

## **Public Research Universities**

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### **Some History**

- 150 years ago, out in the intellectual wasteland of the nation's heartland, in communities such as Madison, Champaign-Urbana, Columbus, and Ann Arbor a new paradigm of educational institution took shape... the public university.
- This was driven by a new and relatively unique principle emphasizing a strong bond between the university and society. Historically these institutions have been shaped by, have drawn their agendas from, and have been responsible to the communities that founded them.
- This unique partnership goes back over two centuries to that famous passage from the Northwest Ordinance, "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."
- When the Morrill Act was adopted in 1862, it was aimed at establishing programs in agriculture, mining, and the mechanic arts--the

forerunner of today's schools of engineering. That we were successful is obvious. The vast natural resources of our country produced immense wealth for some and a higher standard of living for most. The agricultural experiment stations and cooperative programs were enormously successful. In the last century our universities, particularly land grant institutions, created and applied knowledge, and provided human resources needed to address critical national problems.

The result has been a powerfully creative engine for progress.

The American research university, through on-campus scholarship and off-campus extension activities, was first key to the agricultural development of America and then to the transition to an industrial society. WW II provided the incentive for even greater cooperation as the universities became important partners in the war effort, achieving scientific breakthroughs such as nuclear fission and radar.

The seminal report, *Science, the Endless Frontier*, produced by a post-war

study group chaired by Vannevar Bush, stressed the importance of this partnership by echoing the spirit of the Northwest Ordinance: "Since health, well-being, and security are proper concerns of government, scientific progress is, and must be, of vital interest to government."

Yet as important as research universities are today in our everyday lives, it seems increasingly clear that in the future they will play an even more critical role as they become the key players 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.

As Erich Bloch, former Director of the National Science Foundation stated it

in Congressional testimony:

"The solution of virtually all the problems with which government is concerned: health, education, environment, energy, urban development, international relationships, space, economic competitiveness, and defense and national security, all depend on creating new knowledge--and hence upon the health of America's research universities."

### **What is a Public University?**

Defined by support?

State support?

Low tuition and fees?

Use UM as example:  
Defined by governance?  
Major difference in governing boards...  
Private boards are self-perpetuating  
Public boards are "politically" determined  
...appointed by governors  
...elected (ugh)  
Accountability to state agencies  
Legislatures  
Administrative bodies  
Sunshine Laws  
Defined by public responsibility?  
An example: the U of M, Inc.  
Public, student, faculty views  
Very few people, on our campus or off, know what the modern research university has become.  
The public thinks of us in a very traditional way, with an image of students sitting in a large classroom listening to some dottering faculty member lecturing from yellowed notes on Shakespeare.  
It is almost a high school image of the university.  
The faculty think of ourselves as Oxbridge, themselves as dons and their students as serious scholars.  
The federal government thinks of us as just another R&D contractor or health provider, a supplicant for the public purse.  
Let me suggest a different image of the modern research university: that of a very complex, international conglomerate of highly diverse businesses. Consider, for example, an organizational diagram of "the U of M, Inc":  
The U of M Inc., with an annual budget of over \$2.7 billion per year, and over \$3 billion under investment, is in reality a multinational corporate conglomerate, ranking rather high on the Fortune 500 list.  
We have several campuses where we educate about 50,000 students at any one time, about an \$1.2 B dollar a year operation.  
We're a very major federal R&D laboratory, over \$440 million dollars a year worth of grants and contracts.  
We run a massive health care company.  
Our medical center treated over 800,000 patients last year.  
We have a managed care operation with 100,000 "managed lives".  
In December we will form a nonprofit corporation, the Michigan

Health Corporation, which will allow us to make equity investments in joint ventures to build a statewide integrated health care system building to roughly 1,500,000 subscribers, which is the size of a population we believe necessary to keep our tertiary hospitals afloat (which unfortunately we own).

We're already too big to buy insurance, so we have our own captive insurance company (\$200 M)

We've become actively involved in providing a wide array of knowledge

services, from degree programs offered in Hong Kong, Seoul, and Paris, cyberspace-based products such as managing part of the Internet.

And of course, we're involved in entertainment--the Michigan Wolverines.

