UNC-Chapel Hill Briefing – J. J. Duderstadt – 7/20/04

Introduction

Nice to be back in the warmth of Chapel Hill

Long standing relationships...

UNC-CH, UM, UW are flagships

UNC → UM: Many of my EOs

Bernie Machen (now Pres Florida)

Maureen Hartford (VP-SA)

Farris Womack (VP-CFO)

UM → UNC

James Moeser, UNC-CH

Jim Renick, UNC-A&T

Peggy Bradley-Doppes, UNC-Wilmington

Maureen Hartford, Meredith

Should also note that during my tenure as president at Michigan, Bill Friday agreed to spend a day with my governing board to discuss many of these issues...

Let me begin by reading some of the handwriting on the wall

- First at the 100,000 ft level to summarize some of the key challenges facing higher education
- Then at the treetops level, focusing in on public research universities
- And finally moving to Ground Zero to suggest some of the specific challenges facing the UNC-CH.

Let me also encourage you to break in with specific questions or comments as I move along. I want to make this a conversation.

### 1. The Current Budget Crunch

Of course, foremost on the minds of most university leaders these days are the devastating cuts in appropriations as the states struggle to cope with crushing budget deficits or the erosion of private support from gifts and endowment income associated with a weak economy.

Of course, the optimist might suggest that this is just part of the ebb and flow of economic cycles. In bad times, state governments and donors cut support, hoping to restore it once again in good times.

But this time it may be different. As one state budget officer noted: "College leaders are fooling themselves if they think the end of this recession will be like all the others. What we're seeing is a systematic, careless withdrawal of concern and support for advanced education in this country at exactly the wrong time."

The primary challenge is an aging baby boomer population whose priorities are clearly heath care, prisons, homeland security, and reduced tax burdens for the near term rather than in the education of the next generation and the future. This situation is unlikely to change for perhaps the next two or three decades, until a new generation comes along that is willing to re-establish an more appropriate balance between consuming for our present desires and investing for our children's future.

Today in the face of limited resources and more pressing social priorities, the century-long expansion of public support of higher education has now only slowed, it is sliding backwards.

We now have at least two decades of experience that would suggest that the states are simply not able—or willing—to provide the sufficient resources to sustain the present capacity and quality of their institutions.

# 2. The Changing Higher Education Needs of Society

Today, a college degree has become a necessity for most careers, and graduate education desirable for an increasing number. A growing population will necessitate some growth in higher education to accommodate the projected increases in the number of traditional college age students, roughly 15% across the U.S. in the next decade, and considerably more in states such as California.

But even more growth and adaptation will be needed to respond to the educational needs of adults as they seek to adapt to the needs of the high performance workplace. In fact, it is estimated that by 2010 over 50% of college students will be working adults over the age of 25!

Both young, digital-media savvy students and adult learners will likely demand a major shift in educational methods, away from passive classroom courses packaged into well-defined degree programs, and toward interactive, collaborative learning experiences, provided when and where the student needs the knowledge and skills.

The increased blurring of the various stages of learning throughout one's lifetime–K-12, undergraduate, graduate, professional, job training, career shifting, lifelong enrichment–will

require a far greater coordination and perhaps even a merger of various elements of our national educational infrastructure.

We are shifting from "just-in-case" education, based on degree-based programs early in one's life, to "just-in-time" education, where knowledge and skills are obtained during a career, to "just-for-you" educational services, customized to the needs of the student. The student is evolving into an active learner and eventually a demanding consumer of educational services.

Ironically, despite the erosion in public support, higher education is becoming a powerful political force. Ask any governor about state priorities these days and you are likely to hear concerns expressed about education and workforce training. The National Governors Association notes that "The driving force behind the 21st Century economy is knowledge, and developing human capital is the best way to ensure prosperity."

We all hear about "off-shoring", the increasing tendency for companies to export knowledge-intensive service jobs like engineering and information services to developing nations like India, China, and Eastern Europe. Generally politicians rationalize this by suggesting that it is the low wage rates that shift jobs overseas (typically 20 cents on the \$1 for India, for example). But increasingly companies are doing this because they get higher quality service in high tech areas like computer software development (mention Unisys). Why? Because many of these nations are making massive investments in higher education, particularly in technology-intensive areas like engineering and computer science.

