

## Appropriations Committee Testimony

### Excitement

Extraordinary "Go Blue" Michigan spirit is alive and well...  
as evidenced by events of the past several months

### Solar Car Race

ii) A team of over 100 Michigan students won the solar car race from Florida to Michigan, thereby earning the right to represent the United States in the world competition in Australia this fall.

They then went on to finish 3rd in the world...behind factory teams from Switzerland and Honda.

An extraordinary performance...for a group of students.

But, even more to the point, they helped to develop a technology that may have great impact on our society.

### Genetic Medicine

Francis Collins, Howard Hughes Medical Research Institute

Applications of molecular genetics to medicine

i) Discovery and cloning of gene responsible for cystic fibrosis

ii) Discovery of the gene responsible for neurofibromatosis...Elephant's Man disease

iii) How to inject normal genetic material into a cystic fibrosis gene and cure it

iv) Identified gene responsible for body's inability to handle cholesterol

What an extraordinary contribution!

Note: 40 years ago, Michigan conducted the clinical trials for the Salk Vaccine...

Jonas Salk was a faculty member at UM!

An example of how Michigan research has great impact on our society!

### McCarthy Prize

iii) It was announced that two Michigan faculty members had won MacCarthy prizes prizes, the key prize used to acknowledge creativity and excellence in our society-- No other University won more than one.

iii) It was announced that two Michigan faculty members, Sherry Ortner and Rebecca Scott, had won MacCarthy prize--the key prize used to acknowledge creativity and excellence. They were -joined by a third former Michigan faculty member, Tom Holt, now a visiting faculty member at the University. No other University won more than one.

### Computer Network

NSFnet, the major computer network, operated by the University in collaboration with IBM and MCI, passed the milestone of linking together over one million users in the U.S. and around the world...at over 500 sites.

The next stage, the National Research and Education Network or NREN, now stands poised to continue this momentum in the year ahead with strong support building both in the White House and in Congress.

Today in Washington, UM, IBM, and MCI are announcing the formation of a new nonprofit corporation to manage this "interstate highway system" for information transfer.

Note that when Sunrunner was racing through the outback of Western Australia, we were in daily contact through E-mail on the network

#### World's most powerful laser

Michigan scientists announced the development of the world's most powerful laser--with power equivalent to 40 times the electrical generating capacity of the U.S. (I should note that the science of holography was invented at Michigan!)

And, a week ago, it was announced that Michigan had been selected as a national center for laser research by the National Science Foundation.

#### International Activities

Teams of Michigan business students spent the summer in Poland, and Soviet Armenia helping these rapidly changing nations in their transition to capitalism.

Bob Zaconc announced an agreement in which ISR would help Poland build a counterpart research institute in the social sciences in Warsaw... and now negotiating a similar institute in Moscow.

And the President lent his daughter to Hungary for two years as a Peace Corps volunteer...

#### Tidbits

A Michigan paleontologist discovered a fossil demonstrating that whales once had hind legs and feet!

The opening of the new Child and Maternal Health Care Center... a \$100 million medical care facility dedicated to providing the best pediatric and obstetrics care in the world... and dedicated by the U.S. Surgeion General, Dr. Tony Novello, a former Michigan resident!

Athletics--American gladiator competition

And while not much happens in athletics during the summer, one of our women engineering students won the American Gladiator competition... and one of our alumni--and a former Regent-- Bob Nederlander, succeeded George Steinbrenner as managing owner of the New York Yankees. (The second Michigan contribution to the American Baseball League this year...we lent Bo to run the Tigers last spring!!!)

And UM football won its 3rd Big Ten championship in a row with that great last second victory over Ohio State. Not a bad year thus far! But then, it was rather typical for this remarkable university.

It provided a healthy and happy reminder that the real business of the University is in the very capable hands of our faculty and students and, as always, they are doing us proud.

#### Introductions

Gil Whitaker

#### Proposal...

I would like to make a few general comments before moving to the details of the FY91-92 budget request and responding to your questions.

Raised a number of issues...

We have responded to all of these issues in writing and we will be happy to elaborate further this morning...

