

+Introduction

+Personal Introduction

- +As many of you know, I am a scientist by
 - +training and background...
- +As such, I suffer from two character flaws:
 - +i) First, I tend to a bit too candid in my remarks...
 - +ii) Second, I tend to be one of those folks
 - +who lives more in the future than
 - +in the present or the past...

- +My life as a scientist and engineer has been
 - +spent working on such futuristic areas as:
 - +i) Nuclear rocket propulsion
 - +ii) Laser-driven thermonuclear fusion
 - +iii) Supercomputers
 - +iv) robotics and artificial intelligence

- +Now, as we enter the 1990s, I find myself
 - +looking once again to the future, facing
 - +the challenge of helping to build a University
 - +capable to serve our state and our nation in
 - +the 21st Century.

- +But today I'm going to put aside my hat as a university
 - +president...and take instead a somewhat
 - +broader perspective.

- +As a member both of the National Science Board
 - +and the National Academy of Engineering
 - +I have been heavily involved in recent years
 - +in a number of efforts to assess the challenges
 - +before this nation as we approach the 21st Century.

- +The dominant theme of these activities, of meeting after
 - +meeting, of study after study, is the growing crisis
 - +our nation faces in the development of its human
 - +resources...in educating a workforce which will
 - +be competitive in a global economy.

- +Let me illustrate with three examples from very recent
 - +experiences...

+1. America's Strength...and Weakness

- +In December I attended a conference of the top scientists,
 - +government officials, and CEOs from a number of nations
 - +throughout the world. The CEO of Nissan pointed out
 - +that following an extended visit by a number of senior
 - +Japanese officials, they asked the group what they
 - +felt the greatest strength and weakness of the US were:
 - +They were unanimous in their conclusions:
 - +America's greatest strength was our research universities.
 - +Our greatest weakness was public education at
 - +the primary and secondary level.

+Quite a paradox, isn't it?

+Quite a challenge!!!

+2. BHEF

+Two weeks ago I attended the annual meeting
+of the Business-Higher Education Forum in
+Tucson, an organization comprised of 40
+of the nation's top CEOs and 40 university
+presidents.

+During this meeting the CEOs stated their belief
+that the quality of public education in America
+was the most serious crisis this nation had
+faced since WWII!

+And yet this is a crisis about which there is little
+public awareness, must less public consensus.

+3. Growing Pessimism

+In my frequent interactions with the leaders of
+the public and private sectors throughout
+this nation I detect an increasing sense of
+pessimism about America's-
+will and capacity to take the actions necessary
+for our future.

+Indeed, many now believe that that our nation is
+well down the road toward "outsourcing" its
+knowledge resources--just as we have been
+our labor, our manufacturing, our products--
+since American industry can not only depend
+on domestic knowledge resources--that is,
+a well-educated labor force or an adequate
+supply of scientists, engineers, and other professionals.

+i) There is increasing pessimism that the
+staggering problems facing K-12
+education can be overcome on the
+time necessary to preserve our
+economic strength.

+ii) Further, despite the fact that most
+other nations regard higher education
+as our greatest strength, there is little
+sign that this view is shared either by
+our elected political leaders or the public
+at large. Indeed, it has become fashionable
+to attract our universities, even as we
+continue to seriously underfund them.

+iii) The rapid growth of "transnational" companies
+which seek resources, whether they be
+labor, processes, or knowledge--wherever
+they can get them at highest quality and