Just as the *space race* of the 1960s stimulated major investments in research and education, there are early signs that the *skills race* of the 21<sup>st</sup> Century may soon be recognized as the dominant domestic policy issue facing our nation. But there is an important difference here. The space race galvanized public concern and concentrated national attention on educating "the best and brightest," the elite of our society. The skills race of the 21<sup>st</sup> Century will value instead the skills and knowledge of our entire workforce as a key to economic prosperity, national security, and social well-being.

### 3. Diversity

The increasing diversity of the American population with respect to race, ethnicity, gender and nationality is both one of our greatest strengths and most serious challenges as a nation. A diverse population gives us great vitality. However the challenge of increasing diversity is complicated by social and economic factors. Far from evolving toward one America, our society continues to be hindered by the segregation and non-assimilation of minority cultures. Our society is challenging in both the courts and through referendum long-accepted programs as affirmative action and equal opportunity aimed at expanding access to higher education to underrepresented communities and diversifying our campuses.

Here, as many of you know, I speak with some personal involvement since I was a named defendant in two recent cases before the United States Supreme Court involving the University of Michigan's admissions. (I'm the "et. al." in the cases.). Although the Supreme Court decisions were split, supporting the use of race in the admissions policies of our Law School and

opposing the formula-based approach used for undergraduate admissions, the most important ruling in both cases was, in the words of the court:

- "Student body diversity is a compelling state interest that can justify the use of race in university admission"
- "When race-based action is necessary to further a compelling governmental interest, such action does not violate the constitutional guarantee of equal protection so long as the narrow-tailoring requirement is also satisfied."

Hence, the Supreme Court decisions on the Michigan cases reaffirmed those policies and practices long used by those selective colleges and universities throughout the United States–or at least so we thought.

While an important battle has been won, the war is far from over. University after university is now backing away from minority programs aimed at recruitment, financial aid, and academic enrichment. Schools such as Harvard, Yale, Princeton, and MIT are either eliminating entirely such programs or opening them up to non-minority students from low-income households or who demonstrate a commitment to promoting racial diversity (whatever that means).

Why? They have been scared by their lawyers who interpret the "narrowly-tailored use of race" language in the Michigan decisions as prohibiting any activities which are not race-blind. Apparently these institutions are unwilling to face up to the challenge in the way that Michigan did. They saw how much we had to spend (\$20 million) and the long battle we had to fight to win our case.

Yet, I must say that after the years of effort in defending these cases all the way to the Supreme Court, it would be tragic indeed if the decisions in the Michigan case cause more harm to the cause of diversity than advancing the cause of social justice, particularly if they empower the lawyers on our campuses to block our successful efforts to broaden educational opportunity.

## 4. Technology

Several years ago the presidents of our National Academies launched a project to understand better the implications of information technology for the future of the research university, which I was asked to chair. Let me mention two key conclusions from this study:

Point 1: The extraordinary evolutionary pace of information technology will not only continue for the foreseeable future, but it could well accelerate on a superexponential slope.

Digital technology is characterized by an exponential pace of evolution in which characteristics such computing speed, memory, and network transmission speeds for a given price increase by a factor of 100 to 1000 every decade. Over the next decade, we will evolve from "giga" technology (in terms of computer operations per second, storage, or data transmission rates) to "tera" and then to "peta" technology (one million-billion or  $10^{15}$ ). To illustrate with an extreme example, if information technology continues to evolve at its present rate, by the year 2020, the thousand-dollar notebook computer will have a data processing speed and memory capacity roughly comparable to the human brain. Except it will be so tiny as to be almost invisible, and it will communicate with billions of other computers through wireless technology.

For planning purposes, we can assume that by the end of the decade we will have available infinite bandwidth and infinite processing power (at least compared to current capabilities). The number of people linked together by digital technology will grow from millions to billions. We will evolve from "e-commerce" and "e-government" and "e-learning" to "e-everything", since digital devices will increasingly become our primary interfaces not only with our environment but with other people, groups, and social institutions.

Point 2: The impact of information technology on the university will likely be *profound*, *rapid*, *and unpredictable*–just as it has been and will continue to be for the economy, our society, and our social institutions (e.g., corporations, governments, and learning institutions). It is a *disruptive* technology (in the sense of Clayton Christenson).