However, all of these issues touch on a subject of much broader importance...

The role that higher education can play...indeed, must play...in the future of this state...and the budget needs of our institutions necessary to allow us to play this critical role...

If you will permit me, I would like to first make several observations from this broader perspective...

#### Some Teasers

During the past two months

We have been relieved by the ...

We have been given new hope...

We have seen new evidence.

And we have heard announcements...

What do the following have to do with one another?

the military technology...the Patriots,

Tomahawks, stealth fighters,

night vision...all of the stuff that led

to the incredible victory in Operation Desert Shield  
the Salk Vaccine which eliminated polio  
...the rapidly moving effort to develop  
a cure for genetic diseases such as  
cystic fibrosis, Alzheimer's disease,  
heart disease, cancer  
the rapidly growing high-tech industries  
in our state...industrial automation,  
optoelectronics, computer software  
the more recent efforts to improve K-12  
education in Michigan...to provide every  
child with the opportunity for the quality  
of education necessary for the 21st Century

Before I answer that, let me give you another list:  
crime, poverty, the disintegration of the family  
the plight of our cities  
global change...the greenhouse effect and  
global warming...air and water pollution  
AIDS, cancer, heart disease

The common thread linking all of these issues  
is the knowledge produced on University campuses  
The first list represents just a few of the areas  
in which the efforts of our universities...  
in particular, the University of Michigan...  
have been felt.

The second represents the great challenges of our times  
...challenges that will be only met through new  
knowledge...knowledge that will be produced on  
our campuses...and applied by their graduates

#### Some Interesting Calculations

Cost/Benefit Implications for Michigan Residents  
State spends: \$30 per year per citizen for UM  
UM pumps back: \$220 per year per citizen  
UM stimulates: \$2,000 per year per citizen  
Calc:

1.8 B budget  
\$270,000,000 appropriation  
9 million citizens  
economic multiplier = 10

#### Job Creation

UM generates 120,000 jobs each year through  
direct expenditures

Calc:  
\$1.8 B budget  
\$20,000 per job ==> 90,000  
30,000 UM employees

## Value of Education

Students spend \$200 per day for UM education

Students will earn \$2,000 per day as a result

Calc:

UM B.S. lifetime earnings: \$3,000,000

HS graduate earnings: \$1,500,000

720 days for B.S. degree

What do we get for our money?

This past year the taxpayers of this state contributed over \$270 million through state appropriations to the University of Michigan.

What did they get in return?

Well, there are certain obvious payoffs...

- i) an outstanding education of roughly 50,000 students  
Including 29,000 undergraduates)  
(80% of them Michigan residents!!!
- ii) the production of 12,000 graduates at  
all degree levels  
in all disciplines and professions

But they got far more for this investment

Dollars:

- i) In comparison to the \$270 M invested by the state, the UM attracted to Michigan over \$300 million in federal support--most of which came in the form of sponsored research contracts and student financial aid.
- ii) Further, the students attracted to our programs contributed roughly \$300 M additional dollars to tuition and fees...
- iii) In addition, the auxiliary activities of the University contributed another \$800 M to the state's economy...
- iv) Or \$1.7 billion, in all -- a multiplying factor of six-fold

Economic Development

- i) But far beyond that, we estimate the true economic impact of the University multiplies its state appropriation by at least a factor of ten or more...
- ii) For example, the UM's engineering programs--supported in part by the Research Excellence Fund, are credited as a key to the recent growth of a \$5 billion industry in industrial automation in the southeastern Michigan area.
- iii) Each year the University spins off dozens of new

- companies, creating new jobs and attracting new dollars to our state
- iv) Each year the UM attracts to Michigan new companies...  
...as evidenced by the announcement in Ann Arbor that Philips Electronics has just agreed to site a major \$200 M factory in the Ann Arbor area
  - v) Or exciting new ventures such as  
...the National Research and Education Network  
...CEISIN
  - vi) Each year the UM produces thousands of engineers, scientists, business executives, lawyers, teachers,...and all of the other professionals so necessary to compete in the knowledge-based economy which characterizes our world.

#### Health Care

But of course there are so very many more payoffs from this investment.