- +lowest price--suggests that outsourcing of
- +knowledge from other parts of the world will
- +become increasingly common as the quality of
- +American education deteriorates.
- +This is truly a frightening prospect. Industry has
 - +already outsourced labor and manufacturing.
- +Can we afford to lose its competitive capacity to
 - +produce knowledge as well?
- +Let's face the facts, people...
 - +We're not going to be rich and prosperous if all
 - +we do is mow one another's lawns.
 - +Or, more to the point, engaging in financial
 - +gymnastics such as leveraged buyouts
 - +financed by junk bonds...
 - +We have to bring something to the table of the
 - +international marketplace.
 - +We have to generate our wealth...through our
 - +people...their knowledge and their skills.
- +Let me be frank with you...I'm very worried...
 - +...about the future of our nation...
 - +...about the future of our state...
 - +...about the future that my children will inherit.
 - +...and about your future and mine, since it is
 - +clear that every one of us is at great risk.
- +Today I would like to share with you my concerns...
 - +...by reading some of the writing on the wall...
 - +...by being so bold as to make several suggestions
 - +about what might be done...
 - +...and to issue a "call to arms" to you as parents
 - +and as citizens to take action
 - +...before it is too late.
- +K-12 Education: The Scorecard
 - +A Nation at Risk
 - +Today, an unprecedented explosion of knowledge heralds
 - +the onset of a new era. Since people are the source of new
 - +knowledge, we will rely increasingly on a well-educated and
 - +trained work force to maintain our competitive position
 - +in the world and our standard of living at home --
 - +and indeed to harness the power of this new knowledge
 - +for the good of our planet and all of mankind.
 - +Yet here we are in real difficulty, because we are not
 - +educating enough new people to keep our economy
 - +competitive.
 - +Further, there are serious signs that the education of
 - +the present American workforce is simply inadequate
 - +to meet the demands of the next century.

- +Key input to a competitive economy is quality of the workforce.
 - +Our principal competitors are simply producing
 - +workers better capable of absorbing modern
 - +production skills.
- +This has become known as the "pipeline problem", since
 - +it involves the full spectrum of education,
 - +from preschool through K-12 through higher education
 - +to lifelong education and science literacy
 - +among the general public.
 - +because, like the Japanese, I believe that this
- part of the pipeline is clearly our weakest link...
 - +our Achilles heel.
- +By any measure, K-12 education is in serious trouble...
 - +we are indeed "A Nation at Risk"...
- ...or to quote Senator Bill Brock in a meeting
 - +I attended last Wednesday in Washington...
 - +“Public education in America is an absolute disaster!!!”
- +We are indeed a "A Nation At Risk"...
- +1. Graduation Rates and Literacy
 - +US spends more of our GNP on education than
 - +Japan or Germany (\$328 B...more that for
 - +any other public service, including national
 - +defense).
 - +Yet function illiteracy in Japan runs at 5%...
 - +here it's between 20% and 30%
 - +25% now fail to complete high school
 - +Each year, 700,000 drop out of HS and 700,000 graduate
 - +without functional literacy;
- +2. Achievement Measures
 - +Our first inclination is to think that K-12 is merely
 - +failing with minorities and at-risk kids. Not so!
 - +International comparisons demonstrate the
 - +real weakness.
 - +Even if we don't include the dropouts, we are only
 - +educating 15% to 20% of the kids to an intellectual
 - +level capable of functioning well in the everyday world
 - +--only 20% could write an adequate letter.
 - +Only 12% of 17 year olds could tax six fractions and
 - +put them in order of size.
 - +The high point is represented by those who can really
 - +enter college ready to begin college-level math/science
 - +or reading of technical material. Here, only 5% of
 - +high school graduates are up to snuff.
 - +Last week we learned that there has been little
 - +progress in our state as well...
 - +In recent tests,

- +Over 70% failed the “new reading” section
- +Over 60% failed the science section.
- +Over 30% failed the mathematics section
- +3. International Comparisons
 - +At every level of education, American children
 - +rank near the bottom in their knowledge of
 - +science and mathematics when compared to
 - +peers in other advanced nations.
 - +Our students bring up the rear in most international comparisons
 - +Compared to students in 15 other nations, US high school
 - +seniors scored among the bottom fourth on calculus and
 - +algebra achievement tests.
 - seniors ranked 14th among 14 nations in
 - +science performance.
 - +“For a technologically advanced country, it would
 - +appear that a reexamination of how science is
 - +presented and studied is required...in the
 - +United States.”
 - +We are a sports-oriented society,
 - +and we like to frame issues in the language of the playing field
 - +like “being Number one”.
 - +But folks, this isn’t a game we are talking about today,
 - +this is a deadly serious matter of raising
 - +a generation of American who will be able to
 - +hold their own in an increasingly competitive,
 - +increasingly complex, increasingly science-oriented world.
 - +The coins of the realm in the age of knowledge will be
 - +But most American students are simply not developing
 - +these skills.
 - +We hear a lot about the 21st century, but this sounds remote.
 - +These kids that test at the bottom of the heap
 - +in world terms will be the backbone of our labor force
 - +at the turn of the century...
 - +...and will be running our country in 2025!
- +Themes of Pluralism, Globalization, and Knowledge
 - +In a nutshell, as I look to the future, I am sensing
 - +an ever-accelerating pace of change
 - +in our society, in our state, in our nation, in our world
 - +as we approach the 21st Century.
 - +Our universities today are at a particularly important moment
 - +in history, since they are being called upon to
 - +educate students who will be spending most of their
- +if you will.
 - +And while it is always risky to try to speculate about the
 - +future our students will find, three themes of 21st
 - +i) It will be future in which our nation becomes a truly