That \$250 million million you see under the Michigan Wolverines is not our athletic budget--thank God--but when you represent licensing and everything else we do, that's about the magnitude of it.

This "corporate" organization chart would be quite similar for many of the large research universities across the nation.

What are we?

We have all become conglomerates because of the interests and efforts of our faculty.

We're all prime examples of "loosely coupled, adaptive systems" that grow in complexity as their various components respond to changes in environment, with each of those components pursuing its own particular goals.

We are a learning organization, to use the business term. Beyond that we're also a holding company for thousands of faculty entrepreneurs.

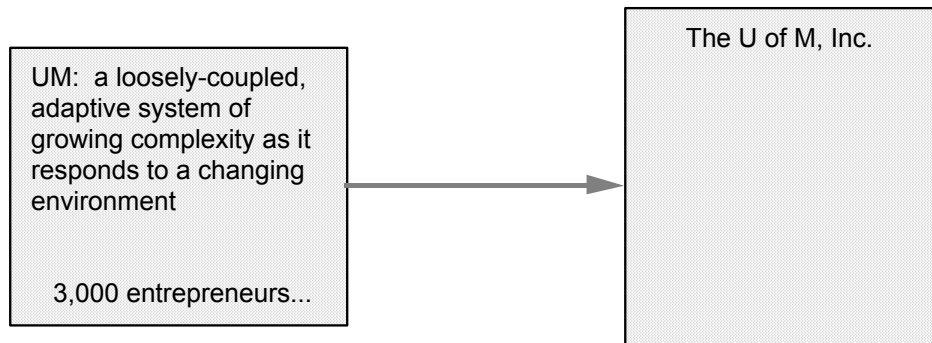
One of my colleagues referred to leading a large university as akin to pushing a wheelbarrow full of frogs...  
...if you push too fast, they tend to hop out on you...

This character has given us a very resilient capacity to respond to change.

We've evolved over the years, driven by the creativity, efforts, and energy of individual faculty and those units they identify with, to excel, and by a transactional culture, in which everything is up for negotiation.

It is "let's make a deal", writ large.

And this character and this culture has lead to the U. of M. Inc.



Natural evolution characterized by

level of individual units

fundamental values

Concerns with U of M, Inc.

obsolete activities

policies, procedures, practices

### **Importance of Public Research University to national enterprise**

First, define terms: AAU-class public universities

Level of research activity

Note that when ranked by R&D expenditures

...4 of top 5 are public

...actually all 5, since MIT is a public "federal" university

...15 of top 20 are public

Land-grant mission

### **The Challenges of Today**

The Political Economic Crisis

Universities are suffering the consequences of the structural flaws of national and state economies, the growing imbalance between revenues and expenditures, that are undermining support for essential institutions as governments struggle to meet short-term demands at the expense of long-term needs.

Actually, the writing has been on the wall for almost a decade, since federal outlays for R&D have been falling in real terms since 1987. Today, in Washington, this slogan has been replaced by a new mantra, "Balance the Budget by the year 2000", that is being chanted over and over again as the way to deliverance. While the particular Tao, the path to deliverance, is still uncertain...whether via the Contract with

America or Reinventing Government...the endpoint is clear. Discretionary domestic spending, research and education programs, and federal support of the research university, all are at great risk. (For example, basic research is proposed to decline by 30%, with even the National Science Foundation being cut up to 13% (\$440 M).)

Indeed, leaders both in the federal government as well as in higher education have suggested that the next several months could well determine whether the research university will survive into the next century as a viable paradigm in American higher education.

The states are also in serious trouble. Cost shifting from the federal government through unfunded mandates such as Medicare, ADA, and OSHA, the commitment many states have made to funding K-12 education off-the-top, and massive investments in corrections have undermined their capacity to support higher education. In fact, in many states today, the appropriations for prisons has now surpassed the funding for higher education and shows no signs of slowing. Few, indeed, are those public universities that can expect even inflationary increases in state appropriations in the decade ahead.

