement of what a student knows and is able to do, usually expressed in terms of progress toward a standard or mastery of a standard. Assessment can include diverse measures such as multiple choice tests, performance tests, and portfolios to show what -- and how well -- a student has mastered a content standard.

Accountability -- Accountability systems provide information that tell policymakers, the public, and other stakeholders how well the education system -- classrooms,

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schools, districts -- is doing. Information typically includes student assessment data, indicators, and studies. Accountability information can be used in different ways: to provide information to the public, to help stakeholders reach agreement on how to improve the system, or to provide rewards or sanctions for success or failure.¹⁰

Standards-based reform is based on the premise that all students can reach higher levels of achievement -- if the levels are clearly defined, if students know the criteria for meeting them, and if teaching, learning, and assessment support higher student achievement.

RATIONALE FOR STANDARDS

As seen above, much effort has been invested in improving education during the last 15 years, but progress has been slow. State policymakers have learned that substantive improvements in their state education systems will not come from piecemeal reforms. State education systems need comprehensive, systemic reform. Academic standards can be the catalyst for this reform. A number of forces appear to be driving standards-based reform.

First, *expectations need to be raised for all American students*. Research repeatedly shows that students usually attain the levels of proficiency that are set forth for them. At present, too many students arrive at universities or workplaces unprepared to conduct college-level or entry-level work.

Second, *the public supports standards*. The public has consistently desired high levels of accountability in education. Survey research shows the general public has been disappointed in promised education reforms. However, by using standards to make schools and students accountable for what students learn, states will be able to give the public a clear and measurable indicator of progress.¹¹

Third, *the lack of explicit goals has hurt some prior reforms*. Implementation of standards will shift the focus in school reform from inputs, such as how much time a student should spend in class, to results, which the public needs to see to support reform.

Finally, *standards-driven reform will give teachers a positive role in reform*. Standards will help provide incentives for students to perform rather than having the teachers be the sole source of incentives. Teachers who are "armed" with high standards are less likely to be pressured by parents or administrators to relent because all parties will have a stake in and see the necessity for motivating students to work harder.

America's public schools have no clear standards for what every student who graduates should know and be able to do. Expectations vary from school to school and from teacher to teacher. These expectations are often too low. Standards-led reform will raise expectations. By requiring all students to master challenging subject matter, and by providing them with the time and tools to do so, standards will enhance

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education equity. Our goal should be to raise both the ceiling and the floor of student achievement.

EVIDENCE OF THE EFFECTIVENESS OF STANDARDS

While many states and districts have only recently adopted academic standards, there is already evidence that setting standards with assessments, teaching materials, and teacher preparation that supports them will lead to improved student performance.¹²

Evidence of the effectiveness of academic standards can be seen, for example, in Colorado. School districts in Colorado have seen increases in student performance on tests of reading, writing, and mathematics. Colorado adopted state legislation in 1993 that mandated the establishment of standards by all local school districts. As districts' standards become more entrenched, gains in academic performance are becoming even more pronounced. Several examples in Colorado stand out.

Colorado

* A school district in Colorado's San Luis Valley started to establish academic standards -- or specific student proficiencies in language arts in 1987. In response, the percentage of high school students passing Adams State College's English Proficiency Examination (an exam used to measure the writing skills of first-year college students) rose from 33 percent in 1987 to 72 percent in 1994.

* In 1989, Colorado Springs School District began work on standards, and the percentage of 11th grade students scoring "proficient" or "advanced" on a locally developed writing exam rose from 60 percent in 1989 to more than 90 percent in 1994. For 8th grade students, the proportion rose from 30 to 60 percent.

* In Loveland, 10th grade writing scores on a locally developed essay test increased in three out of four areas. This improvement occurred only one year after the district began to measure student efforts with its writing standards. In the four years the district has measured mathematics achievement against district standards, scores for 3rd, 5th, and 7th grade students have continually risen.

* Finally, in 1989, the Greeley school district set standards in reading, writing, and math. Afterwards, the performance of district students in these subject areas has increased dramatically. In addition, the gap in writing performance between white and Hispanic students has decreased significantly.¹³

While Colorado's results have shown improvements in student test scores, results from states that have set academic standards also yield evidence for improvement at the school level.

Kentucky

The Commonwealth of Kentucky has established 57 student competencies in addition to linking incentives and sanctions with these standards. Kentucky's early results are

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encouraging. Between 1992 and 1994, 78 percent of the state's schools showed gains in student achievement. Scores among the 4th, 8th, and 12th grade students rose an average of 23 percent.