- racial, and ethnic diversity that will be extraordinary
 - +in our history
 - +In which those groups we refer to today as
 - +our nation in the century ahead...
 - +of America...
 - +Indeed, almost 90% of the new entrants into our
 - +workforce during the 1990s will be people of
 - +color, women, or immigrants.
- +ii) It will be a future in which America will become
 - + "internationalized"...
 - +Our economy and commerce are becoming every
 - +more interdependent with other nations as
 - +the United States becomes a world nation,
 - +a member of the global community --
 - +as this past year's events in China, Russia,
 - +and Eastern Europe make all too apparent.
 - +Indeed, every one of our activities must be viewed within
 - +the broader context of participation in the global community...
 - +Further, as the destination of roughly half the world's
 - +immigrants, the United States is rapidly becoming a
 - + "world nation" with not simply economic and political
 - +but strong ethnic ties to all parts of the globe.
 - +The 21st Century will be the first post-European century
 - +in American history.
 - +An absolute majority of young people born in US
 - +in the 21st Century will be born of parents
 - +of other than European background...
 - +Asian, African, Hispanic
 - +And this will represent a major change in the
 - +character of our society.
- +iii) The Age of Knowledge
 - +But there are even more profound changes underway...
 - +Today we are evolving rapidly to a new post-industrial,
 - +knowledge-based society, just as a century ago our
 - +agrarian society evolved through the Industrial Revolution.
 - +Some examples:
 - +1. Industrial production is steadily switching away from
 - +material and labor intensive products and
 - +processes to knowledge intensive processes:
 - +2. Our nation's future has probably never been less
 - +constrained by the cost of natural resources.
 - +3. Increasing manufacturing production has come to
 - +mean decreasing blue collar employment!
- 4. We are in the midst of an information revolution
 - +that is changing the basis of
 - +(Indeed, if you want to know the real reason

- +for the recent events in Eastern Europe,
- +China, and the Soviet Union--the collapse of
- +communism--it was the silicon chip which created
- +a truly international exchange of ideas and
- +government!)
- +In a sense, we are entering a new age, an age of knowledge,
- +in which the key strategic resource necessary for our
- +prosperity, security, and social well-being has become
- +knowledge--educated people and their ideas.
- +The Challenge of Change
- +Needless to say, these challenges of pluralism,
- +of globalization, and of this age of knowledge
- +that is our future will pose great challenges and
- +demand changes in our state and our nation.
- +The America of the 20th Century that we have known...
- +was a nation characterized by a rather homogeneous,
- +domestic, industrialized society...
- +But that is an America of the past.
- +Our students will inherit a far different nation...
- +a highly pluralistic, knowledge-intensive, world nation
- +that will be the America of the 21th century
- +Of course, these are really not themes of the future
- +...but rather themes of today...
- +...in a sense, I have simply been reading the handwriting on the wall...
- +The impact of these changes are already painfully apparent
- +to Michigan's workers and industries.
- +In fact, it is here in Michigan...in the heart of the "Rust Belt"
- +that the impact of these extraordinary changes are
- +most clearly seen...
- +We all know that past decade was a period of
- +great difficulty for our state...
- +Industries of great economic importance
- +such as steel and automobiles have
- +fallen victim to intense competition from abroad...
- +Plants have closed...we still have many people chronically
- +unemployed...or under employed
- +Indeed, Michigan's per capita income has now dropped below
- +the national average...
- +Our unemployment rate consistently is at the
- +top...and, soon, if we are not careful
- +our prison population will be as well...
- +It is clear that our state is in the midst of a profound transition...
- +...from an industrial economy based upon the abundance
- +of natural resources, unskilled labor, and, to some degree,
- +constrained, slowly moving domestic markets...
- +To a knowledge-based economy, characterized by intensely