Last year, over 750,000 patients were treated in the UM Medical Center...regarded as one of the world's great centers of quality health care.

Indeed, our recent market surveys have indicated that essentially every family in this state at one time or another has had one of their members referred to and treated by our doctors.

Further, the through its activities in medical research continues to have great impact on the people of this state...

...whether it was conducting the clinical trials for the vaccine developed by one of our faculty members, Dr. Jonas Salk...

...or the recent announcement last fall that a UM team of scientists had identified and cloned the gene responsible for cystic fibrosis

I would suggest there is not a person in this room whose life has not been...or will not be touched at one time by our doctors and medical scientists!

#### Social Change

But there is so very much more...

The University continues to serve as one of  
the great engines of social change in our  
state...

Whether it is the Michigan of the Big Chill...

...the long tradition of student activism  
awakening the conscience of our society

The Teachins of the 1960s against the war in Vietnam

EarthDay in the 1970s to raise concerns about the  
environment

Our celebration of Martin Luther King Day last month  
with an educational experience involving thousands  
to highlight the importance of tolerance and  
mutual understanding

Or the extraordinary impact of our regional  
campuses as they educate first  
generation college graduates

Or the leadership we are providing in  
addressing the needs of our minority  
communities...as evidenced by the  
Michigan Mandate (hand out)--widely  
regarded as one of the nation's most  
visionary approaches to affirmative action.

It is clear that the public research university...

...an institution for which the University of Michigan  
is not only the prototype, but perhaps also the flagship...

...touches the lives of a great many people in a  
great many different ways...

Through education, research, and service...

through health care, economic development, and

...yes...even through a sense of pride in their  
athletic accomplishments.

Yet as important as these institutions are today in  
our everyday lives, it is my belief that

in the future they will play an even more critical role  
as they become the key player in providing the  
knowledge resources...knowledge itself, and the  
educated citizens capable of applying it wisely...  
necessary for our prosperity, security, and  
social well-being.

The Challenge of Change

At the University of Michigan we are preparing to meet  
the challenges of the 21st century--

an ever-accelerating pace of change

in our society, in our state, in our nation, in our world.

As we become ever more diverse, more pluralistic  
as a people. Indeed, almost 90% of the new

entrants into our workforce during the 1990s will be people of color, women, or immigrants.

As our economy and commerce are become ever 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.

And as we rapidly evolve into a new post-industrial society, in which the key strategic resource necessary for prosperity and social well-being has become knowledge itself, that is, educated people and their ideas.

In the pluralistic, knowledge-intensive, global future that is our destiny, it is clear that the quality of and access to

...education in general

...higher education in particular

...and great research universities

such as the University of Michigan

and its sister institutions

most specifically of all...

are rapidly becoming the key determinants of the strength and prosperity of our state.

The good news is that Michigan is well-positioned from this perspective, since over the decades we have built not only one of the finest systems of public higher education in the world, but we now possess several of the world's leading research universities.

The bad news is that a lack of public understanding and support threatens to permanently cripple Michigan's universities.

Worse, this failure comes at just that moment in our history when we are becoming more and more dependent on these same universities to lead our state into a competitive and complex future.

Michigan at the Crossroads

Needless to say, the pluralism, the globalization, and the age of knowledge that comprise our future will pose great challenges and demand profound changes in our state and our nation.

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...and felt.

We all know that past decade was a period of great difficulty for our state...

Industries of great economic importance to our nation 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...

Michigan has dropped to 20th in per capita income (and at \$15,393 is now slightly behind the national average of \$15,481)

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!

We have come to a critical turning point.

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.

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.

Indeed, I am absolutely convinced that the dominant issue of the 1990s will be the development of our people and the education of our youth.

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.

We simply have to dedicate ourselves to improving education for every child in Michigan--not only in our universities, but at all levels.

Our people are our strength...

...our children are our future.

Hence the challenge before Michigan is the challenge before America...

And the actions we must take...

...and the investments we must make...

...will clearly determine our capacity to respond to this future...

### The Dangers of Underinvestment

But here there are dark clouds on the horizon...

increasing evidence that we as a people have not yet recognized either the nature or the magnitude of the investments we must make to achieve prosperity in an age of knowledge.