Based on reports being compiled for the 1994-1996 accountability cycle, 70 percent of the state's schools were poised to receive rewards under the state's accountability system, and 92 percent of Kentucky's schools were making progress toward attaining the improvement goals. Particular progress has been registered by fourth graders; these Kentucky students have raised their statewide scores by an average of 8.8 percent on the state's assessment test.¹⁴

The National Alliance for Restructuring Education has been very active in Kentucky. This organization is dedicated to assisting schools implement higher academic standards with assessment mechanisms. Cash awards were given in 1995 to 13 out of 15 of the alliance schools in Kentucky based on their students' performance on the assessment test. The Alliance success rate of 87 percent is more than two times greater than the state's average of 38 percent.¹⁵

Maryland

Maryland, like Kentucky, began its own standards-led reform several years ago, and the effort has produced positive results. By the year 2000, the state expects that 70 percent of its students will score at the "satisfactory" level in the Maryland School Performance Assessment Program (MSPAP). Between 1993 and 1995, the percentage of Maryland schools obtaining that goal rose from 31.7 percent to 39.7 percent. Further, there have been increases each year in the number of schools that meet or approach the state standards in at least one of the assessment categories for grades 3, 5, and 8. Other state gains include the following:

* In 1995 elementary school attendance reached the state objective of 95 percent in 23 out of 24 school systems.

* In 1993, 158 schools (20 percent of all schools tested) were, in the opinion of the state, "far" from meeting the standards in 3rd grade mathematics, but by 1995, only 7.7 percent were "far" from this standard.

* In 1993 113 schools approached or met the 3rd grade mathematics standards, but by 1995, the total rose close to 300.¹⁶

Another illustration of the effectiveness of academic standards can be seen in the Roots and Wings program designed by Robert Slavin. This program has been participating in the New American Schools initiative, and there are four pilot schools that have adopted this program in St. Mary's County, Maryland. These pilot schools have seen a dramatic increase in student performance.

Roots and Wings schools registered gains at twice the level in the Maryland School Performance Assessment Program as reported by other state schools. The scores of Roots and Wings schools on the MSPAP are above state averages now for 3rd and 5th grade reading, writing, and science, and almost at the average level in language, math, and social studies. These gains were secured despite the fact that 48 percent of Roots and Wings school students qualify for the federal free and reduced lunch program,

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compared to 30 percent for the state and 21 percent of their students are eligible for Title I, compared to 7 percent for the state.¹⁷

Equity 2000

In order to increase participation by minority and disadvantaged students in more demanding mathematics and science classes, the College Board has founded the Equity 2000 program. These courses are critical for many students since they frequently play a large role in admissions to higher education. This program with its high standards seems to have spurred substantial increases in the number of students taking and passing higher level mathematics courses.

The percentage of 9th grade students enrolled in algebra I, or a higher level class, soared within the six school districts implementing the program. The percentage rose from 51 percent to 90 percent in Fort Worth, Texas; 33 percent to 94 percent in Milwaukee; and 43 percent to 100 percent in Providence, Rhode Island.¹⁸

Evaluations of Equity 2000 have also found that teachers and guidance counselors were changing their beliefs about what all youth can achieve in a significant and positive manner. This change is an essential condition if all students are going to achieve at higher levels.

STATE APPROACHES TO STANDARDS

State governments have taken different approaches to the creation and implementation of academic standards and assessment. These different approaches mirror the states' history, political climate, and prior education reform efforts.

The varying approaches can be grouped into three categories:

- * ***Statewide leadership approach*** -- The state guides the development of consensus standards used by all districts. Delaware has adopted this approach.
- * ***Local leadership approach*** -- The state requires each school district to develop its own set of standards. Iowa is using this approach.
- * ***State-local approach*** -- The state develops model standards and requires each school district to develop its own set of standard that "meet or exceed" the state standards. Colorado has embraced this approach.

Delaware

Common statewide academic standards are linked with common statewide assessments to measure student progress in Delaware. The local school districts, however, retain the decision on the ways which students attain the standards.

The state's goal was to standardize performance measures, assessments, benchmarks, and expectations while decentralizing curriculum, instruction, and teaching practices. Therefore, Delaware has been trying to combine the best features of a central effort to create state standards with local initiatives to improve teaching and learning.