Information and communications technology will affect the activities of the university (teaching, research, outreach), its organization (academic structure, faculty culture, financing and management), and the broader higher education enterprise.

Universities must anticipate these forces, develop appropriate strategies, and make adequate investments if they are to prosper during this period. Procrastination and inaction are the most dangerous courses for universities during a time of rapid technological change.

### 5. Markets

These economic, social, and technological factors are stimulating powerful market forces that are likely to drive a massive restructuring of the higher education enterprise, similar to that experienced by other economic sectors such as health care, transportation, communications, and energy.

We are moving toward a revenue-driven, market-responsive higher education system because there is no way that our current tax systems can support the level higher education required by knowledge-driven economies, in the face of other compelling social priorities (particularly the needs of the aging).

But the main force flows from a new level of competition among higher ed institutions, a competition for students, for faculty, for funding and prestige. This is amplified by an accelerating influence of the market on higher education and a growing willingness on the part of political leaders to use market forces as a means of structuring higher ed in order to increase the impact of the competition.

Put another way, market forces are rapidly overwhelming public policy and public investment in determining the future course of higher education.

Higher ed in the US has always viewed itself as competitive, particularly compared to elsewhere in the world. In reality, however, the competition has been muted, more benign than ferocious, more focused on prestige than quality or price. It has been restrained both by tradition and by government regulation.

States have operated what are basically higher education cartels of public institutions, where 80% of students are enrolled, each institution assigned specific roles, with regulations that govern price, funding, enrollment, operation, and the scope of programs.

Yet today, in state after state, indeed, in nation after nation, governments are abandoning centralized planning and control of higher education and instead stimulating market competition, believing that market forces are far more effective in controlling costs and mission creep while demanding efficiency and quality. University leaders are demanding greater autonomy in order to compete, indeed, to survive in the face of increasing market pressures.

In a sense, higher education is finally beginning to recognize like the rest of economy that free market strategies are far more effective in sensing and addressing public priorities than centralized systems and governance.

Needless to say, there are some holdouts. After all, the task for legislators and statewide higher education systems is difficult, since the temptation to regulate is deep seated. But the market forces driving the evolution of higher education are intensifying and will almost certainly sweep aside institutions unable to achieve the autonomy and agility to necessary to compete in a knowledge-intensive, global society.

Public universities must break free from those traditions that depend heavily upon generous state support and restrictive public policies, and instead manage their affairs much as private universities, albeit with a public purpose. They must become more entrepreneurial and proactive, seeking both the resources and the autonomy that will allow them to thrive in spite of

the vicissitudes of public funding. In a sense, they must become privately financed and privately managed public universities.

One Final Comment—and One Important Question

While university presidents are sometimes reluctant to speculate about the longer term future of their institutions, our workshops found the provosts somewhat less inhibited. The discussions with provosts frequently covered a very broad range of very fundamental issues such as the mission, roles, values, and traditions of the university.

One of our participants reminded the group that within a single generation after the Civil War period, American higher education changed essentially every one of its characteristics in a radical fashion:

- evolving from the colonial colleges to the German model of a research university,
- empowering the faculty,
- growing from institutions with hundreds to thousands of students,
- and through the land-grant movement, creating the new paradigm of the engaged public university.

Everything that could change, in fact, did change.

The consensus in several of our workshops was that we are well along in a similar period of dramatic change in higher education. In fact some of our colleagues were willing to put on the table the most disturbing question of all: Will the university, at least as we know it today, even exist a generation from now? Disturbing, perhaps. But certainly a question deserving of very careful consideration, at least by those responsible for leading and governing our institutions.

The Particular Challenges Faced by Flagship Public Research Universities

Flagship public research universities such as UNC-CH, UM-AA, and UW-M face particular challenges. Let me mention three of these:

Challenge 1: Surviving the Last Decades of the Baby Boomers

We must face up to the reality that world-class public research universities will simply not be a priority of an aging baby-boomer population that will instead demand public priorities such as health care, crime prevention, homeland security, lower taxes ...and to hell with the kids...and the future. This attitude is likely to drive public policy and public investment until this generation disappears.

No matter how generous your state seems to be at times (e.g., the \$2.5 billion bond issue of 2000 or the relatively generous appropriations for the year ahead), the reality is that over the longer term state support will continue to decline as a fraction of your funding base.

