Included in this document is an address by the governor of Pennsylvania to fellow citizens stressing the need to improve the quality of public education in the state. Presented in outline format, the agenda has three main sections. The first section discusses shared responsibility between the Commonwealth of Pennsylvania and the state's boards of school directors. Key areas for mutual responsibility include setting higher curriculum and graduation standards; measuring student achievement, requiring remedial instruction, and providing incentives for high achievement; and setting higher teacher and administrator standards for certification. The second section discusses strengthening and increasing curriculum standards, increasing student achievement through testing for remedial and/or honors programs, and improving the effectiveness of teachers and administrators. The final section recognizes the role of state government and local school districts with regard to their responsibilities for the following: clarifying policies and expectations; encouraging parental involvement; recognizing outstanding teachers and administrators; providing training for teachers and administrators; evaluating superintendents and principals; encouraging study of foreign languages; offering computer science; and establishing partnerships with businesses, colleges, human service agencies, and volunteer groups. A projection chart of annual expenditures for 1984-88 is included. (RJD)
Turning the Tide: An Agenda for Excellence in Pennsylvania Public Schools

COMMONWEALTH OF PENNSYLVANIA
D..k Thornburgh, Governor

Department of Education
Robert C. Wilburn, Secretary

U.S. DEPARTMENT OF EDUCATION
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TURNING THE TIDE:
An Agenda for Excellence in Pennsylvania Public Schools

October 1983

"Never, in my judgment, has the relationship between the quality of education and the quality of our national life been more direct, more compelling, and more critical than it is today."

— Gov. Dick Thornburgh, Address to the American Federation of Teachers, Washington, D.C., April 8, 1983
October 17, 1983

Dear Fellow Pennsylvanians:

Throughout American history, public education has been the cornerstone of our development as a nation. Public education is woven so tightly into the fabric of our lives, our economy and our society, that it is impossible to imagine what this country might be today had its founders not insisted on the right of every child to be schooled at public expense for the public good. Pennsylvania, as a pioneer in the development of public education, rightly has enjoyed a place of honor in this great tradition.

We have arrived at a time, however, when such an honor must be borne as a challenge, rather than an achievement, for never has the relationship between the quality of education and the quality of our national life been more direct, more compelling, and more critical, than it is today.

We can see that relationship in the decline of America’s competitive edge in the world economy, and in the decline of its scores on Scholastic Aptitude Tests. We can see it in the failure of far too many young Americans to read at the sixth grade level, write a simple sentence correctly, or even make practical use of basic arithmetic. We can see it in the millions of dollars spent annually by business, industry and government on remedial instruction programs to bring employees up to standards that should have been reached in public schools in the first place.

We can see it in studies showing that the average performance of high school students on most standardized tests is now lower than it was 25 years ago, that 23 million American adults cannot pass the simplest test of everyday reading, writing and comprehension, and that the number of remedial mathematics courses in public, four-year colleges increased by 72 percent between 1975 and 1980 (now constituting an alarming one-quarter of all mathematics courses taught in those institutions).

The National Commission on Excellence in Education identified the seriousness of this problem last spring when it observed that: “Each generation of Americans has outstripped its parents in education, in literacy, and in economic attainment. For the first time in the history of our coun-

Commonwealth of Pennsylvania
Office of the Governor
Harrisburg

THE GOVERNOR

October 17, 1983
try, the educational skills of one generation will not surpass, will not equal, will not even approach, those of their parents."

The Commission went on to warn that "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and as a people."

Pennsylvania can take some comfort in the fact that we began to confront this tide in our state long before the commission so eloquently described it as such. Over the past five years, while recessionary pressures were forcing other states to retreat from their established levels of funding for education, we actually increased state funding for education in Pennsylvania by nearly a third. During the 1983-84 fiscal year, a record $3.7 billion, or 47 percent of the state's general fund budget, will be spent on education. Teacher salaries in Pennsylvania are well above the national average, and rising, and our classroom ratio of pupils to teachers is well below the national average, and rising, according to the recent report of the Carnegie Foundation for the Advancement of Teaching.

Pennsylvania not only remains one of the leading states in the nation in its level of support of education generally, it also supports one of the country's most effective programs of special education, with $237 million in funds allocated this year to serve more than 240,000 very "special" children. Our special education funding alone has increased by more than 87 percent over the past five years.

Meanwhile, more than 78 percent of the students who entered high school in Pennsylvania in 1978 graduated four years later, the 12th highest graduation rate among the states and a rate considerably higher than the national average of 72 percent.

We also have assumed a leadership role in the introduction of computers and other forms of technology in our classrooms, with an estimated 11,000 microcomputers already installed. We appropriated $300,000 in state funds this year to upgrade mathematics and science instruction in our schools; we formed a "Task Force on Mathematics and Science Instruction" to coordinate this effort, and we have initiated a tuition assistance program for academically-talented students who enroll in mathematics and science programs. To our highly-respected "Governor's School for the Arts," we have added our new "Governor's School for the Sciences," and we are developing plans for a third such institution for academically-talented students in the social sciences.

We have created a new State System of Higher Education; making it possible to pursue greater academic excellence in our public universities; we are one of only eight states which require that foreign language courses be offered in high school, we have established the Ben Franklin Partnership, a consortium of business, science, governmental and educational resources which is helping to put us on the "cutting edge" of the advanced technology revolution; we have appointed a "Task Force on Teacher
Preparation” and a “Task Force on Teacher Certification” to examine and recommend improvements in our certification process and standards, and we have challenged staff and parents in our more than 3,500 schools to take a long, deep and fearless look at how well they are fulfilling their own obligations to the next generation of Pennsylvanians, and to make any improvements necessary.