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The state launched its efforts to establish academic standards in 1992 with its "New Directions in Education" program. This was a five year plan to create strong standards for students in grades K-10. This program was designed by a broad partnership of teachers, school administrators, school board members, business leaders, and university leaders.

Delaware's academic standards efforts have been led by its last two governors -- Republican Michael Castle and Democrat Thomas Carper. Castle initiated the New Directions program, and Carper has supported the effort by appointing in 1994 an Education Improvement Commission to guide the reforms.

Several steps have been taken by the state to ensure compliance from the school districts. For example, every Delaware school district agreed to pay \$5 per child per year for five years to fund this effort. The \$5 per pupil contribution was matched by \$5 from the business community and a \$7 per pupil reallocation on funds by the State Board of Education. Delaware's state legislature has also tried to strengthen its education system by adopting legislation in 1995 to expand public school choice and charter school opportunities.

Public meetings were conducted over a three year time period to develop the state's academic standards. Four "Curriculum Frameworks Commissions," governing English language arts, mathematics, science, and social studies spearheaded the development. Each commission was chaired by a practicing classroom teacher and an expert from business or higher education. The academic standards that were forged from this process have been given high praise and lauded as a national model.

After almost a year of statewide debate and review, the Delaware Board of Education approved these standards in 1995. A copy of these standards was given to every Delaware school teacher and school administrator. Every school building in Delaware also received supplementary materials, such as information on teaching and assessing student work against the standards. Content standards are now being developed in Delaware by four new Curriculum Frameworks Commissions for the fields of agriculture, business and marketing education, foreign languages, and visual and performing arts.

While Delaware has established new challenging academic standards for its students, it has also tried to bolster teacher performance by setting higher standards for teacher performance. A Professional Standards Council was created in 1991 to recommend ways of ensuring competence and promoting excellence among teachers. The state revised and strengthened teacher certification requirements, and in response, Delaware's colleges and universities are revising teacher education programs to reflect the new requirements and the state's new student academic standards.

A new comprehensive assessment system will be introduced in the 1997-1998 school year. Some of these assessments will be integrated into classroom instructional units; the remaining assessments will be administered at specific times statewide. The groundwork for this new way of measuring student performance was laid in 1993. In

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this year, Delaware created an Interim Assessment Program. This program reported student results against the statewide academic standards for the first time.

One of the purposes of creating academic standards in Delaware was to enhance accountability. Hence, the state has also developed a process to release school profiles. These profiles provide information about individual and aggregate student performance to the schools and to the public. These annual profiles, released by the Delaware Department of Public Instruction, outline student performance, individual school and district goals, school characteristics, and local community demographics.

This student and school performance data will be closely scrutinized by the state's Education Improvement Commission. While this commission has stressed site-based decision-making, it has also established clear consequences for poor performance and rewards for excellent performance.

Delaware's new system of academic standards, assessments, and accountability measures is scheduled for full implementation during the 1997-1998 school year.

Iowa

A second approach to standard-led reform is represented by Iowa. Iowa school districts enjoy more freedom from state control and regulation than any other in the nation. Iowa possesses no state-mandated curriculum, graduation requirements, student assessment, textbooks, or teacher testing. It is the only state that does not have some form of state performance standards for K-12 students.

The state's focus is on local school improvement and local accountability. Academic standards are established at the local level, and progress toward achieving them is monitored and evaluated on an ongoing basis by an advisory committee representing parents, teachers, students, administrators, and community members in each one of the state's 384 school districts.

These local advisory committees identify major education needs, develop goals to satisfy the local needs, evaluate progress toward meeting the goals, and report progress to the community and to the state Department of Education. Education reform in Iowa is geared toward assisting schools and communities in working together effectively by strengthening and expanding the local school district's capacity for reasoned debate, dialogue, and decision-making. Iowa's Department of Education; the state's intermediate area education agencies; colleges and universities; community colleges; and unique non-profit corporation involving state-level government, business, and education organizations, the New Iowa Schools Development Corporation, all provide support, technical assistance, and resources. The ultimate goal of this effort is to help the state's school districts set and achieve high performance standards for the students.

Iowa has most recently been concentrating on curriculum and teaching strategies for the subject areas of communication skills, mathematics, and science. The state has also been conducting research and assembling information on local, state, and national education reform models so that Iowa school districts would have access to this

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information and be able to employ facets of the various models in their own districts. Access to this information and other state resources is provided to the districts by the country's first statewide, fully interactive fiber-optic network, the Iowa Communications Network (ICN). Currently, ICN only connects 100 educational sites throughout the state, but expansion is progressing so that this network will eventually link more than 500 sites.

