

An Operating Manual for the University of Michigan



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Preface

The University of Michigan clearly qualifies for inclusion in the small group of institutions that have shaped American higher education. Michigan has long defined the model of the large, comprehensive, public research university, with a serious commitment to scholarship and service. It has been distinguished by unusual breadth, a rich diversity of academic disciplines and professional schools, social and cultural activities, and intellectual pluralism. This unrelenting commitment to academic excellence, broad student access, and public service continues today. In virtually all national and international surveys, the university's programs rank among the very best, with most of its schools, colleges, and departments ranking in quality among the top ten nationally and with several regarded as the leading programs in the nation. The late Clark Kerr, the president of the University of California, once referred to the University of Michigan as "the mother of state universities," noting it was the first to prove that a high-quality education could be delivered at a publicly funded institution of higher learning. (Kerr, 1963)

Beyond academic excellence and unusually broad educational opportunities, one more element of the Michigan character seems particularly appropriate during these times of challenge and change in higher education. Its extraordinary scale and unusual degree of decentralization of authority have enabled it to take risks that would be unacceptable to most institutions. Michigan's vast size, intellectual breadth, and highly decentralized management culture allows it to experiment and innovate on a scale far beyond that tolerated by most institutions, as evidenced by its long history of leadership in higher education. It can easily recover from any failures it encounters on its journeys along high-risk paths. It has evolved over many decades into a highly decentralized ecosystem, based

on a firm belief that great things happen because of the ability, creativity, and commitment of great students, faculty, and staff at the grassroots level. Put another way, Michigan long ago discarded a top-down culture, in which leaders tossed ideas out to be embraced and implemented by the community. Instead, great ideas and achievements at Michigan bubble up from the academic programs at the department and school or college level.

This ability to take risks, to experiment and innovate, to explore various new directions in teaching, research, and service, defines Michigan's unique role in American higher education. In fact, beyond academic leadership, from time to time the University actually does something that changes the world! For example, it was the first university to own and operate its own hospital, thereby combining the medical research conducted by its faculty with the clinical care offered by its hospitals. It introduced the new discipline of aeronautical engineering within a decade after the Wright Brothers' flight and nuclear engineering only a few years after the Manhattan project. In the 1950s Michigan conducted the clinical trials to verify the success of the Salk Vaccine. Through its Institute for Social Research, it became a leader in the quantitative social sciences. Astronauts trained at the University led NASA missions to the moon in the 1960s. And in the 1980s, Michigan joined with IBM and MCI to build and manage the Internet, a role it continued to play into the 1990s, and later to build one of the world's largest digital libraries, the HathiTrust.

From an organizational perspective, the University has long functioned as a "loosely coupled, adaptive ecosystem", with an ever growing complexity as its various components respond to changes in its environment. Today the University is structured and

evolving as a loosely coupled and adaptive ecosystem responding to external changes in its environment. Much like a tropical rain forest, its strength comes from its roots, its students, faculty, and staff. The administration and governance comprising the more visible leaves and branches in the canopy of the rain forest sometimes break and fall off, but the forest continues to grow from its roots, developing defensive mechanisms that ward off attackers.

Successful leaders of the University, whether in roles as presidents, executive officers, deans, chairs, and directors or participants in faculty or student governance, or management at the various levels of staff, must accept the reality that the University is structured as a federation. Its leadership at various levels sets some general ground rules and regulations, acts as an arbiter, raises money for the enterprise, and tries—with limited success—to keep activities roughly coordinated. In fact leading the University of Michigan is less similar to that of a corporate manager and more akin to that of a conductor of an orchestra comprised of highly skilled and highly valuable knowledge professionals.

Hence it is not surprising that the University has long sought for its various leadership roles those who understand and embrace the institution's unique culture of decentralization and risk-taking. This requires the appropriate blend of leaders developed from within who understand this unique institutional culture and tradition and those recruited from outside who bring new ideas and energy. Of course there is always a risk when this balance is distorted, either by failing to develop sufficient number of internal leaders to sustain Michigan's unique culture or by becoming too dependent on newcomers to the campus who attempt to impose upon UM their experiences at other institutions. Fortunately, those who neglect the University's history and culture also expose themselves to considerable risk, since like many highly developed ecosystems, the University has developed a strong capacity to repel invasive species.

For almost five decades, the Duderstadts have enjoyed being members of the Michigan family, serving in a variety of roles, including a partnership in the assignment of dean, provost, and president and seeing the University and its surrounding community from an

array of perspectives. From the academic perspective, the rise through the ranks as a faculty member in Engineering was rather traditional. It was probably the strong involvement in faculty governance as a young faculty member that led to the descent through the various levels of Dante's inferno of academic administration: dean, provost, and finally president of the University, only to be reincarnated once again as a faculty member—albeit mostly unseen and unheard on the Michigan campus as a has-been president.

The other member of the Duderstadt team rose even more rapidly to leadership roles in the University community: first as chair of the Faculty Women's Club Newcomers group, then later as president of the Faculty Women's Club organization and as a member of other campus and community groups; as "deanette", "provostess", and "first lady" of the University. In these various roles she not only gave high priority to building and supporting the many communities of the university, managing hundreds of events, supervising the renovation of major facilities such as the President's House, the Inglis Highlands Estate, and entertainment areas of Michigan Stadium, while hosting thousands of faculty, students, alumni, and guests of the University. She also played a leading role in enhancing and sustaining the University's efforts to capture and sustain its history, first by persuading us to invest \$500,000 a year in the Bentley Library to encourage them to become the University's historical repository, stimulating support of the major course on University history taught by Nick and Peg Steneck, creating the History and Tradition Committee and the position of University Historian (first held by Robert Warner), and launching her own efforts that continue today in authoring books, collecting historical information, and creating iterative websites to document the remarkable history of the University of Michigan.

When the University of Michigan celebrated its Bicentennial year in 2017, the Duderstadts were about to begin our 50th year at the University—in fact, surpassing the tenure of all other Michigan presidents and other leadership roles in our years of service to the University. We began our service as a young faculty couple, but within a decade this role evolved into a series of academic and community leadership roles (dean, provost, president, etc.). After two decades of

University leadership roles, both of us returned again to our earlier roles as faculty and leaders in the University and Ann Arbor community.

This latter decision was unusual in higher education. Most university presidents are itinerant—they move from university to university, as they progress through the academic and administrative ranks, and usually leave the institution when they step down as president. We were unusual not only in our determination to remain at our university following our service in the presidency, although some of our friends have referred to this determination as evidence of being “mobility-impaired”. In a sense, we regarded the Michigan presidency as yet another University assignment—clearly both important and consequential—but drawing us temporarily away from our long-standing role as members of the Michigan faculty and Ann Arbor community. We were determined to return to these earlier roles, although there have been times when this has not been easy.

This half-century at the University has provided an unusual perspective of leadership roles at this remarkable institution. Service as faculty member (both faculty governance and chair of advisory committees to the dean, the provost, and the president), as an academic leader as dean and provost, and as the University’s president (and ex-officio chair of its Board of Regents) has provided an intensive education in what it takes to lead this University. Furthermore, both appointing dozens of chairs and deans and executive officers and recruiting many of these leaders to Michigan has provided yet additional learning experiences in how to provide leadership in such a complex and decentralized institution.

During our half-century as members of the University community, we have had the opportunity to experience and learn its unique leadership culture through an unusually broad array of academic and community leadership roles. We have also had the benefit of observing and celebrating the outstanding accomplishments provided by scores of dedicated faculty, students, staff, and volunteer leaders within the institution over these years, as well as learning from the experience of those who attempted to ignore the Michigan culture, failed in their roles, and were rejected.

Hence it occurred to us that one of our last contributions to the University might be to develop an “operating manual” for leadership within the University of Michigan, both to help outsiders understand this unique institution and to provide guidance to insiders moving to new roles and assignments. In a sense this document is intended as a treatise on how to get things done around here, to take advantage of the University’s extraordinarily decentralized and risk-taking culture that has evolved over many years to enable students, faculty, and staff to accomplish their goals.

Although this is written for those assuming leadership positions in the University, it also is intended to serve as an introduction to the institution for others such as new members of the University’s governing bodies (Regents, Senate Assembly, School and Department Executive Committees, and Student Governance) as well as visitors to the campus. Indeed, this book is written from a broader perspective to stress those unique characteristics and practices necessary to sustain “the Michigan Saga” in both the achievement of excellence and the capacity for leadership.

Finally, since this book also reflects much of the personal experience of the authors over the past half-century, it also exhibits both a sense of wonder—and, at times, amusement—at the marvelous character and culture of the University that has enabled it to remain truly “the leaders and best” for most of its history.

Ann Arbor
2018

The best information source on the current nature of University of Michigan is *The Michigan Almanac*, containing the most up-to-date data on the institution:

<http://obp.umich.edu/michigan-almanac/>

For more information about the history of the University of Michigan, readers can refer to the HathiTrust, the Bentley Library, and the website of the Millennium Project, which contains both a number of downloadable books on the institution as well as web-based documents and databases:

<http://milproj.dc.umich.edu>

To provide the necessary background concerning the University of Michigan, its history, characteristics, and current status, we have also borrowed heavily from a number of earlier books we have written concerning the University and higher education more generally:

Duderstadt Books concerning the history of the University of Michigan:

Anne M. Duderstadt, *The University of Michigan: A Photographic Saga* (Millennium Project, The University of Michigan: Ann Arbor, 2006)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

Anne Duderstadt, *A History of the Presidents House* (Ann Arbor, MI: Millennium Project 2016)

Anne Duderstadt, *A History of the Inglis Highlands Estate* (Ann Arbor, MI: Millennium Project 2016)

Duderstadt Books concerning the University of Michigan Today

James J. Duderstadt, *The Third Century: A Roadmap to the University of Michigan's Future*, Final Edition (Ann Arbor, MI: Millennium Project, 2016)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James Duderstadt, *A 50 Year History of Social Diversity at the University of Michigan* (Ann Arbor, MI: Millennium

Project, 2016)

James J. Duderstadt and Anne Duderstadt, *For the Love of Michigan: A Half Century of Serving the University of Michigan* (Ann Arbor, MI: Millennium Project, 2014)

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt, *The Michigan Strategy Book: 1986 – 1996* (Ann Arbor, MI: Millennium Project, University of Michigan, 2010)

Duderstadt Books concerning issues in higher education

James J. Duderstadt, *A University for the 21st Century* (Ann Arbor, MI: University of Michigan Press, 2000) 280 pp

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. Duderstadt, *Adventures in Higher Education Policy* (Ann Arbor, MI: Millennium Project, 2017)

James Duderstadt, *Case Studies in Strategic Roadmapping for University Planning* (Ann Arbor, MI: Millennium Project, 2017)

James Duderstadt, *Tilting at Windmills: Battles Won, Lost, or Long Since Forgotten, Case Studies in Science, Technology, and Public Policy* (Ann Arbor, MI: Millennium Project, 2015)

James J. Duderstadt and Farris W. Womack, *The Future of the Public University in America: Beyond the Crossroads* (Baltimore: Johns Hopkins University Press, 2002), 236 pp.

James J. Duderstadt, *Intercollegiate Athletics and the American University*: (Ann Arbor, MI: University of Michigan Press, 2002) 280 pp

James J. Duderstadt, *The Michigan Strategy Book: 1986 – 1996* (Ann Arbor, MI: Millennium Project, University of Michigan, 2000)

All are downloadable from the Millennium Project.

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Table of Contents

Preface		Ch 8 Financials	108
Ch 1 The Leaders and Best	1	Financing the University: A Tutorial	
A Tradition of Leadership		Adapting to the Loss of State Support	
Scale and Complexity		The Cost, Price, and Value of a College Education	
A Culture of Pathfinding and Trailblazing		Penny Wise and Pound Foolish Strategies	
An Operating Manual for University Leadership		Today's Financial Challenges	
Appendix: UM Does Big Things!		Bricks and Mortar	
Ch 2 UM Today	16	Financial Futures	
Michigan Today by the Numbers		The Road Ahead	
Limits to Growth?		Ch 9 Auxiliary Activities	122
The Road Ahead		University Medical Center	
Ch 3 Culture and Character	33	Intercollegiate Athletics	
Academic Characteristics		Student Housing	
The University of Michigan Inc		Ch 10 Diversity and Public Purpose	135
A Loosely Coupled Adaptive Ecosystem		First, Some History	
The Foundation for Leadership		The Michigan Mandate	
Ch 4 People	37	Asleep at the Wheel	
Students		Economic Diversity	
The Faculty		Lessons Learned	
The Staff		The Road Ahead	
Appendix: Faculty Compensation		Ch 11 Communities	152
Ch 5 Organization and Management	44	University Communities	
Some Early History		The Ebb and Flow	
The Emergence of Decentralization		The Road Ahead	
Management and the Faculty		Key Assets and Culture	
A Unique Management Culture		Ch 12 A Tough Neighborhood	165
Ch 6 Leadership	62	Ann Arbor	
The University President		State Government	
The Administration		Federal Government	
Concerns Raised and Lessons Learned		Political Strategies	
Adapting Leadership Styles to the Times		A Strategy for a New Century	
Appendix: Inside Out		The Road Ahead	
Ch 7 Governance	99	One Final Possibility	
The Nature of Governance at UM		Ch 13 Preserving the Past	180
The Board of Regents		Tradition	
Faculty Governance		Capturing the UM History	
The Challenges of Shared Governance		Threats	
		A Few Last Thoughts	
		Ch 14 Things That Need Fixing	194
		Warning Signs	

Shifting Policies and Practices
Lingering Questions
Appendices

Ch 15 How to Fix Them	219
Growth	
Quality	
Balance	
Students	
Faculty	
Financials	
Leadership	
Governance	
Organization and Management	
Education	
Research	
Service	
Community	
Neighborhood	
Public Purpose	
Planning and Tactics	
Ch 17 UM: Circa 2030	236
The University of Michigan Today	
Challenges of Today	
The World of 2030	
Leading Michigan to 2030	
References	245

Chapter 1

The Leaders and Best

The University of Michigan has long been regarded as one of the leading public universities in the nation, both in the quality of its academic programs and the scale of its activities. The “University of Michigania” was founded in 1817 by the federal government in the Northwest Territories, two decades before Michigan became a state. Actually, this first incarnation was not a university but rather a small primary school in the village of Detroit, and the institution only began to acquire the characteristics of higher education when moved to Ann Arbor in 1837. Nevertheless the young university during its early decades was shaped by the themes of Enlightenment guaranteeing civil rights and religious freedom. Throughout its history, the University of Michigan has always been identified with the most progressive forces in American higher education.

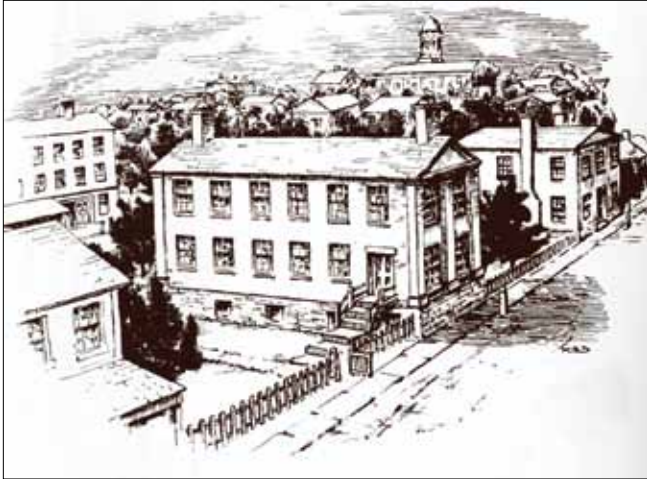
For much of its later history Michigan has been one of the largest universities in the nation, both in terms of enrollment and the scale of its campus (and its football stadium, of course). Today’s scale of the University’s Ann Arbor campus is immense. With an enrollment of 46,002 students and 7,329 (3,172 tenure track) faculty members in its 19 schools and colleges spanning most disciplines and professions, a staff of 15,090, a budget of \$8.2 billion, an endowment of \$11 billion, 35 million square-feet of facilities, and the nation’s leader in research activity at \$1.4 billion per year, its Ann Arbor campus ranks as the world’s largest.

Although most new arrivals to the campus sense that the University of Michigan is a large public university characterized by an unusually strong quality, they would not necessarily conclude that this was a place where the practice was to attempt to change the world. Of course, from time to time a newcomer arrives with the hope of harnessing this gigantic academic beast to

do just that! In fact, the Duderstadts came to Michigan with just that objective, since in our areas of interest, the University was then (and remains today) a world leader. Together we arrived at the University at the faculty and partner level, initially housed in Northwood IV married student housing (since new faculty could not afford homes in the late 1960s), but soon thrust into leadership roles, first in campus groups such as the Faculty Women’s Club and Senate Assembly, then through more visible roles as Dean of Engineering, Provost, and President, all of which we approached very much as partners in order to address the myriad responsibilities and opportunities presented by these assignments.

We learned at the outset that to be a successful leader at Michigan, it is absolutely essential to understand both the history of the University and the culture that has evolved over the past two centuries. Whether long experienced as a member of the faculty or an outsider bringing a new perspective to leadership, the key to successful leadership—indeed to survival in such roles—requires a thorough understanding of both Michigan’s past history and its resulting character today. To put it more bluntly, leaders who learn, understand, and appreciate the history of the University of Michigan are usually successful. Those who ignore this history or fail to preserve it are doomed to failure and only brief tenure in their leadership roles. This is probably the most important lesson to be learned from this “operating manual”, and hence this is the best place to begin.

Universities are based on long-standing traditions and continuity, evolving over many generations (in some cases, even centuries), with very particular sets of values, traditions, and practices. Burton R. Clark, a noted sociologist and scholar of higher education,



The original building of the Catholepistemiad or University of Michigan in Detroit, 1817

introduced the concept of “organizational legend” or “institutional saga,” to refer to those long-standing characteristics that determine the distinctiveness of a college or university. (Clark, 1970) Clark’s view is that “an organizational legend (or saga), located between ideology and religion, partakes of an appealing logic on one hand and sentiments similar to the spiritual on the other”; that universities “develop over time such an intentionality about institutional life, a saga, which then results in unifying the institution and shaping its purpose.” Clark notes: “An institutional saga may be found in many forms, through mottoes, traditions, and ethos. It might consist of long-standing practices or unique roles played by an institution, or even in the images held in the minds (and hearts) of students, faculty, and alumni. Sagas can provide a sense of romance and even mystery that turn a cold organization into a beloved social institution, capturing the allegiance of its members and even defining the identity of its communities.”

As Clark explains, all colleges and universities have a social purpose, but for some, these responsibilities and roles have actually shaped their evolution and determined their character. The appearance of a distinct institutional saga involves many elements—visionary leadership; strong faculty and student cultures; unique programs; ideologies; and, of course, the time to accumulate the events, achievements, legends, and mythology that characterize long-standing institutions.

Hence the first task in understanding the history of



The words of the Northwest Ordinance in the auditorium of old University Hall

the University of Michigan is to understand clearly its key values, traditions, and attributes. And, to do this requires us to sift through the layers of the University’s history to discover and articulate its institutional saga.

A Brief History of the University

The “University of Michigania” was established in 1817 by an act of the Northwest Territorial government. However since there were no students qualified to study at the college level until 1841, it existed initially only as a small primary school in the village of Detroit. Its “university” character would not appear until its move to Ann Arbor in 1837. It was supported initially by the sale of federal land grants negotiated with Native American tribes in the Treaty of Ft. Meigs.

Augustus Woodward, Secretary and later Governor of the Michigan Territory (and a colleague of Thomas Jefferson), provided an ambitious plan for the “university” as a centralized system of schools, libraries, and other cultural institutions, borrowing its model from the *Universite Imperiale de France* founded by Napoleon a decade earlier. (Ruegg, 1996) Named “the Catholepistemiad or University of Michigania” by Woodward, this was actually an extraordinary vision for the times. It proposed an intellectual breadth far beyond the classical curriculum of the colonial colleges that would be run by the professors rather than boards of churchman and denominations like other American colleges of the early 19th century. Woodward also

proposed that it would be supported by taxation so that its primary schools were free and its higher education programs would require only a modest tuition from students.

However more important than the limited activity of the early “University of Michigania” in Detroit was the fact that since it benefited from these territorial land grants, the new university was subject to the Enlightenment themes of the Northwest Ordinance guaranteeing civil rights and religious freedom. Equally significant for our purposes was the Northwest Ordinance’s statement of the importance of education in the new territories: “Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged.” (Northwest Ordinance, 1789) And finally, since its date of origin was established by later court rulings as 1817, before Michigan became a state rather than 1837 after moving to Ann Arbor the year Michigan gained statehood, the University was technically founded by the federal government and hence can claim its early history as a national rather than a state university.

After being attracted to Ann Arbor in 1837 by a grant of 40 acres for its campus by a group of land-holders in the community, the University was reconfigured in the new State of Michigan as a “state” university, with programs in literature, science and arts; medicine; and law—the first three academic departments of the new university. Because the University had already been in existence for two decades before the State of Michigan entered the Union in 1837, and because of the

frontier society’s deep distrust of politics and politicians, the new state’s early constitution (1851) granted the University an unusual degree of autonomy as a “coordinate branch of state government,” with full powers over all University matters granted to its governing board of Regents, although surprisingly

enough it did not state the purpose of the University. This unusual autonomy, along with the fact that the University traces its origins to federal action in the Northwest Territorial governments rather than a state legislature, has shaped an important feature of the University’s character. In financial terms, the University of Michigan was actually a United States land grant university supported entirely by the sale of its federal lands and student fees rather than state resources until after the Civil War. Hence throughout its history the University has regarded itself as much as a national university as a state university, albeit with some discretion when dealing with the Michigan State Legislature.

Under the leadership of the University’s first president, Henry Philip Tappan, a broadly educated professor of philosophy from New York, the University rapidly began to evolve into European form that



President Henry Tappan



The University of Michigan’s campus in 1852 (Jasper Cropsey Painting)

was emerging in northern Europe (Prussia). Tappan broadened the activities of the University to include research and scholarship in addition to instruction, adopting the philosophy of Wilhelm von Humboldt, Prussian minister of education and founder of the University of Berlin, who stressed the importance of combining specialized research with humanistic teaching to define the intellectual structure of the university. (Ruegg, 2004; Clark, 2006) In fact, one can make a strong case that with Tappan's arrival, the University of Michigan became the first attempt in America to build a true university as we understand it today. At a time when the colonial colleges were teaching young boys the classical curriculum of Greek, Latin, and rhetoric using the scholastic methods to "transform savages into gentlemen", much as the British public school, Tappan brought to Ann Arbor a vision of building a true university in the European sense, one which would not only conduct instruction and advanced scholarship, but also respond to popular needs. Michigan blended the classical curriculum with the European model that stressed faculty involvement in research and dedication to the preparation of future scholars. Michigan hired as its first professors not classicists but a zoologist and a geologist. Unlike other institutions of the time, Michigan added instruction in the sciences to the humanistic curriculum, creating a hybrid that drew on the best of both a "liberal" and a "utilitarian" education.