- +competitive world markets, rapid change, and--most
- +important of all--educated people and their ideas.
- +This has not been...and will not be...an easy transition to make.
- +The truth is that the outcome is still very much in doubt!
- +Whether we will emerge from this transition as a
 - +world economic leader once again...with a
 - +strong, prosperous--albeit new--economy
 - +producing jobs and improving our quality of life.
- +Or whether we will fail to heed the warnings...
 - +...to make the necessary investments and
 - +sacrifices today necessary for strength and
 - +prosperity tomorrow...
- +And become an economic backwater in the century ahead.
- +It is clear that we face a watershed--a fork in the road ahead.
- +My central point is that education, broadly defined, will
 - +be the pivotal issue in determining which of these two
 - +alternative futures will be Michigan's...and America's.
- +Previous economic transformations were closely associated
 - +with major public investment in infrastructure such as
 - +railroads, canals, electric networks, and highways.
 - +I believe that the coming economic transition, an equivalent
 - +infrastructure will be an educated population.
- +It seems clear that the dominant issue of
 - +the 1990s will be the development of our people and the
 education of our youth.
- +People must be the major focus...
 - +People -- not equipment or buildings -- are the source
 - +of creativity.
 - +They generate the knowledge that makes the technological
 - +innovation possible. They are the workforce that produces
 - +our wealth and makes our society run.
 - +They are our researchers and teachers, our leaders, managers,
 - +and decision makers in modern technological society.
- +But here we face very serious challenges...
- +So What is Wrong with Public Education in America!
 - +1. The Last of the Smokestack Industries (Albert Shanker)
 - +A fundamental flaw in the system is our assumption that
 - +the teachers are the workers who deliver knowledge
 - +to the kids.
 - +This system makes a lot of sense, if you view the kid as
 - +an passive object, passing down an assembly line,
 - +being worked on by others, teachers, the real workers.
 - +First the English teacher hammers English into him.
 - +Then 40 minutes later he goes off to the math teacher
 - +who screws mathematics into him.
 - +Perhaps this lockstep approach to learning was OK for

- +in which only those in top management needed to analyze,
- +think critically, and make decisions.
- +Today's world is a very different place and requires
- +What we need to do is to stop thinking about how to fit
 - +teachers, kids, and parents into an old-fashioned
 - +factory. (Note that even modern business is
 - +abandoning the factory model.)
- +We need a structure in which the STUDENTS are the workers.
 - +The teacher is not the person who pours knowledge into
 - +the kids; the teacher is a manager, and has the same
 - +job that the manager of any company has.
 - +...How do I get my workers to come here wanting to work?
 - +...How do I get them to do the work?
 - +...How do I get them to manage and be interested in the
 - +quality of their own work?
- +2. The "Blue Collarization" of the Teaching Profession

It seems clear that teachers are...or at least should

 - +be regarded...as among the most valuable members
 - +of our society, since in a very real sense they are
 - +creating our future.

+And yet how do we treat them?

 - +i) low salaries
 - +ii) low status
 - +iii) few rewards (absence of incentive pay)
 - +iv) little opportunity for control of the curriculum
 - +v) drown them in a mire of bureaucracy
 - +And then we criticize them for not doing their job!
- +3. Diffusing the Mission of Our Schools
 - +Once we believed that our schools were
 - +primarily for learning.
 - +However, over the past 20-30 years, we
 - +have assigned to our public schools
 - +roles for which they were unprepared,
 - +and thus undermined their primary purpose
 - +of education.
 - +We have told our schools to be less concerned
 - +about a student's intellectual achievement,
 - +and instead to focus on
 - +social adjustment
 - +individual realization
 - +group consciousness
 - +Indeed, we no longer even have a coherent
 - +vision of the role schools should play in
 - +our society.
 - +Further, we have stripped away the role of
 - +both the parent and the school in setting

- +boundaries and values that could guide
- +the development of children.
- +Most significantly, we have systematically
- +stripped the school and the teacher of
- +their social authority.
- +Of course, part of this has been due to the
- +abdication of our responsibilities as
- +parents!
- +Interesting contrast shown in survey of mothers
- +whose children were not performing up to
- +expectations:
 - +was not smart enough
 - +Japanese mothers through their child
 - +was not working hard enough.
- +Indeed, perhaps it is the lack of commitment of the American
- +family to the education of children that distinguishes us
- +from most other countries
- +We seem too busy to help our own children in their
- +studies or participate in their activities.
- +Of course, there are indeed many situations in which we
- +cannot blame the family...because it simply doesn't
- +our institutions.