Colorado

The third approach to developing academic standards is a strategy of "meet-in-the-middle" where state authorities develop model content standards and local school districts develop standards that "meet or exceed" these state standards. Colorado has adopted this approach to standard-led reform. This strategy is designed to bring about coordinated change and improvement in a new highly decentralized system, without encroaching on local prerogatives or priorities.

In September 1995, the Colorado State Board of Education adopted mandatory content area standards in six areas: geography, history, mathematics, reading, science, and writing. A nine-member council, appointed by the Governor, drafted these standards. In 1997, school districts must adopt standards in these core academic subjects that "meet-or-exceed" the state standards. The state has moved to a second wave of standards development. New standards are being developed for the subject areas of art, civics, economics, foreign languages, music, and physical education.

By June of 1996, Colorado had also developed an assessment mechanism to help the state and the local school districts determine whether students are meeting the locally established academic standards. These proficiency tests are administered each year to a stratified random sample of 4th, 8th, and 11th graders throughout the state. This assessment program was started in the 1996-1997 school year and is being phased in beginning with the 4th graders.

Starting in 1999, Colorado will issue an annual report publicizing local school district and statewide assessment results. Since all the districts are trying to have their students attain very similar academic standards, the state assessment results will be used to corroborate the district assessment results.

Colorado was one of the first states to commit itself to standards-led education reform under the leadership of Governor Roy Romer. In fact, Romer chaired the National Education Goals Panel and served as Co-Chair of the National Council on Education Standards and Testing. Colorado began its transition to a standards-led system with its General Assembly's passage of House Bill 313 in 1993. This legislation and Colorado's development of academic standards have enjoyed strong bi-partisan support throughout its evolution. The wide diversity of Colorado and its school districts is one of the reasons why state authorities opted for this approach. More than one-third of the state's 176 school districts are in rural or mountain areas serving fewer than 500 students. Meanwhile, the state's urban areas have large school districts with student populations of up to 60,000.¹⁹

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LESSONS OF STANDARDS-LED REFORM

A review of the experiences of state governments that have adopted academic standards reveal strong similarities. Education reformers in these states found themselves confronted with many of the same obstacles to reform, and many of them share a consensus on prescriptions of how to develop and implement academic standards effectively.

Common Obstacles

1. ***The quantity of information.*** A significant amount of information is available on standards; states need the means to identify, filter, and organize this information in order to use it effectively.

2. ***Belief that problems lie elsewhere.*** Every year the Gallup Poll shows that parents give higher marks to their community schools and much lower marks to schools in general. Unless members of the public demand change for their own schools, little will happen.

3. ***Disconnect between what parents want and what reformers want.*** The public is persuaded that schools cannot succeed unless they are safe and orderly and help children master basic skills first. Education reformers have focused on the need to teach higher order, conceptual skills and on dramatically raising standards to achieve that goal.

4. ***Resistance to change.*** Major change inevitably gives rise to fear, suspicion, and misunderstanding -- especially on the part of those most affected. Some educators were angry that the rules were changing "in the middle of the game" and resented the implication that they would have to change their practices. Others had seen so many reform initiatives come and go during their careers that they assumed they could adopt a "this to shall pass" attitude with respect to standards-led reform.

5. ***Political shifts.*** Some states reported that a continuous fluctuation in laws, policy, and policymakers significantly disrupted the process of implementing standards-led reform. To withstand shifts in the political winds and to maintain long-term changes, the reform agenda should be identified not with a single-person but with a bipartisan group of leaders from all key stakeholder groups.

6. ***Confusion over goals.*** In some states, content standards are created as a basis for curriculum development. In other states, performance standards are developed to define levels of student proficiency. And in still other states, standards are too vague or general to provide guidance to teachers.

7. ***The complexity of communication.*** All states reported that they struggled -- and still struggle -- with how to explain standards in a clear and compelling way to the public. It has been difficult to capture the purpose of standards-led reform in a single powerful image or statement that helps people understand exactly what must change and why. Moreover, there is a great deal of confusion about the terms used (e.g.,

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frameworks, alignment, content standards, performance standards) and what they mean. The communication challenge has been compounded as concerns about Goals 2000 and national standards have begun to filter down to states and school districts.