We do, indeed, appear to be ahead of many other states in funding, updating and expanding our system of public education.

The fact remains, however, that if mediocrity has become as pervasive as it is reported to be in classrooms across America today, it clearly threatens Pennsylvania’s own great heritage, not only in educational excellence, but in economic, cultural and technological leadership as well.

We can see signs of this threat in the drift away from such basic studies as science, composition and mathematics in Pennsylvania classrooms, in an excessive emphasis on elective courses, catering to student “interests,” as opposed to required courses, responding to student “needs,” in recent test results showing Pennsylvania students scoring seven points below the national average in mathematics, in the more than 2.6 million Pennsylvania adults who are so lacking in basic mathematics and reading skills that their ability to obtain and hold employment is severely impaired, in the fact that our mathematics and science teachers, on the average, have been on the job for about 15 years, yet most have pursued no additional college work in their subject areas for more than a decade, in a survey showing that 9 percent of Pennsylvania’s teachers had had no training in the use of computers; and in the fact that we are one of 35 states that require students to take only one high school mathematics course and one high school science course in order to graduate.

Our challenge, then, is not merely to “confront the tide” by pumping more dollars and programs into our existing Pennsylvania system. Our challenge, indeed our obligation, is to “turn the tide,” with some fundamental reforms in the system itself.

This document was prepared, at my direction, by the State Department of Education in consultation with the Governor’s Office of Policy Development. It incorporates a broad spectrum of ideas suggested to us by various reports, commissions and studies, including, but not limited to: High School: A Report on Secondary Education in America and The Condition of Teaching, both published by the Carnegie Foundation for the Advancement of Teaching, A Nation at Risk, issued by the National Commission on Excellence in Education; Action for Excellence, by the Task Force on Education for Economic Growth of the Education Commission of the States, on which I served as a member; the Report of the Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy, by the Twentieth Century Fund; Educating Americans for the 21st Century, by the National Science Board’s Com-
mission on Precollege Education in Mathematics, Science and Technology; and What We Expect, a statement on preparing for college issued by the deans of 12 Pennsylvania colleges. It also draws heavily on the observations and advice of school superintendents, school board members, principals, teachers, college and university deans, intermediate unit executive directors, parents, and other citizens.

It does not pretend to address all of the problems associated with the crisis we see in education today. I have directed its authors, in fact, to similarly examine our needs in such critical areas as vocational education, the funding of basic and higher education, and the eradication of adult illiteracy, and to recommend additions to the agenda whenever appropriate.

This document does reflect, however, not only my view, but that of growing numbers of concerned Pennsylvanians, that we must move quickly to adopt and enforce tough new standards relating to what is being taught in Pennsylvania schools, how well it is being taught by Pennsylvania teachers, and how much of it is being learned by Pennsylvania students.

It shows that we must establish a more demanding, more structured curriculum in our schools, absolutely insist on competence in the basics, and substantially raise the standards to which we expect all of our students to adhere.

It demonstrates that we must upgrade the skills of those men and women responsible for the instruction of our children and the management of our schools, and that we must attract highly competent newcomers to the education profession, insist on better and continuing teacher training, and provide recognition, rewards and other incentives for outstanding work by our most dedicated educators.

Finally, it forcefully makes the case that we must begin to test student achievement on a regular basis, and in productive rather than punitive ways, that we must provide mandatory, remedial instruction to those who need it; that we must assure that promotion through the grades becomes a valid measure of progress, instead of a chronological ritual; and that we must develop new incentives for high levels of student achievement in the high school years.

Accordingly, I am today committing this Administration to work with the General Assembly, the State Board of Education, our local school districts, and educators, parents and taxpayers throughout the Commonwealth in seeking full implementation of the “Agenda for Excellence” this document describes for our Commonwealth system of public education.

The tougher graduation and curriculum requirements advanced in this agenda, the higher teacher certification standards, the “Early warning” testing program, the special remedial instruction, the rewards for outstanding achievement by students and educators, and various other proposals
described in the following pages, can do much to make the lamp of learning in Pennsylvania the brightest in our land. Surely, the proposed Commonwealth investment, which will reach $100 million annually in this effort, is a small price to pay for the social, cultural and economic dividends to be realized for present and future generations in Pennsylvania.

I am seeking not only your support, but your continued advice and involvement. Indeed, I am seeking your active commitment to this entire process.

Our goal is nothing less than to counter the rising tide of mediocrity with a rising tide of quality in Pennsylvania public schools. Let us move swiftly and firmly together now, to do just that.

Sincerely,

[Signature]

Dick Thornburgh
Governor
1. TURNING THE TIDE: A Shared Responsibility

Achieving excellence in Pennsylvania public schools is a responsibility which must be shared by the Commonwealth and the state's 501 boards of school directors.

The Commonwealth has a Constitutional responsibility to provide a "thorough and efficient" education for every child in Pennsylvania. (During the last school year, 1,783,969 students were enrolled in public elementary and secondary schools in Pennsylvania.) In order to carry out that mandate, the General Assembly created 501 districts, each governed by an elected board of school directors, which make the important day-to-day decisions about staffing and operation of schools within their borders.

State and local sharing is also the historic basis for funding public education in our state, with Pennsylvania consistently ranking in the top one-quarter of the states in combined local and state support for education.

This plan for achieving excellence in Pennsylvania schools is based on a clear recognition of the need for compatible and mutually supportive actions at both the state and local levels.

The Commonwealth's primary responsibilities in the quest for excellence fall into three key areas in which the state has the responsibility to act, and in which its actions can make a significant difference in the quality of schooling its students receive.