While we all give the "age of knowledge" lip service, the evidence suggests that in reality, many of us cling to the past wanting us to return to the agricultural and manufacturing economies that once made us rich...

We simply cannot continue any longer in this dream state  
We have to face reality.

1. Numerous studies over the past several years have suggested that Michigan is seriously underinvesting in its "knowledge infrastructure"...by as much as 30% to 40% relative to other states.
2. The challenges faced by K-12 education are apparent. Unfortunately, what is also apparent is our inability to agree on actions needed to improve quality of our schools and achieve adequate and equitable financing.
3. The situation is somewhat different yet no less acute for higher education in our state.  
While the quality of Michigan higher education today is still high, the long term prognosis is poor if we continue as we have been in recent years.  
Over the past two decades, the State of Michigan has dropped from the position of a national leader (ranked 6th in 1965) in its public support of higher education to among the lowest in the nation.

Let's look at the comparisons for a moment:

Among the states, Michigan currently ranks

- i) 33rd in appropriations per student
- ii) 37th in appropriations as a percent of personal income
- iii) 35th in appropriations as a percent of tax revenue

Further, we not only fall significantly below the national average in our support, but it is clear that we are slipping even farther behind with each passing year:

In fact, the increases we have provided in our support to higher education now rank

- iv) 42nd over the past two years
- v) 45th over the past ten years

nearly dead-last among the states.

Hence, no matter how you slice it, our state now ranks among the lowest in the nation in its support of higher education.

As a highly industrialized state undergoing a dramatic change to a knowledge-intensive economy, Michigan is critically dependent upon quality higher education for well educated citizens for engineers, scientists and other professionals, and for the creative ideas that will fuel economic growth and create new jobs.

Yet Michigan has now fallen to the bottom of the ranks of industrialized states in its support of these critical resources.

We are being outspent by 30 - 40% in state support per student...

Not simply by prosperous states like California...but by neighbors such as Indiana and Ohio!

They understand what we have yet to grasp.

The world is changing rapidly, and we have to prepare ourselves for tough competition.

Until now we have been able to sustain the quality of public higher education in this state in the face of a catastrophic loss of state support because of our traditional autonomy, so wisely granted almost 150 years ago by the authors of our state constitution.

This autonomy allowed Michigan's universities to take strong internal actions, reallocating resources, redefining priorities, and increasing tuition levels to partly compensate for reduced public support.

But in recent years, even this autonomy has been threatened...through efforts from Lansing i) to constrain tuition levels to artificially low

levels even as state appropriations eroded  
still further

ii) to dictate who we must admit

iii) even to dictate what we must teach...

Whether measured in terms of

state appropriation per student or fraction of our  
tax dollars directed toward higher ed,

it is clear that in comparison with other states,  
our present level of public support is simply inadequate  
to maintain over the long run a system of higher  
education that is competitive on a national basis.

We recognize that the choices before Michigan are not easy.

We must address pressing social issues of employment,  
health, social welfare, we must meet the important  
needs of our citizens today.

But also we must balance these immediate needs with investment  
in our future.

We cannot continue to address symptoms of our problems  
of the moment without addressing their causes.

If we don't invest in cures, our symptoms will, in time,  
become fatal...

For generations, the people of Michigan sacrificed  
so that their children could have a better life.

They had faith in education.

We must rekindle that faith  
and that commitment to the future today.

We must care for our children's future as much  
as we attempt to our present needs and desires.

#### Concluding Remarks

I would like to conclude with an expansion of my  
challenge to this state, its people, and its leadership...

#### **To Us...**

In a very real sense, our state has entrusted to us its most  
valuable resources...its youth...and its future.

To be responsible stewards of the public trust, it is clear  
that we must strive to achieve greater  
cost-effectiveness in our use of public funds...  
and I can assure you that we are doing just  
that...and will do more.

But even beyond this, we must become staunch guardians  
for the quality of our institutions...

For in education, as in every other aspect of American life,  
quality will be the key to our future.