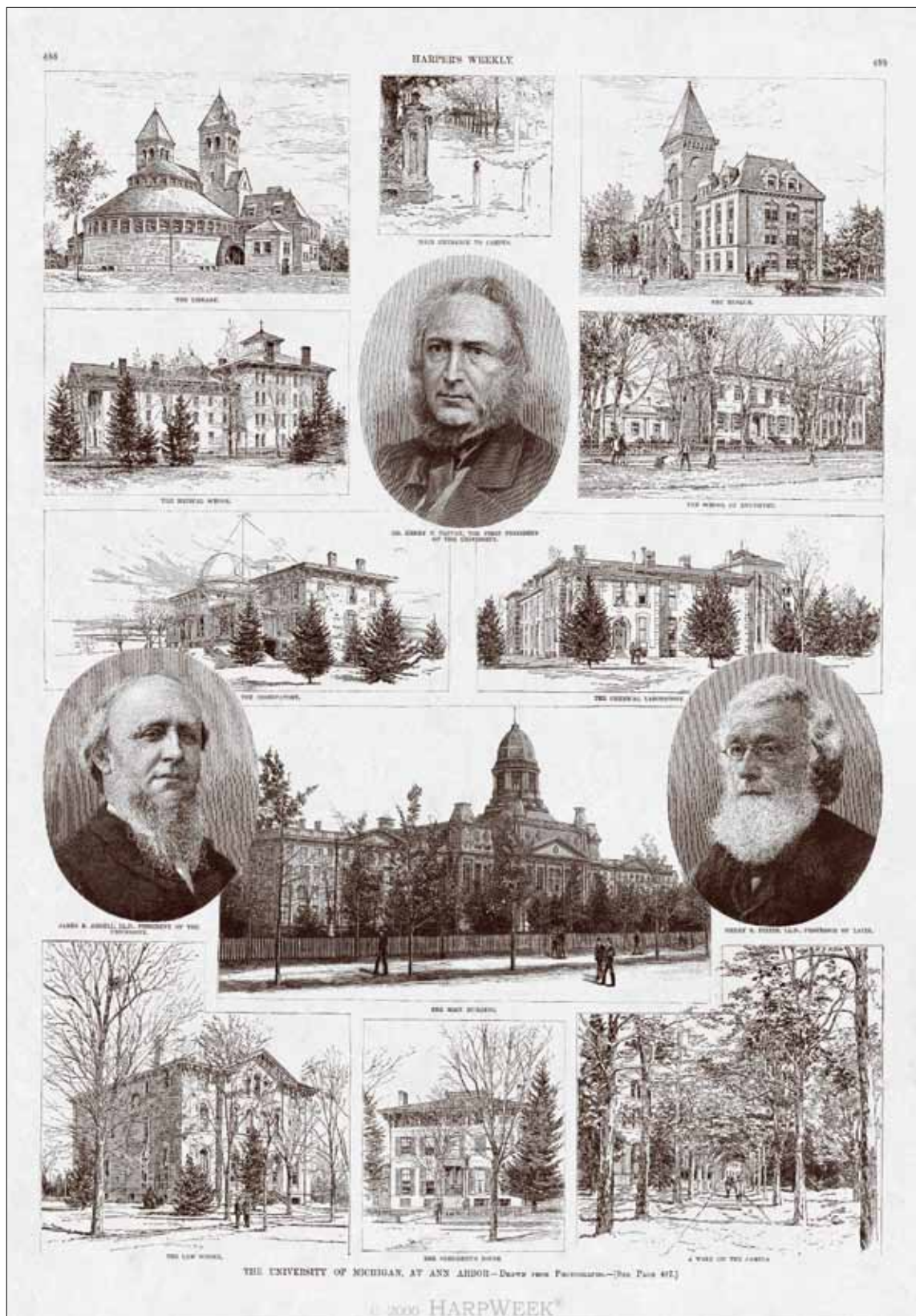
By the late 19th Century, Michigan was recognized, to quote *Harper's Weekly*, as "an institution in whose progress not a single State alone, but the whole country as well, may claim an interest". (*Harper's Weekly*, 1887) The magazine went on to note: "The most striking feature of the University is the broad and liberal spirit in which it does its work. Students are allowed the widest freedom consistent with sound scholarship in pursuing the studies of their choice. Women are admitted to all departments on equal terms with men; the doors of the University are open to all applicants who are properly qualified, from whatever part of the world they may come."

Particularly notable here was the role of Michigan President James Angell in articulating the importance of Michigan's commitment to provide "an uncommon education for the common man" while challenging the

aristocratic notion of leaders of the colonial colleges such as Charles Eliot of Harvard. (Rudolph, 1962) Angell argued that Americans should be given opportunities to develop talent and character to the fullest. He portrayed the state university as the bulwark against the aristocracy of wealth. This commitment continues today, when even in an era of severe fiscal constraints, the University still meets the full financial need of every Michigan student enrolling in its programs.

The University has long placed high value on the diversity of its student body, both because of its commitment to serve all of society, and because of its perception that such diversity enhanced the quality of its educational programs. From its earliest years, Michigan sought to attract students from a broad range of ethnic and geographic backgrounds. In 1860, the regents referred "with partiality" to the "list of foreign students drawn thither from every section of our country." Forty-six percent of the University's students then came from other states and foreign countries. Although the Michigan legislature occasionally objected to this high out-of-state enrollment, the Regents reminded state government that the University had not been founded by state action or money but by grants of land from the United States Congress, support which rendered its obligations at the national level. President Haven noted that the larger fees from out-of-state students provided much of the University's income that subsidized in part the education of Michigan residents (a situation that continues today).

The first African American students arrived on campus in 1868. Michigan was one of the first large universities in America to admit women in 1870. At the time, the rest of the nation looked on with a critical eye, certain that the experiment of co-education would fail. Although the first women students were true pioneers, the objects of intense scrutiny and some resentment, by 1898 the enrollment of women increased rapidly. The University's constitutional autonomy enabled it to defend this commitment to diversity in the face of considerable political resistance to challenging the status quo, eventually taking the battle for diversity and equality of opportunity all the way to the United States Supreme Court in the landmark cases of 2003. In more contemporary terms, it seems clear that an important facet of the institutional saga of the University of



The University of Michigan in 1887, as depicted in the famous article in Harper's Weekly

Michigan would be its achievement of excellence through diversity. (Peckham, 1963)

Hence in many ways, it was at the University of Michigan that Thomas Jefferson's embrace of the principles of the Enlightenment in his proposition for nation, "We hold these truths to be self-evident: That all men are created equal", was most fully embraced and realized. Whether characterized by gender, race, religion, socioeconomic background, ethnicity, or nationality—not to mention academic interests or political persuasion—the University has always taken great pride in the diversity of its students, faculty, and programs.

Throughout its history, the University of Michigan has also been one of the nation's largest universities, vying with the largest private universities such as Harvard and Columbia during the 19th and early 20th centuries, and then holding this position of national leadership until the emergence of the statewide public university systems (e.g., the University of California and the University of Texas) in the post-WWII years. Perhaps this addiction to growth is best explained by Michigan's president during the 1920s, Marion Burton, when he concluded that, "A state university must accept happily the conclusion that it is destined to be large. If its state grows and prospers, it will naturally reflect those conditions." (Peckham, 1963)

Although growth stabilized during the Depression years of the 1930s, enrollments exploded once again following World War II, growing to 20,000 in 1947, of whom 11,000 were returning veterans. To accommodate the growth of the campus, the Regents first purchased 300 acres north of the Huron River as the North Campus, then later agreed to attach upper division senior colleges to the junior colleges in Flint and Dearborn to accommodate the post-war baby boom population explosion. In 1971, these senior colleges were separated off and given full four-year academic programs as regional campuses of the University. Growth of the Ann Arbor campus began to slow during the 1970s and 1980s, stabilizing at 34,000 students in the mid-1990s. But as state support continued to deteriorate, the University launched yet another major expansion over the first decade of the new century, expanding to 46,000 students by 2018 in an effort to capture the higher tuition revenue provided by major growth in out-of-

state and international students, while maintaining its commitment to serve Michigan resident students regardless of need.

Today the Ann Arbor campus is the largest in the nation—indeed, in the world—in facilities (35 million nsf), budget (\$8.2 billion/year), and research activity (\$1.4 billion/year). The University continues to benefit from one of the largest alumni bodies in higher education, with over 600,000 living alumni. Michigan sends more of its graduates into professional study in fields such as law, medicine, engineering, and business than any other university in the nation. Michigan graduates are well represented in leadership roles in both the public and private sector and in most of the learned professions. The University's influence on the nation and the world has been immense through the achievements of the faculty and staff and of its graduates as they continue on to roles in commerce, service, and leadership.

A Tradition of Leadership

So just what are the characteristics of this institution that suggest the phrase "leaders and best"? What are the first images of Michigan that come to mind? Academic activities such as students listening attentively to brilliant faculty in the lecture hall or studying in the library? Scientists toiling away late in the evenings in laboratories striving to understand the universe or scholars poring over ancient manuscripts, rediscovering our heritage? Probably not.

The University of Michigan is many things to many people, but its images are rarely stimulated by its core missions of teaching and scholarship. To some, the university's image is its football team, the Michigan Wolverines, decked out in those ferocious winged helmets as they stampeded into Michigan Stadium before a crowd of 110,000, rising to sing the Michigan fight song, *Hail to the Victors*. Others think first of a Michigan of the arts, where the world's leading orchestras and artists come to perform in Hill Auditorium, one of the great concert halls of the world.

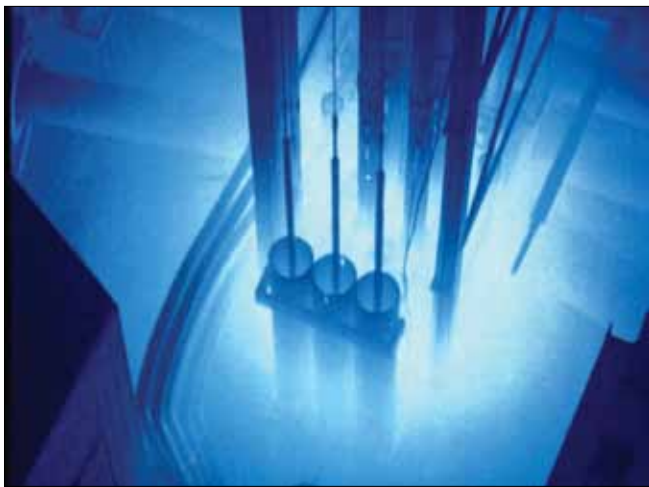
For some, Michigan represents the youthful conscience of a nation—the birthplace of the Teach-In protests against an unpopular war in Vietnam, site of the first Earth Day, and home of the century-old Michigan Daily, with student engagement in so many



Announcing the success of the Salk polio vaccine



Kennedy's Peace Corps speech at Michigan



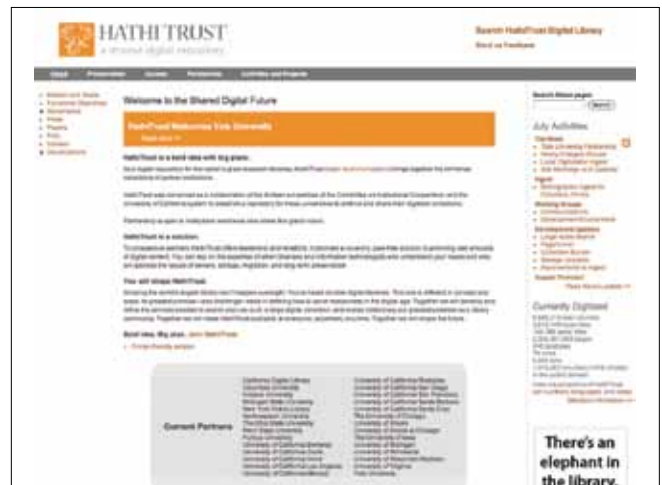
The world's first academic programs in atomic energy



Apollo 15, the All-Michigan mission to the moon



Joining with IBM to build the Internet



Creating the world's largest digital library

Michigan is one of the few universities capable of changing the world.

of the critical issues of the day. There is also the caring Michigan, as experienced by millions of patients who have been treated by the University of Michigan Medical Center, one of the nation's great centers of medical research, teaching, and clinical care.

Then there is the Michigan of the cutting-edge research that so improves the quality of our lives. For example, it was at Michigan 70 years ago that the clinical trials were conducted for the Salk polio vaccine. It was at Michigan that the gene responsible for cystic fibrosis was identified and cloned in the 1990s. And although others may have "invented" the Internet, it was Michigan (together with another "big blue" partner, IBM) that built and managed the Internet backbone for the nation during the 1980s and early 1990s.

Michigan can also be seen as a university of the world, long renowned as a truly international center of learning. Walk down the streets of any capital city in the world and you will encounter its graduates, often in positions of leadership. Indeed, Michigan is even a university of the universe, with the establishment of the first lunar chapter of the UM Alumni Association by the all-Michigan crew of Apollo 15!

Nothing could be more natural to the University of Michigan than challenging the status quo. Change has always been an important part of the University's tradition. Michigan has long defined the model of the large, comprehensive, public research university, with a serious commitment to scholarship and progress. It has been distinguished by unusual breadth, a rich diversity of academic disciplines, professional schools, social and cultural activities, and intellectual pluralism. The late Clark Kerr, the president of the University of California, once referred to the University of Michigan as "the mother of state universities," noting it was the first to prove that a high-quality education could be delivered at a publicly funded institution of higher learning. (Kerr, 1963)

This deep commitment to academic excellence, broad student access, and public service continues today. In virtually all national and international surveys, the University's programs rank among the very best, with most of its schools, colleges, and departments ranking in quality among the top ten nationally and with several regarded as the leading programs in the nation. Other state universities have had far more generous

state support than the University of Michigan. Others have had a more favorable geographical location than "good, gray Michigan." But it was Michigan's unusual commitment to provide a college education of the highest possible quality to an increasingly diverse society—regardless of state support, policy, or politics—that might be viewed as one of the University's most important characteristics. The rapid expansion and growth of the nation during the late 19th and early 20th centuries demanded colleges and universities capable of serving all of its population rather than simply the elite as the key to a democratic society. Here Michigan led the way in both its commitment to wide access and equality and in the leadership it provided for higher education in America.

Interestingly enough, both the University's growth and success in building an unusually broad array of world-class programs had little to do with the generosity of state support. For the first half-century following its founding in 1817, the University was supported entirely from its federal land grant endowment and the fees derived from students. During these early years, state government both mismanaged and then misappropriated the funds from the Congressional land grants intended to support the University. (Peckham, 1963) The University did not receive direct state appropriations until 1867, and for most of its history, state support has actually been quite modest relative to many other states. Although there were periods during which state support matched those for other public universities, such as the 1920s and 1960s when both adequate appropriations and support for facilities became available, these were followed by long periods of deteriorating state support (e.g. the Depression years of the 1930s and then the recessions of the 1970s, 1980s, and 2000s).

The real key to the University's quality and impact over its two centuries of history has certainly not been support by the State of Michigan, which has been modest, but rather the very unusual autonomy granted the institution by the state constitution of 1851. This unusual characteristic of constitutional autonomy for the young university, while reflecting the public distrust of government in a frontier society, also reflected the importance of freedom as a key Enlightenment theme embraced by Jefferson and his colleagues in defining

the early structure of the republic and later became an important founding principle of the Northwest Ordinance that led to the creation of the University.

Furthermore, Michigan's constitutional autonomy, periodically reaffirmed through court tests and constitutional conventions, has enabled the University to have much more control over its own destiny than most other public universities. (Peckham, 1963) This constitutional autonomy, together with the fact that the University traces its origins to an act of Congress rather than a state legislature, has shaped another important feature of the University's character. Throughout its history the University has regarded itself as much as a national university as a state university, as exemplified by the declaration of its early Regents:

"The University of Michigan is indebted for its existence of the munificence of Congress, in the redemption of its solemn pledge given to the whole Northwest that 'schools and the means of education should forever be encouraged', and to keep up the mutual good feeling between our State and the General Government in which the endowment of the University originated. The doors of all its Departments are open to students from every State in the Union, upon the same terms as to those of our own State; so that it may, in some sense, with propriety, be styled a National Institution, and every State in the Union has an interest in its prosperity." (Regents Minutes, 1859)

The University has always been able to set its own goals for the quality of its programs rather than allowing these to be dictated by the vicissitudes of state policy, support, or public opinion. Put another way, although the University is legally "owned" by the people of the state, it has never been obligated to adhere to the priorities or whims of a particular generation of Michigan citizens. Rather, it has been viewed as an enduring social institution with a duty of stewardship to commitments made by generations past and a compelling obligation to take whatever actions were necessary to build and protect its capacity to serve future generations. Even though these actions might conflict from time to time with public opinion or the prevailing political winds of state government, the University's constitutional autonomy clearly gave it the ability to set its own course. When it came to objectives

such as program quality or access to educational opportunity, the University of Michigan has always viewed this as an institutional decision rather than succumbing to public or political pressures.

The Michigan Saga

What might be suggested for the University of Michigan "institutional saga" in view of the University's history, its traditions and roles, and its leadership over the years? Among the possible candidates from Michigan's history are the following characteristics:

- The Catholepistemiad or University of Michigania (the capstone of a system of public education)
- The flagship of public universities or "mother of state universities"
- A commitment to providing "an uncommon education for the common man"
- The "broad and liberal spirit" of its students and faculty
- The University's control of its own destiny, due to its constitutional autonomy providing political independence as a state university and to an unusually well-balanced portfolio of assets providing independence from the usual financial constraints on a public university
- An institution diverse in character yet unified in values
- A relish for innovation and excitement
- A center of critical inquiry and learning
- A tradition of student and faculty activism
- A heritage of leadership
- "The leaders and best" (to borrow a phrase from Michigan's fight song, *The Victors*)

But one more element of the Michigan Saga seems particularly appropriate during these times of challenge and change in higher education. It is certainly true that the vast wealth of several of the nation's elite private universities—e.g., Harvard, Yale, Princeton, and Stanford—can focus investments in particular academic areas far beyond anything that Michigan or almost any other university in the nation can achieve. They are capable of attracting faculty and students of extraordinary quality and supporting them with vast

resources.

Yet, Michigan has one asset that these universities will never be able to match: its unique combination of *quality, breadth, scale, and spirit*. This enables Michigan to take risks far beyond anything that could be matched by a private university. Because of their relatively modest size, most elite private universities tend to take a rather conservative approach to academic programs and appointments, since a mistake could seriously damage a small academic unit. Michigan's vast size and breadth allows it to experiment and innovate on a scale far beyond that tolerated by most institutions, as evidenced by its long history of leadership in higher education. It can easily recover from any failures it encounters on its journeys along high-risk paths. This ability to take risks, to experiment and innovate, to explore various new directions in teaching, research, and service, enables Michigan's unique role in American higher education. During a time of great change in society, Michigan's most important institutional saga is that of a pathfinder and a trailblazer, building on its tradition of leadership and relying on its unusual combination of quality, capacity, and breadth, to reinvent the university, again and again, for new times, new needs, and new worlds.

Here, perhaps we should be more precise in our choice of descriptors: *pathfinders* are those who identify new directions; *trailblazers* explore the new pathways; *pioneers* build the roads along the new paths that others can follow; and *settlers* occupy the new territory. (Cheri Pancake, 2003) Hence we suggest that Michigan should be viewed first and foremost both as a pathfinder and a trailblazer, identifying possible paths into new territory and blazing a trail for others to follow. Michigan has also been at times a pioneer, building roads that others could follow (e.g., the Internet).

Whether in academic innovation (e.g., the quantitative social sciences), social responsiveness (e.g., its early admission of women, minorities, and international students), or its willingness to challenge the status quo (e.g., teach-ins, Earth Day, and the Michigan Mandate), Michigan's history reveals this pathfinding and trailblazing character time and time again. Recently, when Michigan won the 2003 Supreme Court case concerning the use of race in college admissions, the general reaction of other colleges and universities was "Well, that's what we expect

of Michigan. They carry the water for us on these issues." When Michigan, together with IBM and MCI, built NSFnet during the 1980s and expanded it into the Internet, this again was the type of leadership the nation expected from the University.

Continuing with the frontier analogy, while Michigan has a long history of success as a pathfinder, trailblazer, and occasional pioneer, it has usually stumbled as a settler, that is, in attempting to follow the paths blazed by others. All too often this leads to complacency and even stagnation at an institution like Michigan. The University almost never makes progress by simply trying to catch up with others.

Michigan travelers in Europe and Asia usually encounter great interest in what is happening in Ann Arbor, in part because universities around the world see the University of Michigan as a possible model for their own future. Certainly they respect—indeed, envy—distinguished private universities, such as Harvard and Stanford. But as public institutions themselves, they realize that they will never be able to amass the wealth of these elite private institutions. Instead, they see Michigan as the model of an innovative university, straddling the characteristics of leading public and private universities.

Time and time again colleagues mention the "Michigan model" or the "Michigan mystique." Of course, people mean many different things by these phrases: the University's unusually strong and successful commitment to diversity; its hybrid funding model combining the best of both public and private universities; its strong autonomy from government interference; or perhaps the unusual combination of quality, breadth, and capacity that gives Michigan the capacity to be innovative, to take risks. Of course, all these multiple perspectives illustrate particular facets of what it means to be "the leaders and best."

The institutional saga of the University of Michigan involves a combination of quality, size, breadth, innovation, and pioneering spirit. The University has never aspired to be Harvard or the University of California, although it certainly admires these institutions. Rather, Michigan possesses a unique combination of characteristics, particularly well suited to exploring and charting the course for higher education as it evolves to serve a changing world.

And it is this unique character as a pathfinder, trailblazer, and pioneer that should shape the University's mission, vision, and goals for the future. Such bold efforts both capture and enliven the institutional saga of the University of Michigan. And these are the traits that must be recognized, honored, and preserved as the University enters its third century.

An Operating Manual for University Leadership

We believe it important to make a strong case for the importance of understanding and building upon the past as essential to the University's quality, pathfinding, and impact in the future. To be sure, like most universities, Michigan has long sought a balance between insiders who understand well the institution's history and culture and newcomers to the University who bring new ideas and energy. This balance is particularly critical in leadership positions in the University, at the level of executive officers (e.g., the president), deans, and department chairs, bringing in leaders from outside for new ideas and energy while relying on internal appointments to sustain important values and traditions.

In our final years of serving the University, we decided it might be appropriate to pass along some lessons learned about leadership at Michigan by drafting an "operating manual" for future leaders at all levels of the institution. Beyond providing a tutorial on academic leadership roles such as department chairs, deans, executive officers, and president, we have also considered University governance and staff roles.

The autonomy of the University provided by the State Constitution enables a very unusual and powerful form of governance characterizing the Board of Regents. But, so too, is faculty governance unusual at Michigan, since in addition to University-wide bodies such as the Faculty Senate, the Senate Assembly, and the Senate Assembly Committee on University Affairs, each of the University's schools and colleges has powerful faculty executive committees consisting of many of the University's most distinguished faculty members. While much of the management of the University flows through traditional staff leadership roles, the importance of the staff in managing an institution of Michigan's size and complexity has allowed it to attract

a staff of truly extraordinary quality, many of whom have committed their careers to University service.

This "operating manual" for future Michigan leaders begins with a summary of the University today, both its current characteristics of scale, breadth, and quality, but perhaps even more important, those enduring characteristics that have enabled the institution's leadership. Since these arise from the quality and commitment of its faculty, students, and staff, attention is next devoted to the people of the University.

Consideration turns next to the management of key assets of the University such as its finances, facilities, and technology. The challenge of politics, both internal through student and faculty organizations, and external through state and federal government, require both experience and sophistication on the part of University leaders. The importance of the various communities that bind together the students, faculty, and staff of this complex institution are considered.

Finally, this "operating manual" provides a more speculative discussion of possible future challenges and opportunities for the University as it strives to sustain its tradition as "leader and best".