8. *Inconsistent laws.* Many laws and regulations already on the books are inconsistent, in purpose or effect, with a standards-led system. The adoption of standards does not alone create a standards-led system of education. Policies affecting curriculum, professional development, assessment, finance, and governance must be aligned with the standards to support their implementation.

9. *The costs of performance assessments.* An effective assessment system that measures student performance against standards takes time and resources to develop and implement. In states where consequences are tied to performance test results, the technical requirements of the tests must be sound before the assessment can be fully implemented.

RECOMMENDATIONS

In addition to acknowledging many of the same obstacles to the use of academic standards, state education reformers also hold many of the same beliefs on the process that will work most effectively to develop and implement academic standards. A number of these recommendations, or policy prescriptions, are presented below:

1. *Involve the public in making decisions about standards.* Repeatedly, parents have opposed standards and assessments that they do not understand or that do not reflect what they think students should be learning. Public opinion polls, focus groups, and community meetings should be used to uncover the public's attitudes toward education. The public should also be involved in the development of reviews of standards.

2. *Deepen political leadership.* Create bipartisan coalitions to support a standards-led system through several political cycles.

3. *Involve teachers from the beginning.* Teachers must help define the standards so they will understand them, support them, and know how to use them effectively.

4. *Develop a comprehensive communications strategy.* The strategy should address public concern; present a compelling vision of the future; use simple, consistent messages; and employ a variety of communication tools; including town meetings, local newsletters, and cable TV programs, at both the state and local levels.

5. *Allow adequate time to develop rigorous standards.* It takes several years to develop standards and assessments that are rigorous and have public support. The time policymakers devote to holding community forums, disseminating drafts, and revising their standards and assessments is well spent in terms of resulting quality and acceptance.

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6. *Collaborate with policymakers in other states.* Share lessons and learn from others' experiences; undertake projects using shared resources, such as the development of assessments of common standards.

7. *Insist that standards apply to all students.* When standards are introduced, concern is often expressed that those students most at risk will be left further behind. The evidence so far is that all students gain and that this gap narrows.

8. *Align other state policies to standards.* To gain the maximum impact on student learning, other policies such as curriculum, assessment, professional development, teacher education, accountability, and finance should be "aligned" to work in concert with standards and encourage the use of standards.

9. *Connect standards to other reforms.* Standards and assessment should form integral parts of other reforms already under way in the state or district, such as those aimed at connecting learning and work or school reform networks.

10. *Provide support for districts implementing standards.* Consider more effective approaches to professional development and teacher certification, ways for districts to share development costs of new assessments and a technology network to share curricula, and assessment. Encourage schools to participate in school reform networks that are showing results.

11. *Develop an accountability system that regularly involves and reports to the public.* Set intermediate benchmarks and collect information to show the progress being made. Consider offering incentives for school performance and consequences for continuing school failure.²⁰

ALIGNING STATE POLICY

The creation and utilization of academic standards is not a panacea for education reformers. Even strong academic standards will not work in isolation. Standards cannot succeed in improving pupil achievement without the assistance of other key policies. In order for academic standards to succeed, other education policies in the areas of accountability, assessment, curriculum, finance, professional development, and teacher education must be aligned.

Accountability

Accountability systems provide information to parents, the public, and policymakers on how effectively the schools are performing their job of educating students. An accountability system should not simply report the results of standardized test scores. In order to be effective, such a system should indeed measure student performance, but it should also enumerate the education system's goals, analyze the results of student performance, and recommend future strategies to further improve student performance.

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The significance of accountability is that it allows problems in the educational system to be located and highlighted. The purpose of accountability, therefore, is not to fix blame, but its purpose is problem identification. Clear and specific data about student performance levels vis-a-vis the adopted academic standards is a necessity if accountability systems are to function successfully. The general public need student performance data that is accessible and understandable.

Assessment

Standards set forth what students are expected to know and be able to do. Assessments, however, make those expectations come alive. Assessments provide the basis upon which students and teachers can be held accountable.

State governments, school districts, and individual schools must not only decide how to administer assessments, but they must also decide on what to do with the results. Some state education systems use assessment results to assign students to remedial or accelerated programs, to promote students to higher grades, and whether to award students certificates or high school diplomas. Some states, such as Kentucky, use assessment results to reward or to sanction schools and school districts rather than specific pupils.