Yet there is a certain irony here. During that same period, state support of our prison system has exploded and will pass the total dollars invested in higher education in the next year or so. David Adamany notes that 10 years ago we had 15 public universities and 8 prisons. Today we still have 15 universities...but 35 prisons. More to the point, this year the state will spend \$1.4 billion for the education of 250,000 college students, and essentially the same amount (\$1.4 billion) for the incarceration of 40,000 inmates.

There is an additional challenge faced by the best of America's universities. Harold Shapiro, President of Princeton University, has identified what he calls the "1 percent problem" facing those institutions that compete to be the very best in teaching and scholarship. The decade of the 1980s experienced a trend in which the costs of achieving excellence in higher education rose roughly 1 percent per year more rapidly than the available resource base. (Some institutions such as Stanford found this mismatch to be 2 percent or higher.) Most studies project that this trend is likely to continue throughout the 1990s, driven in part by the expanding knowledge base and by the cost structures of quality research and teaching. While a given institution may be able to accommodate such an imbalance between costs and revenues over a short period, it is clear that over the long term, the "1 percent problem" will require a significant restructuring of the mission and activities of the university.

Mission Creep

There is another dilemma here, one perhaps best illustrated by the old parable of the blind men each feeling different parts of an elephant and arguing over just what the whole beast looks like. The modern research university is complex and multidimensional. People perceive it in vastly different ways, depending on their vantage point, their needs, and their expectations. Students and parents want high-quality, but low-cost, education. Business and industry seek high-quality products: graduates, research, and services. Patients of our hospitals seek high-quality and compassionate care. Federal, state, and local governments have complex and varied demands that both sustain and constrain us. And the public itself sometimes seems to have a love-hate relationship with higher education. They take pride in our quality, revel in our athletic accomplishments, but they also harbor deep suspicions about our costs, our integrity, and even our intellectual aspirations and commitments.

Beyond the classic triad of teaching, research, and service, society has assigned to the University over the past several decades an array of other roles:

- improving health care
- national security
- social mobility
- parenting
- big-time show biz (intercollegiate athletics)

It is now asking to us to assume additional roles such as:

- revitalizing K-12 education
- improving race relations in America
- rebuilding our cities
- securing economic competitiveness

Unfortunately, most people--and most components of state and federal government--can picture the university "elephant" only in terms of the part they can feel, e.g., research procurement, student financial aid, and political correctness. Few seem to see, understand, or appreciate the entirety of the university.

This is particularly true in Washington, where each element of the federal government attempts to optimize the procurement of the particular products or services they seek from our research universities. There seems to be little recognition that shifting federal priorities, policies, or support aimed at one objective will inevitably have an impact on other roles of our institutions.

Looking at the university from an economist's perspective, one would see as inputs our people--students, faculty, and staff--and our

funding--tuition paid by students and families, gifts and income on endowments, and taxpayer dollars from state and federal governments. Our outputs are the value-added through the education of our students, the knowledge produced on our campuses, and through direct services to our society such as through agricultural extension services or teaching hospitals.

The problem is simple: Each stakeholder wants to minimize the input it provides and maximize the output it obtains from universities, but none of the funding contributors is looking at the university as a whole, with diverse missions. More specifically, each party seems to want much more out than it is willing to put in, thereby leveraging other contributors.

#### Challenges

Indeed, part of our challenge is simply to understand the nature of the contemporary comprehensive university and the forces which currently drive its evolution.

In many ways, the university today is like a corporate conglomerate, comprised of many business lines, some nonprofit, some publicly regulated, and some operating in intensely competitive marketplaces.

We teach students; we conduct R&D for various clients; we provide health care; we engage in economic development; and we provide mass entertainment (□ athletics□ ).

In systems terminology, the modern university is a loosely-coupled, adaptive system, with a growing complexity as its various components respond to changes in its environment.

In a very real sense, the university of today is a holding company of faculty entrepreneurs, who drive the evolution of the university to fulfill their individual goals.

Many would contend that we have diluted our core businesses, particularly undergraduate education, with a host of entrepreneurial activities.

We have become so complex that few--including our own faculty--understand what we have become.

And today, unlike much of the recent past, we face serious constraints on resources which will no longer allow us to be all things to all people.