At Michigan over the past three decades our state support has declined from 70% of our operating budget to less than 10%...although I should also note that our Wall Street credit rating is bumped up a notch with each cut in state appropriation...now with our bonds trading at Aaa levels.

Hence the real challenge for flagship public universities will be to get through a two to three decade period of declining state support with their quality and reputation intact.

This reality, coupled with the growing market pressures on public research universities require a serious rethinking and possibly even restructuring of all of its financial activities, from asset acquisition and allocation to financial management to cost containment.

Universities need to explore new financial models that strive to build far more diversified funding portfolios, less dependent upon state appropriations, that enable public universities not only to increase the resources available for academic program support but moreover provide resilience against the inevitable ebb and flow of state support.

Universities need to build adequate reserve capacity, both in the budgets of operating units and through endowment accounts.

The allocation and management of resources, the containment of costs, and the adoption of efficiency measures common from business such as systems re-engineering and total quality management are important strategies.

But perhaps most significant is an entirely new approach to financial management, responsibility, and accountability that will enable the public university to thrive during a period of constrained public support.

Challenge 2: Shifting to High-Tuition, High Need-based Financial Aid Models

But it is not only quality that we need to protect. It is also access.

The current model of inadequate state support coupled with low tuition amounts to a highly regressive policy for financing public higher education since, in effect, it provides a massive subsidy for the reach at the expense of educational opportunities for the poor.

The problem with tuition constraints is that they provide subsidy to the wrong people, to those who can afford public higher education (and certainly don't pay sufficient taxes to justify these subsidies) at the expense of the poor who require need-based financial aid.

An example: At Michigan we estimate our instructional costs as roughly \$25 K - \$30 K per student (which, by the way, is about what we charge students from out of state). This is similar to the costs at most Big 10 Schools and UC-B and UCLA (and I suspect close to your costs).

- If you were to take our entire state appropriation of \$300 million and use it only to subsidize the education of Michigan residents, this would amount to about \$11,000 per student.
- Political forces have kept our tuition at around \$8,000.
- Hence we have to make up the difference of about \$7,000 from those discretionary resources that would normally go to our need-based financial aid programs.

What is the result? The average family income of undergraduates at Michigan is now over \$100,000, with more students from \$200,000 backgrounds than from \$50,000 and below.

And the state has compounded this nonsense by using 75% of our tobacco settlement funding (\$150 million/year) for merit-based scholarships which also go primarily to students from high income families.

Study after study have demonstrated convincingly that the real key to access in public higher education is not low tuition, it is need-based financial aid. A recent NY Times Editorial put it well:

- Legislators have cried foul at tuition increase, posturing for angry voters. But they have also compounded the problem by repackaging tuition aid as "merit scholarships" which primarily go to the middle and upperclass students.
- A more moderate approach might be to permit tuition to rise to the levels now charged to out-of-state students, while protecting those with less ability to pay with need-based financial aid.
- Since the government has taken to starving them, their best hope is to increase tuition for those who can afford to pay.

Hence the second challenge will to persuade state governments and governing boards that the key to access is need-based financial aid, which can only be provided if those who can afford it pay more of the true costs of their education through higher tuition.

Challenge 3: The impact of market pressures on state-structured systems

The shift toward a market represents a reversal of a long trend, more than five decades, toward state-structured systems.

Now the tide is turning. The existing state systems have been largely ineffective in preventing mission creep and program overlap, as evidenced by the development of low quality and unneeded PhD programs at literally hundreds of four-year institutions determined to be seen as research universities, not because of a public need but because of an internal drive for prestige.

Furthermore such statewide systems have not been able to address the issues of cost and efficiency or the quality of learning, which really require attention at the campus level.

Clark Kerr described the negative aspects of internal competition within a multi-campus governance systems, saying, "The tendency within consolidated governance systems is to homogenize, because each type of institution looks so closely at one another."

Burton Clark: "The growing complexity of higher education dictates a growing focus for the institutional level as over against higher system levels of organization."

Legislators have grown impatient, and "accountability" has become a hot-button topic. As a result, many states are now seeking to transform their statewide systems of higher education into competitive markets, encouraging competition rather than coordination.

Here we need to understand that this interest in market forces on the part of government does not come out of the blue, but rather is a further extension of a broader push toward the use of markets for a wide array of sectors, recognizing that in today's society, the marketplace may be a far more faithful reflection and arbiter of public needs than public policy and politicians.