References from Earlier Duderstadt Books

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

Anne M. Duderstadt, *The University of Michigan: A Photographic Saga* (Millennium Project, The University of Michigan: Ann Arbor, 2006)

James J. Duderstadt, *The Third Century: A Roadmap to the University of Michigan's Future*, Final Edition (Ann Arbor, MI: Millennium Project, 2016)

For more information both about the history of the University of Michigan and its current characteristics, readers can refer to the website of the Millennium Project, which contains both a number of downloadable books on the institution as well as web-based documents and databases:

<http://milproj.dc.umich.edu>

Chapter Summaries

To assist the reader, we have provided brief summaries at the end of each chapter.

To set the stage, we have also provided a *Strength, Weakness, Opportunities, Threat* (SWOT) analysis at the end of this first chapter.

Chapter 1 Summary

1. To be a successful leader at Michigan, it is absolutely essential to understand both the history of the University and the culture that has evolved over the past two centuries. Whether long experienced as a member of the faculty or an outsider bringing a new perspective to leadership, the key to successful leadership—indeed to survival in such roles—requires a thorough understanding of both Michigan’s past history and its resulting character today. To put it more bluntly, leaders who learn, understand, and appreciate the history of the University of Michigan are usually successful. Those who ignore this history or fail to preserve it are doomed to failure and only brief tenure in their leadership roles.

2. A university cannot escape reckoning with its history, especially when it comes to meeting its responsibilities and sustaining its quality. For example, a consideration of both the fundamental public purposes and values of the institution is essential—e.g., questions such as whether these have been followed and whether they have changed over time. Equally important is an assessment of the availability and deployment of resources—human and physical, tangible and intangible—as the outcome of dynamic processes occurring over time. It is important to understand the evolutionary path that has brought the University to its current situation.

3. The “University of Michigania” founded in 1817 by the federal government of the Northwest Territories, two decades before Michigan became a state, was initially envisioned not as a single institution but rather as a centralized system of schools, libraries, and other cultural institutions, borrowing its model from the *Universite Imperiale de France* founded by Napoleon a decade earlier. As such, it was subject to the Enlightenment themes of the Northwest Ordinance guaranteeing civil rights and religious freedom. However since there were no students qualified to study at the college level until 1841, it existed initially only as small primary school in the village of Detroit. Its “university” character would not appear until its move to Ann Arbor in 1837. Since the institution was

founded by a federal act and supported until after the Civil War by federal land grants, it can claim its early history as a federal rather than a state university.

4. Because the University had already been in existence for two decades before the State of Michigan entered the Union in 1837, and because of the frontier society’s deep distrust of politics and politicians, the new state’s early constitution (1851) granted the University an unusual degree of autonomy as a “coordinate branch of state government,” with full powers over all University matters granted to its governing board of Regents, a feature continuing to today and quite unusual for public universities.

5. Under the leadership of the University’s first president, Henry Philip Tappan, the University rapidly began to evolve into new European form emerging in Prussia. Tappan broadened the activities of the University far beyond the colonial colleges to include research and scholarship in addition to instruction, adopting the philosophy of Humboldt who stressed the importance of combining specialized research with humanistic teaching to define the intellectual structure of the university. In fact, one can make a strong case that under Tappan’s leadership, the University of Michigan became the first attempt in America to build a true university as we understand it today.

6. Throughout its history, the University of Michigan has also been one of the nation’s largest universities. Although growth stabilized during the Depression years of the 1930s, enrollments exploded once again following World War II, growing to 20,000 with the returning veterans and level off again at 34,000 in the 1990s. The University launched yet another major expansion over the first decade of the new century, expanding to 46,000 students in an effort to capture the higher tuition revenue provided by major growth in out-of-state and international students, while maintaining its commitment to serve Michigan resident students regardless of need. Today the Ann Arbor campus is the largest in the nation—indeed, in the world—in facilities (35 million nsf), budget (\$8.4 billion/year), and research activity (\$1.4 billion/year).

7. The late Clark Kerr, the president of the University of California, once referred to the University of Michigan as “the mother of state universities,” noting it was the first to prove that a high-quality education could be delivered at a publicly funded institution of higher learning. This deep commitment to academic excellence, broad student access, and public service continues today. In virtually all national and international surveys, the University’s programs rank among the very best, with most of its schools, colleges, and departments ranking in quality among the top ten nationally and with several regarded as the leading programs in the nation.

8. But there are other perspectives other than scale. For some, Michigan represents the youthful conscience of a nation—the birthplace of the Teach-In protests against an unpopular war in Vietnam, site of the first Earth Day, and home of the century-old Michigan Daily, with student engagement in so many of the critical issues of the day. There is also the caring Michigan, as experienced by millions of patients who have been treated by the University of Michigan Medical Center, one of the nation’s great centers of medical research, teaching, and clinical care. Then there is the Michigan of the cutting-edge research that so improves the quality of our lives. Michigan can also be seen as a university of the world, long renowned as a truly international center of learning. Michigan was selected to conduct the clinical trials that proved the efficacy of the Salk polio vaccine. It was at Michigan that the gene responsible for cystic fibrosis was identified and cloned in the 1990s. And although others may have “invented” the Internet, it was Michigan (together with another “big blue” partner, IBM) that built and managed the Internet backbone for the nation during the 1980s and early 1990s.

9. The real key to the University’s quality and impact over its two centuries of history has certainly not been the modest support it has received by the State of Michigan (particularly in the past few decades), but rather the very unusual autonomy granted the institution by the state constitution of 1851. Furthermore, Michigan’s constitutional autonomy, periodically reaffirmed through court tests and constitutional conventions, has

enabled the University to have much more control over its own destiny than most other public universities. The University has always been able to set its own goals for the quality of its programs rather than allowing these to be dictated by the vicissitudes of state policy, support, or public opinion. Put another way, although the University is legally “owned” by the people of the state, it has never been obligated to adhere to the priorities or whims of a particular generation of Michigan citizens. Rather, it has been viewed as an enduring social institution with a duty of stewardship to commitments made by generations past and a compelling obligation to take whatever actions were necessary to build and protect its capacity to serve future generations.

10. But there is yet another characteristics that places it in a leadership position among universities: its unique combination of *quality, breadth, scale, and spirit*. This enables Michigan to take risks far beyond anything that could be matched by most other institutions. Michigan’s vast size and breadth allows it to experiment and innovate on a scale far beyond that tolerated by most institutions, as evidenced by its long history of leadership in higher education. It can easily recover from any failures it encounters on its journeys along high-risk paths. This ability to take risks, to experiment and innovate, to explore various new directions in teaching, research, and service, enables Michigan’s unique role in American higher education.

11. It is this unique character as a pathfinder, trailblazer, and pioneer that should shape the University’s mission, vision, and goals for the future. Such bold efforts both capture and enliven the institutional saga of the University of Michigan. And these are the traits that must be recognized, honored, and preserved as the University enters its third century.

*A Strengths, Weaknesses, Opportunities,
and Threats (SWOT) Analysis for
The University of Michigan
2018*

Strengths

Quality
Intellectual breadth and comprehensiveness
Scale
Spirit
Risk-tolerance
Loosely coupled, adaptive, entrepreneurial system
Constitutional autonomy
Decentralization
Pathfinder saga

Weaknesses

Public support
Public governance
Faculty governance (U wide)
Obsolete (unsustainable) financial models
Obsolete public policies (state, federal)
Mission creep
Unconstrained growth of auxiliaries threatening
academic priorities
Erosion of
Public Purpose (“common man”)
Public Character (enrollment, athletics, etc.)
Community activities
Student activism
Academic effort, “paying for the party”
Racial diversity
First generation college students
Inadequate capacity for strategic change and
transformation

Opportunities

Need for UM’s leadership as pathfinder
Rebalance competition and cooperation
Redefine core mission
Explore new paradigms
Leadership in key areas of vision
Open Learning
Connectivity
Open Knowledge
Renaissance Campus

Threats

Warning Signs
Quality
Erosion of public purpose
Unbridled (non-strategic) growth
Financial challenges
Priorities
Cloud > core
Auxiliary > academic;
Campus evolution
Trapped in a sinking state next to a struggling city
Political hostility, intrusion, manipulation
Public perception
Aggressiveness of auxiliaries (particularly
Athletics, UMMC, Housing)
Loss of influence of deans
Opportunistic rather than strategic growth
Disruptive technologies
Public/political awareness
Taken over by PR and marketing; promoting
myth over reality

What does the SWOT analysis suggest?

Smaller but better?
Restructuring governance, management, leadership
Moving to a federalist model
Regents --> senate
Faculty --> house
EOs --> executive branch
Deans --> governors
Note: This would require a new constitution!

A summary of the past two decades

Collapse of state with little change of near-term
recovery
Unconstrained UM growth threatening
academic mission
Driven by auxiliary activities
Difficulty in focusing on academic priorities
Potential erosion of quality and public purpose
Managing and reacting rather than visioning
and leading

Chapter 2

The University of Michigan Today

Those assuming leadership roles in long-enduring institutions such as universities need to begin with an understanding of their history, traditions, and values, i.e., their institutional saga. A university cannot escape reckoning with its history, especially when it comes to meeting its responsibilities and sustaining its quality. For example, a consideration of both the fundamental public purposes and values of the institution is essential—e.g., questions such as whether these have been followed and whether they have changed over time. Equally important is an assessment of the availability and deployment of resources—human and physical, tangible and intangible—as the outcome of dynamic processes occurring over time. It is important to understand the evolutionary path that has brought the University to its current situation.

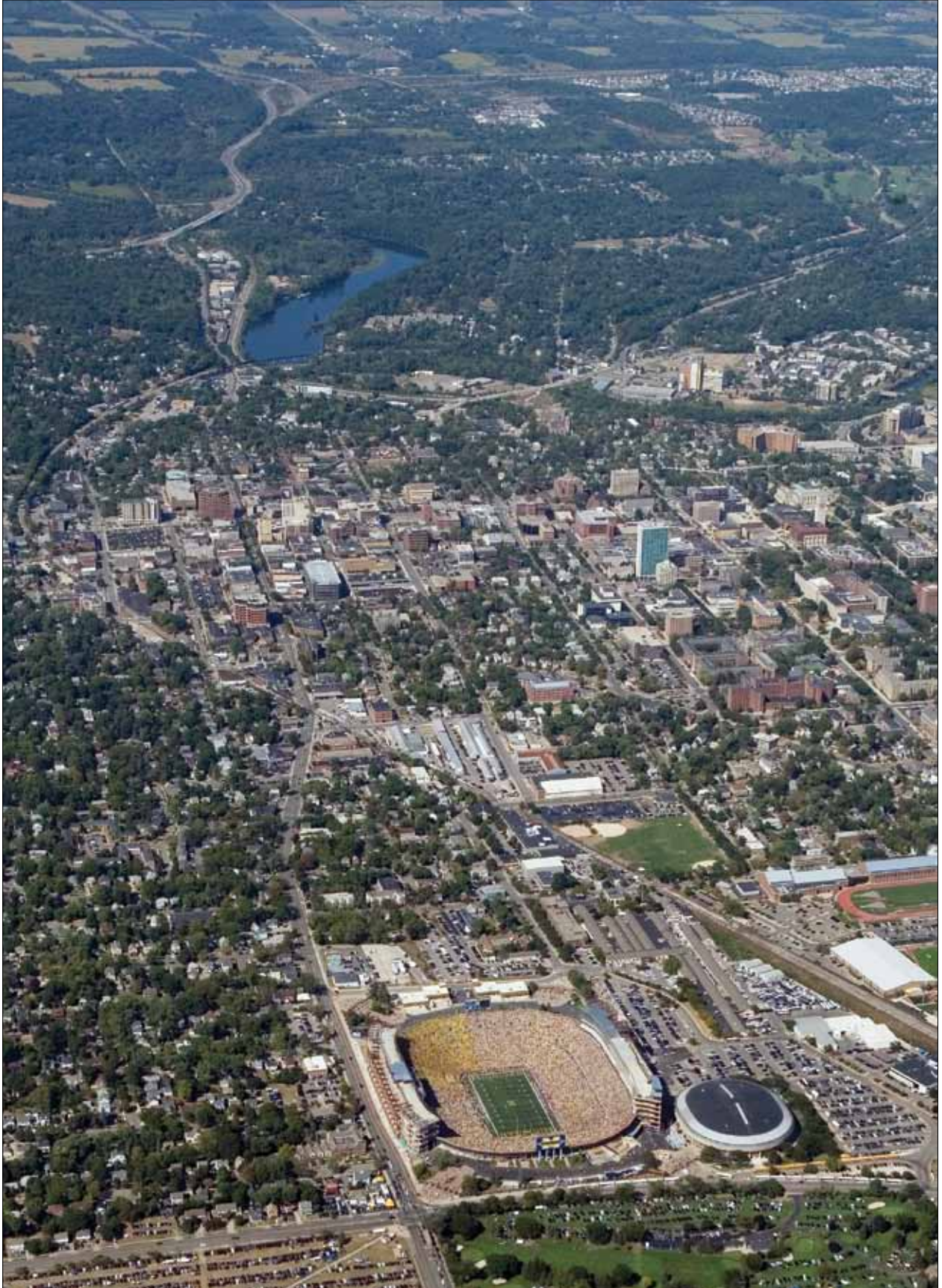
Beyond this, it is important to gain an understanding of possible constraints that might restrict leadership options, since these might be challenged and relaxed. In UM's case, a faltering Michigan economy that is no longer able to support a world-class public research university is clearly a serious concern. But so, too, are an array of demographic issues, such as the need to serve underrepresented communities and to embrace both ethnic and economic diversity as key to our capacity to serve an increasingly diverse state, nation, and world. Michigan's long history of international activities positions us well to address the growing trends of globalization, just as the university's leadership in developing and implementing new technologies, such as the Internet, has given us a good perspective of technological change.

As we noted in tracing its history, the University of Michigan has been one of the nation's largest universities, vying with the largest private universities such as Harvard and Columbia during the 19th and

early 20th centuries, and then holding this position of national leadership until the emergence of the statewide public university systems after WWII. Actually, in the late 1950s the University also became a system, adding small undergraduate campuses in Dearborn and Flint, which have grown into significant comprehensive universities themselves, although far from massive scale and complexity of the Ann Arbor campus or the many campuses of the University of California. Although we will briefly describe UM Dearborn and UM Flint later in this chapter, most of this book will concern the Ann Arbor campus, where we have spent essentially all of our half-century of service at the University.

During our early years at Michigan, we really did not sense the immense size of the University except on Saturday afternoons in the fall. After several years living in Pasadena and the Los Angeles metroplex, Ann Arbor seemed quite small—indeed, even quaint. But the scale of the University became more apparent with the amount of construction that began to appear on the University campus in the early 1980s with the Replacement Hospital Project and then on the North Campus with the construction of the new Engineering facilities. Throughout the late 1980s and 1990s, the University campuses continued to be dotted with new construction, stimulating the suggestion that perhaps Michigan should trade its wolverine mascot for the crane (the construction crane, that is).

By the mid-1990s in the roles of dean, provost, and president, we had accumulated considerable experience with all of the University's campuses: Central Campus, North Campus, Medical Campus, Athletic Campus, and to some extent even the Flint and Dearborn Campuses. In these roles we became aware of the growth of the University in other areas such as sponsored research activity (a national leader), the rapid expansion of the





University health system (growing larger than the University itself), and, fortunately, the endowment created by our financial teams, which grew from \$200 M to \$2.5 billion during the 1990s and to over \$11 billion today. Such growth in resources was fortunate, since state support continued to decline during the 1980s and 1990s and then even more rapidly after 2000, dropping to less than 8% of the academic budget and 4% of the total budget of the Ann Arbor campus by 2018 (\$8.4 billion).

In contrast to the growth in facilities and endowment, the enrollments of the University remained stable at roughly 34,000 students during the 1980s and 1990s. However enrollments began to grow rapidly in the 2000s with the decision of a new administration to attract more out-of-state students capable of paying much higher tuition (e.g., \$50,000/y compared to \$15,000/y for in-state students in 2018). The addition of another 11,000 students to the University's Ann Arbor campus, while compensating for the loss of state support, seriously strained both the faculty and physical capacity of the University, raising serious questions about whether this unbridled growth had changed the fundamental character of the institution.

It is important for those moving into leadership roles in the University to understand that it is an ever-evolving institution, in scale and breadth of activities, but always seeking to enhance its quality and its leadership.

Michigan Today: By the Numbers

Data and other indicators characterizing the University of Michigan today can be found in recent University publications such as the *Michigan Almanac*. (Office of Academic Affairs, 2017) We have summarized this material in this section taken directly from this resource (indicated in blue).

Academic Programs

The University has grown to include 19 schools and colleges, covering the liberal arts and sciences as well as most professions. Student enrollment surpassed 1,000 by 1865, 10,000 in 1936, and 43,000 in 2006. The fall 2017 enrollment of undergraduate, graduate and

professional students was 46,002. The U-M provides campus housing to 9,500 undergraduate students in 18 residence halls and apartment buildings.

The current faculty consists of 3,172 individuals who are tenured or on a tenure-track. Lecturers, clinical faculty, research professors, librarians, and archivists add 4,157 to the Ann Arbor campus academic staff, for a total faculty headcount of 7,329. The staff count is 14,817. The FY2016 operating revenues from the state appropriation, tuition, research grants and contracts, gifts and other sources reached \$3.89 billion for the Ann Arbor campus. The U-M Health System revenues added \$4.2 billion for a grand total UMAA budget of nearly \$8.2 billion. According to the latest national data, the U-M spends more on research -- \$1.45 billion in FY2017 -- than any other U.S. university.

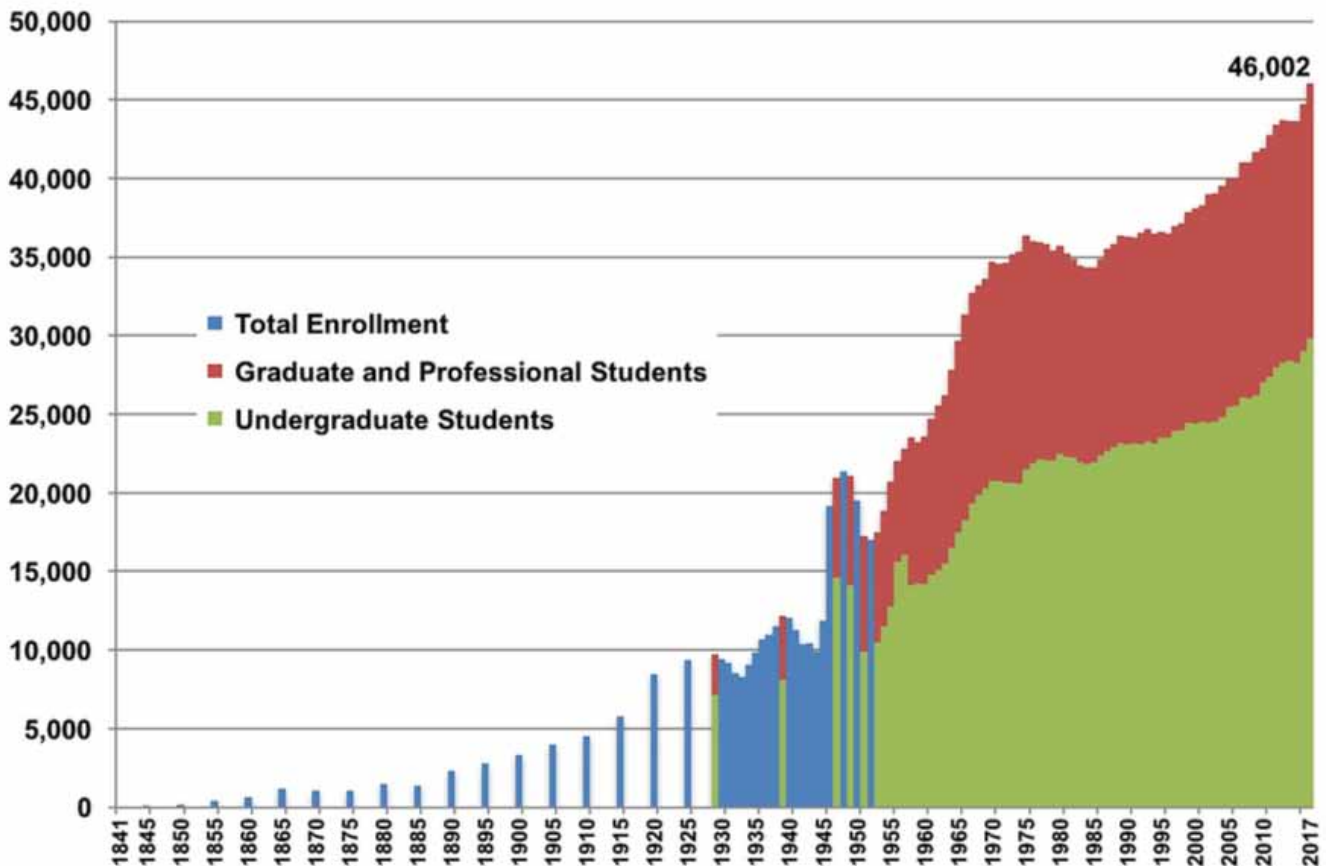
Undergraduate Students

A central priority for the University is access; its goal is to enable qualified students to attend regardless of socioeconomic background. For a number of years, the U-M has provided financial aid packages that meet full cost of attendance to admitted students from Michigan. Freshmen application numbers have nearly doubled since 2004, growing to 60,000 in 2017 due in part to the switch to the Common Application. As a highly selective institution, U-M offers admission to fewer than half of those who apply. The size of the enrolling freshmen cohort has hovered around 6,000 for the past five years, which met or exceeded annual targets. The U-M offers more than 250 academic programs for undergraduates, opportunities for international study, more than 1,200 student clubs, 26 NCAA Division I teams, and art and theatre offerings by and for students and professionals. The University actively pursues students from the state of Michigan, the nation and around the globe. In 2017, the 28,395 undergraduate students on campus came from 82 of 83 Michigan counties, all 50 states, and 90 countries. Today, 59% of currently enrolled undergraduates are in-state students. The diverse origins, backgrounds and experiences found in every entering class contribute to the varied interests and characteristics of the student body.