Whatever assessment system is adopted, educators and school districts will need convincing evidence that assessments measure what they are supposed to measure. So the issues of validity, accuracy, and fairness are ones that state authorities should bear in mind when formulating an assessment system.

Curriculum

Academic standards can help focus the scope and sequence of a school curriculum. This can be very useful since school district and state curricula is often disjointed. Frequently, this disjointed curricula is the result of teachers working independently and alone to decide what each class will cover during the academic semester and year.

While designing and implementing a curriculum, it is useful to remember that content standards should be used that fit together to define a set of core skills and knowledge. States that use a large number of sets of standards will find it difficult to integrate these standards so that they may be taught simultaneously.

Finance

A combination of tighter budgets and higher expectations has forced state governments to rethink how schools are funded and how resources are invested. During the course of the last decade, numerous states have been changing their funding mechanisms for education. In the past, states tended to give states more discretion in raising money than in spending it. Presently, in response to litigation over equity and school finances and to standards-led education reform, states have reversed their course -- restricting school districts' authority in generating revenues while permitting much greater flexibility in allocation decisions.

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State authorities should bear in mind that the development and implementation of academic standards will require additional financing. Extra costs for a state's educational system will be incurred in the development of standards and new assessment systems, realigning curricula, providing technical assistance, and communicating with the public. Costs required to assist pupils in reaching Minnesota's reading and math standards were estimated to be \$18 per student per year in a recent study. Cost estimates to redesign teachers' professional development programs have also reached two percent of school spending in some schools.²¹

Professional Development

Academic standards are accompanied by public expectations that student performance levels will rise. As public expectations for student performance rise, public expectations for teachers will also rise. Teachers are expected to help all students attain more challenging standards, to master new methods of instruction as well as sophisticated new technology, and to assume more responsibility for school decision-making and program development.

If professional development is not retooled to reflect the establishment and utilization of academic standards and assessments, these reforms will not be able to realize their full effect to revitalize education

Teacher Education

College and university teacher preparation courses have traditionally been organized around inputs. The development and utilization of academic standards with appropriate assessments require that teacher preparation address these items. Undergraduate teacher education courses must provide teachers with an understanding of standards and how to help students reach them.

A few states, such as Colorado, Kentucky, and Oklahoma, have recently altered their systems for teacher preparation and licensure so that teacher certification and licensure are directly tied to student learning standards. At this point, there is little movement on the part of other state governments to follow the example of these states. Nonetheless, states that have decided to employ academic standards need to install a professional development sequence -- preservice programs, induction, school district inservice and evaluation, and recertification/relicensure procedures -- that prepares teachers to work with the state's academic standards and help students meet them.

PENNSYLVANIA

The Commonwealth of Pennsylvania has been in the throes of a large, on-going education reform struggle since January of 1990. At this time, the majority Senate Republican Caucus advanced a comprehensive package of more than twenty legislative proposals to reform and restructure education in the Keystone State. Since that time, the Senate Republicans have continued to push their reform package in each of the legislative sessions only to see their efforts bottled up in the state legislature's

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education committees, which historically have been subject to an overwhelming amount of attention from the Pennsylvania State Education Association (PSEA), the state teacher's union.

Governor Robert Casey's Administration stumbled through a reform effort that was focused around Outcomes-Based Education (OBE). This poorly managed and ill-conceived effort has been replaced by Governor Tom Ridge's emphasis on educational vouchers, charter schools, and academic standards. While there was a great deal of confusion and misunderstanding about OBE and the poorly defined and vague outcomes it set forth, there has been less criticism over the Ridge Administration's proposed academic standards because they are clearly defined and purely academic. Surely, Pennsylvania remains in need of additional attention to and renovation and renewal of its primary and secondary public education systems. During January of this year, the Pew Trust, in conjunction with *Education Week*, issued school performance reports on the condition of public education in each of the fifty states. This survey recognized the vigor and the partisanship of the education reform debate in the state by observing that, "There is more heat than light in education debates."²² While this survey's report card awarded a "D" to the state for school climate, it did award a "B+" to the Commonwealth for its work on standards and assessments.