And we have become sufficiently encumbered with processes, policies, procedures, and practices of the past that our very best and creative people no longer determine the direction of our institution.

To respond to the challenges and opportunities of the future, the modern university must engage in a far more strategic process of change.



While the natural evolution of a learning organization may still be the best model of change, it must be augmented by constraints to preserve our fundamental values and mission.

And we must find ways to free our most creative people to enable them to drive the future of our institutions.

#### Populism and Politics

We also may be experiencing the same forces of populism that rise from time to time to challenge many other aspects of our society--a widespread distrust of expertise, excellence, and privilege (the Forrest Gump syndrome). Unfortunately, many scientists, universities, and university administrators have made themselves easy targets by their arrogance and elitism.

A particular virulent form of populism

...deconstructionism

...slash and burn

...destroy existing institutions before giving thought to what will replace them

#### Politics...

Most of America's universities have more than once suffered the consequences of ill-thought out efforts by politicians to influence everything from what subjects can be taught, to who is fit to teach, who should be allowed to study.

Too often such interference is a short-sighted effort to exploit public fears and passions of the moment for immediate political gain. The long term costs to citizens is high because

politically motivated intrusions into academic policy lead in the long run to educational mediocrity.

Once again harmful political forces are gathering strength to intervene in university affairs. This time they originate in California, where the Governor and his appointed Regents have ordered the University of California to dismantle its time tested and effective affirmative action policies by next year. A ballot initiative eliminating government affirmative action programs entirely is slated for a vote in November.

Inspired by California's example, more than a dozen states, including Michigan, are considering similar legislative actions to end affirmative action in admissions, hiring, and financial aid.

The intensifying political pressure on our nation's great public universities is a threat to their unique historic role of providing a world class educational opportunity to all students with the will and ability to succeed. And if politics today influence admissions policies, what will be targeted next? Curriculum?

Faculty? Hiring? Research?

Responsible politicians would do well to consider the full merits of affirmative action programs, rather than using them as a football in a political game that nobody wins. They might also pause before unleashing destructive political forces that all too easily can grow beyond their control and strike at the heart of public higher education in America.

Sunshine laws

Manipulation by media

Impact on University governance

In the late 1970s, the Michigan State Legislature passed two rather poorly written sunshine laws governing public bodies.

The Open Meetings Act (OMA) required that the meetings of public bodies be open to the press and members of the public.

The Freedom of Information Act (FIOA) required public disclosure

of any public documents not protected by personal privacy laws.

While not initially regarded as exceptionally intrusive--although they did require the release of University information such as salaries and require public comments sessions at each Regents meeting--through a series of subsequent court interpretations,

the media was able to extend these laws until they became a tight web, constraining all aspects of University operation.

Indeed, the media used these laws not simply to pry into the operations of public institutions, but actually to manipulate them and control them!

The University of Michigan was hit particularly hard by these laws.

Prior to the mid-1980s, the Board and executive officers had been

able to meet in informal, private sessions to discuss difficult matters. However, the OMA eliminated this channel of communication between the Board and the administration.

Hence, by the late 1980s, there was absolutely no mechanism that

allowed the Board to meet with the administration for candid, confidential discussions other than those rare occasions when the

OMA allowed such "executive sessions"--i.e., to seek an opinion of

the General Counsel or to perform personnel evaluations.

As a

result, communications between the Board and the administration

became very difficult and time-consuming.

Further, the public Regents meetings frequently became circuses, with

various Regents playing to the media and posturing on various

political stances--particularly during election years.

How do we deal with this increasingly serious situation?

A real question as to whether such sunshine laws can be applied to constitutionally autonomous institutions such as Universities.

Indeed, the Legislature exempted itself from the laws, in typical fashion.

Perhaps it is time that we seek a ruling from the State Supreme Court, before we establish precedents which permanently entrap the university in ill-considered and perhaps illegally applied legislation.