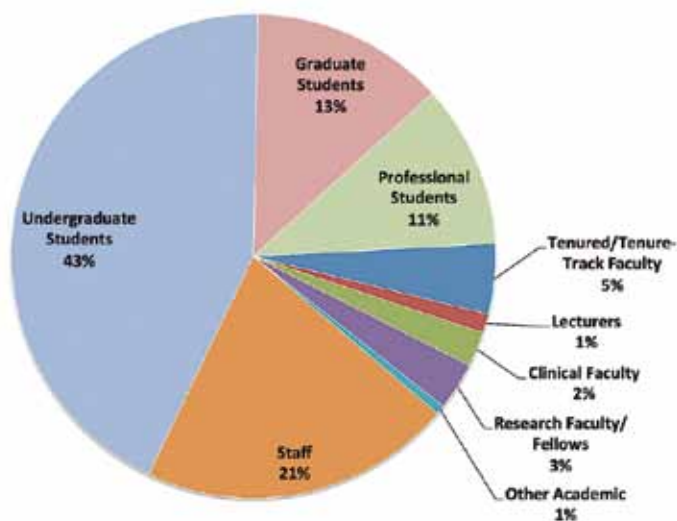
More than two-thirds of Michigan undergraduate students complete their first degree within four years

Ann Arbor Campus Summary of Budgeted Revenues and Expenditures by Fund

	2016-2017				Total	2015-2016 Total	\$ Change
	General	Designated	Auxiliary Activities	Expendable Restricted			
Revenues:							
State Appropriations	\$ 308,639,000	\$ -	\$ -	\$ -	\$ 308,639,000	\$ 299,430,600	\$ 9,208,400
Student Tuition & Fees	1,395,168,026	-	-	-	1,395,168,026	1,308,818,621	86,347,405
Government Sponsored Programs:							
Federal	750,000	-	-	930,000,000	930,750,000	874,300,000	56,450,000
Non-Federal	-	-	-	4,250,000	4,250,000	3,050,000	1,200,000
Non-Government Sponsored Programs	-	-	-	194,000,000	194,000,000	220,000,000	(26,000,000)
Indirect Cost Recovery	226,543,000	22,276,000	-	-	248,819,000	239,928,289	8,890,711
Indirect Cost Recovery Alloc to Gen Oper	-	-	-	(248,819,000)	(248,819,000)	(239,928,289)	(8,890,711)
Private Gifts	-	1,000,000	3,666,875	128,000,000	132,666,875	121,094,975	11,571,900
Income from Investments:							
Endowment and Other Invested Funds	-	45,200,000	74,115,104	191,450,000	310,765,104	297,772,365	12,992,739
Other	-	16,578,000	-	4,570,000	21,148,000	19,686,000	1,262,000
Auxiliary Activities:							
UM Health System	-	-	3,720,925,563	-	3,720,925,563	3,454,129,626	266,795,937
Other Auxiliary Units	-	-	333,480,510	-	333,480,510	335,081,541	(1,601,031)
Departmental Activities	8,845,000	111,116,000	-	1,000,000	120,961,000	120,966,000	(5,000)
Total Revenues	\$ 1,939,943,026	\$ 196,170,000	\$ 4,132,188,052	\$ 1,204,451,000	\$ 7,472,752,078	\$ 7,054,529,728	\$ 418,222,350
Total Expenditures	\$ 1,939,943,026	\$ 196,170,000	\$ 4,062,275,396	\$ 1,189,451,000	\$ 7,387,839,422	\$ 7,113,835,164	\$ 274,004,258
Forecast Margin	\$ -	\$ -	\$ 69,912,656	\$ 15,000,000	\$ 84,912,656	\$ (59,305,435)	
Total UM Health System revenue as shown on Schedule D:							
UM Health System Auxiliary Activities			\$ 3,720,925,563			\$ 3,454,129,626	
Endowment and Other Invested Funds			74,115,104			76,572,365	
Private Gifts			3,666,875			1,969,975	
Total UM Health System Revenue			\$ 3,798,707,542			\$ 3,532,671,966	



UMAA Student Enrollment (Fall 2017)



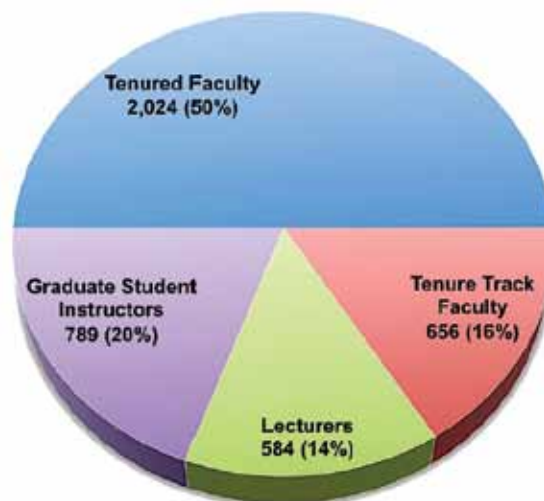
Composition of UMAA Community

of enrolling as freshmen. After six years, that figure is nearly 90 percent. University of Michigan students' completion rates are 20 percentage points higher than the average of public Association of American Universities (AAU) member institutions. U-M undergraduates are surveyed during their senior year and report very positive opinions of the University as a whole and of their individual academic programs. Ninety percent of seniors surveyed say that if they had it to do over, they would attend the University of Michigan again. Lastly, nearly half of all undergraduates continue their academic careers by enrolling in graduate or professional school within four years of completing a degree at the U-M.

The University of Michigan is a firm proponent of the educational value provided by a diverse, multicultural and inclusive campus community. Although the U.S. Supreme Court ruling in 2003 on the Admissions lawsuits and the 2006 passage of Proposal 2 put limits on the University's actions, the U-M remains committed to fostering racial, ethnic, gender and socioeconomic diversity at the institution by all legal means possible.

Graduate and Professional Students

The University of Michigan offers a remarkably broad and rigorous array of graduate and professional degree programs that are among the very best in the country in each field of study. The University attracts outstanding students to graduate study, and prepares



Composition of UMAA Faculty

them to make lasting contributions to society through successful careers in professions and academic disciplines. Interdisciplinary study and joint degrees are a special strength of the University. The vibrant community of graduate and professional students on campus is highly diverse in citizenship, demographic background, and intellectual perspective.

The Horace H. Rackham School of Graduate Studies oversees graduate academic education in partnership with the schools and colleges. For fall 2017, the University enrolled 8,610 students in 119 Ph.D., 149 masters degrees, and 45 graduate-level certificate programs offered by the University's schools and colleges. In addition to obtaining an education, graduate students contribute significantly to the conduct of research, scholarship and teaching on campus. The research enterprise at the U-M benefits enormously from the talent and intelligence of these students.

Another 7,571 students enrolled in professional degree programs in medicine, law, business, public health, dentistry, pharmacy, nursing, information, engineering, social work and architecture and urban planning in fall 2017. The schools or colleges administer these degree programs in keeping with each profession's requirements and standards. Compared to its peers, the University of Michigan awards a high number of graduate and professional degrees. Among its peers, only the combined total of Columbia University's advanced degrees is higher than Michigan's.

Post-graduation plans vary along disciplinary lines.



The University of Michigan seeks a balance between teaching and research.

Ph.D. graduates in the humanities and the arts often find academic positions immediately after graduating. Graduates in the biological, physical and social sciences frequently take a postdoctoral training position before moving into other employment. Industry positions attract a large number of graduates from engineering and the physical sciences. U-M's international students tend to remain in the U.S. after graduation, probably reflecting the kind and number of opportunities available in this country for those holding advanced degrees. In several professions, prospective practitioners must pass one or more examinations before becoming a full member of his or her chosen career; U-M students in medicine, law and dentistry have high pass rates.

Faculty and Staff

A great university is defined in large part by its outstanding faculty. The University of Michigan attracts faculty members with commitment to excellence in both teaching and research, as shown by the high quality of its graduates and the superior research and scholarship by its faculty. The faculty headcount at the University of Michigan is 7,332 while the total of faculty full-time equivalents (FTEs) is 6,294. Instructional appointments comprise 3,514 FTEs, and another 2,780 FTEs are individuals with clinical, research and other titles who are primarily involved in health care, research, and related scholarly activities.

U-M faculty members are primarily involved in teaching, research and scholarship. However, the faculty

also have service responsibilities to the university and broader academic community and society at large, as well as administrative duties and an important role in setting academic policies for admissions, the granting of degrees, and the content of the curriculum. The staff of the University currently number 15,090 and play key roles in the efficient and productive operation of nearly all facets of the University. Staff members are involved in the conduct and administration of research; they provide academic, housing, and other services for students; handle financial operations of the institution; manage the physical and digital infrastructure of the campus; and monitor the many federal, state, and professional compliance rules the institution must follow.

Research

Excellence in research and scholarly activity is a central tenet of the University of Michigan's mission. The broad scope and overall size of the U-M's research program, along with its emphasis on interdisciplinary approaches, contributes to Michigan's standing as one of the world's leading research universities. As such, the faculty attracts generous financial support from the public and private sectors. In 2017 total research expenditures by the University exceed \$1.45 billion per year. However it is important to note that more than 70 percent of the money that the University spends on research in any given year is funding provided by outside sources. The biggest share of that research



The Central Campus



Aerial of the Central Campus



Aerial of the Central Campus Residence Halls



Aerial of the North Campus



Aerial of the Medical Campus



Aerial of the Athletic Campus

funding comes from the federal government. When research funding from all sources is counted, U-M ranks No. 1 in the nation among all universities. The University's largest fraction of grant-supported work occurs in the biomedical and clinical sciences. The U-M Medical School alone regularly attracts several hundred millions of dollars each year to support research by its faculty. In 2013, the Medical School's \$302 million in new grant funding was 11th highest of all U.S. medical schools.

Space

The physical plant of the University of Michigan's Ann Arbor campus is extensive (in 2015 numbers):

- 35 M gsf of buildings and core infrastructure
- 601 buildings, 2,125 classrooms and labs
- 900 study rooms, and 6,300 labs
- 7 miles of utility tunnels
- 150 miles of fiber optic cables
- 137,200 networked desktop computers
- 660 elevators and escalators
- 25 miles of roads
- 4.7 M sf of sidewalks, steps, and plazas
- 280 acres of parking lots and decks
- 16,100 trees and 13 M sf of turf

Space utilization guidelines have been established for classrooms, food services, research activities, and offices. In particular, effective classroom scheduling is critical to the academic mission of the University.

Campus Environment

The University of Michigan campus has continued to evolve since the turn of the century, despite the disappearance of state support for capital facilities. New buildings have appeared across the campus—Weill Hall, the Ross School of Business Administration, North Quad, the Law School expansion, the gigantic Mott Pediatrics Hospital, and of course, the “new” Michigan Stadium. The two major complexes designed by architect Robert Stern, Weill Hall (for the Ford School) and North Quad, provided elegant entrances to the Central Campus. While Venturi's Life Sciences complex

was actually a somewhat smaller version of buildings he designed for Yale and UCLA, the biomedical research complex on Huron and Observatory was important for the continued expansion of research activity in the life sciences, as was the acquisition of the former Pfizer Global Research campus for the site of North Campus Research Center. Furthermore the massive biological sciences facilities for LS&A programs opened in 2018 further expands this part of the campus.

Of course, much of this growth was highly opportunistic. Low interest rates and the University's high credit rating enabled it to launch a massive series of renovations of student residence halls (\$650 million), felt to be necessary not only to house growing enrollments but also attracting high quality (and high tuition paying) students. The addition of skyboxes and club facilities coupled with aggressive increases in ticket prices (now among the highest in the nation) brought in the additional revenue to enable growth in facilities (and compensation) for Michigan athletics. The University Medical Center continued its rapid expansion with a Cardiovascular Center, a major expansion of the East Medical Campus, and the massive new Mott Pediatrics Hospital, along with planned expansion of the Medical School. In addition there was further capital facilities growth fueled by philanthropy including a \$250 million expansion of the Ross Business School, a \$200 million gift for expansion of the Athletic Campus, and a \$120 million gift toward a \$180 million project to build a graduate residence hall.

Of course, with the disappearance of state funding of university buildings during the 1990s, campus growth has depended increasingly on alternative funding mechanisms characterized not only by greater risk but in some cases controversy. For example, the financing of the construction of new research facilities as additions in the schools of Medicine, Public Health, and Engineering have become heavily dependent upon sponsored research support. As such, they have faced the risk of declining federal research budgets, such as that which occurred in 2010 with the budget sequestration actions of a conservative Congress.

Furthermore, while private giving stimulated further campus construction, donors tended to give to their own priorities rather than the University's needs (e.g., the Munger graduate residence that was roundly

panned by graduate students for its “dormitory-like character”). Furthermore such projects require substantial University contributions because of the nature of the gift (e.g., through pledges and bequests that led to present worth values that fell far short of the proclaimed size of the gift) and the requirement of further cost sharing by the University for both the construction of the facility and its eventual operation. Here the lesson overlooked was that large donors usually give money for what they want rather than what universities need, hence all too frequently imposing sizeable additional university expenses for resources only peripheral to academic priorities. In retrospect, it quickly became clear that the University had failed to adequately look many of these gift horses in the mouth, resulting in considerable additional expenses.

Academic Quality

There are many measures of institutional quality, some highly visible, such as the various rankings of academic programs, and some more subtle indicators, such as the ability of the university to recruit and retain outstanding faculty members and students. Most of the popular rankings or “league tables” continue to place the overall academic reputation of the University among the leading public research universities in the nation and the world, but well below many of the elite private institutions. For example, in 2016 U.S. News & World Report ranks the University of Michigan 29th among all national universities, public and private, and 4th among public universities, behind UC-Berkeley, UCLA, and the University of Virginia. At the international level, Michigan is ranked 19th by the London Times rankings, 23rd by Shanghai Jiao Tong, and 23th in the QS rankings. Although entering student quality remains strong, at least as measured by high school grade point averages and scores on standardized entrance examinations such as the SAT and ACT, both the University’s selectivity in admissions and yield rates lag considerable behind those of many peer public and private universities. For example, in 2017 the University admitted 46% of in-state applications, with a yield rate of 69%, while out-of-state selectivity was 23% with a yield rate of 31%, suggesting that for many of these students, Michigan is viewed as a “safety” school backup to Ivy



League applications. Furthermore, as the University has become increasingly dependent on students from affluent backgrounds capable of paying high out-of-state tuition, there is some indication that student academic work habits have weakened somewhat in favor of social and extracurricular activities.

There are growing concerns that the combination of heavier instructional loads driven by increasing enrollment in larger academic units (LS&A and Engineering) and eroding faculty salaries relative to well-endowed private universities have made both the recruiting and retention of high quality faculty more difficult. Of course, it has always been a challenge to compete with peer private institutions, particularly these days when the gap between faculty salaries at public and private universities have grown to over 20%. Michigan continues to be a major supplier of many of our very best faculty members to elite private universities, particularly at the tenured faculty level.

Limits to Growth?

In recent years faculty surveys suggest growing concerns about whether the current financial strategy of the University is capable of sustaining both the quality and the public purpose of the institution as it continues to grow. While private support—and particularly endowment—is also important, frequently these funds are heavily constrained by donor intent and unavailable to meet the highest priorities of the University. While research expenditures have continued to grow, maintaining the University’s position as the nation’s leader by this measure, the fact that over 30%

12.1.1 U.S. News & World Report Rankings for National Undergraduate Universities, U-M and Peers¹, 2011-15.

University (Private in italics)	2011	2012	2013	2014	2015	
					All	Public
<i>Princeton University</i>	1	1	1	1	1	—
<i>Harvard University</i>	1	1	2	2	2	—
<i>Yale University</i>	3	3	3	3	3	—
<i>Columbia University</i>	4	4	4	4	4	—
<i>University of Chicago</i>	5	4	5	4	4	—
<i>Stanford University</i>	5	6	5	4	4	—
<i>University of Pennsylvania</i>	5	5	7	5	5	—
<i>Northwestern University</i>	12	12	12	13	12	—
<i>Cornell University</i>	15	15	16	15	15	—
<i>University of California-Berkeley</i>	21	21	20	20	20	1
<i>University of California-Los Angeles</i>	25	24	23	23	23	2
<i>University of Virginia</i>	25	24	23	23	26	2
MICHIGAN	28	29	28	29	29	4
<i>University of North Carolina</i>	29	30	30	30	30	5
<i>University of Illinois</i>	45	46	41	42	41	11
<i>University of Wisconsin</i>	42	41	41	47	41	11
<i>University of Washington</i>	42	46	52	48	52	16
<i>University of Minnesota</i>	65	65	69	71	69	25
<i>Indiana University</i>	75	83	75	76	75	27

USN&WR Rankings

12.2.2 Times Higher Education (London) World Reputation Rankings, U-M and Peers¹, 2012-16.

University (Private in italics)	2012	2013	2014	2015	2016
<i>Harvard University</i>	1	1	1	1	1
<i>Stanford University</i>	4	6	3	5	3
<i>University of California-Berkeley</i>	5	5	6	6	6
<i>Princeton University</i>	7	7	7	7	7
<i>Yale University</i>	10	10	8	8	8
<i>Columbia University</i>	15	13	12	10	9
<i>University of Chicago</i>	14	14	14	11	11
<i>University of California Los Angeles</i>	9	8	10	13	13
University of Michigan	12	12	15	19	14
<i>University of Pennsylvania</i>	19	18	22	23	16
<i>Cornell University</i>	16	17	17	20	17
<i>University of Washington</i>	28	27	31	33	29
<i>University of Illinois</i>	23	24	23	30	30
<i>Northwestern University</i>	35	37	37	47	30
<i>University of Wisconsin</i>	27	30	28	35	35
<i>University of Minnesota</i>	47	51-60	51-60	71-80	49
<i>University of North Carolina</i>	46	51-60	61-70	61-70	51-60
<i>Indiana University</i>	—	—	71-80	—	81-90
<i>University of Virginia</i>	—	—	—	—	—

SOURCE: Times Higher Education.

London Times (THE) Rankings

12.1.2 U.S. News & World Report Rankings of U-M Top-Ten Graduate Programs, 2016 (continued).

GRADUATE PROGRAMS in the Social Sciences and Humanities			
<i>Economics</i>	1	<i>Sociology</i>	4
<i>International Economics</i>	6	<i>Economic Sociology</i>	7
<i>Labor Economics</i>	6	<i>Historical Sociology</i>	3
<i>Public Finance</i>	3	<i>Sex & Gender</i>	5
<i>Political Science</i>	4	<i>Social Stratification</i>	3
<i>American Politics</i>	3	<i>Sociology of Population</i>	1
<i>Comparative Politics</i>	7	<i>English</i>	—
<i>International Politics</i>	6	<i>American Lit. After 1865</i>	10
<i>Political Methodology</i>	3	<i>American Lit. Before 1865</i>	10
<i>Psychology</i>	4	<i>Gender & Literature</i>	5
<i>Behavioral Neuroscience</i>	3	<i>Medieval/Renaissance Lit.</i>	10
<i>Cognitive Psychology</i>	5		
<i>Developmental Psychology</i>	2		
<i>Social Psychology</i>	1		

SOURCE: U.S. News & World Report, America's Best Grad Schools (2017 Edition).

Shanghai Jiao Tong Rankings

GRADUATE PROGRAMS in Science, Engineering, Informatics, Education, Public Policy			
<i>Engineering</i>	6	<i>Science</i>	—
<i>Aerospace Engineering</i>	4	<i>Analytical Chemistry</i>	7
<i>Biomedical Engineering</i>	9	<i>Organic Chemistry</i>	9
<i>Civil Engineering</i>	8	<i>Earth Sciences</i>	8
<i>Computer Engineering</i>	7	<i>Geochemistry</i>	5
<i>Electrical Engineering</i>	6	<i>Geology</i>	2
<i>Environmental Engineering</i>	5	<i>Paleontology</i>	3
<i>Industrial Engineering</i>	2	<i>Mathematics</i>	9
<i>Materials Engineering</i>	8	<i>Algebra/Number Theory</i>	8
<i>Mechanical Engineering</i>	4	<i>Analysis</i>	10
<i>Nuclear Engineering</i>	1	<i>Applied Mathematics</i>	10
<i>Library & Info. Studies</i>	6	<i>Discr. Math/Combinations</i>	5
<i>Archives & Preservation</i>	1	<i>Atomic Physics</i>	10
<i>Digital Librarianship</i>	4	<i>Computer Science-Systems</i>	10
<i>Health Librarianship</i>	4		
<i>Information Systems</i>	1		
		<i>Education</i>	—
		<i>Curriculum & Instruction</i>	5
		<i>Education Policy</i>	6
		<i>Educational Psychology</i>	2
		<i>Elem. Teacher Education</i>	3
		<i>Higher Education Adm.</i>	1
		<i>Secondary Teacher Education</i>	2
		<i>Public Policy</i>	1
		<i>Environ. Policy & Mgmt.</i>	5
		<i>Health Policy & Management</i>	5
		<i>Information & Tech. Mgmt.</i>	9
		<i>Public Finance & Budgeting</i>	10
		<i>Public Policy Analysis</i>	3
		<i>Social Policy</i>	1

SOURCE: U.S. News & World Report, America's Best Grad Schools (2017 Edition).

Quacquarelli Symonds (QS) Rankings

1	Program	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Abs. Change	Norm. Change
2	Business	13	10	11	11	11	12	13	12	14	13	14	11	-1.33	-6%
3	Public Policy	7	8			8	7	7	7	7					
4	Education	8	10	9	9	6	9	14	14	9	12	11	8	-1.33	-7%
5	Engineering	6	8	6	6	9	9	9	8	9	8	9	8	-1.67	-11%
6	Medicine	8	7	11	11	10	11	11	6	10	10	8	12	-1.33	-7%
7	Nursing	3	3	3	3	5	5	5	5	6	6	6	6	-3	-33%
8	Pharmacy	4	4	4	4	4	5	5	5	5	7	7	7	-3	-27%
9	Public Health	5	5	5	5	5	5	5	5	4	4	4	4	1	11%
10	Social Work	1	1	1	1	1	2	2	2	2	1	1	1	0	0%
11	Law	7	7	8	8	8	9	9	9	7	10	9	10	-2.33	-14%
12	Economics	11	11	11	11	11	11	12	12	12	12	13	13	-1.67	-7%
13	English	11	11	11	12	12	12	12	13	13	13	13	13	-2	-8%
14	History	5	5	6	7	7	7	7	7	7	7	7	7	-1.67	-14%
15	Pol. Sci.	2	2	2	3	3	3	4	4	4	4	4	4	-2	-33%
16	Psychology	2	2	2	2	2	2	3	3	3	3	4	4	-1.67	-29%
17	Sociology	3	3	3	3	3	3	3	3	3	3	4	4	-0.67	-10%
18	Biol. Sci.	14	14	13	12	15	15	15	20	20	20	20	19	-6	-18%
19	Chemistry	21	21	19	17	16	16	16	16	16	16	16	15	4.67	13%
20	Comp. Sci.	14	14	14	15	15	13	13	13	13	13	13	13	1	4%
21	Earth Sci.	5	5	5	5	5	5	5	9	9	9	9	8	-3.67	-27%
22	Math	8	8	8	7	7	7	9	9	8	8	8	9	-0.33	-2%
23	Physics	13	13	13	13	13	13	13	11	11	11	11	11	2	8%

C1=Average ranking over 2004 to 2006. C2=Average ranking over 2013 to 2015.
AC=Absolute Change=C1-C2. NC=Normalized Change=(C1-C2)/(C1+C2).

USN&WR Rankings of UM Graduate Programs (Courtesy of F. Ulaby)



Ann Arbor Today...

of UM research expenditures are now provided from University funds such as tuition revenue and clinical fees suggest that plugging the hole in eroding federal sponsorship of research with University funds may also be distorting institutional priorities. Yet it is also clear that the financial dependence on such growth creates a dependence that makes it hard to reverse.

The rapid growth in student enrollments coupled with the unbridled expansion of auxiliary activities (hospitals, housing, and athletics) has triggered concern that the University is on a determined path toward become big, bigger, and biggest at the expense of both quality of its academic programs and the quality of life both on campus and beyond. The city of Ann Arbor is changing rapidly, now dotted with high-rise apartments to accommodate the expanding student, faculty, and staff population.

Comparisons with the size of the highest rated public research universities (UC-Berkeley at 35,000, U Virginia at 21,000, and UNC-Chapel Hill at 30,000) and private universities (Harvard at 21,000, Stanford at 23,000, and Yale at 12,000) does indeed suggest that as the size of Michigan swells to 46,000 or greater, it will begin to count among its peers larger campuses such as MSU, OSU, and U Texas rather than the elite public and private institutions that have sustained a commitment

to focus resources to achieve excellence rather than disperse them to drive scale. A related scale issue concerns the relative balance between undergraduate and graduate/professional enrollments. Leading private universities (Harvard, Stanford) typically have a majority of graduate and professional students. Michigan's balance today is 65% undergraduate and 35% graduate/professional, a significant shift from its peers.

A more careful assessment suggests that Michigan is clearly facing many of the challenges currently experienced by the rest of higher education, e.g., the unsustainability of its traditional sources of financial support, the increasing competition for the best students and faculty, and mission creep that dilutes the priority given to the academic core of the university.