We need to give our children the best education and  
chance for the future that we can. We should be  
willing to pass on to them what we ourselves

have received...opportunity for a better life.  
Hence, to us falls the responsibility of taking the forceful and courageous actions necessary to sustain and enhance this quality...in the long run the people of this state both demand and deserve nothing less!

### **To You...**

Higher education represents one of the most important investments a society can make in its future...since it is an investment in its people...

It is indeed the case that our state and our nation have developed the finest systems of higher education in the world...

But we must also remember this resulted from the willingness of past generations to look beyond the needs and desires of the present and to invest in the future by building and sustaining educational institutions of exceptional quality--

Institutions that have provided those of us in this gathering today with unsurpassed educational opportunities.

We have inherited these marvelous institutions because of the commitments and the sacrifices of previous generations...and it is our obligation as responsible stewards--not to mention as responsible parents--to sustain them to serve our own children and grandchildren.

It seems clear that if we are to honor this responsibility to future generations, we must re-establish the priority of both our **personal** and our **public** investments in education, in the future of our children ...and hence in the future of our state and our nation.

### **To our elected leaders...and those aspiring to public office**

1. I ask you to work with us to develop and implement a strategy to bring us from the very bottom among the states to a position of national leadership once again in our support of public higher education.
2. Let us end the present freeze on capital outlay appropriations for higher education--now entering its fourth year--and begin to deal with the seriously deteriorating facilities on our campuses.
3. Let us respect our constitutional autonomy and preserve it for generations to follow as the best safeguard for maintaining quality public higher education accessible to all.
4. We are all the guardians for the moment of an

extraordinary resource for our state--one of the world's finest systems of higher education-- a system that has resulted from the commitment and sacrifices of eight generations of Michigan citizens. Let us work together to serve the people of Michigan --to educate new generations and provide the ideas and discoveries to build and sustain our quality of life.

### **The Challenge to Us All...**

Today the State of Michigan faces serious challenges that will clearly determine 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 fabulously 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.

In my frequent interactions with the leaders of the public and private sectors throughout this nation I detect an increasing sense of fatalism about Michigan's--indeed, 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 Michigan 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.

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.

I, for one, do not share the pessimism of many of my colleagues.

I believe that we can meet the challenge of the knowledge-based, global society that is our future.

But it is also clear that to do so will require sacrifices on all of our parts...

It will take renewed commitment to that most fundamental of all characteristics in the new economic order: quality

And it will take renewed investment in that most critical resource for our future--our system of public education.

#### Specific Needs

1. We applaud the Governor's recommendations for

the FY91 Budget year...and we applaud the strong message of support we have received thus far from the Legislature.

However let me not that the recommended 5% increase while courageous in the face of a tight budget year, will at best only cover the minimum inflationary cost increases in our universities, and in itself it fails to address either the past underfunding or necessary program investments in our institutions.

Hence, we must respectfully ask that the Legislature take further steps to approach the funding increase requested by the Presidents' Council of 8.5%, while considering a multiple year approach to restore Michigan to at least the top third of states in the nation.

Five years of freeze on capital outlay projects have caused serious damage to our campuses. Urgent projects have been bottled up. Considering the seriously inadequate support of capital facilities on many of our campuses during the 1970s, we simply cannot continue much longer without some mechanism for rebuilding our infrastructure. For example, on UMAA, over the past 20 years we have received state funding for only 2 academic buildings--and that at a 50% participation rate. This amounts to an average of \$3.6 M in state funding for new facilities over the past 20 years... compared to a level of \$25 to \$50 million per year for peer campuses such as UCB, UNC, Illinois,...

The Governor's recommendation of an increase on the bonding cap of the State Building Authority addresses this urgent need in a fiscally responsible manner, and we urge its support.

3. Over the past several years the REF has been of critical importance in strengthening and diversifying Michigan's industrial base. At Michigan, we have multiplied this investment by attracting \$2 from federal and industrial sources for every \$1 of REF...while stimulating roughly a tenfold investment increase through economic activity. Yet we face serious challenges:
  - i) REF funding has not kept pace with inflation, hence forcing program



cutbacks

- ii) Creation of the new competitive program has drained funds from the original program while introducing an additional layer of bureaucracy into the process
- iii) The real impact of REF can only be achieved through very long term funding. The year-by-year micromanagement of the program focuses a very short term focus, thereby undercutting long term efforts.