If this is to happen, however, university leaders (and institutional governing boards) need far more autonomy if they are to achieve the agility and flexibility to compete.

There is a clear opportunity for a tradeoff, greater autonomy in return for greater accountability.

In state after state, nation after nation, public higher education is grappling with what is referred to as the "autonomy-accountability" tradeoff. Academic and political leaders are seeking to craft policies that provide the opportunity and the incentive for institutions to become more autonomous and entrepreneurial while holding institutions more accountable for performance.

What state leaders need, and what would serve the public most effectively, is state
control principally of two factors: mission and a range of workable means of
assessing institution performance.

 What university leaders need is greater autonomy in operation of the institution in order to fulfill the agreed upon mission.

Frank Newman believed (and I agree) that this "compact" must be negotiated at the institution level, NOT at the system level.

Ironically, the current budget crisis has provided the opportunity for such negotiations in many states, and there is a new breed of public institution appearing with names such as "charter universities" or "enterprise universities" or "state-related universities" or "public corporations or authorities".

Despite the widespread confusion about terminology, one thing seems clear: institutions, states, and nations are searching for ways of injecting more autonomy into the system after decades of building regulations. Discussions about changing the regulatory structure of higher education systems are, ultimately, political discussions.

The tradeoff between autonomy and accountability should leave all parties feeling that they get something out of the deal. Academic leaders get autonomy, and political leaders gain leverage for reinforcing public needs. Most importantly, this new relationships creates the conditions for a higher education system that is flexible, entrepreneurial, customized, accountable, and able to meet the state's needs.

Some Specific Challenges to UNC-Chapel Hill

Let me turn to some specific issues that UNC-CH needs to consider:

# 1. A Reality Check

UNC-CH needs a reality check on the following premise:

The changing economy of your state, coupled with the political realities of the statewide system hanging about your neck (being a part of a relatively burdensome university system with too many greedy hogs at the trough) simply will not allow the level of support necessary to sustain you as a world class research university!

Michigan provides an interesting case study here.

- As our state began to outsource high-pay, low-skill manufacturing jobs (and now is "off-shoring" high-pay, high-skill knowledge services), it was clear that our prosperity would drop below the national average.
- Furthermore, the growth of other public universities in the state was eroding our traditional public funding base.
- We first attempted to come to grips with the usual business strategies: "smaller but better" and "innovation by substitution"

But in the 1980s we rapidly became convinced that the State of Michigan would never again have either the relative prosperity or priorities to sustain UM as a world-class research university.

- We conducted a reality check on this premise through confidential surveys of key corporate and government leaders, and not a one disagreed (even our governor).
- Hence we started down the long road toward becoming a "privately-financed, but publicly committed university"
- Harold Shapiro's warning: Don't give up entirely on the state appropriation.
   But don't depend on it either. Realize that from time to time you will have to take actions which put the state appropriation at risk.

Put another way, we decided that we would not allow the state to determine the quality of the University of Michigan. (Actually, we never had...) Rather we would use our reputation and capacity, built over earlier generations in different times, to not only sustain but enhance our quality, REGARDLESS of the state environment.

My suspicion is that North Carolina is walking down this same path.

- Your traditional agricultural-based economy is disappearing
- Off-shoring could affect your high tech industry
- And it is clear that the hungry mouths in the UNC System (coupled with an attitude
  that we refer to in Michigan as "an extreme intolerance of extraordinary excellence")
  will drive an leveling process...at least if you let it.

### 2. Tuition Wars

Clearly tuition strategies will be key.

You have made an excellent start,

Gaining more campus-based control of tuition levels

Building a public case for higher tuitions by increasing your

need-based financial aid programs.

But this war will be long, and the battles will be many.

Some will challenge it because of the language in your state

constitution that states that "the benefits of the University

of North Carolina and other public institutions of higher

education, as far as practicable, be extended to the people

of the state, free of expense."

Clearly the low tuition model is no longer practicable, at least if you want to remain a great university. But many will attempt to constrain you by recalling only the last phrase, "free of expense" (perhaps including Mr. Friday...)

## 3. The Albatross of the UNC System

UNC Board of Governors was created by NC General Assembly in 1971 that brought 16 higher ed institutions, as a result of a legislative struggle that pitted Governor Scott and the legislatives against leaders and key supporters of the 6 campus Consolidated University of North Carolina.