During the first serious encounter with the decline in state appropriations in the early 1980s, President Harold Shapiro once suggested that in facing financial pressures, the University should consider a strategy of becoming "smaller but better". Although seriously misinterpreted by many in the campus community at the time, since there was the fear of program discontinuance in the face of budget exigency, the intended meaning was that the institution's size should be adjusted to sustain or even enhance its quality. Yet



The University of Michigan Dearborn

during the 1980s and beyond the University continued to grow, just as it does today.

While growth brings opportunities (and pride), it also brings challenges such as financing and managing such a gigantic complex. We have many disturbing examples of how size and complexity can lead to disaster, e.g., the dinosaurs and General Motors. On a more positive note, we also have some excellent examples of organizations that have managed to transform themselves to achieve agility and innovation despite their immense scale, e.g., IBM and China! Growth demands serious thought be given to how one organizes and manages such scale.

The UM Dearborn and UM Flint Campuses

The rapid increase in college enrollments in the 1950s led many universities to consider establishing branch campuses, with California's Master Plan as the leading example. Both Michigan and Michigan State also considered this option. With the assistance of funding from the Ford Motor Company in Dearborn (and the gift of the Henry Ford estate for the campus) and the Mott Foundation in Flint, new campuses were established in each community as branches of the University of Michigan. However unlike the multiple campuses of the University of California and the State University of New York, these new campuses initially consisted only of upper division programs closely associated with the Ann Arbor campus.

However in the 1960s, the decision was made to expand the University of Michigan Dearborn (UMD) and

the University of Michigan Flint (UMF) into complete campuses with the full range of undergraduate and limited graduate programs, although without housing facilities for students who would commute to the campuses. Although these two new campuses reported to the UM Board of Regents through the President, they were operated quite independently through chancellors, and each received a separate appropriation directly from the State Legislature.

Here it is interesting to note that Michigan State University also briefly participated in branch campus expansions, with early efforts in Traverse City and Oakland. However when both UM and MSU explored the possibility of establishing branch campuses in Grand Rapids, the State Legislature stepped in and established instead an independent college, Grand Rapids State University, and the branch campus ceased. Both MSU branch campuses became independent, and only UMD and UMF remained as branch campuses of the University of Michigan.

These branch campuses have grown considerably over the years, each with roughly 9,000 students and establishing graduate programs, including a doctoral program at UMD in 2008. Most recently each campus has added student housing facilities. Both are characterized by a highly diverse student body, drawn primarily from the greater Detroit area for UMD and central Michigan for UMF. And both have been successful in enrolling a large number of first generation college students (over 40%), thereby honoring Angell's stated goal of "providing an uncommon education for the common



The University of Michigan Flint

man”.

Although both campuses report through the UM President to the Regents with faculty representatives on a University-wide faculty governance, both UMD and UMF operate effectively quite independently from the Ann Arbor campus.

Duderstadt References

James J. Duderstadt, *The Third Century: A Roadmap to the University of Michigan's Future*, Final Edition (Ann Arbor, MI: Millennium Project, 2016)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *A University for the 21st Century* –(Ann Arbor, MI: University of Michigan Press, 2000) 280 pp

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James Duderstadt, *A 50 Year History of Social Diversity at the University of Michigan* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt and Anne Duderstadt, *For the Love of Michigan: A Half Century of Serving the University of Michigan* (Ann, Arbor, MI: Millennium Project, 2014)

Other References

Michigan Almanac, University of Michigan

2017 UM Financial Report

Chapter 2: Summary

1. The University of Michigan has long been one of the nation's largest universities, holding this position of national leadership until the emergence of statewide public university systems after WWII such as the University of California. Actually, in the late 1950s the University also became a system, adding small undergraduate campuses in Dearborn and Flint, which have grown into significant comprehensive universities themselves, although far from massive scale and complexity of the Ann Arbor campus.

2. Michigan by the Numbers: The key parameters characterizing the University of Michigan Ann Arbor can be found in the tables on page 28 or extracted on an annual basis from the Michigan Almanac. Hence in this summary we will focus more on key characteristics of the University of Michigan today.

<http://obp.umich.edu/michigan-almanac/>

3. Throughout its history, the University has sought to sustain President Angell's goal of "providing an uncommon education to the common man" by providing sufficient financial aid to enable students from all backgrounds to attend. For example, for many years the University has provided sufficient financial aid packages to meet the need of all undergraduate students enrolling from the State of Michigan.

4. The University offers an unusually broad range of academic programs and degrees at the undergraduate, graduate, and professional level. In quality, almost all of these programs are ranked in the top ten, placing Michigan along with leading institutions such as Harvard, Stanford, and the University of California in providing leadership in both breadth and quality.

5. For the past several decades, the University has ranked as the national leader in the amount of research performed by its faculty, as measured by research expenditures (at a level of \$1.41 billion in 2018). The largest share of this funding comes from the federal government (\$800 million), although the University contributes from its own resources roughly 30% of the

funding for its research activities.

6. With the disappearance of state funding during the 1990s, campus growth has become increasingly dependent on alternative funding sources such as private gifts, research grants, and debt financing.

7. The University is also unique in earning Wall Street's highest credit ratings (AAA), enabling it to use debt financing to launch major building programs such as the \$650 million it has spent in recent years on renovating student residence halls.

8. In recent years concerns have appeared about the continued growth of the university. While growth brings opportunities (and pride), it also brings challenges such as financing and managing such a gigantic complex. We have many disturbing examples of how size and complexity can lead to disaster, e.g., the dinosaurs and General Motors.

9. Part of the concern involves the balance of University activities, in which financial scale and management complexity of activities such as the University medical center (\$3.5 B/y) now exceed that of its academic activities (\$3.2 B/y).

10. In recent years faculty surveys suggest growing concerns about whether the current financial strategy of the University is capable of sustaining both the quality and the public purpose of the institution as it continues to grow. While private support—and particularly endowment—is also important, frequently these funds are heavily constrained by donor intent and unavailable to meet the highest priorities of the University. While research expenditures have continued to grow, maintaining the University's position as the nation's leader by this measure, the fact that over 30% of UM research expenditures are now provided from University funds such as tuition revenue and clinical fees suggest that plugging the hole in eroding federal sponsorship of research with University funds may also be distorting institutional priorities. Yet it is also clear that the financial dependence on such growth creates a dependence that makes it hard to reverse.

11. The rapid growth in student enrollments coupled with the unbridled expansion of auxiliary activities (hospitals, housing, and athletics) has triggered concern that the University is on a determined path toward become big, bigger, and biggest at the expense of both quality of its academic programs and the quality of life both on campus and beyond. The city of Ann Arbor is changing rapidly, now dotted with high-rise apartments to accommodate the expanding student, faculty, and staff population.

12. A more careful assessment suggests that Michigan is clearly facing many of the challenges currently experienced by the rest of higher education, e.g., the unsustainability of its traditional sources of financial support, the increasing competition for the best students and faculty, and mission creep that dilutes the priority given to the academic core of the university.

Tables on University Characteristics (UMAA)

The World's Largest Campus

Facilities (35 million nsf)
 Budget (\$8.2 billion per year)
 Students (46,002)
 Research volume (\$1.45 billion per year)
 Federal research (\$800 million per year)
 Medical center (2 million patient visits per year)
 Alumni (600,000)
 Michigan Stadium (110,000)

UMAA Budget (2017)

State support: \$314 M
 Fed support: \$931 M
 Foundation Support: \$220 M
 Tuition Revenue: \$1.4 B
 Gifts for Op: \$132 M
 Endowment: \$11 B; Payout: \$490 M/y
 UM Hospitals: \$4.2 B
 Other Aux: \$333 M

\$8.2 B Total; \$3.5 B Academic

Quality and Breadth

Offers all academic and professional disciplines
 Most programs are ranked in the top 10 nationally
 Particular strengths
 Social sciences (anthropology, psychology)
 Biomedical sciences
 Engineering (nuclear, aerospace, industrial)
 Professional schools (law, business, medicine, music, public health, social work, information)

The Physical Plant

35 M sf of buildings and core infrastructure
 601 buildings, 2,125 classrooms and labs
 900 study rooms, and 6,300 labs
 7 miles of utility tunnels
 150 miles of fiber optic cables
 137,200 networked desktop computers
 25 miles of roads

4.7 M sf of sidewalks, steps, and plazas
 280 acres of parking lots and decks
 16,100 trees and 13 M sf of turf

2018 Rankings

National Universities

USN&WR: 29th all (4rd public)
 World QS: 23th (1st public)
 London Times: 19th
 Shanghai Jiao Tong: 22th

Research

1st nationally in total research (\$1.45 B/y)
 1st nationally in federally sponsored research

Doctorate production

1st in PhDs (876 in 2016)

Enrollments

13th total (46,000)
 7th international students (6,100)
 1st alumni (600,000)

Financial

1st in total budget (\$8.2 billion)
 7th in endowment (\$11 billion)
 21st in annual private giving
 Last in state appropriations (only 4% of total budget)

Ann Arbor

2nd in intellectual life (USN&WR)
 2nd in economic vitality (Forbes)

Diversity

Enrollments (2017)

African American: 4.6% UG, 5.6% grad
 Asian American: 15.0% UG, 14.4% grad
 Hispanic American: 6.1% UG, 8.0% grad
 International: 5.7% UG, 30.9% grad
 Gender: Women: 49%, Men: 51%

Chapter 3

Culture and Character

There is an old saying, particularly among college presidents, that the academic activity of the contemporary university is a very fragile enterprise, precariously balanced between the football stadium on one end of the campus and the university medical center on the other. With the nation's largest football stadium and one of its largest medical centers, this cynical view is certainly understandable for the University of Michigan. From our experience with the Michigan presidency, we can certainly attest to the dangers presented by these two "auxiliary" activities, since while misdeeds in the Athletics Department are usually sprayed across the front page, above the fold of the newspapers, the mismanagement of the university hospital can sink the institution financially.

What is a university? There are perhaps as many different definitions as there are individuals who have attended, served, or been served by these marvelous and enduring institutions. To some, the university is "a place of light, of liberty, and of learning" or "a place of instruction where universal knowledge is professed." To others, perhaps more skeptical of such lofty definitions, the university is a far more utilitarian concept, centered on the many roles it plays in contemporary society: to

provide an education for our citizens; to produce the scholars, professionals, and leaders needed by our society; to perform the research necessary to generate new knowledge critical to the progress of our nation; and to provide service to society across a number of fronts such as health care and economic development that draw on the unique expertise of our institutions.

The late University of California President Clark Kerr once coined the term "multiversity" to describe today's comprehensive university, a loosely coupled adaptive system that mutates and evolves with ever-greater complexity to respond to the ever-greater knowledge needs and opportunities posed by society. One can certainly understand this viewpoint when considering the current organization of the University of Michigan. This would include the traditional components of a university: undergraduate colleges, graduate programs, and professional schools, all clustered about an intellectual core of faculty masters and advanced student scholars (in medieval terms, a *Universitas Magistrorum et Scholarium*, i.e., a union of masters and scholars). But it also includes an array of auxiliary enterprises, largely operated on a self-financing basis, including sponsored research institutes,



An academic institution delicately balanced between the football stadium on one end of the campus and the University hospital on the other end.

laboratories, and projects; clinical activities such as hospitals and health systems; student housing and services; and, of course, public entertainment venues such as intercollegiate athletics.

The challenge is to manage such scale in a strategic fashion to adapt to a world of accelerating change. While the natural evolution of a learning organization may still be the best model of change for a university, it must be guided by a commitment to preserve its fundamental values and missions. Universities must find ways to allow its most creative people to drive its future. The challenge is to tap the great source of creativity and energy bursting forth from the students, faculty, and staff at the grassroots level of their academic programs.

Academic Characteristics

The Organization of Academic Programs

The usual Copernican view of the solar system of the university would place the liberal arts college and its core academic disciplines as the sun, the four inner planets as the most powerful professional schools—Medicine, Engineering, Law, and Business—and then a series of elliptical orbits for the remaining professional schools, depending upon their quality and priority within a particular institution. Actually, some universities have evolved almost into a binary star system in which the medical center has assumed a size and financial importance comparable to that of the rest of the university. Some of our liberal arts colleagues suggest that a more appropriate astronomical metaphor would be that of the university as a star orbiting about a gigantic black hole created by the gravitational collapse of the University Hospital and the Athletic Department.

It is useful to consider a somewhat different model: At the center of the university solar system would be the University Library and the Graduate School (at U-M, posed strategically on either end of the Ingalls Mall running through the core of our Central Campus). This, of course, is the contemporary remnant of the medieval university, the *Universitas Magistrorum et Scholarium*, the union of scholars and masters both mastering and extending knowledge. Then the nearest four planets, where one at least has a chance of finding

life, would be the liberal arts: the humanities, the arts, the natural sciences, and more recently the social sciences. Still farther out are the gas giants, the four large professional schools: medicine, law, engineering, and business. Finally, there is a range of other planet-like disciplines, some very similar to the liberal arts (e.g., the performing and visual arts), some that behave like comets (e.g., public policy, information sciences), and some that appear to be remnants of ancient university activities (e.g., kinesiology as the remnant of physical education).

With a very good telescope, one might even see possible signs of life a light year away from the sun, from the so-called Oort Cloud, where has-been presidents are exiled and only visible when they launch an occasional comet to rattle around the inner planets to shake things up a bit (such as this book).

Spires of Excellence

Michigan's character as leader through its pathfinding and trailblazing requires it to build "spires of excellence" in key fields, rather than trying to achieve a uniform level of lesser quality across all of its activities. Only by attempting to be the best in these fields can we develop in our students, faculty, and staff the necessary intensity and commitment to excellence. Furthermore, only by competing with the best can a university establish appropriate levels of expectation and achievement.

It must be stressed here that it is not the University's goal to build a few isolated spires of excellence in the manner of smaller private universities. Rather, it seeks to achieve within each of its academic units—its schools, departments, centers, and institutes—a number of spires of focused excellence. In other words, the general level of quality in each of our academic units can be achieved through the development of a series of sharply focused peaks of excellence within the units. Thus, even for those programs where the University is unable to provide the resources to be national leaders, it aspires to achieve some peaks of extraordinary excellence through the focusing of resources. It is determined to make every effort to avoid mediocrity, but constrained resources suggest that it will inevitably have some areas that are simply very good as opposed to excellent.



The goal: spires of excellence

The theme of pathfinding leadership influences the focus of emphasis within Michigan's traditional endeavors of education, scholarship, and service. For example, it requires that the University become even more committed to the concept of a liberal education for its students. The development of leaders among its students demands challenging intellectual experiences, both in formal instruction and in the extracurricular environment.

Of course, while learning and scholarship have long been viewed as university missions, so too has been the creation of new knowledge across all intellectual and professional disciplines, since this is one of the most important missions of the research university. Developing new approaches to scholarship, great works in literature and the arts, ingenious approaches to investigating physical and social phenomenon, these have long been the goal of most scholars.

But here leaders need to think more strategically about how to provide the opportunities for such creative work to our existing faculty. Today much of the exciting new work occurs across disciplinary boundaries, so it is important to take care that our academic organizations and constraints on faculty scholarship and teaching do not hinder such efforts. The University's faculty should be encouraged to work in seminal, cross-disciplinary areas where extraordinary insight and intellectual breadth can lead to the creation of entirely new fields of knowledge. So, too, this intellectual breadth should be an important characteristic of many of the new faculty members that the University hires.

The Link Between Quality, Breadth, and Scale

The quality of the University of Michigan academic programs is the most fundamental determinant of its ability to develop and maintain leadership. However, rather than viewing the quality, breadth, and scale of the University as competing objectives—or possibly even as constraints on what it can accomplish within a world of limited resources—instead these characteristics, when linked together creatively, can provide an unusual opportunity. By building leadership in an environment that demands commitment to all three characteristics, with a particular stress on academic excellence, it can distinguish the University from other institutions that tend to focus on only one of these factors.

For example, highly selective private institutions sometimes sacrifice breadth and size in an effort to achieve absolute excellence in a small number of fields. This results in institutions highly focused in an intellectual sense, which while certainly capable of conducting distinguished academic programs, are nevertheless unable to provide the rich array of opportunities and diverse experiences of “multiversities” such as Michigan. At the other end of the spectrum, the University can also set itself apart from many other large, comprehensive public universities by the degree to which it chooses to focus its resources on academic quality.



Michigan students in search of a liberal education

The Intellectual Character of Teaching, Research, and Service

The theme of pathfinding leadership also influences the focus of emphasis within Michigan's traditional endeavors of education, scholarship, and service. In order to develop leaders among its faculties, at least some fraction of its scholarship needs to be shifted to venturesome intellectual activities at the cutting edge of inquiry. Some of the University's faculty should be encouraged to work in seminal, cross-disciplinary areas where extraordinary insight and intellectual breadth can lead to the creation of entirely new fields of knowledge.

The development of leaders among its students demands challenging intellectual experiences, both in formal instruction and in the extracurricular environment. Key in these endeavors is the concept of a liberal education. Michigan's former president Harold Shapiro defines such an objective as: "The need to better understand ourselves and our times, to discover and understand the great traditions and deeds of those who came before us, the need to free our minds and our hearts from unexamined commitments, in order to consider new possibilities that might enhance both our own lives and build our sympathetic understanding of others quite different from us; the need to prepare all thoughtful citizens for an independent and responsible life of choice that appreciates the connectedness of things and peoples." (Shapiro, 1988)

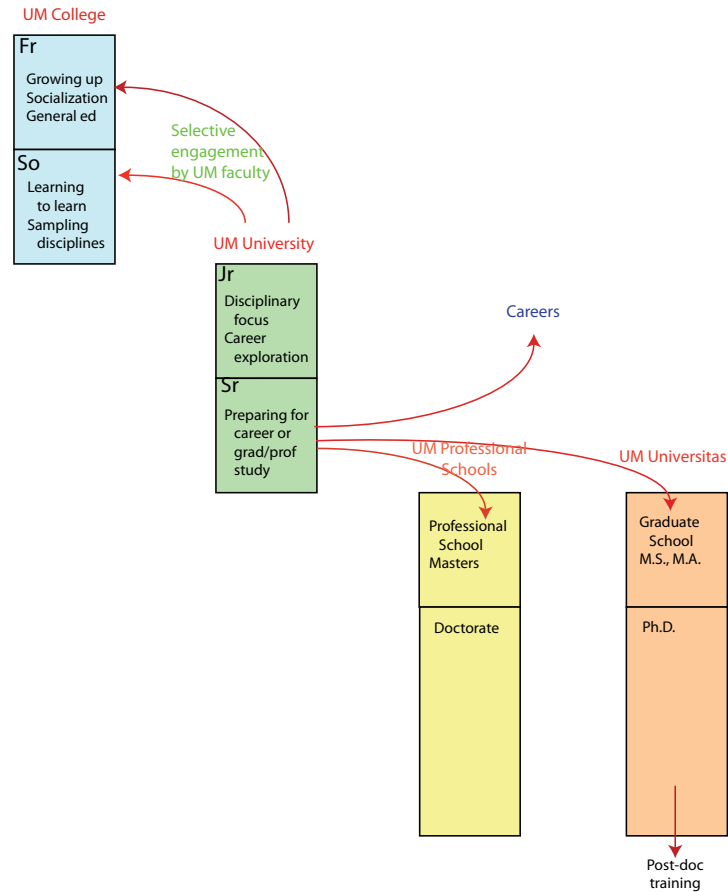
The foundation for educational objectives are the

liberal arts, originally identified by the disciplines of the *trivium* (grammar, logic, and rhetoric) and later the *quadrivium* (geometry, arithmetic, astronomy, and music). However, to these each age added further to the liberal arts, e.g., the humanities, the physical and biological sciences, and the social sciences in the 19th and 20th century. As Shapiro notes, additional objectives have also been added to the concept of a liberal education, such as freeing of the individual from previous ideas, the disinterested search for truth, the pursuit of alternative ideas, the development of the integrity of the individual, and the power of reason.

To be sure, the notion of a liberal education for the 21st Century will be different than that characterizing our times. Yet, as difficult as it is to define and as challenging as it is to achieve, perhaps the elusive goal of liberal learning remains the best approach to prepare students for a lifetime of learning and the capacity to both adapt to and occasionally drive change.

Today's students will enter an increasingly complex, changing, and fragmented world. Too many undergraduates channel their energies into pre-professional and more narrowly vocational directions. The challenge is to cultivate among undergraduates a greater willingness to explore and to discover—to assist undergraduates to develop critical, disciplined, and inquiring minds.

For Michigan, the challenge is even greater. On the one hand, the strength of its professional schools and the strong research and scholarly orientation of our faculties should not be compromised. On the other hand,



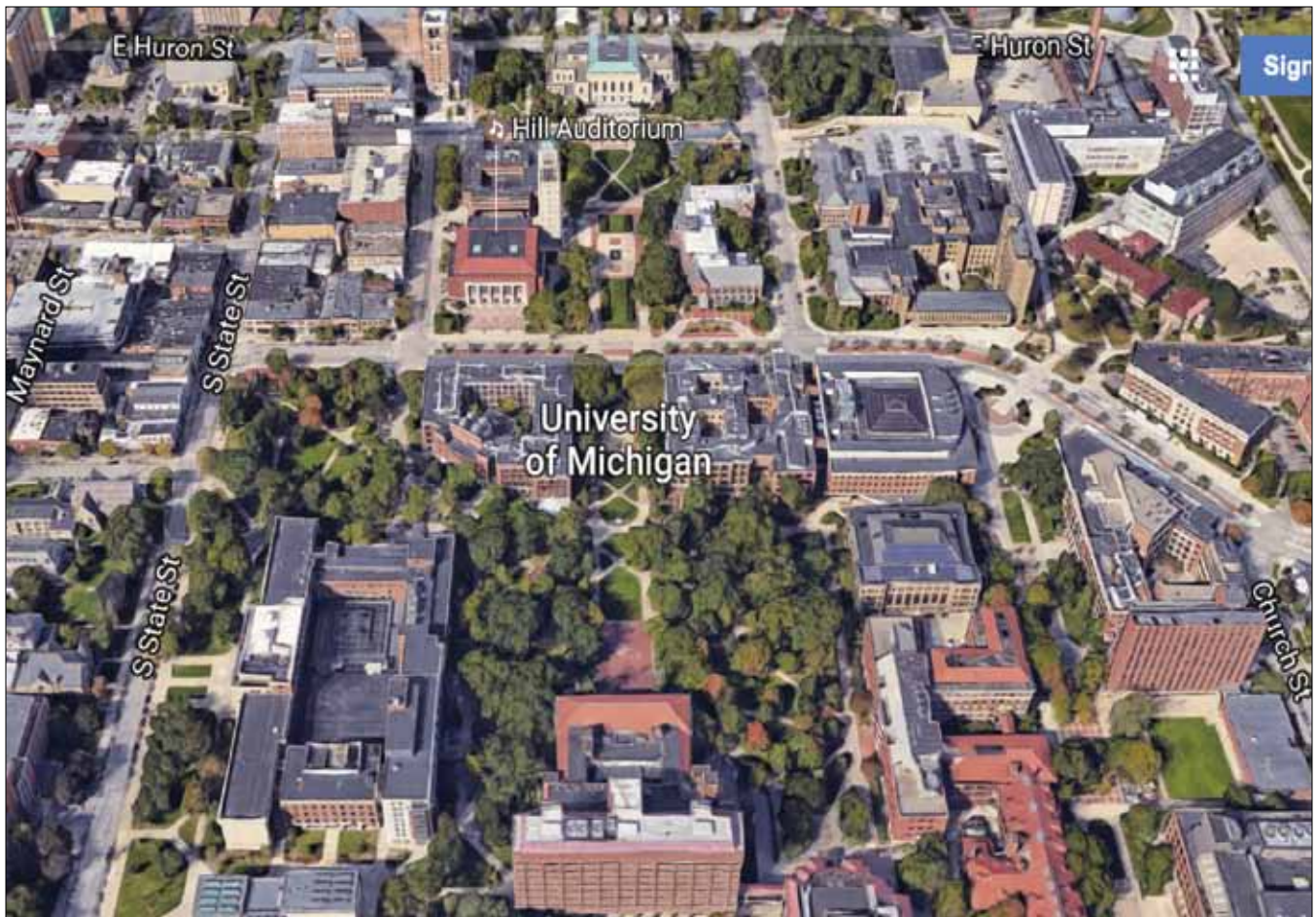
The flow of students through the academic programs of the university

the University needs to generate a fresh commitment to cultivating a spirit of liberal learning among its undergraduates and its faculties, to encourage major efforts to improve the quality of teaching and learning. The University attempts to provide resources to ensure that these efforts can go forward in an atmosphere of continuous experimentation—of intelligent trial and error. Broad faculty participation is essential, and the unprejudiced testing of alternative ideas can be expected to generate vigorous debate. This is as it should be, since the stakes are high. The University aims to prepare its students not merely to function in our complex society, but to serve as leaders shaping society's future directions.