They are:

A. Setting higher curriculum standards and more rigorous requirements for high school graduation.

B. Measuring student achievement; supporting and requiring remedial instruction, particularly in basic skills in the early and middle grades, and providing incentives for higher levels of achievement in the high school years.

C. Setting higher standards for teacher and administrator preparation and certification, and creating incentives to attract the best possible...
teachers to Pennsylvania classrooms, make it desirable for them to remain there, and inspire all professionals to excellence on a day-to-day basis.

It will be the local school districts, of course, which ultimately can make the new programs proposed in this plan a success. It would be their responsibility to provide the additional required courses, administer the new tests, conduct the remedial and incentive programs, and adhere to new certification regulations.

In addition, there are many other steps which can be taken at the school district level to improve the quality of education, such as establishing a homework policy not merely to increase, but to enrich the time students spend learning, and informing parents and students of the skills that are necessary to enter college or to secure and hold a job.

Although certain key actions are appropriate for every local school to take in a joint effort to achieve excellence in Pennsylvania schools, the state should continue to rely on the judgments of local officials to determine the best strategy for insuring excellence, based on their own unique needs and resources.
II. TURNING THE TIDE: The Commonwealth Agenda for Achieving Excellence in Schools

A. STRENGTHENING CURRICULUM AND INCREASING STANDARDS

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


There has been a great deal of dialogue in recent months about the need to increase standards, to require more courses for high school graduation, and to renew an emphasis on basic subjects in school. The fact is that the United States has moved away from specific and rigorous standards in its schools during the past 20 years. Pennsylvania is no exception.

Schools have permitted students, in many cases, to "do their own thing" and pick their way through a diverse array of electives. It appears that interest has been emphasized over need.

State curriculum requirements have done little to counter this trend. As is true in most states, Pennsylvania's approach to curriculum regulation historically has been one of setting minimum standards which have become, in effect, the lowest common denominator for school programs. These have laid the foundation upon which local school officials could elect to build either elaborate programs of study, or modest course offerings more in line with the minimum "required."

In addition, minimum graduation requirements set by the state, rather than maximum use of learning opportunities available, increasingly have become the standard used by students in their selection of high school courses. Under current regulations, for example, Pennsylvania is one of 35 states where high school students are required to take only one mathematics and one science course in order to graduate. Many students elect to take more, but a large number do not. Alarminglly, the one mathematics course selected often is a minimal general mathematics course
having nothing to do with algebra, geometry or other high school level or college preparatory mathematics subjects.

According to a recent national report, the proportion of students taking a general school program consisting of basic, stripped-down courses which may lead nowhere, as opposed to a college preparatory, business or vocational program, has increased from 12 to 42 percent since 1964.

Only 31 percent of the nation's recent high school graduates completed intermediate algebra, and only six percent of all students completed calculus in schools where it was offered.

While more students are remaining in school, the quality and quantity of their education is not what it could be. Clearly, Pennsylvania is paying a price for that.

More than 2.5 million Pennsylvania adults are so lacking in basic mathematics and reading skills that their ability to get or hold a job is severely impaired.

Nationally, Scholastic Aptitude Test results have been declining for the past two decades. Pennsylvania's test results for 1982-83 show that while its students scored at the national average in verbal tests, their mathematics score was seven points below the national average.

Nearly one-fourth of the mathematics courses offered in the nation's colleges last year were remedial.

All segments of society feel the effect of problems in our schools. For some time, business and industry have been reporting that too many graduates cannot write clear sentences, or understand what they read, and that they have poor analytical skills.

Substantial amounts of money are spent each year by private companies, colleges and public agencies on remedial programs for new employees, students, and recruits who lack competence in important basic areas. The Armed Forces, for example, spend $6 million annually on remedial reading programs because one of every three recruits reads below the seventh grade level. The Navy alone spends another $5 million to rewrite manuals in language simple enough for its recruits to understand. Unfortunately, this may be only the tip of the iceberg.

It is time to stop draining the scarce financial resources of business, industry and government merely to reach standards which should have been reached in public schools in the first place.

It is time to pay serious attention to a basic finding of educational research: student performance increases when there are clear, consistent standards that demand the best of every student.

More must be demanded of all students today, if Pennsylvania is to receive the social, economic and cultural dividends it will need from them tomorrow.

The Pennsylvania school curriculum must be reformed now, so that
It provides the basic skills and genuine academic training students must have in order to enter the work world of tomorrow or to continue their education beyond high school.

In July of this year, the State Board of Education gave preliminary approval to a new set of curriculum regulations which would do three things: (1) include the 9th grade curriculum, along with those of the 10th through 12th grades, in establishing new requirements for high school graduation; (2) increase the total graduation credit requirements from 13 credits over three years of study to 21 credits over four years of study; and (3) place a particular emphasis on mathematics and science by tripling total graduation requirements in these two subject areas.

Specifically, the new requirements for graduation would call for each student to earn: four credits in English (up from three under current regulations); three credits in mathematics (up from one); three credits in science (up from one); three in social studies (up from two); two in arts and humanities (where there are now no graduation requirements); one in health and physical education (the same as under current regulations); and five courses approved as graduation requirements by the school district (as is currently the case).

It is estimated that these increased requirements, when fully implemented in every school district, will increase the cost of instruction by $40 million a year. Additional state funds should be sought to cover this cost.

Curriculum standards are the heart of the state's responsibility for assuring quality education. It is recommended that the State Board of Education give final approval to these regulations as quickly as possible, after meeting the Commonwealth's procedures for regulatory review and publication. The new regulations should begin to take effect in all Pennsylvania school districts no later than the fall of 1985. School districts should implement the new standards before that time whenever possible.

It is further recommended that the Governor seek funds to cover costs associated with increased requirements, starting with his 1984-85 budget request.

