

## Cranbrook

### 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, much 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.

Today I will focus my remarks on K-12 education, 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 than for any other public service, including national defense).

Yet functional 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.

In international comparisons, US high school 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 science, mathematics, and technology...

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  
lives in another century...citizens of the 21st Century,  
if you will.

And while it is always risky to try to speculate about the  
future our students will find, three themes of 21st  
Century America seem clear...

i) It will be a future in which our nation becomes a truly  
multicultural society, with a cultural,  
racial, and ethnic diversity that will be extraordinary  
in our history

In which those groups we refer to today as  
minorities will become the majority population of  
our nation in the century ahead...

In which women take their rightful place as leaders  
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 economic competitiveness and world power. (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 perspectives that could not be constrained by any 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 21st 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 knowlege-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 a 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 training our industrial workforce, organized hierarchically, 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 different skills and more initiative and creativity.

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. Family Attitudes

Interesting contrast shown in survey of mothers whose children were not performing up to expectations:

American mothers thought their child  
was not smart enough  
Japanese mothers thought 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 exist!

### 4. Disintegration of Social Fabric

Roughly half of students in K-12 education will come from what we used to call "broken homes"...

To this we must add the full range of other social challenges...  
...ranging from the mind-numbing impact of television  
...to poverty and the disintegration of the family  
...to drugs and crime

Of class of 2001, which started kindergarten last fall,  
25% are living below poverty line

15% have physical or mental handicap

14% born to teen-aged mothers

10% have illiterate parents

## 5. Public Attitudes

The real power to influence the education at the local level.

Yet how many of us insist on quality in our schools?

in our educational institutions in Michigan...

How many of us are willing to support the millages necessary

to build strong schools...or the other tax measures

necessary to achieve equity in school financing?

We, as parents and citizens have abdicated our political responsibilities.

We have not demanded that our publically elected officials respond to the seriousness of our deteriorating system of education.

How many of us realize that what is at stake here is not just the future of our children...

...but the future of our nation and our way of life...

...not to mention our own personal well-being?

## 6. Our Universities...

While I am taking potshots at various groups, let me also aim a few in the mirror...at higher education.

For many of the challenges faced by public education these days are our doing...

For years in most of our institutions, the education of K-12 teachers has ranked among the lowest of our priorities...

Indeed, in some institutions, such as mine, we came very close to eliminating entirely our School of Education during the 1980s...

We have perpetuated the "smokestack" assembly line

approach to education both in our instructional programs and in our accreditation activities.

We have not insisted on the highest standards for our own graduates...

And, I might add, we have not insisted on the highest standards and best preparation for those entering 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 slickly 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

have now for granted--assuming it is 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

should 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 future that we had better place a higher value on it.

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 state's most needy kids will get the least 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 schoold districts by reporting on new methods of instruction and new ideas for reorganizing tand 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



They understand clearly the importance of investing  
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...

ii) no more crime...

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  
prisons, even when we know that this investment  
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...

You know, I was brought up in a long tradition in 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 Yuppieshood...

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  
future of our children, our state, and our nation.

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...

...and in our future