Similarly, leadership requires a major re-examination of the role of graduate studies and professional education within the University. It is important to understand better how these programs respond to the needs of both students and society and how they relate to our undergraduate instruction.

The Flow of Students

Yet, even as the university continues to grow and diversify as it evolves, one must always remember that at its core are its academic programs. One might describe the academic programs of the university in terms of the flow of students, first entering the university as undergraduates at the lower division (freshman, sophomore) level with the primary early objectives of socializing young adults, providing foundational learning, and enabling students to sample an array of disciplines for possible majors. Although lower division programs comprise a primary mission of community colleges and four-year liberal arts colleges, most public research universities today assign both instruction and student counseling at this level to non-tenure track faculty (lecturers and instructors) and professional staff, with only occasional student interaction with senior faculty in survey courses. There is a much greater involvement of senior faculty with



The “core” of the University of Michigan, between the University Library and the Graduate School

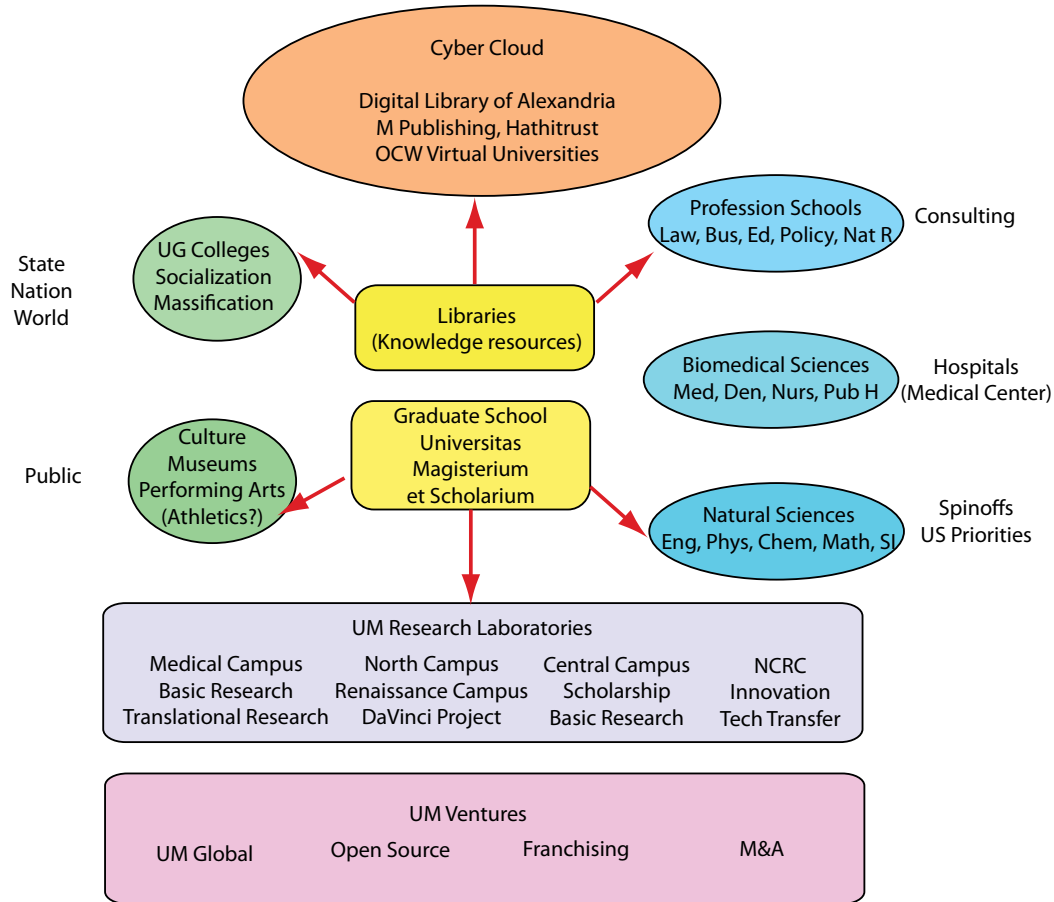
undergraduate education at the upper division level, where students concentrate coursework in an academic discipline and begin to prepare either for careers or further study at the graduate or professional level.

Although entering careers following the B.A./B.S. degree is the initial objective of many, if not most, of our graduates, a significant number of students at leading research universities such as Michigan will continue their studies in professional schools at the graduate level in fields such as law, medicine, business administration, or education. These studies generally lead to graduate professional degrees at the masters level (MBA, M.Arch, MAT) or doctorate level (M.D., L.L.D.).

A select few undergraduates will choose instead to enter the graduate programs of the university to prepare for careers in research or as college faculty. These graduate programs of the university are the closest analogy to the *Universitas Magistrorum et Scholarium*

of ancient universities since learning and scholarship occurs through unions or communities of masters (the faculty) and scholars (the students) leading to graduate degrees such as the M.S. or M.A. and the Ph.D. In fact, in many fields such as the physical and biomedical sciences, even further education at the postdoctorate level has become the norm for students wishing to enter the academy.

From a more fundamental perspective, these graduate programs (and their associated graduate schools in many universities), along with knowledge resources such as the university libraries, comprise the true academic core of the research university. They determine the intellectual vitality and reputation of the university and its various undergraduate and graduate programs. At Michigan, this academic core also has an important physical presence on the university campus, with the Rackham School of Graduate Studies and the University Library at either ends of the Ingalls



The Organization of the University of Michigan

Mall, about which are distributed not only the various schools and colleges but as well key cultural resources for the performing arts (e.g., Hill Auditorium and the Power Center) and museums (e.g., Museum of Art, Kelsey Museum, Ruthven Museum of Natural Sciences). Moving beyond this academic core, one finds first the University's many professional schools (e.g., Law, Business Administration, Education, Social Work, Public Policy), then moving still further away are those professional schools associated with major research and clinical activities (e.g., the health sciences and the University Hospital, the North Campus with the creative disciplines such as Art, Music, Architecture, and Engineering) and finally to the many research institutes and laboratories scattered about Ann Arbor. Many American research universities have a similar structure, with a clearly identifiable academic core surrounded by an array of schools, colleges, cultural institutions, and research activities.

The Foundation for Leadership

Today the University of Michigan has a solid foundation on which to build new strengths to serve a new era. Its current assets can be summarized into the following characteristics.

Excellence: Michigan's unwavering commitment to quality encompasses its people—students, faculty, and staff—and its programs. As a result, we rank nationally among the top ten among peers in virtually everything we do, whether in the classroom, the studio, the laboratory, the library, or the concert hall. By any measure, Michigan is known throughout the world as one of the preeminent universities in teaching, research, and service.

Leadership: The University of Michigan has long taken pride in its "leaders and best" heritage, seeking both leadership and excellence in its achievements.

Key in establishing and sustaining this element of our character is setting bold goals where the University not only aspires to excellence but can have great impact on society, where it can change the world!

Character: With its more than 46,000 students, 19 schools and colleges, 7,500 faculty and 13,500 staff, Michigan is a university of exceptional scholarly breadth, depth, and range in academic disciplines and professions. It has a highly entrepreneurial, decentralized organization and a tradition of creative interdisciplinary collaboration in its approach to problem solving.

Autonomy and Flexibility: The University uniquely bridges the gap between public and private education and among state, national, and global roles and responsibilities. As a public university, Michigan is remarkable in its ability to control its own destiny. Thanks to its constitutionally guaranteed autonomy, the University has the flexibility to attract a balance of resources to sustain the quality and range of its academic programs regardless of short-term shifts in the political or economic environment. In recent years, the University's resource portfolio has become far more diverse, drawn primarily from tuition and fees, federal grants, private giving, and auxiliary activities such as the UM Medical Center while its state appropriation has dwindled to less than 4% of its total operating funding and 8% of its academic budget,

Public Purpose: So too, the University's long-standing commitment to providing "an uncommon education for the common man" demands that it provide educational opportunities for students from all economic circumstances. While this has become increasingly difficult in the face of eroding state support, it nevertheless is both a core value of the University and a critical element of its public purpose. It simply must take those actions necessary to achieve an equitable socioeconomic balance in its student body.

Public-Private Partnership: Michigan forges a partnership of public and private resources. Public funding builds and sustains our foundation, size, and scope; private funding supports the margin for

excellence, the creative innovation, and the generous extension of opportunity.

Public Stewardship: Michigan has long been animated by a progressive vision and spirit. The University of Michigan embodies the hopes and dreams, the energy and drive, the commitment and stewardship of ten generations of Michigan citizens and University friends and alumni. They entrust to us the responsibility for sustaining the Michigan educational opportunity for future generations.

The Michigan Saga: Finally, the role of the University in serving as both a pathfinder and trailblazer for all of higher education remains one of its most important roles. To sustain this role requires attracting to the University students, faculty, staff, and leadership of unusual initiative, creativity, and determination.

The Michigan Spirit: Above all, there is the special gift of the Michigan spirit—the willingness and ability to take the risks necessary for leadership, a determination to be the best.

Lessons To Be Learned

So how might we explain the unusual level of innovation and leadership of the University? In part this has to do with the ability of the institution to build on its long history as a pathfinder. It is this very unique history that defines not only the character and strengths of the University but also how it functions. Michigan's character as leader through its pathfinding and trailblazing required it to build spires of excellence in key fields, rather than trying to achieve a uniform level of lesser quality across all of its activities. Only by attempting to be the best in these fields can we develop in our students, faculty, and staff the necessary intensity and commitment to excellence. Furthermore, only by competing with the best can Michigan establish appropriate levels of expectation and achievement.

The University culture has traditionally operated by placing very large bets in high-risk ventures involving our very best people at the grass roots level. Few of these have been successful when launched top-down from the University's leadership but rather they arise

from the willingness to work hard to prospect, identify, and support major opportunities among its faculty, students, and staff.

A particular warning flag should be raised about the use of initiatives at the presidential or executive officer level to lead or steer the university, since Michigan throughout its history has been very much a bottom-up driven institution. It is not just that most top-down initiatives are soon rejected by the Michigan grassroots culture and fade away into obscurity, but more important, the true creativity, wisdom, and drive flourishes best at the grass-roots level with outstanding faculty members, students, and staff rather than administrators.

One might point to the failure of the presidential initiatives launched during the past two decades such as the repertory theater planned to be originally sited next to the Power Center, the Venturi-Scott-Brown master plan for the campus, the brief (and expensive) tenure of the Royal Shakespeare Theatre group, the “Halo” design of Michigan Stadium, and even the Life Sciences Institute. Some sank beneath the waves, some were ridiculed into oblivion, and some have been bailed out and still float (at considerable expense), but none was a dramatic success.

The deans and department chairs are the key players in such successful pathfinding ventures. They are the ones who understand best both the quality of their faculty and the unusual nature of the Michigan culture. Hence throughout the history of the University, the deans have been given extraordinary authority, accompanied by responsibility, in providing the leadership necessary to build and sustain outstanding programs. Fortunately, this has long been recognized by most in the central administration, including the president, provost, and other Executive Officers, and supported and sustained by the Board of Regents.

Yet here there is an important warning. The University gets into trouble when it loses contact with its past. An example was the social disruption of the 1960s, which decoupled UM from its history and traditions and led essentially to a “lost decade of the 1970s”, which was later re-energized by Harold Shapiro in the 1980s and then reconnected with UM’s history by the subsequent administrations in the 1990s.

Unfortunately, with leadership transitions into the

new century, the relationship with the University’s history was broken once again. Several layers of career-long administrators and staff members were swept aside, replaced by outsiders unfamiliar with the University’s traditions and cultures who attempted to impose corporate management practices. Much of the momentum of the University was lost during the first years of the new century.

Fortunately, institutions characterized by the longevity, scale, and impact of major research universities such as Michigan are analogous to large ocean liners in their resistance to attempts to make rapid steering adjustments. As Peter Steiner, one of the most prominent of LS&A deans serving under Harold Shapiro, once observed when referring to administrative micromanagement, “This too shall pass...” There is ample evidence that most attempts to redirect the University away from its heritage, its institutional saga as a pathfinder, tend to bounce off without making much of a dent, although they can lead for a time to only marginal progress.

Duderstadt References

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan’s Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *A University for the 21st Century* (Ann Arbor, MI: University of Michigan Press, 2000) 280 pp

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. Duderstadt, *The Third Century: A Roadmap to the University of Michigan’s Future*, Final Edition (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt and Anne Duderstadt, *For the Love of Michigan: A Half Century of Serving the University of Michigan* (Ann, Arbor, MI: Millennium Project, 2014)

Chapter 3: Summary

1. What is a university? “A place of light, of liberty, and of learning?” “A place of instruction where universal knowledge is professed?” A social institution capable of providing education for citizens, the new knowledge critical to public health, prosperity, and security?

2. The University of Michigan is a “multiversity” (in the words of former UC President Clark Kerr, a loosely coupled adaptive system that mutates and evolves with ever-greater complexity to respond to the ever-greater knowledge needs and opportunities posed by society.

3. Michigan’s character as leader through its pathfinding and trailblazing requires it to build “spires of excellence” in key fields, rather than trying to achieve a uniform level of lesser quality across all of its activities. Only by attempting to be the best in these fields can we develop in our students, faculty, and staff the necessary intensity and commitment to excellence. Furthermore, only by competing with the best can a university establish appropriate levels of expectation and achievement. It must be stressed here that it is not the University’s goal to build a few isolated spires of excellence in the manner of smaller private universities. Rather, it seeks to achieve within each of its academic units—its schools, departments, centers, and institutes—a number of spires of focused excellence.

4. The quality of the University of Michigan academic programs is the most fundamental determinant of its ability to develop and maintain leadership. However, rather than viewing the quality, breadth, and scale of the University as competing objectives—or possibly even as constraints on what it can accomplish within a world of limited resources—instead these characteristics, when linked together creatively, can provide an unusual opportunity.

5. The theme of pathfinding leadership influences the focus of emphasis within Michigan’s traditional endeavors of education, scholarship, and service. In order to develop leaders among its faculties, at least some fraction of its scholarship needs to be shifted to venturesome intellectual activities at the cutting edge

of inquiry. Some of the University’s faculty should be encouraged to work in seminal, cross-disciplinary areas where extraordinary insight and intellectual breadth can lead to the creation of entirely new fields of knowledge.

6. The development of leaders among its students demands challenging intellectual experiences, both in formal instruction and in the extracurricular environment. Key in these endeavors is the stress on providing a liberal education at all levels and programs of the University. To be sure, the notion of a liberal education for the 21st Century will be different than that characterizing our times. Yet, as difficult as it is to define and as challenging as it is to achieve, perhaps the elusive goal of liberal learning remains the best approach to prepare students for a lifetime of learning and the capacity to both adapt to and occasionally drive change.

7. The graduate programs of the university are the closest analogy to the *Universitas Magistrorum et Scholarium* of ancient universities since learning and scholarship occurs through unions or communities of masters (the faculty) and scholars (the students) leading to graduate degrees such as the M.S. or M.A. and the Ph.D. From a more fundamental perspective, these graduate programs (and their associated graduate schools in many universities), along with knowledge resources such as the university libraries, comprise the true academic core of the research university. They determine the intellectual vitality and reputation of the university and its various undergraduate and graduate programs.

8. Today the University of Michigan has a solid foundation on which to build new strengths to serve a new era. Its current assets can be summarized into the following characteristics:

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Character: Michigan is a university of exceptional

scholarly breadth, depth, and range in academic disciplines and professions. It has a highly entrepreneurial, decentralized organization and a tradition of creative interdisciplinary collaboration in its approach to problem solving.

Autonomy and Flexibility: The University uniquely bridges the gap between public and private education and among state, national, and global roles and responsibilities. As a public university, Michigan is remarkable in its ability to control its own destiny thanks to its constitutionally guaranteed autonomy.

Public Purpose: So too, the University's long-standing commitment to providing "an uncommon education for the common man" demands that it provide educational opportunities for students from all economic circumstances.

Public-Private Partnership: Michigan forges a partnership of public and private resources. Public funding builds and sustains our foundation, size, and scope; private funding supports the margin for excellence, the creative innovation, and the generous extension of opportunity.

Public Stewardship: Michigan has long been animated by a progressive vision and spirit.

The Michigan Saga: Finally, the role of the University in serving as both a pathfinder and trailblazer for all of higher education remains one of its most important roles. To sustain this role requires attracting to the University students, faculty, staff, and leadership of unusual initiative, creativity, and determination.

The Michigan Spirit: Above all, there is the special gift of the Michigan spirit—the willingness and ability to take the risks necessary for leadership, a determination to be the best.

9. The University culture has traditionally operated by placing very large bets in high-risk ventures involving our very best people at the grass roots level. Few of these have been successful when launched top-down from the University's leadership but rather they arise from the willingness to work hard to prospect, identify, and support major opportunities among its faculty, students, and staff.

10. The deans and department chairs are the key players in such successful pathfinding ventures. They

are the ones who understand best both the quality of their faculty and the unusual nature of the Michigan culture. Hence throughout the history of the University, the deans have been given extraordinary authority, accompanied by responsibility, in providing the leadership necessary to build and sustain outstanding programs.

11. There is ample evidence that most attempts to redirect the University away from its heritage, its institutional saga as a pathfinder, tend to bounce off without making much of a dent, although they can lead for a time to only marginal progress.

Chapter 4

Students, Faculty, and Staff

A university must be viewed as very much a people-centered and driven organization. While students are, of course, the primary focus of the institution through learning, the faculty has a parallel importance through teaching, scholarship, and professional service. Yet for these fundamental missions of the university to be accomplished, there must be an infrastructure of highly talented staff at all levels, from custodians to senior administrators, who not only keep the ship afloat but also are frequently talented teachers and researchers themselves.

Students

Despite what the faculty, administrators, alumni, and football fans may think, students are the most important participants on a university campus. Yet there is as much diversity in this community—rather communities—as in higher education itself, distinguished by degree programs (undergraduate, graduate, professional, postdoctoral), academic majors (from Art to Zoology), extracurricular interests (sports, politics, parties, etc.), sociodemographics, and so on. Hence it is useful to begin first by considering the general characteristics of the University student body over the past fifty years.

For much of its history, the University's enrollment was among the largest in the nation. Although growth was slow and relatively stable during most of its early history, enrollments expanded rapidly following WWII with the GI Bill and returning veterans. A second wave of enrollment increases occurred with the baby boomers, the children of the "greatest generation", who swelled college enrollments in the 1960s and 1970s. But in sharp contrast to their parents, these students comprised the protest generation, challenging not only

the values of their parents, but of the university more generally. In the 1960s students wanted to change the world. Parties were out (except for street efforts like the MC5). Fraternities and sororities almost disappeared. To be sure, many of their causes such as civil rights and war protests were just, but their rejection of "the establishment" not only challenged many of the traditions of higher education but severed the long-standing relationship of the University of Michigan with its past.

Of course Michigan had long attracted an activist student body, as evidenced by the well-known observation in the 1880s in *Harper's Weekly* (p. 5) that referred to one of Michigan's most interesting characteristics as "the liberal spirit through which it conducts education". But during the 1960s student activism was more strident. The University was pushed out of students' lives, the Code of Nonacademic Conduct disappeared (and was not reinstated until 1992), and *in loco parentis* was forever banned from the Michigan campus.

While campus activism and protests during the 1960s irritated many, it should be acknowledged that these were frequently the mechanisms the campus used to address important social causes such as the international development (i.e., Kennedy's 1960 speech announcing the concept of the Peace Corps), the Vietnam war (i.e., the Teach-Ins of 1965), civil rights and racial diversity (i.e., the Black Action Movement of 1969), and environmental issues (i.e., Earth Day in 1972). To be sure, these were issues of great importance, and the voices of Michigan students and faculty were important both to the institution and to the nation. The nation's first Earth Day conference, sponsored by a campus group, was held in March, 1970. To attract media attention, a 1959 Ford sedan was "hacked to



Protesting the Vietnam War

death" on the Diag.

Yet there is an ebb and flow to student activism, just as there is to broader political life, determined by social issues of the times—e.g., an unpopular war, the draft, an economic downturn, the lack of jobs for graduating students—and by the quality of student leadership, since pulling together such movements requires some talent. During the 1970s the energy crisis and a weakening economy put jobs on the front burner for most students. There were occasional flare-ups over important issues such as racial tolerance or gay rights, but there were also cosmic concerns such as establishing Ann Arbor as a nuclear-weapons-free zone that have long since been forgotten.

During the 1980s, the number of high school graduates in Michigan dropped by over 25%, as the post-war baby boom subsided. Although this led to a decline in the number of Michigan applicants to the University, increases in the number of out-of-state applicants more than offset this decline to the point where almost 20,000 students were applying for the 5,000 positions in the freshman class. While some of this increase in out-state application activity was no doubt due to the ease of filing multiple applications with personal computers, it was also due to the fact that Michigan had become a "public Ivy", a popular choice to students across the country because of its unusual combination of academic quality, attractive social life, excitement (athletics, politics, arts), and name recognition.

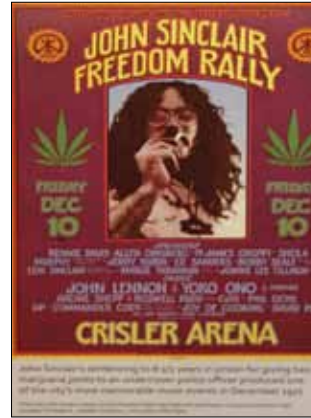
As the mood of the nation shifted away from confrontation and dissent in the 1970s, so, too, did the majority of Michigan's student body become more conservative and detached from the agendas



Sacrificing a Ford to Earth Day

of various special interest groups. As a result, those remaining activist elements of the student body became increasingly focused on narrow special interest agendas, even as the silent majority of students became more passive and focused instead on personal issues such as grades, social life, athletics...and job prospects! This was reflected in student government, in which only the more activist—indeed, radical—students would care passionately enough about particular issues to expend the energy to run for elected office. It was also reflected, unfortunately, in the attitude of administrators and faculty toward such student activism, treating it with benign neglect until it burst into flames that required an occasional fire drill. This tradition of activism, while a source of great energy and excitement, also had some drawbacks—particularly when the issues and agendas were not sufficiently compelling.