The Department of Education estimates that about one-third of Pennsylvania's school districts already are meeting the increased requirements contained in the new curriculum regulations. Many others are considering school board action to implement the regulations locally before they become a state requirement. This local initiative to raise academic standards is commendable and demonstrates that many local schools are already taking steps to achieve excellence.
B. INCREASING STUDENT ACHIEVEMENT

The second primary responsibility for the Commonwealth in achieving excellence in its schools is to adopt measures of student achievement which encourage competence in basic skills as well as provide incentives for students to go beyond “required minimums” to attain higher levels of personal achievement.

By now, the disturbing national statistic is well-known that 13 percent of the nation’s 17-year-olds, the group that should be graduating from high school with a high level of enthusiasm and a thirst for learning and life experience, cannot read at the 6th grade level. This statistic has become a symbol of failure in the public schools, a dramatic indicator that too many students are not achieving in school what they are expected to achieve.

This group of students is cause for genuine concern and concerted action.

The 13 percent of the nation’s 17-year-olds who have failed to acquire even the most basic skills, however, are only part of the problem with student achievement. How many of the other 87 percent have reached their potential? How many, instead, merely graduated from high school with minimum achievement and only satisfactory performance? How many either ignored, were allowed to reject, or did not even hear the call to excellence?

Three-fourths of the states have turned to competency tests as a way to measure student achievement and prod performance levels upward. Some states have started issuing dual diplomas—one version for students who have passed the tests and another for those who have not. Others have stopped giving diplomas at all to students who fail to reach minimum levels of proficiency.

Many of these testing programs take a simplistic approach to a complex problem. Some even focus on a single purpose: determining who should graduate and who should not.

There seems to be very limited value in 11th or 12th grade minimum competency tests which do no more than separate the vast majority of students from a very small percentage of students who, despite repeated efforts by teachers, administrators and parents, have failed to achieve a 6th grade level of competence in reading and mathematics by the senior year.

It is felt, on the contrary, that testing programs in Pennsylvania must be constructive and designed to increase student achievement, not to determine that after 12 years of schooling, a few students still have difficulty with basic skills. The more effective time to do this is in the early and middle grades. Using such an “early warning system,” problems can be identified in time to help students not only master the basic skills, but...
successfully complete their education with superior, not minimum, achievements. A decrease in Pennsylvania's pupil-teacher ratio, as cited in the Carnegie Report, indicates that the size of the average class in Pennsylvania schools is now smaller than the national average. This should make it possible to provide more individualized attention for students who require extra help to master the basic skills.

Therefore, it is believed that a program of individual student achievement testing in Pennsylvania should be conducted at two levels. The first level would measure and develop basic skill competence in students while they are in the elementary and middle grades. The second level would provide incentives for greater academic achievement by students in high school.

**Testing for Essential Learning and Literacy Skills (TELLS)**

The testing program proposed for the early and middle grades—to be known as Testing for Essential Learning and Literacy Skills, or TELLS—would test students in grades 3, 5, and 8 in every school in the Commonwealth, every year. Each student's achievement on TELLS would be compared with an acceptable level of competence in reading and mathematics for students at that grade level—a process truly useful for what it tells about progress made, and yet to be made, in Pennsylvania schools.

A student whose performance falls below that level would be required to enroll in remedial programs funded by the Commonwealth and conducted by the school district, in addition to the regular school program. The remedial assistance would be continued until the school determines that the student's skills have improved to an adequate level.

TELLS would become, therefore, the "early warning system" used to spot students whose development in reading and mathematics skills is deficient. Deficiency on these tests would trigger state-mandated, state-funded remedial programs designed to bring the skill levels of those students to a par with other students in their grades.

An estimated $56 million would be required each year to fund remedial instruction programs for all Commonwealth students whose performance falls below an acceptable level. It is proposed that funds be distributed to school districts based on the number of students in each district who show deficiencies and, therefore, require remedial help.

It is recommended that the State Board of Education adopt regulations which will implement a Pennsylvania Testing for Essential Learning and Literacy Skills (TELLS) program and mandate remedial programs, in addition to the regular school
program, for all students whose performance on TELLS’ tests is deficient.

It is recommended that the Governor direct the Department of Education to begin work immediately on the development of test instruments so that the TELLS and remedial instruction programs can begin to be phased in during the 1984-85 school year.

It is further recommended that the Governor seek funds for this remedial assistance beginning with his 1984-85 budget request to the Legislature.

Pennsylvania Honors Program

Students have a responsibility to acquire basic skills during the elementary and middle grades, and school districts and the state have a responsibility to support them in that effort.

In high school, however, the focus must become more ambitious and far-reaching, and expectations much higher than now seem to be the case. Society cannot justify billing hard-pressed taxpayers for 12 years of schooling for each child with only the guarantee of 6th grade competence as a return on its investment. The point at which development of basic skills must share the stage with creativity, growth, and an expansion of students’ minds, comes during the high school years.

Pennsylvania recognized this 11 years ago, when the Governor’s School for the Arts, at Bucknell University, opened its doors for the first time to the state’s most artistically talented high school sophomores and juniors. Last year, this kind of commitment to high achievement was broadened when the Governor’s School for the Sciences opened its doors at Carnegie-Mellon University to the state’s most promising future scientists. Work has begun to expand that school, and plans for a third program, focusing on social sciences, are being developed.

The programs in place have been highly successful and widely acclaimed. Since their inception, they have stimulated and nudged more than 3,000 of Pennsylvania’s brightest and most promising young people a little closer to their personal best.

Consequently, the testing program now proposed for high school students reflects a desire to stimulate students at that level to grow to their ultimate potential, rather than constrict their performance by continuing to emphasize minimum competence.