4. The erosion in state support of public universities  
Let me point out another serious concern. Over the past decade, the actual portion of the state appropriation going to the operating support of public universities has decreased from 94% to 91%. While it is, of course, the prerogative of the State Legislature to prioritize its allocations for higher education, I respectfully must question whether it is appropriation that the support of private higher education and specific programs should be the fastest growing components of the state appropriation base--particularly during a period in which the State of Michigan has fallen to 45th in the nation in its support of its public universities! (Example: Recent recommendation of State Board of Education that we triple tuition grant program!!!)

Other Notes:

1. Equity funding:

"comparable funding for comparable programs" ...

...requires program by program

comparisons with peer institutions

Quite frankly, I believe that simplistic institution

comparisons are quite meaningless

(To this end, I would note that from this

broad perspective, the UM costs across

the UM system (\$6,162) are quite comparable

to those of other state universities

(MSU: \$5,462, MTU: \$5,856, WSU: \$7,557)

...and far less than peers in other states!)

Real problem is inadequate support across system

...cannot address equity by further cutting

institutions

...can only address equity by increase

..."leveling up", not "leveling down"

Face it, ALL institutions in this state are

inadequately funded relative to peers!

In this regard, I would note that it is very important to stress this peer comparison, since these are the institutions we compete against for faculty, federal grants, etc.

Michigan's peers include  
UC, Wisconsin, Illinois, UNC  
Harvard, Stanford, MIT

## 2. Impact of Erosion

Subtle...but measurable

- i) Shift in nature of funding...
  - ...Tuition now exceeds State Ap
  - ...Fed now exceeds State Ap
- ii) Loss in confidence
  - ...difficulty in recruiting faculty.
  - ...beginning to lose faculty to states like California
- iii) Erosion in ratings
  - ...UM only state institution in USN&WR
  - ...dropped from 6th to 20th
  - ...professional school drop

Why does it matter to Michigan whether its institutions rank at the top? Because they set the pace for the quality of everything else in this state...

- ...K-12 education
- ...health care
- ...financial activities
- ...industrial base
- ...professional infrastructure
- ...quality of life

And most important of all, our capacity to attract and retrain the outstanding people we need to be competitive in a global marketplace!!!

Tragedy...

It takes decades to build a reputation...  
...and once it is lost, will be very hard to regain (as witnessed by Texas, etc.)

## 3. Costs of Education

Whitaker Task Force

## 4. Library and Info Tech

Need a strategy of many strands...

Institutions must have flexibility to address these  
...whether through consortia

...special relations with vendors

The worst thing you can do to our institutions during a period of financial stress is to constrain our options, our capacity to manage our affairs.

5. Do you believe the UM has been discriminated against during the past several years:
  - i) UMAA has ranked dead-last in magnitude of appropriation increase in 5 of last 6 years...and has been at the system average in only one year of the last ten.  
in one one year  
dead-last
  - ii) In only 4 years of the last 10 has our increase in appropriations been above the rate of inflation (HEPI)--hence, in effect, we have had our real appropriation cut in 6 of the last 10 years.
  - iii) Over the past decade, UMAA ranks last, among state universities, 15th among 15, in its compound growth rate in state appropriations
  - iv) Over the past 20 years, UMAA ranks 14th, next to last, in state capital outlay per FYES.
  - v) To be in last place, year after year, decade after decade, is bad enough, but when you realize this is last place in a state that now has fallen to the bottom of the nation in its public support of higher education, it is easy to understand why we are so concerned!!!

#### Appendix: The Costs of Education

Let me give you a very concrete example of the way in which this rampant consumerism now threatens higher education...  
...and that has to do with the efforts to artificially constrain the costs of tuition.

Today, both across this state and across the nation, we find a rising tide of resistance to college tuition levels.

In fact, there are strong forces encouraging government at both the state and federal level to intervene and essentially fix tuition

...to fix prices and control the marketplace, you will...