Student activism returned once again in the late 1980s, but the issues were common to those of most other campuses—e.g., military research on campus, gay rights, and racism—and could be viewed as resurgence of unsettled issues from the 1960s. After a lull between generations, a second surge in enrollments began in the late 1980s with "tidal wave II", the children of the boomers, who were more career focused, regarding their education as a stepping stone to employment and prosperity. After modest increases, enrollments stabilized once again throughout the 1990s. Although there was a brief period of student activism during the late 1980s and early 1990s, student interest began to shift to preparing for an increasingly competitive job market, with majors such as business administration rising to the top of the list in student interest.



Student protests: the lifeblood of the social consciousness of the university and sometimes the bane of the university president!

But there was another important change during the past two decades. Throughout much of the last half of the 20th Century, the University had attracted a broad spectrum of students, many from low-income families in the cities, factories, and farms, and as the first college students in their families. They came to Michigan, determined to work hard to take advantage of its opportunities, and striving for leadership roles in society. This character was reflected in their work ethic, whether working to pay their way through college or to achieve academic competence in tough majors like medicine and engineering; in their competitiveness, whether in the classroom, on the field, or later in life; and in their activism, challenging the flaws in our

society and proposing new paths to the future, and in their competitiveness. The majority of Michigan students were indeed “the common man” seeking “an uncommon education”, in Angell’s words, to become the “leaders and best”.

Yet in the late 1990s and continuing today, many public universities began to increase their undergraduate enrollments dramatically, with a strong bias given to out-of-state students capable of paying a much higher tuition in an effort to compensate for the loss of state support. Since most of these students came from families (or nations such as China) capable of paying the high costs of private universities, the socioeconomic mix of students began to shift toward

higher incomes, leaving behind those from low-income backgrounds and underrepresented minorities. This has raised the great concern that the shift toward high income students paying the high tuition to compensate for weakening state support threatened to erode the public purpose of universities such as Michigan, committed in early eras to providing “an uncommon education for the common man.” In effect, it had shifted its public purpose to “providing an uncommon education for the uncommonly rich”. There are other signs of an increasing imbalance in the priority given to wealth, e.g., responding to the whims of generous donors, the private boxes and clubs characterizing Michigan athletics, wealthy students who attend Michigan “paying for the party,” all activities, ironically, subsidized in part by the “common man” through the generous tax treatment of the payments for these premium services. (Armstrong, 2012)

Here particular attention must be given to “Greek life” on campus, since the unusually large number of students belonging to fraternities leads to a serious issue of adequate controls, as evidenced by the frequent instances of serious misbehavior and, indeed, even criminal conduct by fraternity members. While there is always a danger to the University in exposing itself to liability in becoming too engaged with these organizations, their damage to the University has been and remains today simply too great to ignore. While it is unrealistic to ban fraternities entirely, as some institutions have done, the University should reinforce demands for appropriate behavior with strong penalties for misconduct, both for students as well as for the fraternities as organizations.

The University needs to throttle back Michigan’s reputation as a party school (with big-time college sports) and instead rebrand itself as an institution determined to demand the student academic effort required for leadership roles later in life. More specifically, the University must insist that its faculty challenge its students through demanding academic programs. Here it might set a goal of demanding that through course assignments, students spend a minimum of two hours of effort for every one hour of class time, a metric used at leading universities through much of the last century. It also needs to provide more opportunities for student engagement with faculty

in research, service, and professional activities. Here technology might help, since social networking has largely decoupled such engagement and interactions from space and time constraints.

Although *in loco parentis* disappeared decades ago, the University has learned that it simply cannot ignore the behavior of students beyond the classroom. While most communities of young people experience the challenges of excessive alcohol, drugs, and sexual misconduct and assault, large university campuses are particularly vulnerable to these, as evidenced by Michigan’s “leadership” in various national polls attempting to rate institutions as “party schools” or tragically, “sexual assault and misconduct”. While the University has taken major steps toward addressing these concerns, the very scale and diversity of its many student communities will likely require new approaches.

On a more positive note, Michigan’s long history of student activism, while occasionally challenging to the University’s leadership and governance, is something of great pride because of its social impact. Michigan must not only tolerate such student activities, including occasional disruption of University activities, but actually encourage it and remain attentive and responsive to student issues. Here, particular concern should be given to maintaining the University’s long tradition of “truth and light”, by throttling back efforts to manage information flow throughout the institution so that bad news is disguised and good news is marketed heavily. Students deserve the truth, the whole truth, and nothing but the truth from the institution responsible for their education.

Of particular concern, however, has been the erosion of the University’s student diversity, both with respect to race and ethnicity as well as income. Despite major progress toward achieving appropriate student diversity during the 1990s—indeed, when Michigan achieved recognition for national leadership in such efforts—diversity has eroded quite badly in recent years, due both to inaction and political pressures. Furthermore, during the years from 2006 to 2016, the percentage of UM students from family income less than \$100,000 declined, while those from family incomes greater than \$250,000 increased from 12% to 24%, while the median family income rose to \$150,000.



Student events hosted by the president and first lady during the 1990s
(serving at times as the University's "mom and pop").

Apparently the University's commitment to providing "an uncommon education for the common man" has weakened.

A final concern for the longer term involves the increasing deterioration in the educational levels of young Americans relative to other industrialized nations. Recent studies by the Educational Testing Service comparing the U.S. Millennial generation (those 16 to 34) with other nations find reasons for great concerns. In literacy and numeracy, U.S. Millennials rank last among the 22 participating OECD nations, ranking together with Spain and Italy. In problem solving, the U.S. again ranked last, tied with Slovakia, Ireland, and Poland. Countries that ranked high on these measures include Finland, Japan, Sweden, the

Netherlands, and Norway. Even restricting these measures to those Millennials with bachelor' degrees finds the U.S. scored next to last. These U.S. Millennials with master's or research degrees also fell at the bottom.

To be sure, much of this decline in international comparisons probably reflects the very deep cuts in public support of education at all levels in this country. But it also indicates the challenge to leading universities such as the University of Michigan to compensate for the weak educational background of many of our students.

The Faculty

The principal academic resource of a university is

its faculty. The quality and commitment of the faculty determine the excellence of the academic programs of a university, the quality of its student body, the excellence of its teaching and scholarship, its capacity to serve broader society through public service, and the resources it is able to attract from public and private sources.

The public and, in fact, many faculty members themselves, tend to think of the faculty as a homogenous group, all engaged in similar activities of teaching and research, and all experiencing similar stresses of publish or perish, tenure or out. Yet there is as much diversity among faculty members and their roles as across any other aspect of American society. The range of faculty activities covers a wide spectrum: teaching at the undergraduate, graduate, professional, postdoctoral, and continuing education levels; basic and applied research; scholarly modalities ranging from solitary individuals to teams of hundreds of peers; disciplinary versus interdisciplinary versus nondisciplinary teaching and research; and public service in myriad forms.

There are indeed many faculty members of the "Mr. Chips" stereotype: dedicated classroom teachers, committed to the intellectual development of their students, and limiting their scholarship to an occasional research paper. But contrast this with a professor of internal medicine, with long hours devoted to patient treatment and care, engaged in ongoing efforts to attract the research funding to support a laboratory and students, teaching in a one-on-one mode medical students and residents, and perhaps trying to start a spin-off company to market a new piece of medical technology. Or the professor of violin, working one day with masters classes of students and performing the next on the concert stage. Or the engineering professor, teaching large classes of undergraduates, managing a state-of-the-art research laboratory staffed by research assistants and graduate students, serving on high-level government advisory committees, and working to develop patents into marketable products. All are valued members of the university faculty members, but their activities, their perspectives, their needs, and their concerns are remarkably diverse.

So, too, the role and activities of a faculty member can change considerably over the course of a career.

Most faculty members concentrate early in their careers on building scholarly momentum and reputation and developing teaching skills. Once the early hurdles of tenure and promotion have been achieved, professors become more involved in service both within and external to the university. Some become involved in deeper games where they use their intellectual power to shape their field of scholarship. Others assume important roles as advisors or consultants to government or industry. Still others become campus politicians, representing their colleagues in faculty governance. Still others take on administrative roles as chairs, deans, or perhaps even university presidents. Yet, despite this extraordinary diversity of faculty members across fields and careers, there is a tendency both in perception and in policy to regard all faculty members the same, as if all were assistant professors in history or economics.

Faculty members in research universities enjoy the opportunity to participate in teaching, research, service, and administrative activities. Although there is great diversity in faculty roles throughout the contemporary research university, determined by academic discipline, career level, and administrative assignments, all faculty are both encouraged and expected to maintain some level of activity in scholarship or creative work and to teach at the graduate and professional level. Yet, with this freedom and opportunity to undertake broader roles than simply classroom teaching comes an additional responsibility: Research university faculty members are expected to generate a significant fraction of the resources necessary to support their activities. That is, most faculty members at research universities are expected to be entrepreneurs as well as teachers and scholars.

Hiring, Retention, and the Marketplace

Academic leaders such as deans, provosts, and presidents spend much of their time either attempting to recruit outstanding faculty members to their institution or fending off raids on their faculty by other institutions. Although there have been attempts in the past to impose certain rules of behavior on faculty recruiting, for example, through agreements that institutions will refrain from recruiting faculty just



Faculty hires and departures

prior to the start of a new academic year or avoid using the promise of reduced teaching load to lure a research star—in reality it is a no-holds-barred and ruthless competition. And the richer and more prestigious the institution, the more aggressively it plays the game. To be sure, there is a certain pecking order in higher education, determined in part by the reputation of the particular academic program (not that concocted by US News and World Report but rather as determined by peers) and in part by wealth. Sometimes weather also helps, as the recruiting success of California universities clearly demonstrates.

But there is an insidious nature to this intensely competitive market for faculty talent. First, such recruiting efforts are a major factor in driving up the costs of a college education. Whether it is the size of an offer put together to lure a star faculty member away, or the counteroffer the home university puts on the table to retain the individual, both can seriously distort the broader faculty compensation patterns. Furthermore, such offers usually go far beyond simply salary and can involve a considerable “dowry” including laboratory space, research support, graduate and research assistant support, and, yes, sometimes even a reduced teaching load.

But beyond this, several of the wealthiest and most elite universities, Harvard being most prominent, play a particularly damaging role within higher education by preferring to build their faculties through raids on other institutions rather than developing them through the ranks from within. At these institutions, very few junior faculty have an opportunity for tenure, since most

Comparison of 2012 Faculty Salaries among Provost's List of Peer Institutions

(Chronicle of Higher Education, Feb. 12, 2015)

Rank	Institution	Average Salary		
		Prof.	Assoc. Prof.	Asst. Prof.
1	Stanford	195,400	131,200	109,800
2	Harvard	198,400	120,900	109,800
3	Penn	181,600	117,800	112,300
4	Duke	175,300	114,500	96,000
5	MIT	171,800	120,300	102,800
6	Northwestern	172,100	110,200	98,900
7	UCLA	162,600	107,400	87,400
8	Berkeley	154,000	104,600	92,300
9	Cornell endowed	161,800	113,000	97,000
10	Washington Univ. SL	172,400	100,200	96,800
11	Cornell	143,600	103,700	93,400
12	NYU	184,200	106,100	99,700
13	USC	155,900	105,300	93,300
14	Notre Dame	150,200	97,200	90,200
15	Virginia	151,600	95,000	80,300
16	UM	148,800	98,200	85,800
17	UNC	144,000	94,600	80,500
18	Texas	140,700	89,900	83,900

UM Rank: #16 out of 18

senior faculty positions are filled by scholars recruited away from other universities, where they have been nurtured and developed by these institutions at rather considerable expense. These elite predators attempt to rationalize the process by arguing that by seeking only the very best faculty from the broader marketplace rather than developing them from within, they create competitive forces that improve the quality throughout all of higher education. In reality they instead decimate the quality of programs in other universities by raiding their best faculty. Even unsuccessful attempts to raid faculty can result in a serious distortion of resource allocation in the target institution as they desperately attempt to retain their best faculty stars.

Most of the faculty trends of the past decade have continued to intensify. The marketplace has become even more intense as faculty have become even more nomadic, now remaining less than a decade at each way station on their route to a professorial chair or administrative position. New elements have been added to the package of negotiations, including not only promotion, salary increases, startup funding, perhaps an endowed chair, but now dual-career family placement, more generous sabbatical leave options, etc.



Pastoral care for the faculty

The competition among institutions has become even more intense.

It is important to note that faculty members of today actually work in several overlapping communities, e.g., their university, their discipline, their research and teaching communities, all characterized by similar commitments, quality, rewards, reputation, etc. In contrast to years past when faculty members committed careers to a single institution (or disciplines), today

faculty members are not only institutional nomads but also disciplinary nomads. They respond to a multiplicity of markets, pressures, and incentives, many of which are simply not under the control of the university.

Tenure and the Faculty Contract

The quality of the faculty is determined by many factors such as resource commitments and capital

facilities, but none more critical than the standards applied in recruitment, promotion, and tenure decisions. Each appointment to the faculty and each promotion within its ranks must be seen as both a significant decision and an important opportunity. In theory, at least, these decisions should always be made with the quality of the university foremost in mind. Policies, procedures, and practices characterizing the appointment, role, reward, and responsibilities of the faculty should be consistent with the overall goals of the institution and the changing environment in which it finds itself. In practice, however, these decisions tend to be made at the level of individual disciplinary departments with relatively little consideration given to broader institutional concerns or long-range implications.

Certainly the most controversial, complex, and misunderstood issue related to the faculty in higher education, at least in the minds of the public, is *tenure*. In theory, tenure is the key mechanism for protecting academic freedom and for defending faculty members against political attack both within and outside the university. In practice, it has become something quite different: job security, protecting both outstanding and incompetent faculty alike, not only from political intrusion but also from a host of other performance issues that could lead to dismissal in many other walks of life. And, of course, it is this presumed guarantee of job security that so infuriates many members of the public, some of whom have felt the sting of corporate downsizing or job competition.

Because tenure represents such a major commitment by a university, it is only awarded to a faculty member following a rigorous process of evaluation. Faculty members must first navigate successfully a difficult six- or seven-year probation period, usually holding the title of assistant professor, during which their performance as both teachers and scholars is assessed. In most cases, universities seek evaluation of the credentials of the candidate by external referees, typically including several of the leading experts in the faculty member's field. Furthermore, other factors enter in to the decision such as the centrality of the candidate's teaching and research expertise to university priorities and the availability of sufficient funds for a tenured appointment. The tenure review process occurs in stages, first at the

department level, then at the level of the school, and finally at the university level. At each stage a negative decision will stop the process, so that only if the review proceeds successfully through all levels will tenure be granted. Although there is considerable variability among universities and academic programs, in most of the leading research universities, less than half of new faculty survive the tenure review gauntlet.

Most university faculty members believe that tenure is a valuable and important practice in the core academic disciplines of the university, where independent teaching and scholarship require some protection from criticism and controversy. This privilege should also enable tenured faculty members to accept greater responsibility for the interests of the university rather than focusing solely on personal objectives.

But even within the academy, some are beginning to question the appropriateness of current tenure practices. The elimination of mandatory retirement policies in the 1990s (because of federal age discrimination laws) is leading to an aging faculty cohort, insulated from rigorous performance accountability by tenure, and this is depriving young scholars of faculty opportunities.

Some faculty members also question the value of tenure in professional fields where there is a need to use more "practitioners" as faculty, drawing professionals into the university for a brief period as teachers before they return to their professional careers. This close relationship between teaching and practice, between the university and the professions is apparent in fields such as medicine and engineering as well as the visual and performing arts. After all, students would prefer to learn from experienced surgeons, successful artists, or accomplished engineers, from those who do rather than those who simply study. For these fields, in which faculty are drawn from society for a brief time with the intent that they return, tenure does not appear to be as relevant.

Increasingly, the academy itself is acknowledging that both the concept and practice of tenure—particularly when interpreted as guaranteed lifetime employment—needs to be reevaluated. One approach under consideration—and occasionally even mandated by some state legislatures—is post-tenure review. Faculty members would continue to be reviewed at regular intervals even after receiving tenure. While this

makes it possible, in theory at least, to revoke tenure for inadequate performance, these reviews usually take a more constructive approach by identifying problems early and then working with the faculty member to see that they are corrected. Another approach is to reinterpret tenure as only applying to a portion of an academic appointment. For example, in many fields such as medicine, faculty members draw only a small fraction (20 percent or less) of their salaries from university funds, with the majority of support coming from clinical fees or research grants. The awarding of tenure would obligate the university to support only that component of a faculty appointment supported by academic funds.

While there are many who remain firm in their support of the fundamental concept of tenure, basing their arguments on academic freedom, the tenure system is becoming increasingly diverse with respect to how tenure is provided and interpreted not only among institutions but also within institutions and among various academic programs. It is important for the academy to explore new employment arrangements that respond more realistically to the differing needs of individual faculty members while addressing societal concerns.

Publish or Perish . . . or Hustle?

The long-standing argument about the negative impact of research on teaching highlights the pressures on faculty to “publish or perish.” Yet in many fields, the real pressure is not to publish, but to be a successful entrepreneur capable of attracting the resources to support not only one’s own activities, but also one’s students and department. For science and engineering, this is “grantsmanship”—the ability to compete successfully for sponsored research grants and contracts. For clinical disciplines such as medicine or dentistry, the challenge is somewhat different: the pressure to generate sufficient revenue from clinical services.

The modern university places enormous weight on the entrepreneurial efforts of faculty. And well it should, since without sponsored research support and clinical revenue, the university would not have the resources to conduct the bulk of its activities in graduate education

and research. Yet it is also clear that both the pace and character of this competitive, entrepreneurial culture, so critical to the quality and the survival of the research university, may also be at odds with the responsibility of the faculty for undergraduate education. The need to generate resources to support research and graduate education inevitably pull many of our most active faculty members out of the classroom, limiting the time and attention they can devote to undergraduate instruction.

There is a new “p-word” that has replaced parking as the dominant faculty concern on campuses these days: *productivity*. From state capitals to Washington, from corporate executive suites to newspaper editorial offices, there is a strong belief that if only faculty would work harder, spend more hours in the classroom, the quality of a college education would rise while its cost would decline. Critics point to the fact that many college professors spent only “a few hours a week” in the classroom, as measured by student contact hours. (Of course, one could also claim that legislators only spend a few hours a week in session or that news editors spend only a few hours writing their editorials.)

To be sure, there are sometimes flagrant examples of faculty irresponsibility, tolerated by universities in the name of academic freedom. For example, some faculty members are allowed to conduct research without any appreciable teaching responsibilities. Others are rarely on campus and available to students or colleagues. As Henry Rosovsky put it in his final report at Harvard, “The faculty has become a society largely without rules, or to put it slightly differently, the tenured members of the faculty, frequently as individuals, make their own rules.” (Rosovsky, 1996)

Yet the story is more complex than this. Few realize just how much time faculty members spend outside of the classroom, preparing lectures, meeting with students, serving on committees, conducting research, hustling grants, writing books, and all of the other activities essential to the academy. Today’s faculty member works far longer hours than in the past, averaging over fifty-five hours a week in all of higher education, and considerably more in research-intensive universities. Furthermore, there is some evidence that faculty effort actually increases after they achieve tenure, probably due in part to the fact that they are

relieved of the stress of the tenure probation period.

While it is certainly the case that productivity is an issue, it is not due to any lack of faculty effort. It is rather due to the labor-intensive nature of the current teaching-research paradigms. To be sure these paradigms are shifting, driven both by the changing nature of student needs and scholarship and the emergence of new technologies (e.g., MOOCs and “blended learning” paradigms). We have noted that the changing nature of students and pedagogy will demand significant changes in the role of the faculty. As students become active learners, as universities evolve from faculty-centered to student-centered institutions, and as the classroom experience transforms into a highly interactive learning community, perhaps distributed far beyond the campus, faculty members will be called upon to adapt to new forms of learning. They will have to master skills that will be new to many—inspiring, motivating, and managing active learning communities—and yet in other ways will be more akin to the roles of faculty before mass education and high-intensity research.

Faculty members play a variety of roles, as scholars, mentors, evaluators, and certifiers of learning. These roles are not distributed uniformly throughout all faculty members, nor will they be static through a faculty member’s career. It is likely that future learning institutions will not only allow but will require far greater differentiation in faculty roles.

For example, it could well be that limits on research funding will require federal research sponsors to focus available resources on only those faculty members who are truly outstanding at discovery research. Only these scholars would spend a significant amount of their time in this role. Other faculty members may be skilled at synthesizing knowledge, at identifying curricular content and designing learning experiences. Still others may be best at working directly with students, managing learning communities, counseling, and inspiring.

Many faculty members view with alarm the increasing concern about measuring performance and productivity, particularly when couched within the language of business or government. They resent any reference to faculty members as “employees” of the university. The shift toward more part-time or non-

tenure-track faculty poses a serious threat to faculty governance. They see a trend toward the increasing use of professional administrators to manage the complex affairs of the university as yet another threat to faculty governance. Yet, during a time of rapid change, if the faculty is to play a significant role in shaping the evolution of the university, it will need not only a deeper understanding of the forces driving change in our society and our institutions, but as well a willingness to consider significant departures from the status quo.

Essential Singularities

While the general faculty quality of a university across all departments, schools, and colleges is of great importance, determining the strength of its teaching and research, the visibility of the institution is frequently determined by a small number of truly exceptional individuals, so-called “essential singularities”, whose intellectual impact is immense. At a large public university such as Michigan, these exceptional faculty members usually are first discovered as young hires, before their work has reached the attention of competing institutions. However once their work becomes visible, they are aggressively recruited by many other institutions, particularly leading private institutions such as the Ivy League, MIT, or Stanford, who can focus great resources to recruit them away from Michigan.

Academic leaders need think more strategically about how to provide a supportive environment for their unusual brilliance (not the easiest challenge in a community of outstanding scholars) and move them rapidly through the ranks in an effort to hold them to Michigan. Fortunately, we have been able to do this for many of our most outstanding junior faculty, but it remains a challenge of great difficulty and importance. However we might consider the approach taken by several other universities (e.g., UC Berkeley, the Canadian research universities) and create endowed chairs for exceptional junior faculty that would transition into senior endowed chairs subject to their continued achievements.

At the highest level, the University might consider the creation of professorial chairs with institution-wide appointments, such as the University Professors at the

University of California or the Institute Professors at MIT. These provide exceptional faculty members with appointments in all academic units (and campuses in the case of the University of California), funded centrally by the institution, so that they have maximum flexibility for their research and teaching interests.

The Impacted Wisdom Group

During the mid-1990s, federal age discrimination laws eliminated the long-standing practice of mandatory retirement for university faculty. There was initial concern that this would lead to an “impacted wisdom group” of aging faculty retaining their appointments well past conventional retirement ages of 65 to 70, thereby preventing the opening of positions for new junior faculty. However the impact of the relative prosperity of the 1990s and 2000s on faculty defined contribution retirement programs (e.g., TIAA-CREF) enabled many faculty members to continue to retire in their 60s with incomes comparable to their faculty salaries. Hence the elimination of mandatory retirement practices had little impact.