+7. Political Minefields

+Ross Perot:

- +“The hardest thing I ever did was the year
- +I spent trying to improve the Texas public schools.
- +It was the hardest, meanest, bloodiest thing
- +I ever tried to do.”
- +We continue to be paralyzed in our efforts to come to
- +grips with school finance reform or major structural
- +changes necessary to achieve quality in public education.
- +One of the curses of the American experience has been
- +our preference for quick fixes, simple solutions to
- +complex problems. Too often we go for the
- +slikly marketed patent medicine that not only doesn't
- +provide a cure, but actually aggravates the problem.
- +A classic example of this tendency toward gimmickry is the
- +State Lottery, which in effect robs from those most
- +in need of state assistance, to subsidize those already
- +well supported.
- +Furthermore, since these Lottery funds flow into the
- +General Fund, and since state support of education
- +has clearly not kept pace with the increase in lottery
- +revenues, it is clear that lottery revenues are, in
- +effect, going to build and operate more prisons
- +(the only part of the state budget which has grown

- +at this rate).
- +Some irony here, since the Lottery, in effect, is
 - +transferring funds from the deprived components
 - +of our population..
- +Possible Solutions
 - +The Limited Success of the Present Reform Movement
 - +The reform movement started 6 years ago with
 - +A Nation at Risk is still moving along...
 - +but we are beginning to recognize that we
 - +need more than gradual reform...
 - +...we need a complete overhaul!!!
 - +need to consider a drastic overhaul.
 - +We have essentially been taking the system we
 - +hve now for granted--assuming it is a a basically
 - +OK system, and all we have to do is polish it up a bit.
 - +Instead, we need major restructuring.
 - +Business-Higher Education Forum
 - +20 major reports in past several years...
 - +285 recommendations...only 9 of which
 - +were supported by 5 or more of reports
 - +“It is little wonder that progress in raising student
 - +achievement has been much too slow: As different
 - +pilots seize the helm of educational reform, the
 - +ship goes around in circles.”
 - +Several basic principles:
 - +Simplicity: The simpler the goal, the more likely
 - +it is to succeed...”E.g., at the end of the next
 - +school year, all students should be performing at
 - +grade level before promotion to the next grade.
 - +Students not performing to these minimum standards
 - +would be provided with appropriate assistance until
 - +they do.”
 - +The System: Goals must address education system as
 - +a system--avoid piecemeal tinkering and dabbling with
 - +one aspect of reform--curriculum or middle schools,
 - +for example.
 - +Values:
 - +Debate must be recast within a broader framework that
 - +illuminates not only the education of our youth but
 - +also the clear need for all our people to learn their
 - +way through full and satisfying lives.
 - +Several overarching values:
 - +...reaffirming the dignity of work
 - +...restoring a sense of national purpose
 - +...recapturing our belief in the future.
- +What we know...

- +1. The truth is that we already know a lot about what
 - +needs to be done.
 - +We know our children need respect and freedom if
 - +they are to learn.
 - +We know we need to see each child as an individual
 - +in the context of their needs in and outside the
 - +classroom.
 - +Children can't learn if they are hungry or sick or
 - +homeless...or abused.
 - +For too long we have compartmentalized our approach
 - +to children and families, treating first one symptom
 - +and then another. We have to recognize the needs of
 - +the whole child.
- +2. Thanks to the experience of schools like Cranbrook,
 - +we know that successful schools are marked by:
 - +i) freedom from external control and regulation that
 - +leaves more power in the hands of the individual
 - +school to plan its own educational program
 - +ii) strong leadership in trying to unite the faculty and
 - +students by articulating a clear academic mission
 - +for the institution
 - +iii) a lot of teacher participation in trying to decide how
 - +to teach, what materials to use, and what curriculum
 - +to follow
 - +iv) respect for the individuality of the student
 - +v) most significant was a lot of parental involvement in
 - +life and progress of the school
- +3. We also have the experience of higher education...
 - +Important Contrast:
 - +i) in K-12, Michigan ranks near top in spending per
 - +student, but near bottom in achievement
 - +ii) In higher ed, Michigan ranks near bottom in
 - +spending per student, but near top in
 - +achievement
 - +What is the difference?
 - +i) First, the intensely competitive marketplace
 - +that colleges face...competing for the
 - +best students, faculty, funding...
 - +...not only with other institutions in the state,
 - +but indeed throughout the nation and the
 - +world.
 - +ii) Second, the autonomy and independence
 - +universities have to control their own
 - +destinies--to develop their own business plans
 - +to respond.
- +It could well be that our K-12 schools are so overwhelmed