## Change

### The new compact

As we have already noted, the basic structure of the academic research enterprise of the past half century was set out in Bush's study, *Science, the Endless Frontier*, almost fifty years ago. The central theme of the document was that the nation's health, economy, and military security required continual deployment of new scientific knowledge and that the federal government was obligated to ensure basic scientific progress and the production of trained personnel in the national interest. It insisted that federal patronage was essential for the advancement of knowledge. It stressed a corollary principle--that the government had to preserve "freedom of inquiry," to recognize that scientific progress results from the "free play of free intellects, working on subjects of their own choice, in the manner dictated by their curiosity for explanation of the unknown."

Since--at least in the past--the government recognized that it did not have the capacity to manage effectively either the research itself or the universities, the relationship was essentially a partnership, in which the government provided relatively unrestricted grants to support a part of the research on campus, with the hope that "wonderful things would happen." And they did, as evidenced by the quality and impact of academic research.

Unfortunately, in recent years the basic principles of this extraordinarily productive research partnership have begun to unravel, so much so that today this relationship is rapidly changing from a partnership to a procurement process. The

government is increasingly shifting from being a partner with the university--a patron of basic research--to becoming a procurer of research, just like other goods and services. In a similar fashion, the university is shifting to the status of a contractor, regarded no differently from other government contractors in the private sector. In a sense, today a grant has become viewed as a contract, subject to all of the regulation, oversight, and accountability of other federal contracts. This view has unleashed on the research university an army of government staff, accountants, and lawyers all claiming as their mission that of making certain that the university meets every detail of its agreements with the government.

Surely the most ominous warning signs for academic research are the erosion, even breakdown, in the extraordinarily productive fifty-year partnership uniting government and universities. Scientists and universities are questioning whether they can depend on the stable and solid relationship they had come to trust and that has paid such enormous dividends in initiative, innovation, and creativity. It is truly perverse that the partnership that has been in large measure responsible for our long undisputed national prosperity and security should be threatened at very moment when it has become most critical for our future.

#### The new university

There is an even more profound transformation occurring: that involving the paradigm of the research university itself. As one of civilization's most enduring institutions, the university has been extraordinary in its capacity to change and adapt to serve society. Far from being immutable, the university has changed over time and continues to do so today. A simple glance at the remarkable diversity of institutions comprising higher education in America demonstrates this evolution of the species.

The challenges and changes facing higher education in the 1990s are comparable in significance to two other periods of great change for American higher education: the period in the late-nineteenth century, when the comprehensive public university first appeared, and the years following World War II, when the research university evolved to serve the needs of postwar America. Today, many are concerned about the rapidly increasing costs of quality education and research during a period of limited resources, the erosion of public trust and confidence in higher education, and the deterioration in the partnership between the research university and the federal government. However, our institutions will be affected even more profoundly by the powerful changes driving transformations in our society, including the increasing ethnic and cultural

diversity of our people; the growing interdependence of nations; and the degree to which knowledge itself has become the key driving force in determining economic prosperity, national security, and social well-being.

## **The 21st Century University**

### The State-Related University

Over the past two decades, the share of the University of Michigan's support provided by state appropriations has declined to the point today where it comprises only 37% of our General Fund, 22% of our academic budgets (non-auxiliary funds), and 11.6% of our total resource base:

Further, it seems clear that if the present rate of deterioration continues, by the end of the decade, state support will amount to less than 7% of our total resources. In a sense, long ago we ceased to be a state-supported university. Indeed, today, we are, by most measures, not even a strongly state-assisted university, since other shareholders--students and parents through tuition, the federal government through research grants, alumni, friends, and benefactors through gifts, and patients through health care fees--each provide more support to the University than does the State of Michigan. Yet, despite the low level of state support, the University remains committed to serving the citizens of Michigan. Further, it is clearly governed by the state through its publicly-elected Board of Regents.

Hence, the University of Michigan has become today a state-related university, supported by a broad array of constituencies at the national--indeed, international--level, albeit with a strong mission focused on state needs. More precisely, in many ways it has become a privately-supported public university, in the sense that it must earn the majority of its support in the competitive marketplace (i.e., via tuition, research grants, gifts) much as a private university, yet it still retains a public commitment to serve the people of the State of Michigan.