So what is so dangerous about this trend?

Won't it keep those greedy colleges from gouging students and their parents?

Won't it keep a college education affordable for those of limited means?

Let me destroy a few popular myths....

Myth 1: Tuition levels in Michigan institutions are "out of control"

Nonsense

Reality:

1. Over the past 7 years, instate, UG tuition have lagged inflation

HEPI: 45.6%

Tuition: 41.2%

(CPI: 30.7%)

Hence, in no sense is tuition increasing in an out of control fashion!

### **Myth1. Tuition levels in Michigan's public universities are high?**

Absolute rubbish:

Reality: Tuition levels in Michigan's public universities are quite low and comparable to those of most other public institutions throughout the nation.

Background:

1. The roughly \$2,000 to \$3,000 of annual tuition and fees charged to instate undergraduates in Michigan's public institutions represents an incredible bargain when compared to all other alternatives--public or private education, in Michigan or across the nation. For example, it costs more to attend Cleary College (\$4,163) to learn secretarial skills than to attend the University of Michigan (\$2,876)! Michigan students face far higher tuition levels at peer public institutions (UC-Berkeley tuition runs \$9,000 - \$10,000) and at peer privates (Harvard, Stanford, and Cornell tuition run \$14,000 - \$15,000). Another calibration: The cost of a degree at a public institution in this state is less than the cost of a new car!... Further, this investment will be paid off in only a couple of years following graduation because of the very high earning capacity of our graduates.

2. Because the absolute tuition levels at public institutions are so low,  
it is very misleading to attempt to compare costs through tuition increase percentages. (A large percentage of a small number is still a small number...)  
Further, the real cost of higher education at public institutions is NOT tuition.  
Rather the primary costs of public education in Michigan are attributable to room, board, books, travel, and other expenses. Indeed, tuition represents less than 25% to 30% of cost of a college education to Michigan residents.

**Myth 2. The increasing tuitions at Michigan's public universities are pricing them out of the reach of all but the very wealthy**

T or F: Again, absolute rubbish!

The reason, of course, is the presence of effective financial aid programs.

For example, at U of M, we have a policy that guarantees that ALL MICHIGAN RESIDENTS ARE PROVIDED WITH ADEQUATE FINANCIAL AID TO MEET THEIR NEEDS UNTIL THEY GRADUATE.

In fact, roughly 65% of our Michigan resident students receive some form of financial aid (amounting to \$140 M last year.)

Further, families with incomes up to \$60,000 are eligible for some form of financial aid.

(In fact, if you have 3 kids, up to \$80,000 is eligible.)

**Myth 3: Surely the fact that tuition rates are increasing faster than the CPI reveals that universities are not cost-effective and are exploiting the marketplace.**

1. It is NOT true that tuition has increased more rapidly than the HEPI in recent years (over the past 7 years, HEPI has increased 45.6% while tuition has increased 41.2%)
2. Tuition depends on the relationship between the University's budget and the State appropriation. For a given budget, the higher the appropriation the lower the tuition, and vice versa. Thus tuition is not driven merely by costs, but also by all the factors that help determine the state appropriation.
3. While it is true that tuition has increased more rapidly than the CPI, it is important to note that

resident tuition levels at public institutions throughout the nation were essentially at token levels until the late 1970s when public support began to wane. It has been clear public policy that the nominal tuition levels charged to resident students at public institutions should be increased somewhat to reflect a shift in support from general tax dollars to those who benefit the most--and who most can afford to pay. Nevertheless, in absolute terms, these tuition levels are still extraordinarily low (\$2,000 to \$3,000 per year at public institutions, compared to \$10,000 to \$15,000 per year at private institutions). Hence percentage increases are misleading because of the unusually low absolute level of public university tuitions.

2. Several other points:

The CPI measures things like the costs of housing, food, etc.

But suppose you were required to live in a bigger and bigger house each year... then, don't you think that your costs would increase more rapidly?

Well, that is just what is happening in higher ed since in many fields, the amount of new knowledge doubles every five years or less.

Is it not understandable, therefore, that both the amount of education...and the costs of that education...should similarly increase in real terms...