Today state policymakers share a fierce pride in University accomplishments and in a university governance structure that they believe has made North Carolina a national leader in higher education.

## But there are dangers here:

- A rising tide may indeed raise all boats, but it raises them to the same level.
- There is a natural tendency for all institutions to seek to become research universities (the "Harvard" effect).
- There are dangers in believing that policies relevant to a quite different time remain relevant today.

In most states such systems are no more capable of controlling mission creep, cost, or efficiency that planned economies capable of achieving prosperity in a global marketplace.

Little wonder then that most states--and nations--are shifting from such centralized systems to encourage more market competition among institutions

In my mind there is absolutely no doubt that during a period of great challenge and change when market forces are likely to overwhelm public policy, flagship public research universities simply must have more control over their destiny.

In my part of the world the dominant theme, taken from Toyota, is "agile manufacturing". But agility is also the key trait that will determine the success of most institutions. And face it,

university systems are ponderous, generally tending to protect the status quo rather than looking to the future.

It is my belief that the flagships will simply not thrive, perhaps not even survive with quality intact, if they are forced to exist within systems dominated by regional campuses.

So, what to do? Do you folks need to find yourselves a Thomas Jefferson to draft a "declaration of independence"?

Perhaps not...at least not yet! Instead you need to step back and consider some other models.

Two extremes:

California Master Plan

Which separates UC from CSU...

in mission, funding, and governance

Great system...best in world...but incredibly

expensive, not to mention extraordinarily

elitist.

Michigan Anarchy

Provides constitutional autonomy to each of 15 campuses, each with their own governing board

Relies almost entirely on market forces.

While this sometimes creates political havoc that annoys governors and legislatures alike, it has yielded one of the finest systems of public higher education and two world class public research universities at a level of state support (now only \$5,600 per that is only a fraction of most other states).

But perhaps there is a better model for North Carolina

### Wisconsin Model

A very clever political strategy to decouple UW-Madison from rest of system, while preventing mission creep.

State was persuaded it could only support one public research university, and this at only 25%.

The architect of that strategy is with us this afternoon,

David Ward.

### 4. Governance

In reading through the massive, 300 page report developed this spring by the North Carolina Center for Public Policy

Research, I became increasingly uneasy about your system of governance.

Some suggest that such a strong central board is necessary. They credit the Board of Governors with the history of relatively generous appropriations for higher education under the unified funding requests submitted annually.

Yet there was also a clear sense of denial, a failure to recognize just how much and how rapidly the world was changing.

To some degree I sensed an almost wistful nostalgia for a system that may have made sense 30 years ago, but needs to be serious reconsidered in view of a very different time.

To be sure, the University of North Carolina–particularly UNC-CH and NCSU–are marvelous institutions. But so are U Wisconsin, U Michigan, U California, U Virginia, and dozens of other flagship public research universities in America, not to mention dozens of more elite private research universities with vast assets, and hundreds of more established and emerging research universities throughout the world. And we all increasing compete in the same marketplace for the same students, the same faculty, the same research grants, the same private gifts, and the same national rankings.

The division of authority of the Board of Governors and the campus boards of trustees is confusing to an outsider,

perhaps intentionally so.

Your Board of Governors has power over budgets, academic programs, and personnel, raising some questions to an outsider as to whether you as trustees have true executive authority.

- Or are you primarily an advisory body?
- ((I suppose a determined Board of Governors and a hard-nosed system president has something to say about this...)

And where is the chancellor in all of this

...between the Board of Governors and the trustees

...between a rock and a hard place?

...between a dog and a fire hydrant?

Suppose you were to step back, forget about past policies,

politics, and mindsets and ask the question: How best can we help the UNC-CH meet the challenges and seize the opportunities presented by a very rapidly changing state, nation, and world?

Perhaps the answer lies in your titles:

The system board consists of "governors".

Your board consists of "trustees".

And it is that concept of <u>trust</u> that should guide your role.

Put another way, while you indeed have a trust to serve the current generation of state citizens, it is just as important that you act as stewards for a remarkable institution built by past sacrifices of two centuries of Carolina citizens, and regard your highest priority as protecting the capacity of this institution to serve future generations not yet born...