While the University of Michigan was the first public university to see its state appropriations drop to such a low fraction of its operating budget, it is now being joined by other major public universities facing a similar "state-related" future--most notably the University of California, most Big Ten universities, and the Universities of Virginia and North Carolina. Today many might conclude that America's great experiment of building world class universities supported by public taxes has come to an end. Put another way, it could well be that the concept of a world-class, comprehensive state university may not be viable over the longer term. It may not be possible to justify the level of public support necessary to sustain the quality of these institutions in the face of other public priorities such as health care, K-12 education, and public infrastructure needs--particularly during a time of slowing rising or stagnant economic activity.

Perhaps we should consider more carefully the implications of being a "state-related, world-supported" university. For example, it is clear that if our viability depends on building and sustaining sufficient resources to maintain our remarkable combination of quality, breadth, and size, we must serve more than the state alone. It is also clear that our capacity to position the University to attract these resources will require actions that may come into conflict from time to time with state priorities. Hence, the autonomy of the University will be one of its most critical assets.

Some Questions:

1. How does one preserve the "public character" of a "privately-financed" institution?
2. How does a "state-related" university adequately represent the interests of its majority shareholders (parents, patients, federal agencies, donors)?
3. Can one sustain an institution of the size and breadth of the University of Michigan on self-generated ("private") revenues alone?

The research compact...

For the past half-century, the Bush paradigm of federal patronage of investigator-driven research has determined the nature of the research university. Only 125 of the 3,600 institutions of higher education are research universities, but these are just the institutions at most risk as the federal science and technology budget shrinks in the years ahead. Don Langenberg, Chancellor of the University of Maryland goes even further: "It is probably about as safe to assume that the dominate higher education institutions of the 21st century will stem from this small but powerful group of present day institutions as it would have been to assume that today's dominate life form on Earth would stem from Tyrannosaures Rex."

There are some obvious responses to this precarious situation:

1. Clearly universities must shift from the public to the private sector for support to accommodate the erosion in state support. Beyond seeking corporate support for R&D, they will need to more aggressively market educational service and put in place most realistic prices structures (e.g., tuition and fees) that accurately reflect costs.
2. They must also shift from "faculty centered" to "student-centered" activities...that is, from "provider-centered" to "customer-market".

3. And, finally, there are growing signs that there will be a shift from “elitism” and “excellence” to the provision of cost-competitive, high quality services--from “prestige-driven” to “market-driven” philosophies.

#### Back to the Future

Let me focus a bit on this third issue. It seems clear that a shift is now occurring in public attitudes toward research universities. For the past half-century, the Bush paradigm characterizing the government-university research partnership has been one built upon the concept of relatively unconstrained patronage. That is, the government would provide faculty with the resources to do the research they felt was important, in the hopes that at some future point, this research would benefit society. Since the quality of the faculty, the programs, and the institution was felt to be the best determinant of long term impact, academic excellence and prestige were valued.

Yet, today the public seems reluctant to make such a long term investment. Rather, it seems interested in seeking short term services from universities, of high quality, to be sure, but with cost as a consideration. In a sense, it seeks low-cost, quality services rather than prestige.

Perhaps rather than moving ahead to a new paradigm, we are in reality returning to the paradigm that dominated the early half of the 20th century...the “land-grant university” model. In fact, perhaps what is needed is to create a contemporary land grant university paradigm.

When the Morrill Act was adopted in 1862, it was aimed at establishing programs in agriculture, mining, and the mechanic arts--the forerunner of today’s schools of engineering. That we were successful is obvious. The vast natural resources of our country produced immense wealth for some and a higher standard of living for most. The agricultural experiment stations and cooperative programs were enormously successful. In the last century our universities, particularly land grant institutions, created and applied knowledge, and provided human resources needed to address critical national problems.

A land grant university for the next century could be designed to develop the most important resource for our future--not our natural resources, but rather our human resources, as its top priority. The field stations and cooperative extension programs could be directed to the needs and the development of the people. While traditional professional fields would continue to have major educational and service roles and responsibilities, increasingly, new interdisciplinary

fields should be developed to provide the necessary knowledge and associated problem-solving services in the land grant tradition.