The Pennsylvania Honors Program can provide an opportunity for all high school seniors to take a rigorous test to measure their academic achievements. The statewide test, to be developed by the Department of Education, would be based on a demanding, four-year curriculum of
academic courses. Local school districts would be encouraged to provide high school students with the courses needed to successfully pass the Honors test.

Those students who meet or exceed a predetermined score on the test would receive a special Honors Diploma, recognizing their high academic achievement. In addition, the top one percent of all students passing the test each year would receive a state Honors Scholarship of $1,000 to be applied to the cost of continuing their education beyond high school. It is estimated that the annual cost of this program would be $1.4 million beginning in 1987-88.

It is expected that the Honors Program would provide the incentive for many more students, who may now be meeting only minimum requirements for graduation, to develop more fully their potential by taking the rigorous academic curriculum necessary for successful performance on the Honors test.

It is recommended that the State Board of Education adopt regulations implementing the Pennsylvania Honors Program, and that the Department of Education be directed to begin work immediately on the development of a rigorous Honors test which would be given for the first time in 1987-88 when this year's 8th graders have had an opportunity to prepare themselves for this challenge and have reached their senior year of high school.

At that time, it is further recommended that funding for this program be sought from the General Assembly.

C. IMPROVING THE EFFECTIVENESS OF TEACHERS AND ADMINISTRATORS

"When asked what they consider the ingredients of a good school, parents most often say competent teachers who are dedicated and who care about the students. Quality administrators was the second most often cited ingredient." -- Citizen Survey by the Pennsylvania Department of Education on what makes a good school, 1980.

Educational research and common sense inevitably point to the overriding importance of good teachers and administrators in the pursuit of excellence in education. It is no wonder, then, that some of the most challenging education problems relate to the area of staffing. Fewer young people want to be teachers than ever before. In fact, less than five per-
of the nation’s graduating seniors who took Scholastic Aptitude Tests in 1982 said they planned to major in education in college, a figure down 50 percent from ten years ago.

Many outstanding students still enter the teaching profession. However, most education majors have lower SAT scores than the average for students who intend to pursue other careers in college.

Equally disturbing is the finding that more than half of the men and women who currently are teachers in the nation’s schools say that if they had it to do all over again, they would choose another career.

Unlike some states, Pennsylvania is not facing an immediate, critical shortage of mathematics and science teachers, but that problem looms on the educational horizon. In 1981-82, new certificates were issued to only 458 mathematics and science teachers in Pennsylvania, while 654 similarly certified teachers left the profession.

Furthermore, many of the men and women who are teaching mathematics and science here are neither as current nor as knowledgeable in their subjects as they should be. Pennsylvania’s mathematics and science teachers have been teaching, on the average, for 15 years, and most have not taken additional college course work in their subject areas for the past 11 years. Another survey shows that 79 percent of Pennsylvania’s teaching force has had no training in the use of computers, a tool destined to transform modern life and one that certainly has its roots in mathematics and the sciences.

Efforts are underway to alleviate this problem. The Pennsylvania Higher Education Assistance Agency (PHEAA) has initiated a Scholars in Education Awards Program which offers tuition assistance to academically strong students who enroll in mathematics and science programs and commit themselves to teach those subjects in Pennsylvania schools. Qualified students are offered up to 50 percent of their tuition per year, which is subtracted from their loan as they fulfill their teaching commitment.

In the Commonwealth’s 1983-84 budget, the Governor proposed, and the General Assembly enacted, an appropriation of $300,000 to begin finding effective ways to improve mathematics and science programs in public schools. That funding will be used to upgrade the skills of teachers, provide materials and other resources for instruction in these subjects, and encourage the development of business and education partnerships to improve school programs.

The Commonwealth is also working, through its Washington office, to hasten passage of federal legislation which would provide funds to improve mathematics and science programs in Pennsylvania.

Further state action is now recommended on three fronts:

First, the 87 Pennsylvania higher education institutions, which prepare teachers and administrators, should upgrade their programs in order to
attract a higher calibre of student. Those programs must be made more professionally relevant and subject oriented, and must guarantee, as much as anything can be guaranteed, that graduates are competent to become effective teachers or administrators.

It is recommended that the Department of Education be directed to work with the state's colleges of education to strengthen the curriculum and to increase standards, and that the Department of Education and the State Board of Education be encouraged to adopt a basic skills and academic knowledge test which students who graduate from a college of education must pass before being permitted to embark on a teaching career.

Second, significant changes in state certification regulations should be initiated to assure Pennsylvanians that the men and women teaching their children are qualified to do so. Closer monitoring of the performance of new teachers, and continuing professional development of all teachers, should be required.

A Task Force on Teacher Preparation, made up of educators, legislators and State Board of Education members, is currently examining teacher education and certification practices across Pennsylvania, and will recommend specific changes to the State Board of Education within the next several months.

At Governor Thornburgh's urging, another task force is looking for ways to increase Pennsylvania's flexibility to make use, in public schools, of talented men and women who have not completed approved teacher preparation programs. The governor is urging private firms in Pennsylvania to "adopt a school" by providing technical, scientific and other experts as part-time teachers, under the supervision, of course, of certified professionals.

It is recommended that once the findings of these task forces are received, the Department of Education be directed to propose to the State Board of Education changes in Pennsylvania's teacher certification system which would:

- Require beginning teachers to complete an apprenticeship period under the guidance of a local district support team with the authority to recommend whether a new teacher should be certified to teach in Pennsylvania.

- Increase the emphasis on academic subjects as prerequisites for certification.