The state expends more than \$12 billion each year to teach our 1.8 million public school students in primary and secondary education. Consequently, the state's average yearly expenditure per student is \$7,348 as of the 1995-1996 school year. At the same time, Commonwealth teachers were earning a yearly average salary of \$46,087. These expenditures place Pennsylvania in the ranks of the top five states in the nation for average student expenses and second in the nation for average teacher salary (exceeded only by Michigan).²³

Despite this outpouring of resources, the state's average SAT scores lag behind the national average and behind states that are our economic competitors such as New Jersey and New York. This state of affairs leads to the frequently voiced complaints of numerous business executives across Pennsylvania who lament the lack of skills possessed by many members of the state's workforce. Nationally, this leads to American businesses spending approximately \$300 billion yearly for remedial instruction in mathematics, reading, and writing, according to a recent U.S. Chamber of Commerce report.²⁴

In response, Governor Ridge established and appointed an Advisory Commission on Academic Standards last year. This group drafted and revised a set of state academic standards about twenty times, and on June 16th of this year, the Commission unveiled its first recommended set of voluntary academic standards for the state's 3rd, 5th, 8th, and 11th grade students in the Commonwealth's 501 public school districts. This set of standards was centered on mathematics, reading, and writing, and science standards are scheduled to be released in the next few months. While the Ridge Administration hopes these voluntary standards will be in use during the 1998-99 school year, these proposed standards must first be approved by the State Board of Education and be inspected by the state's Independent Regulatory Review Commission (IRRC) and the Attorney General.

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Although these proposed academic standards are being advanced as voluntary ones for the state's school districts, there had been some speculation that these goals will be made mandatory or that the state's participation in the federal Goals 2000 program will require that these standards be made mandatory. The governor's education team has consistently maintained that these proposed standards be voluntary and that they should remain voluntary after they wend their way through the state's approval process. Further, in order to participate in the Goals 2000 program, a state is not required to adopt mandatory academic standards. Participants are required to submit an education improvement strategy, but not necessarily adopt mandatory standards.

Further, the financial assistance for education that the state receives from the Goals 2000 program is far too small to drive any changes to the Ridge Administration's education reform plans. In the 1994-95 state fiscal year, the Commonwealth spent approximately \$12 billion on education; only three percent of this total represented federal funds. Of the federal moneys in this budget, \$3.9 million was money received from the Goals 2000 program. Therefore, the Goals 2000 funds were one percent of the federal funding that Pennsylvania used for education in FY 1994-95 and only 300ths of one percent of the total state education budget. In the 1996-97 state fiscal year, Pennsylvania received \$14.4 million in Goals 2000 funds.²⁵

CONCLUSION

By proposing voluntary state academic standards, Pennsylvania has joined a broad-based educational reform movement that is sweeping across the country. Over the last two years, 48 states have been developing common academic standards for their students. So a commitment to standards-led reform has become quite strong throughout the nation.

In designing these standards, the states have viewed the core disciplines as the appropriate vehicle to organize their academic standards around; nevertheless, vague language and insufficient connections between the standards and the academic content remains a problem in this process. As they develop academic standards, an increasing number of states have recognized the need for internationally competitive academic standards, but thus far, few of them have responded to this need in a thorough and well-researched manner. At this point, only twelve states appear to have examined academic standards utilized in other nations while developing their own set of standards.

Although many of the states may just be in the initial phases of the development and implementation of academic standards, they do not need to start from "ground zero." This is true because of a number of states have developed academic standards that may be considered "exemplary" and can serve as excellent models for other states to consider. Further, many states, even if they do not possess a set of comprehensive set of academic standards, do possess strong standards in at least a few of the academic subjects that are offered in their school's education curriculum.

Finally, states and school districts should develop plans to make their academic standards meaningful. Presently, less than half of the states require or plan to require

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high school students to pass graduation examinations linked to their academic standards. In fact, only nine states currently require students to pass graduation examinations linked to standards in all four core subjects. Certainly, this is a topic that the Commonwealth will have to bear in mind as it advances forward with academic standards.

Even though educational problems may be uncovered across the nation, their solution must be a local one. Just as former Speaker of the U.S. House of Representatives, Thomas “Tip” O’Neill delighted in preaching that “all politics are local,” so to, all education is local. Education standards are important because they describe what we as a society expect of our children. They have the potential to revitalize and reinvigorate elementary and secondary education in a manner that few other reforms can do. Furthermore, academic standards are important because children, as well as adults, will attain the goals they set for themselves.

Whenever academic standards are adopted, however, they should be the result of extensive deliberation and discussion at the local, regional, and state level. Standards should reflect the best thinking of teachers, educational theorists, parents, students, as well as business, civic, and religious leaders.

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