### **Concluding Remarks**

There is an increasing sense among leaders of American higher education

and on the part of our various constituencies that the 1990s will represent a period of significant change on the part of our universities if

we are to respond to the challenges, opportunities, and responsibilities before us.

A key element will be efforts to provide universities with the capacity to transform themselves into entirely new paradigms that are better able to

serve a rapidly changing society and a profoundly changed world

We must seek to remove the constraints that prevent our institutions from

responding to the needs of a rapidly changing society, to remove unnecessary processes and administrative structures, to question existing premises and arrangements, and to challenge, excite, and embolden the members of our university communities to embark on this great adventure.

Our challenge is to work together to provide an environment in which such change is regarded not as threatening but rather as an exhilarating opportunity to engage in the primary activity of a university, learning, in all its many forms, to better serve our world.

In summary, our objective for the next several years is to provide our universities with the capacity to transform themselves into institutions more capable of serving our states, our nation, and the world.

As I said at the outset, the remarkable resilience of institutions of higher education, the capacity to adapt to change in the past has occurred because in many ways they are intensely entrepreneurial, transactional cultures..

We have provided our faculty the freedom, the encouragement and the incentives, to move toward their personal goals in highly flexible ways, and they have done so through good times and bad. Unfortunately their efforts have all too frequently today led to organizations that have become far comprehensive, complex, and detached from their core mission of learning.

Our challenge is to tap this great source of creativity and energy associated with entrepreneurial activity, but in a way that preserves our fundamental mission our fundamental values.

In a sense we need to continue to encourage our tradition of natural evolution so successful in responding to a changing world,



but to do so with greater strategic intent.  
That is, rather than continuing to evolve as an unconstrained transactional entrepreneurial culture, we need to guide this process in such a way as to preserve our core missions, characteristics, and values.  
Furthermore, we must develop greater capacity to redirect our resources toward our highest priorities.  
While we are facing a period of more constrained resources, I believe that most of our institutions will continue to grow.  
After all, the knowledge business is a "growth industry".  
Yet, to use a gardening analogy, we need to develop the capacity to prune and shape this growth so that it is more strategic  
In summary, I share the sense and among most of my colleagues v as presidents of universities that the 1990s will see extraordinary changes in the nature of higher education and the nature of our institutions.  
A key element will be to provide ourselves with the flexibility, the capacity to change, to serve a changing society.  
But to change in such a way that we preserve fundamental aspects of our characters and our values.  
Our challenges as institutions, as complex communities will be to learn how to work together to provide environments in which such change is regarded not as threatening, but rather as an exhilarating opportunity to engage in the primary activity of the university which of course, is learning.  
This capacity for change, for renewal I think is the key objective that we have to strive for in the years ahead.  
A capacity that will allow us to transform ourselves once again as the university has done so many times in the past to become a structure, an institution capable of serving a changing society and a changing world.

## **Appendices**

Back to basics

Mission shedding

The first question concerns focusing and refining our activities to bring them more in line with our core mission of learning. It seems clear that we need to learn the art of "mission shedding".

That is, we have to develop the capacity to shed some of the missions that we've taken on through the interest of our faculty in the past. Let me use an example.

Like many institutions with large academic health centers, at Michigan we are building what will be a multi-billion dollar health care system.

Do we really need this size of operation to support our teaching and research mission? Of course not.

But we do need a health care system this large to provide sufficient referrals to keep our massive tertiary and

quadrinary care hospitals afloat.

Here we have an example of a mission that has probably outgrown our institution and needs to be spun off.

Focusing

That's right and we've made plenty of mistakes--although we usually don't let the papers get word of this up to East Lansing.

I think we made some big mistakes during the early 1980's when we tried to put into place a very public mechanism capable of discontinuing academic programs.

Actually at that time we tried to discontinue three schools, number of subprograms and at the end, didn't really discontinue anything.

We did cut them down at the cost of great trauma.

But we learned that a public lynching in the town square just did not work.

We're now trying to learn how to prune in different ways.

What we're learning is that, at least in a highly public institution governed by strong sunshine laws, we really have to accomplish the pruning by finesse, by reorganizing units and hoping that in the process of units just disappear.

This sounds somewhat Machiavellian but that may be the only way to do it.