- Require continuing professional development for teachers and administrators.
Removal of unnecessary obstacles and increase schools' flexibility to attract and use talented men and women from fields outside of education in public school classrooms.

Finally, a system must be established to provide recognition, rewards and other incentives to teachers who do, indeed, heed the call to excellence contained in these recommendations.

Such a system should not be constrained by the fear that there is no fair way to identify excellent teachers. While there probably is no perfect process for doing so, reasonable judgments can and should be made about performance. Just as the private sector rewards and provides incentives for top performers, so must school districts find and use equitable systems for rewarding excellence in the classroom.

The public no longer is in a mood to support the same level of pay for every teacher, when the performance of some teachers so obviously is superior to the performance of others. Top teachers need to be recognized, and rewarded, for the important contributions they make to society.

It is recommended that a special “Excellence In Teaching” award program be established for Pennsylvania’s most outstanding educators.

Under this program, the Commonwealth would provide one-year, $2,000 excellence awards annually to each district’s finest teachers. Up to five percent of each district’s teaching force would be eligible for such an award in any given year.

Participation by local school districts in this program would be optional. If a district elected to participate and receive funding from the Commonwealth, the school board would determine the criteria to be used to make the awards in its district and obtain approval from the Department of Education. The Department will be looking for criteria which stress excellent performance in the school and classroom, leadership in the development and support of new teachers, continued professional growth, and evidence of scholarly activities in subject areas. Approval of selection criteria by the Department of Education would make the district eligible to receive state funds for this purpose.

It is recommended that the Department of Education be directed to set up procedures for the “Excellence In Teaching” award program, which could take effect in the 1984-85 school year. Funding for this program, estimated to be $10 million a year, should be included in the Governor’s budget request to the Legislature for 1984-85.

While the Excellence In Teaching award program would provide financial incentives for outstanding teachers, it is not “merit pay.” A far
greater number of teachers than will be reached by this program are teachers of unquestionable merit. It is probable, however, that districts which develop well-conceived, equitable criteria for selecting recipients of these awards will be able to use similar criteria should they decide to institute a system of merit pay in their districts in the future.

The key to the effectiveness of this award program and other recognition programs, of course, will be consistent, objective and meaningful evaluation of teacher performance. Fair evaluation is possible, but it does not consistently happen in our schools. Better evaluation tools and better trained administrators are necessary. A focus of the Department of Education's ten-year-old Executive Academy for school administrators over the next two years will be to conduct a series of training programs for the state's school administrators on how to supervise teachers effectively and evaluate them fairly.

III. TURNING THE TIDE: The Role of Local School Districts in Achieving Excellence

As noted earlier, achieving excellence and quality in Pennsylvania public schools is a responsibility that must be shared by state government and local school districts.

State government's role in this effort should include:

- Strengthening curriculum and increasing the requirements for graduation.
- Increasing student achievement by requiring testing in the early and middle grades, remedial assistance at all levels and by establishing an Honors testing program in high school.
- Increasing the standards for training and certifying teachers, and by recognizing excellence in teaching.
- Providing state funds in critical areas to assist in carrying out these measures.

The local school districts' role in this effort should include:

- Providing the courses necessary to meet the new curriculum requirements.
Administering the testing programs and implementing remedial assistance programs for those students who require help.

Implementing the honors program.

Developing ways to evaluate excellence in teaching at the local level.

The effort to achieve excellence cannot stop here, however. The schools can adopt a variety of additional strategies to increase the quality of education provided to their students and, as noted in the Report on Secondary Education in America, published by the Carnegie Foundation for the Advancement of Teaching, “strategies to improve public education will differ from one school to another.” Many local school districts are already hard at work devising and implementing such strategies.

Given the diversity of Pennsylvania and the statutory responsibilities of local school districts, no one model program or series of actions should or could be imposed by state government on each school. Rather, the state should call on local officials in each district to evaluate the needs of their students and the resources available and develop a strategy to insure that a range of educational opportunities is available in their schools.

In initiating this process, an examination of a series of measures being implemented in many local schools in Pennsylvania, and in other states, may be helpful. Each school district should consider action in each area on the list.

A. CLARIFYING POLICIES AND EXPECTATIONS

Schools that have clear standards for students generally have higher levels of student achievement. Local school districts should develop explicit policies for homework, discipline, attendance, and participation in extra-curricular activities. Schools should involve parents in the development of the policies and insure that all parents are aware of and help enforce the policies.

Homework. School districts should use homework to enhance, not merely increase, the time students spend learning, and they should develop appropriate policies to assure that an adequate amount of out-of-class work is completed.

The amount and quality of time students spend studying has a direct and positive impact on the amount that they learn. Many of the recent reports on education have emphasized this fact by recommending an extended school day or school year. Homework is another way to improve the time children spend on learning. Care should be taken that homework
assignments are creative and challenging, however, for nothing stifles learning so much as mindless "busywork."

**Discipline:** School districts should develop discipline policies which define behavior expectations and help insure classroom environments of mutual respect between teachers and students. School districts should develop special programs to deal with children who consistently pose discipline problems.

Persistently unruly children not only detract from the learning process for other students but are a factor in the departure of many good teachers from the profession. A common complaint heard from teachers is that they have been forced to serve as "babysitters" and "disciplinarians" in addition to their professional duties. Well-defined codes of conduct and other discipline policies can help. School districts should define their discipline policies clearly, and enforce them consistently.

Student discipline problems are sometimes a symptom of individual student learning problems or problems with the general atmosphere of the school. The Department of Education and successful alternative education programs around the state can offer techniques to improve student behavior, and school districts should request this assistance.

**Attendance:** School districts should use attendance policies and procedures to prevent absences and identify learning and other social problems.