- +by red-tape, bureaucracy--and operate in such a
- +weak marketplace (with no incentives for quality),
- +that they just cannot improve.

+What can we do?

+1. Educate for the 21st...not the 19th Century!

- +Schools will only succeed if they replace the basic structure
 - +that was put in place 50 years ago to meet the needs of
 - +a smokestack economy with a new structure that meets
 - +the needs of an information economy. Need the creativity
 - +and openness of entirely new approaches to learning and the
 - +organization, management, and staffing of our schools.

- +Of course, first objective is to fill our schools with first rate
 - +teachers and administrators and then set up
 - +performance-oriented systems in which the goals for
 - +students are clearly specified, and rewards go to schools
 - +in which students make substantial progress toward those
 - +goals.

+More demanding requirements

- +Higher standards and expectations

+Lengthen school year from 180 days to 240 days

- +(note this would also achieve higher teacher salaries)
- +(It also eases child care needs)

+Students have to gain a sense of partnering in

- +the learning process so that they feel
- +responsible for their education and
- +connected to the school and
- +regard themselves as a community of
- +common concern.

+Need partnerships that reach beyond the schools--

- +and involve the parents

+2. Make teaching an honored profession once again.

+Better pay...with strong merit component

+Better preparation...

- +E.g., education in core subjects

+More control over curriculum and classroom...

- +...Management by Objectives...

+3. School Management

+Education, like industry, can improve by

- +restructuring operations following some
- +very simple principles:

+i) Go for quality and build it in the first

- +time whenever possible.

+ii) Reward success in producing quality.

+iii) When a system for rewarding quality

- +is in place, let the people on the

+firing line figure out how to get the

- +job done.
- +iv) Get rid as much of the bureaucracy
 - +and as many of the intervening rules
 - +and regulations as possible.
- +Key is to get the incentives to make sure there are appropriate
 - +rewards for success and real consequences for failure.
 - +If we want quality, we should reward it.
 - +If we want student progress, we should reward it.
 - +If we want efficiency in the use of public resources,
 - +we should reward it.
- +4. School Financing
 - +Need more tax support for education...
 - +Education is so much the key to our
 - +Must reshape state's priorities, bring a better balance
 - +to school finance by seeing education as an
 - +investment in the future that deserves a higher
 - +priority in relation to our immediate needs.
 - +Lottery experience is cause for cynism.
 - +Fact that the state offset the lottery revenue by
 - +cutting back on what would have otherwise
 - +been invested from the general fund has
 - +created a deep distrust on part of voters.
 - +We have to wrench the state's priorities around and
 - +make education far more the centerpiece of
 - +its efforts.
 - +We have to stop treating the symptoms and summon
 - +the will and the courage to seek a cure.
 - +Devising an alternative tax method
 - +Shifting from overdependence on property taxes.
 - +Unless Michigan finds a way to get away from its
 - +overdependence on property taxes, we will
 - +continue to have tax revolts.
 - +Equity issues: extremes between rich and poor districts
 - +This inequity continues to assure that many of the
 - +investment in their education.
 - +Need a difference school aid formula.
- +5. What Higher Education Can Do...
 - +What can an institution such as my University do?
 - +Recommendations for universities:
 - +i) We need to spread out more to school districts by
 - +reporting on new methods of instruction and new
 - +ideas for reorganizing and improving schools.
 - +(Coalition for a New American Education)
 - +ii) Need to mount much more effective programs than
 - +those we have had to train teachers, principals,
 - +superintendents