For example, we've just gone through a process of eliminating for

the second time our Population Planning Department.

It was eliminated during the late 1970's, but it grew back in the 1980s.

When we tried to eliminate it again using a public process, we found that we just couldn't do it.

So what we finally ended up doing is re-structuring the parent body,

our school of Public Health by re-organizing it from eight departments into four departments.

In the process, we magically lost population planning, but in an acceptable fashion. So I suppose sleight of hand may be a good approach.

But I... don't look at Michigan as a good model for such efforts.

I understand that UCLA is going through a similar pruning process

again using re-organization as the mechanism to restructure and eliminate.

Clearing out the underbrush

Part of the challenge is to clear the underbrush cluttering our institutions.

Like your institutions, we have a thicket of policies and

procedures and practices, along with the anarchy of committee and consensus decision making--which is an oxymoron in itself.

Committees don't make decisions.

Our best people now feel quite constrained by the University as it is currently defined, constrained by their colleagues, constrained by the "administration", but beyond that, even as we remove those constraints, there have to be some mechanisms in place to guide the institution in a strategic way.

That will be done in different ways by different institutions. In our institution, our Provost is leading the difficult process of moving us to responsibility center management.

We've had a highly decentralized institution for many years which has been operated according to centralized fund-accounting.

There have been few direct incentives to generate incentives or control costs at the unit level.

We hope that responsibility center management will accomplish three things: It provides very strong incentives for the units to generate resources. It provides strong incentives to use those resources wisely. And because it will provide significant resources under central control, much of which will return as conscious subsidies, it will give us much more capacity to guide the institution. It strengthens the tiller a bit. We may be somewhat unique in that because we are already highly decentralized in management right now.

To move strategically, we're may to have to centralize a bit more control over resources.

That does not go down easily with many of our deans who resist such budgeting changes.

#### Flexibility

I think the key feature that all institutions in our society are driving for is flexibility, increased flexibility to deal with a rapidly changing world.

Those institutions that are not capable of achieving flexibility are going to decline and perhaps disappear.

They're going to be swept aside.

In the corporate sector, they've achieved more flexibility by decreasing the number of permanent long-term employees and making far more use of part-time flexible employees to deal with certain missions.

This is also clearly happening in higher education.  
Most of our institutions are making far more use of flexible  
staff--lecturers, research scientists, clinical faculty--rather  
than  
tenure-track faculty.

This creates a very serious personnel problem, of course.  
But I suspect that universities will follow courses quit similar to  
those pursued in other sectors.

We will inevitably be driven toward a smaller and smaller core  
of permanent individuals, whether it be faculty or staff,  
using more and more in the way of people that come in  
for limited periods of time to address various missions  
that tend to change.

That is the nature of the times in which we live, and I think that  
if we don't move towards that we're going to become  
so ponderous and resistant to change that our viability  
is going to be very threatened.

It would be great if changes swirling about higher education  
were on a slower time scale than in the rest of our society,  
but this simply isn't the case.

It always amazes me how rapidly companies are able  
to respond when the alternative is Chapter 11.

Both complex decisions and complex execution can occur  
on the time scale of weeks or even days.

The glacial time scales characterizing the university  
decision process are simply no longer acceptable.

We simply cannot survive in this time of change unless  
we ourselves are capable of far more dramatic and  
rapid change.

#### Spin-offs

Examples:

Internet

Willow Run

UM Clinical Delivery System

#### Strategically Constrained Evolution

How to protect basic mission and values?

Constraints

Questions

#### The Challenge of Change

It depends enormously on the institution.

The University of Michigan has not been in crisis.

We had a scare in the early '80s, but we certainly don't have  
a crisis now.

And yet, I worry whether you can achieve the degree  
of change that you need without some degree of anxiety  
or even fear.

I worry about that.

I would like to think that opportunity and hope and excitement

can motivate people to change.  
But sometimes it takes a wolf at the door to get their attention.  
What happens if you don't have a convenient wolf nearby?  
Do you have to create one? I don't know.  
We're trying lots of things, but whether we can achieve  
the degree of change we need without the wolf at the door,  
but we continue to have doubts.,