Schools should monitor student attendance patterns, which often are an indicator of how well students achieve in school. Poor attendance may indicate problems which should be brought to the attention of parents or other professionals.

School attendance policies should be based on communication with parents to determine the cause of frequent absences, as well as to identify problems a child may be experiencing at home which may affect performance at school.

**Participation in Extra-Curricular Activities:** School districts should establish tough academic standards as a prerequisite for participation in extra-curricular activities.

Activities which take place before, after and sometimes during the school day often compete with academic courses for a child's time, attention and energy. School districts need to establish strict policies which indicate that learning basic skills and subjects are the first priority, and that extra-curricular activities should be part of a student's education only after she has met specified academic standards.
B. ENCOURAGING PARENTAL INVOLVEMENT

School districts should encourage parents to take an active interest in their children's schoolwork, and thereby increase the likelihood of higher achievement.

Parents usually are, and should be, their child’s first and most influential teachers, and a child’s ideas about the importance of education begin with the parents. Pennsylvania test results have shown year after year that students whose parents have a strong interest in school outperform students whose parents do not seem to care.

School districts should expand their efforts to involve parents in the education process. Parents who are actively involved in and concerned about their children's schoolwork will enforce good study habits, encourage their children to take more demanding courses, and nurture their children's creativity, curiosity, and desire to learn.

School districts should also help parents understand what colleges and employers will expect of their sons or daughters, so that parents can help insure that their children are prepared for the future. Schools also should inform parents of the many sources of financial assistance available to students who wish to continue their education or training after high school.

Children without effective parenting obviously need more than these recommendations would provide. Partnerships between schools, human service agencies, and community volunteers (as discussed later in this report), should be particularly mindful of the special needs of these young Pennsylvanians.

C. RECOGNIZING OUTSTANDING TEACHERS AND ADMINISTRATORS

School districts should motivate teachers to strive for excellence in teaching, and encourage outstanding educators to remain in the profession by developing recognition programs for exceptional performance.

Pennsylvania has over 100,000 teachers, the vast majority of whom are dedicated, hard-working men and women who do a competent job and are deeply committed to the young people they teach. Although the state Excellence in Teaching award program would provide a new and significant way to recognize and reward outstanding teachers, school districts, along with the media and business, labor, civic and governmental leaders in each community, should consider special scholarships, financial awards, and other tributes to stress the importance of teaching as a profession and the value of good teachers to our community.
Pennsylvania's public universities should explore the creation of "teacher institutes" where teachers could receive intensive, high quality continuing education in specific subject areas. School districts should also consider "Teacher of the Year" recognition programs at the district level, along the lines of the state program, and special teacher recognition and support programs in cooperation with businesses, service clubs, and higher education institutions.

School boards should consider instituting similar types of recognition programs for outstanding administrators whose performance also is critical to achieving excellence in public schools.

D. PROVIDING TRAINING FOR TEACHERS AND ADMINISTRATORS

School districts should provide training and in-service education opportunities for teachers and administrators to upgrade and sharpen their skills and techniques.

Several state efforts to improve teachers will focus on preparation programs for beginning teachers. There is a need to supplement these programs with training opportunities for many teachers already in the classroom. Local school districts can help fill this need through in-service programs which upgrade the knowledge and skills of existing instructors and administrators.

In its 1983-84 budget, the Commonwealth provided funds to be used for training mathematics and science teachers. School districts should develop programs to augment this mathematics and science training and expand continuing education programs for teachers in other areas, such as writing and computer literacy. Schools should arrange partnerships with colleges and universities, and private businesses whenever possible, to carry out these training programs.

E. EVALUATING SUPERINTENDENTS AND PRINCIPALS

School districts should strive for managerial excellence in schools by establishing a formal evaluation process for superintendents and principals.

Study after study has substantiated the critical importance of the principal in achieving excellence in a particular school. And superintendents, as managers of each school district, have an equally heavy responsibility. School districts should monitor the performance and measure the effectiveness of principals and superintendents through formal evaluation, and should provide special programs or training in areas where principals and administrators do not meet the district's standards.
F. ENCOURAGING STUDY OF FOREIGN LANGUAGE

School districts should enhance the quality of their curricula by expanding foreign language course offerings and encouraging more students to study those subjects.

Foreign language studies offer students the opportunity to improve their understanding of English by learning and examining components of another language. In an increasingly international economy, meanwhile, facility in a foreign language can substantially enhance the career opportunities of Pennsylvania graduates. In addition, these academic disciplines also introduce students to foreign cultures and increase their understanding of different social, ethnic and racial groups.

Pennsylvania is one of only eight states which require that foreign language courses be offered in high school. High schools and institutions of higher education should encourage more students to take advantage of foreign language courses.

G. OFFERING COMPUTER SCIENCE

School districts should increase the number of courses offered in computer science and encourage students to participate in an introductory computer course.

Computers and computer-controlled equipment are penetrating every aspect of modern life. In the future, virtually all workers will come in contact with computers as part of their day-to-day routine. Under the new curriculum requirements recommended by the State Board of Education, every school district will be required to make a course in computer science available to interested students.

Increasing the number of courses in computer science, and encouraging students to participate, will provide students with a better understanding of the computer as an information, computation, and communication device, and to use computers as tools for personal and work-related purposes.

H. ESTABLISHING PARTNERSHIPS WITH BUSINESSES, COLLEGES, HUMAN SERVICE AGENCIES AND VOLUNTEER GROUPS

School districts should establish partnerships and cooperative relationships with businesses, institutions of higher education, human service agencies and volunteer groups to improve the
quality of education that students receive before and after graduation.