Computers, laboratory instrumentation, medical devices,...all so very necessary to the education and training of tomorrows professionals...all cost money...

3. Further, even the percentage increases in tuition

have lagged the percentage increases in disposable family income over the past two decades.

For example, over the past 15 years, tuition has increased 232% while personal income has risen 252%.

Hence, there has been very little change in the percentage of income required to meet tuition costs. In fact, college expenses have risen far more slowly than many other costs, such as housing, health care, automobiles.

4. Furthermore, dramatic increases in financial aid

have extended educational opportunities to many who could never have afforded a college education in years past. Hence, in a very real sense, a college education at the UM is more affordable

today than it has ever been before.

5. In Michigan state appropriations have exceeded the CPI in only 3 of the past 10 years. Indeed, over the past decade, the State of Michigan ranks 40th nationally in appropriation increases--and last among the large industrial states. In recent years, our state has continued to sink further below the national average in its support of higher education. Hence, a combination of tuition increases and program cuts has been required to balance budgets. Without tuition increases to offset the erosion in tax support, the quality of higher education in Michigan would have been seriously damaged.

**Myth 4: The price of a college education is no longer worth it.**

Wow!!! Absolute nonsense

The money invested in a college education results in about a 10% return annually due to higher salaries commanded by college graduates.

That amounts to over \$500 K in constant dollars...and in the knowledge intensive professions it is far higher

Further, at a leading university such as UM, we are investing roughly \$25 K per year per student in creating the type of learning environment necessary to prepare our graduates for the 21st Century.

By way of calibration, our present instate tuition levels are \$3,300.

We ask parents to contribute 12 cents on the dollar!

Not a bad deal, I'd say!

**Myth 5: Hold on now! My taxes pay for the college education of my children...**

Balony!!!

- i) UM share of state tax revenue has dropped by 42% over past 20 years (from 3.74% to 2.15%)
- ii) Hence, today, only about 2 cents of each tax dollar goes to UM  
In other words, someone paying \$5,000 per year in state taxes will  
be paying only about \$100 for UM  
More specifically, the typical parent over their entire earning career, will  
pay less than \$3,000 of taxes for the UM (assuming 30 years of earnings)...  
(NOTE: We can scale this for all of higher education using the 23% UM share...  
...hence this implies \$400 per year and \$12,000 per career

...a bit closer to the tuition...but a long shot from real cost  
By way of comparison, the cost of a Michigan education is

UG Tuition: \$12,000

UG Cost: \$50,000 to \$80,000 (depending on how one counts)

Hence it is clear that others must be shouldering the real costs for

educating one's kids in a Michigan public university...not the taxpayer himself

iii) And, as I noted earlier, over the past 20 years, Michigan has fallen from 5th in the nation to the bottom third in its support of higher education.

Hence, while you may be paying lots of tax, not much of it is going to support higher education!

The Bottom Line

Question 1: How good do you want your institutions to be?

Higher education is one of the most competitive industries in America, with over 3,500 institutions competing for students, faculty, funds...not to mention the international marketplace.

(We not only compete against

Hence, if you tell me how good you want an institution to be, then I can give you a pretty accurate idea of how much you will have to invest.

Then that determines an investment per student and per faculty that we will have to make.

Do you want the University of Michigan to be as good as:

...Harvard or Stanford?

...then it will take about

...\$50 K per year per student

...Berkeley or UCLA

...about \$30 K per year

...Ohio State or Minnesota

...about \$18 K per year

...Mississippi or Montana

...about \$10 K per year

...or Southern North Dakota State at Hoople...

Incidentally, it is clear that if you want to pay only bargain-basement prices, then you are going to end up with bargain-basement quality.

Question 2: Who is going to pay for this quality?

The state taxpayer?

The federal taxpayer?

Parents?

The student (through loans and deferred payments)?



Private philanthropy from  
industry, foundations, alumni, friends?  
Unfortunately, there are no other options.  
Someone has to pay.  
But it seems clear that nobody is willing to step up and  
accept this responsibility.

Appendix:  
Erosion in Public Support  
Appendix: Equity