- iii) Need to work with schools to experiment with new
 - +techniques, new texts, new methods of instruction,
 - +new ways of organizing knowledge, to engage
 - +students in the excitement of experimentation and
 - +problem solving.
 - +iv) We must look at our schools of education--these have
 - +had low status on our campuses--being known as a
 - +haven for mediocre students and mediocre faculty
 - +(In fact, if you look at reforms of past 5 years, it is
 - +depressing to see how little mention is made of schools
 - +of education.)
 - +We must reexamine our priorities and ask ourselves whether we
 - +are not partly to blame and whether each one of us should not
 - +put a much higher priority on doing what we can to
 - +help improve the quality of public education.
 - +v) Set high entrance requirements communicate them
 - +clearly to our public school systems.
 - +Coalition for a New American Education
- +6. A Major Cultural Change: Demand Success
 - +We should move to a "zero defect" philosophy.
 - +We must not tolerate failure!
 - +Every other developed country denies dropouts by
 developing multiple track systems in which students
 - +who do not track at the highest performance level
 - +are given many other options (and chances) to
 - +succeed.
 - +As a result, they succeed in building a highly skilled
 - +workforce at all levels...and avoid the incredible
 - +social costs of drops and the development of an
 - +underclass.
- +7. A Sea Change in Public Attitudes
 - +Part of the problem has to do with the absence of
 - +a national consensus on either the magnitude
 - +or the solutions to the problem.
 - +Proposal that Bush announce an education goal
 - +similar to the Mission to the Moon:
 - +“Americans are going to be the best in the
 - +world at educating and training our people,
 - +whatever it takes!”...E.g.,
- +The Real Challenge...and the Real Solutions
 - +Who is to blame???
 - +Our schools and colleges???
 - +Certainly they must take stronger actions to improve
 - +quality...and strive harder to operate in a more cost-effective
 - +manner...
 - +But these institutions are not to blame...

- +In a sense, our schools have fallen victim to our
 - +own inertia. They have been crushed under the
 - +weight of a bureaucracy that smothers creativity
 - +and true accountability.
- +What about our elected public officials???
- +It is certainly not their fault!!
- +It is clear that our elected leaders, whether in Washington
 - +or Lansing or our local communities...
- +Would like nothing better than to make education their
 - +highest priority.
- +To become
 - +...the Education Governor
 - +...or the Education Party
 - +...or the Education President
 - +in our human resources, and they are searching
 - +for creative ways to improve the quality
 - +of our schools and provide adequate and
 - +equitable financial support.
- +But they also face formidable constraints, since in the
 - +end the voters get what they ask for...
 - +and face it, gang...the electorate today
 - +says:
 - +i) no more taxes...
 - +iii) no more cuts in social services or national defense...
 - +and our public officials have no choice but to respond.
- +No, the real finger of blame for the crisis we face in education
 - +should be pointed, as Michael Jackson would say,
 - +at "The Man in the Mirror"... ..at you and at me...
- +We are the ones who fail to demand the highest quality
 - +in our educational institutions in Michigan...
- +We are the ones who steadfastly resist a tax base adequate
 - +to support both our needs and desires...and provide an
 - +adequate level of support for quality education in this state.
- +We are the ones who block any effective efforts to achieve
 - +equitable financing of education in Michigan.
- +We are the ones who generally are too busy to help our own
 - +children in their studies or participate in their activities.
- +And we are the ones who insist on building more and more
 - +comes out of the hide of education and social services--
 - +which are, of course, the only true long term solutions to crime!
- +We have become consumers of the future
 - +not investors in it.
- +Something has changed in America...
 - +which one's first responsibility was to one's children
- +My parents scrimped and saved for my college education...
 - +...and my wife and I have done the same for our