Real opportunities for the enhancement of classroom competence lie in the private company, factory or laboratory. Schools should establish partnerships in order to use educational and private resources more effectively. Businesses spend millions of dollars a year to teach employees basic skills such as reading, writing and mathematics. Remedial courses comprise one-quarter of all mathematics courses taught at four-year public colleges. Effective partnerships with schools could help the private sector and post-secondary educational institutions reduce the amount of time they now must spend teaching skills students should have obtained before graduation. Partnerships also can extend the resources available to a school district.

Successful partnerships between schools and businesses take many shapes. Some are "adopt-a-school" programs in which businesses pair up with students and staff in a particular school building for a variety of purposes which can range from internships and tutoring for students to purchasing computer equipment. Others involve exchanges between teachers and employees of the business, and still others bring a practical, real world flavor to the school's career awareness program.

Schools that form partnerships with institutions of higher education can better prepare students for post-secondary education experiences. These partnerships could include reviews of high school curricula to assure that high schools provide sufficient preparation for advanced studies. Colleges and universities could help prepare students for the rigors of higher studies by developing programs that permit high school students to enroll in college courses while still in high school.

School districts could also develop partnerships with the many human service agencies which exist in Pennsylvania communities. The public schools frequently are called on to meet a variety of student needs which go far beyond education. Schools provide services such as employment and career counseling, and deal, as well, with health, mental health, discipline, and family problems. Schools also are asked to handle problems such as truancy, delinquency, and the high youth unemployment rate. By forming partnerships with a variety of human service agencies (such as child welfare, juvenile court, mental health, job training, and job service agencies), schools could improve the quantity and quality of services for young people, and alleviate their own burden of responsibility for non-educational programs. Partnerships with human service agencies would facilitate referral of students with particular needs, and would enhance the ability of schools to provide reliable information and training to students, parents and teachers on a range of problem areas.
School districts should also explore partnerships with retired educators and other professionals, and with the various school volunteer groups ready, willing and able to contribute to the quest for excellence. These individuals and groups, within our communities, are a rich and underused resource which can expand and enrich a school program. Retired engineers, technicians and college professors could be particularly helpful in supplementing mathematics and science education.

The steps identified in this section are ones most appropriately taken by school districts to achieve excellence in Pennsylvania's public schools. No single solution or strategy necessarily will work well for every district, due to the diversity in the communities across our state.

The areas dealt with in this section are clearly ones in which the state plays a supporting, not a leading, role. The state is, however, a partner in these efforts.

The Department of Education, as the state agency with lead responsibility for insuring a thorough and efficient system of public education in Pennsylvania, is in a unique position to oversee programs which are underway or planned in the 501 school districts. The Department also can determine which programs are most successfully achieving their intended results, and prepare to share this valuable information with all school officials.

It is recommended, therefore, that the Department of Education be directed to survey school district activities in the areas of homework, discipline, attendance, and participation in extracurricular activities, parental involvement, teacher and administrator recognition, teacher and administrator training and evaluation, foreign language and computer science instruction, and partnerships with businesses, colleges, volunteer groups and human service agencies. The Department should also develop and promote model programs, and provide all school districts with information likely to increase the effectiveness of their own programs in these areas.
TURNING THE TIDE: 
AN AGENDA FOR EXCELLENCE IN 
Pennsylvania Public Schools 
A SUMMARY 

THE COMMONWEALTH'S ROLE 

Strengthening Curriculum and Increasing Standards 

- Increase state requirements for graduation, require every student to take more mathematics and science, and require schools to offer computer science. 

Increasing Student Achievement 

- Adopt an individual student testing program — TELLS — for grades 3, 5 and 8, which measures competence in reading and mathematics. 

- Mandate and fund remedial instruction programs for students whose reading and mathematics skills are found to be deficient. 

- Establish a rigorous Pennsylvania Honors Program for high school students, culminating in the award of honors diplomas to students who pass the test and scholarship grants to the top one percent. 

Improving the Effectiveness of Teachers and Administrators 

- Increase standards for college and university programs which prepare teachers and administrators, and adopt a testing program which insures that new teachers are competent in basic skills and their subject areas. 

- Strengthen teacher certification regulations by requiring an apprenticeship period for beginning teachers to work under the guidance of a support team of seasoned educators, more emphasis on academic subjects, continuing professional development, and greater flexibility to draw on resources outside the education profession. 

- Establish and fund an "Excellence In Teaching" award program, to be used at local option, which would provide monetary awards to outstanding teachers.
THE SCHOOL DISTRICT'S ROLE

Strengthening Curriculum and Increasing Standards

- Provide the courses necessary to meet the new curriculum requirements.
- Clarify expectations of students, by developing policies on homework, discipline, attendance, and participation in extra-curricular activities.
- Encourage more students to study foreign languages and computer science.

Increasing Student Achievement

- Administer the testing programs and implement remedial assistance programs for those students who require extra help.
- Implement the Pennsylvania Honors Program.
- Encourage parental involvement in their children's education.

Improving the Effectiveness of Teachers and Administrators

- Develop ways to evaluate excellence in teaching at the local level.
- Develop local programs to recognize outstanding teachers and administrators.
- Provide training for teachers and administrators.
- Evaluate the performance of superintendents and principals.
- Establish partnerships between schools and businesses, colleges, volunteer groups, and human service agencies.
THE PROPOSED COMMONWEALTH INVESTMENT IN AN AGENDA FOR EXCELLENCE IN PENNSYLVANIA PUBLIC SCHOOLS

The cost of the program called for in this report, when fully implemented, will be $107.4 million a year. It is recommended that this investment in excellence for Pennsylvania's public schools be made by the state because of the substantial dividends which most certainly will accrue to Pennsylvania's citizens now and for the generations to come.

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