- +daughters.
- +Saving for a college education came first...
 - +...before a house, before a fancy car, before an exotic vacation
- +Obviously most of you in this audience agree with me
 - +about the importance of education and many of you
 - +are making hard choices and sacrifices. But what
 - +about most of our fellow citizens. What has happened
 - +to us as a nation?
- +But today's generation is different...
 - +...the "me generation" of the 1960s has grown up into comfortable Yuppiehood...
- +Even though surveys indicate public supports education, our
 - +elected public officials do not seem to listen. They prefer
 - +to fund roads or prisons or football stadiums rather than
 - +the education of our youth!
- +The attitude we have taken toward our most precious resource,
 - +our youth, is both callous and alarming.
- +I simply cannot accept the excuse that "we can no longer
 - +afford this investment in the educational opportunities
 - +we offer our youth.
- +To be sure, the immense social needs for welfare assistance,
 - +medical care, prisons, and all of the other programs that
 - +drain our tax dollars are compelling.
- +However, by choosing to meet these needs with resources
 - +taken away from our system of public education rather than
 - +through reforms in our tax structure or political system,
 - +we have in reality mortgaged our future by withdrawing
 - +the educational opportunities from our youth.
- +We seem to have forgotten the commitments that past
 - +generations of citizens have made to build educational
 - +institutions of exceptional quality -- institutions that have
 - +provided many of us for years with unsurpassed
 - +educational opportunities.
- +A different way to look at it:
 - +The Investment in Human Capital...
 - +The real issue here is not the investment in education...
 - +it is the priority that we as a nation place on investing in
 - +our children.
 - +We should feel both embarrassed and ashamed for robbing
 - +our youth to pay for our own excesses...
 - +But let's take the cynical view that responsibility and stewardship will
 - +simply not be a compelling enough argument to reprioritize the
 - +importance of investing in human capital...in our youth.
 - +There other viewpoints, however...
- 1. If we do not invest in the youth of today, they will not become a
 - +sufficiently productive workforce to keep the checks coming

- +to those of us who retire in future years!!!
- +By 2000, there will be only three workers to support each
 - +retiree...and one of these will be minority!
- +2. Look at it another way...which is the better investment...
 - +\$3000/y to keep a preschool kid on track
 - +\$5000/y to achieve a strong K-12 education
 - +\$10,000/y to sustain strong college education
 - +or \$25,000/y to put someone in jail...
 - +...and the foregone income and taxes paid by
 - +a well-employed citizen.
- +The Need for a New Coalition
 - +Today Michigan faces serious challenges that
 - +will clearly determinine its future prosperity
 - +and well being...
 - +the challenge of pluralism...
 - +the challenge of participation in a global community...
 - +the challenge of the Age of Knowledge
 - +the challenge of change itself...
 - +As we approach a new century, our state--just as our nation--
 - +is undergoing a profound and difficult transition
 - +to a new economic order...
 - +Our fabuously prosperous industrial economy...
 - +an economy that allowed us to build some of the
 - +world's great institutions---including some of its
 - +finest universities--
 - +But that economy is rapidly disappearing...
 - +...and our challenge for the next decade is to
 - +take the steps necessary to build a new
 - +knowledge-based economy which will be
 - +competitive in a world marketplace.
 - +Let there be no mistake about it...this will not be
 - +an easy transition...and the outcome is still
 - +very much in doubt.
 - +As we prepare to enter the Age of Knowledge,
 - +our ability to sustain the strength of our state
 - +and our nation...to achieve the quality of life for our
 - +citizens...will be determined, more than any other factor,
 - +by how we develop, nurture, and educate that
 - +most precious of resources, our people.
 - +If we are to respond, we simply must reorder the priorities of this state...
 - +We must shift away from the temptation to
 - +address only the needs and desires of the moment
 - +And, instead, we must begin to make some of the key investments
 - +necessary for the long term...
 - +The key investments in our people...
 - +in our children...

+Challenge

- +Our education system is complex and decentralized and the primary
 - +responsibility is located at the state and local level.
- +There is no simple solution...we must push on all fronts.
- +We must weave a strategy of many strands--a strategy that places
 - +existing programs in a larger context that established a clear
 - +sense of direction, develops the leadership for the task, and
 - +insures continuity of effort.
- +Above all, we must be consistent and persevere.
- +This is not just the worry of local communities or
 - +state government or public institutions
- +It is everybody's concern!
- +Each of us must step forward and unite to
 - +face the challenge of the future.
- +We must work together to build new coalitions including
 - +the public and private sectors...state government,
 - +education, business, industry, and labor...to
 - +develop an agenda appropriate to secure the
- +Michigan continues to be blessed with abundant natural resources,
 - +a people of great strength, and a system of higher
 - +education of a quality envied by the rest of the
 - +nation...indeed the world!
- +But, the writing is on the wall...
- +If Michigan is to prosper in the age of knowledge
 - +that is almost certainly our future, we must join together
 - +now to restore both our public and
 - +personal investments in education...
 - +...in our people and their ideas...
 - +...in our children...