This situation changed with the 2008-2009 “Great Recession” that significantly dented retirement program accumulations, with losses in the 30% to 40% range. Although these accumulations have recovered in recent years, the impact of the recession on confidence has not. Today a faculty member in reasonable health at age 65 has a 50%-50% probability of living until age 90, a period during which further major economic disruptions are likely to occur. Hence there is strong incentive for senior faculty members to continue to work as long as their health and their interests in their academic activities remain strong. In fact, recent surveys indicate that most faculty view the downside of retirement as the loss of the intellectual, cultural, and social benefits of being an active part of the academic community rather than financial concerns. Hence once again the concern that if retirements slow, positions for new faculty will similarly disappear. (NRC, 2016)

Yet universities have also learned that the penalties for age discrimination can be very severe. Deans and department chairs are cautioned to be extremely careful in discussing retirement plans with faculty, since any attempt to push a faculty member into retirement is

likely to result in expensive litigation. Today research universities are finding that each retirement has become a process of negotiation, with options such as phased retirement over several years, some continued engagement of emeritus faculty members, and other benefits such as access to libraries, retired faculty clubs, and possible partial appointments as “emeritus-in-service” for limited teaching and administration assignments. No longer is it sufficient to simply schedule a meeting for retiring faculty with a university financial consultant, who then takes away their parking pass and e-mail account and shows them the door.

Yet beyond the desire to recapture faculty positions for new younger faculty from retiring faculty members within the current environment of limited funding, it is important to recognize that many emeritus faculty members remain among the University’s most distinguished, dedicated, and capable teachers and scholars. Senior faculty should be viewed as an important academic resource for the University rather than an aging challenge. In fact, it is usually their achievements and reputations that determine the quality rankings of a program. They have written the textbooks, published the prize-winning papers, and frequently led their disciplines throughout their careers. Instead the approach should be to provide ways that faculty members can retain the intellectual, cultural, and social links that have been important parts of their lives and offer them an active role even after they retire.

Elite private universities (e.g., Ivy League, Oxbridge) recognize the value of the reputations and ongoing activities of outstanding faculty and keep them on late in life both to attract talented students and new faculty and to teach and write as they are able. They are provided with usual faculty support but only modest compensation in addition to their retirement funding. Many universities have developed specific policies to encourage the engagement of senior faculty in productive roles, such as emeritus-in-service appointments providing them with the opportunity to continue teaching, research, and service at reduced appointment levels.

The Erosion of Faculty Influence

Adopting corporate approaches to university

management and leadership, coupled with the nomadic life it imposes upon today's faculty members, has also seriously damaged faculty loyalty to institutions. Here, Michigan provides a disturbing example of the impact of the increasingly "corporate" nature of large research university, with an increasing fraction of its central administration comprised of staff with little if any experience in higher education, and decision making largely detached from academic considerations (e.g., the efforts to recentralize resource control, weakening the power of deans and directors, launching new initiatives from the central administration rather than harvesting them from faculty and students, and imposing upon faculty and academic programs a corporate bureaucracy that is orthogonal to the spirit of academic freedom and creativity). Indeed today the faculty is increasingly regarded both by administration and governance alike as simply "employees" of the "University", while faculty governance has lost much of its influence on University decisions and strategies.

Noted scholar Cathy Davidson puts it well: "The distress in higher education today, our adjunct crisis, our overstuffed lecture halls, and our crushing faculty workloads, is a product of 50 years of neoliberalism, both the actual defunding of public higher education by state legislatures and the magical thinking that corporate administrators can run universities more cost-effectively than faculty members. They don't. The major push to "corporatize" higher education has coincided with a rise, not a decrease, in costs. The greedy, corporate brutality of far too many contemporary universities is reminiscent of medieval monasteries of old. Let's call it "turf and serf": real-estate land grabs, exploitation of faculty labor, and the burdening of students with "crushing debt." (Davidson, 2013)

Little wonder that many of Michigan's most accomplished and distinguished faculty members have largely stepped back from efforts to influence the future of the University through service in a faculty governance role with little power or through initiatives that are usually ignored or overwhelmed by the public relations efforts of the central administration. In a very real sense, perhaps one of the greatest challenges to the University of Michigan today, as it is to other great public research universities, is to find a way to empower once again those faculty members whose contributions

in teaching, scholarship, and service have been the key factor in establishing and sustaining the reputation of the University.

The Staff

We might think of a university much like a city. It has buildings and roads, parks and theatres, apartments and neighborhoods—and all require knowledgeable professionals capable of building and maintaining, operating and repairing the infrastructure for the academic programs of the institution. By way of example, the University of Michigan's Ann Arbor campus has a population of 46,000 students, 7,500 faculty, and 15,000 staff. It has over 35 million nsf of facilities, three thousand acres of lands, and a budget of \$8.4 billion per year. Thousands of students, hundreds of thousands of patients, and millions of citizens depend on the quality and competence of its many activities. And these, in turn, depend on the quality and effort of the staff of the university.

Students and faculty members tend to take the staff of a university pretty much for granted. While they understand these are the people who keep the trains running on time, who provide them with the environment they need for teaching and research, most view staff as only the supporting cast for the real stars, the faculty. When staff come to mind at all, it is usually as a source of complaints. To many faculty members, service units such as the plant department, purchasing, and internal audit are sometimes viewed as an annoyance rather than a key to their success.

In most large universities, staff members significantly outnumber the faculty. They are characterized by an extraordinary diversity of roles and activities, experiences, and credentials. In many areas such as finance, health care, and facilities, senior staff members have educations and credentials every bit as extensive as faculty members. In fact, some staff are accepted by the faculty as peers and invited to participate in teaching and research activities.

Although we generally think of universities competing for the very best students and faculty, it is clear that the quality of staff is also essential in determining the quality of the institution. The modern university requires highly competent staff, in

managing the intricacies of financing a multi-billion-dollar-a-year operation, in seeking the private gifts and government support, in maintaining the most sophisticated technical equipment and facilities, in providing competent and courteous service to students and patients. Beyond these services, we look to staff to provide key leadership for the institution. And in many cases, this leadership has been absolutely essential to the fortunes of the institution.

To be sure, there are important cultural differences between the faculty and staff communities. The faculty in a university enjoys great freedom—freedom of expression, academic freedom to teach and conduct research—albeit with certain expectations for accountability. In contrast, the staff is expected to perform at high levels of professional competence. They are not necessarily provided with the same degree of choice or the same discretion as their faculty colleagues, although at times these two cultures become somewhat blurred and confused.

Yet, ironically, many staff members are far more loyal to the university than students or faculty. In one sense this is because they are more permanent than students and faculty. Students are essentially tourists, spending only a few short years on the campus, and seeing relatively little of its myriad activities. Similarly, many faculty members view their appointments in the university as simply another step up the academic ladder. Their presence at and loyalty to the institution is limited, usually outweighed by their loyalty to their disciplines and their careers. In contrast, many staff members spend their entire career at the same university, although they may assume a variety of roles. As a result, they not only exhibit a greater institutional loyalty than faculty or students, but they also sustain the continuity, the corporate memory, and the momentum of the university. Ironically, they also sometimes develop a far broader view of the university, its array of activities, and even its history, than do the relative short-timers among the faculty and students.

The faculty generally asserts that it is the core of the university—although it is hoped they acknowledge as well that students are its primary clients. Yet, while this is certainly true for the core missions of teaching and scholarship, the contemporary university is involved in a host of other activities, from health care to economic

development to public entertainment, in which staff plays the key roles. Universities with large physical plants employ architects and engineers with skills and competencies that rival those at the very best firms, but who prefer to work in an educational institution. Senior-level staff members are frequently the full equivalent of top level executives in major corporations.

Yet, one of the dilemmas faced in attracting and retaining outstanding staff is the relatively low degree of recognition and reward they usually receive within higher education. To be sure, the university environment sometimes provides staff with more freedom and flexibility. But the advancement channels that might be open to them in business or industry are frequently closed off by academic requirements. For example, few staff members could ever aspire to be the CEO of a university. That is generally reserved for those with extensive academic experience. Furthermore, the human resource development function in most universities is usually not given the priority as it receives in corporations, with relatively little attention given to career advancement. Throughout the university, whether at the level of secretaries, custodians, groundskeepers or the rarified heights of senior administrators for finance, hospital operations, or facilities construction and management, the quality of the university's staff, coupled with their commitment and dedication, is a major factor in making Michigan the remarkable institution it has become. In contrast to many faculty members, who view their first responsibilities as to their discipline or perhaps their careers, most staff members are true professionals, deeply committed to the welfare of the university as their highest priority, many dedicating their entire careers to the institution.

The University of Michigan has been fortunate in recruiting and retaining perhaps the most outstanding collection of staff members in higher education. In part this is due to the scale and complexity of the institution, which demand extraordinary competence. The knowledge, skill, and experience necessary to work with cutting edge technologies (e.g., the University's nanotechnology laboratories, performance venues such as Hill Auditorium, complex surgical procedures, and one of the most sophisticated IT environments in the world) attract outstanding talent. So too does the need for craftsmen of extraordinary skills (e.g.,



The importance of the staff

preservation of ancient documents and artifacts, design of performance venues, cutting-edge software development, and handling of hazardous materials). The supervision and management of the facilities, equipment, and financial operations characterizing the multiplicity of sophisticated environments necessary for cutting edge instruction, research, and service also require highly skilled staff.

One of the important reasons that the University is able to attract such outstanding staff is because our highly decentralized structure provides them with the

freedom not only to perform their roles with minimal bureaucracy, but it also enables them to express their creativity in ways that frequently has impact far beyond the campus. For example, it was the great strength of the University's staff in networking, developed during the 1960s and 1970s for the MERIT statewide network connecting its universities, who extended this technology to build the Internet (under the leadership of Douglas Van Houweling). And it has been staff who developed the modern surgical techniques and equipment that provide life-saving procedures to

patients. And, in all such roles, these staff members play roles of great importance in teaching our students the skills and crafts critical both to their profession and achieving their educational objectives.

Finally, it is important to understand the importance of the role that staff members play in sustaining the momentum of the University and passing on from one generation to the next the corporate culture critical to the institution's success. Students pass through for only the brief period of their studies. Faculty members are increasingly nomads, moving from university to university as the opportunity arises. But many of our staff members dedicate their entire careers to this University. This was impressed upon us twice each year, when the president would host a banquet to honor staff with long-term service—20, 30, even 40 years. In a very real sense, it is frequently the staff who provided through years of service the continuity of both the culture of the university and its commitment to excellence. Put another way, it is the staff, as much as the students, faculty, or alumni, who perpetuate the institutional saga of the university.

Duderstadt References

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt, *The Third Century: A Roadmap to the University of Michigan's Future*, Final Edition (Ann Arbor, MI: Millennium Project, 2016)

James Duderstadt, *A 50 Year History of Social Diversity at the University of Michigan* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt and Anne Duderstadt, *For the Love of Michigan: A Half Century of Serving the University of Michigan* (Ann, Arbor, MI: Millennium Project, 2014)

Chapter 4: Summary

1. A university must be viewed as very much a people-centered and driven organization. While students are, of course, the primary focus of the institution through learning, the faculty has a parallel importance through teaching, scholarship, and professional service. Yet for these fundamental missions of the university to be accomplished, there must be an infrastructure of highly talented staff at all levels.

Students

2. Despite what the faculty, administrators, alumni, and football fans may think, students are the most important participants on a university campus. For much of its history, the University's enrollment was among the largest in the nation.

3. Michigan has long attracted an activist student body, characterized as such by the *Harper's Bazaar* article in the 1880s to the protests against the Vietnam War and racial discrimination in the 1960s to the concerns about freedom of speech and women's rights of today. While campus activism and protests irritated many, it should be acknowledged that these address important social causes.

4. Michigan's long history of student activism, while occasionally challenging to the University's leadership and governance, is something of great pride because of its social impact. Michigan must not only tolerate such student activities, including occasional disruption of University activities, but it must actually encourage it and remain attentive and responsive to student issues.

5. Throughout much of the last half of the 20th Century, the University had attracted a broad spectrum of students, many from low-income families in the cities, factories, and farms, and as the first college students in their families. They came to Michigan, determined to work hard to take advantage of its opportunities, and striving for leadership roles in society. Yet in the late 1990s and continuing today, many public universities began to increase their undergraduate enrollments dramatically, with a strong bias given to out-of-state

students capable of paying much higher tuition in an effort to compensate for the loss of state support.

6. Of growing concern has been the erosion of the University's student diversity, both with respect to race and ethnicity as well as income. Despite major progress toward achieving appropriate student diversity during the 1990s—indeed, when Michigan achieved recognition for national leadership in such efforts—diversity has eroded quite badly in recent years, due both to inaction and political pressures.

Faculty

7. The principal academic resource of a university is its faculty. The quality and commitment of the faculty determine the excellence of the academic programs of a university, the quality of its student body, the excellence of its teaching and scholarship, its capacity to serve broader society through public service, and the resources it is able to attract from public and private sources.

8. Academic leaders such as deans, provosts, and presidents spend much of their time either attempting to recruit outstanding faculty members to their institution or fending off raids on their faculty by other institutions. The marketplace has become even more intense as faculty have become even more nomadic, now remaining less than a decade at each way station on their route to a professorial chair or administrative position.

9. Certainly the most controversial, complex, and misunderstood issue related to the faculty in higher education, at least in the minds of the public, is *tenure*. In theory, tenure is the key mechanism for protecting academic freedom. In practice, it has become something quite different: job security. Increasingly, the academy itself is acknowledging that both the concept and practice of tenure—particularly when interpreted as guaranteed lifetime employment—needs to be reevaluated.

10. The long-standing argument about the negative impact of research on teaching highlights

the pressures on faculty to “publish or perish.” Yet in many fields, the real pressure is not to publish, but to be a successful entrepreneur capable of attracting the resources to support not only one’s own activities, but also one’s students and department. For science and engineering, this is “grantsmanship”—the ability to compete successfully for sponsored research grants and contracts.

11. While the general faculty quality of a university across all departments, schools, and colleges is of great importance, determining the strength of its teaching and research, the visibility of the institution is frequently determined by truly exceptional individuals, so-called “essential singularities”, whose intellectual impact is immense. Academic leaders need to think more strategically about how to provide a supportive environment for their unusual brilliance.

12. Adopting corporate approaches to university management and leadership, coupled with the nomadic life it imposes upon today’s faculty members, has also seriously damaged faculty loyalty to institutions.

13. During the mid-1990s, federal age discrimination laws eliminated the long-standing practice of mandatory retirement for university faculty. Initially the generosity of defined contribution retirement programs enabled faculty to continue to retire at ages and numbers to allow new hires. But in more difficult economic times, this has slowed. Yet surveys have indicated that the primary reasons for postponing retirement are not financial but rather the concerns about the loss of the intellectual, cultural, and social benefits of being an active part of the academic community.

14. Here it is important to recognize that many emeritus faculty members remain among the University’s most distinguished, dedicated, and capable teachers and scholars. In fact, it is usually their achievements and reputations that determine the quality rankings of a program. Many universities have developed specific policies to encourage the engagement of senior faculty in productive roles.

Staff

15. Students and faculty members tend to take the staff of a university pretty much for granted. Although we generally think of universities competing for the very best students and faculty, it is clear that the quality of staff is also essential in determining the quality of the institution.

16. Ironically, many staff members are far more loyal to the university than students or faculty. In one sense this is because they are more permanent than students and faculty.

17. The University of Michigan has been fortunate in recruiting and retaining perhaps the most outstanding collection of staff members in higher education. In part this is due to the scale and complexity of the institution, which demand extraordinary competence.

18. One of the important reasons that the University is able to attract such outstanding staff is because our highly decentralized structure provides them with the freedom not only to perform their roles with minimal bureaucracy, but it also enables them to express their creativity in ways that frequently has impact far beyond the campus.

Chapter 5

Organization and Management

The nature of the contemporary university and the forces that drive its evolution are complex and frequently misunderstood. The public still thinks of us in very traditional ways, with images of students sitting in large classrooms listening to faculty members lecture on subjects such as literature or history. The faculty thinks of Oxbridge—themselves as dons, and their students as serious scholars. The federal government sees another R&D contractor or health provider—a supplicant for the public purse. And armchair America sees the university on Saturday afternoon as yet another quasi-professional athletic franchise. The reality is far different—and far more complex.

In fact, one might depict U of M, Inc., as essentially a holding company of knowledge-intensive services. This would include the traditional components of a university: undergraduate colleges, graduate and professional schools, all clustered about an intellectual core of faculty masters and advanced student scholars (in medieval terms, *a Universitas Magistrorum et Scholarium*). But it also includes an array of auxiliary enterprises, largely operated on a self-financing basis, including sponsored research institutes, laboratories, and projects; clinical activities such as hospitals and health systems; student housing and services; and, of course, public entertainment venues such as intercollegiate athletics. Furthermore, a major university such as Michigan is always launching new ventures such as international programs, not-for-profit knowledge services such as digital libraries, and possibly even activities that draw on the “brandname” of the university to establish new institutions through franchising or mergers and acquisition.

This diversity of activities is not unique to Michigan. Most of the major research universities in America are characterized by very similar organizational structures,

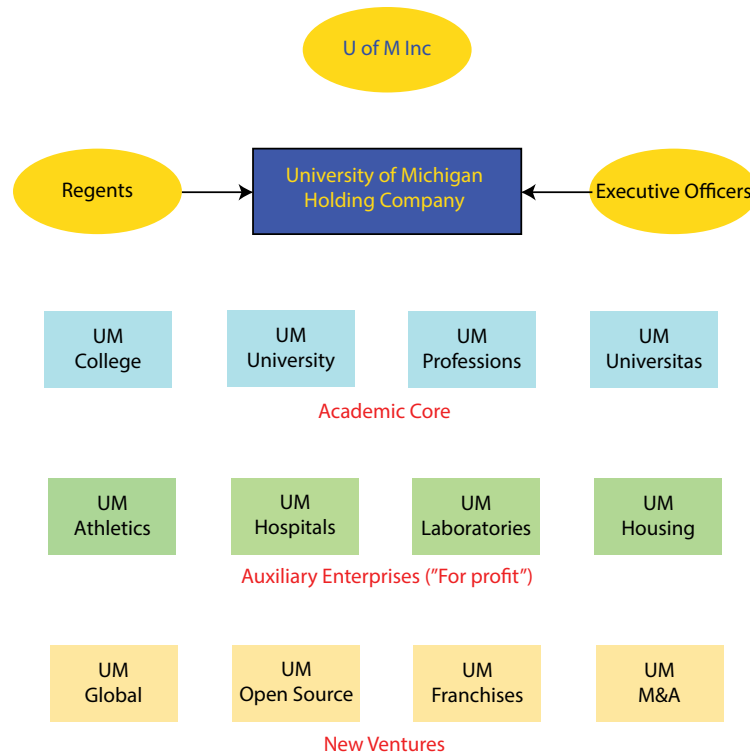
indicative of their multiple missions and diverse array of constituencies. Yet few have Michigan’s scale.

The university today has become one of the most complex institutions in modern society—far more complex, for example, than most corporations or governments. It is comprised of many activities, some non-profit, some publicly regulated, and some operating in intensely competitive marketplaces. It teaches students; conducts research for various clients; provides health care; engages in economic development; stimulates social change; and provides mass entertainment (athletics). In systems terminology, the modern university is a “loosely coupled, adaptive ecosystem,” with a growing complexity, as its various components respond to changes in its environment.

The modern university has become a highly adaptable knowledge conglomerate because of the interests and efforts of its faculty. It provides faculty with the freedom, the encouragement, and the incentives to move toward their personal goals in highly flexible ways. One might even view the university of today as a type of holding company of faculty entrepreneurs, who drive the evolution of the university to fulfill their individual goals.

Universities have developed a transactional culture, in which everything is up for negotiation. The university administration manages the modern university as a federation. It sets some general ground rules and regulations, acts as an arbiter, raises money for the enterprise, and tries—with limited success—to keep activities roughly coordinated.

This entrepreneurial character of the university has made it remarkably adaptive and resilient throughout the 20th Century, but it still faces serious challenges. Many contend that universities have diluted their core enterprises of learning, particularly undergraduate



Michigan's "corporate" structure

education, with a host of entrepreneurial activities. They have become so complex that few, whether on or beyond their campuses, understand what they have become. They have great difficulty in allowing obsolete activities to disappear. They face serious constraints on resources that no longer allow them to be all things to all people. They also have become sufficiently encumbered with processes, policies, procedures, and past practices that their best and most creative people no longer determine the direction of our institutions.

If these institutions are to respond to future challenges and opportunities, the modern university must engage in a more strategic process of change. While the natural evolution of a learning organization may still be the best model of change, it must be guided by a commitment to preserve its fundamental values and mission. Universities must find ways to allow its most creative people to drive their future. The challenge is to tap the great source of creativity and energy associated with entrepreneurial activity in a way that preserves the university's core missions, characteristics, and values.

Academic Organization

The academic organization of the university is sometimes characterized as a creative anarchy. Faculty members possess two perquisites that are extraordinary in contemporary society: academic freedom, which allows faculty members to study, teach, or say essentially anything they wish; and tenure, which implies lifetime employment and security. Faculty members do what they want to do, and there is precious little that administrators can do to steer them in directions where they do not wish to go.

Although this frequently resembles organizational chaos to outsiders, in reality the entrepreneurial university has developed an array of structures to enable it to better interact with society and pursue attractive opportunities. Yet, while this organization has proven remarkably adaptive and resilient, particularly during periods of social change, it all too frequently tends to drift without the engagement or commitment of its faculty, students, and staff to institution-wide priorities.

Over time the contemporary university has become increasingly compartmentalized by the specialization of academic departments and faculty interests, the



The University of Michigan's Ann Arbor Campus

decentralization of budgets and resources, the nomadic character of the faculty in a highly competitive marketplace, technologies allowing the creation of scholarly communities detached from campuses and academic institutions, and by the ever more numerous and complex missions demanded by a diverse multiplicity of clients and stakeholders. While this increasingly decentralized nature of the university allows it to function as a loosely coupled adaptive system, evolving in a highly reactive fashion to its changing environment, it can also undermine the ability of the university to respond effectively to the broader needs and demands of society, particularly in its core missions of student learning and social engagement.

While management tools and governance structures provide useful tools in unifying the university, budgets and organization can only accomplish so much. Far more important is leadership capable of embracing those values that pull a fragmented community together to address a common and public purpose.

The intellectual fragmentation of the university was driven very much by the rapid evolution of the scientific method in the late 19th century, as specialization and new disciplines were necessary to cope with the explosion of knowledge. Academic disciplines began to dominate

the university, developing curriculum, marshaling resources, administering programs, and doling out rewards. Both the organization and the resource flows of the university became increasingly decentralized to adapt to the ever more splintered disciplinary structure. The increasingly narrow focus of scholarship created diverse faculty subcultures throughout the university—humanities, the natural and social sciences, professional schools—widening still further the gap among the disciplines and shifting faculty loyalties away from their institutions and toward small peer communities that became increasingly global in extent.

Decentralization has also been driven by the rapidly changing nature of how universities are financed. In earlier times, the responsibility for generating the resources necessary to support the activities of the university was highly centralized. Public institutions were primarily supported by state appropriations, while private institutions were supported by private giving and student fees. Since these resources usually increased from year to year, institutions relied on incremental budgeting, in which the central administration simply determined how much additional funding to provide academic units each year.

In today's brave new world of limited resources,

battered by seriously strained state budgets and turbulent financial markets, the resources supporting most public and private universities are no longer collected centrally through appropriations or gifts. Rather they are generated locally at the level of academic units and even individual faculty members, competing in the marketplace for students (and hence tuition dollars), research grants and contracts (which flow to principal investigators), gifts (which are given to particular programs or purposes), and other auxiliary activities (clinical care, executive management education, distance learning, and entertainment—e.g., football). Little wonder that most universities are moving toward highly distributed budget models, in which authority and accountability for revenue generation and cost containment are delegated to individual academic and administrative units, further decentralizing the university. (Duderstadt and Womack, 2003)

The Emergence of a Decentralized Organization

The early years following WWII were a time of rapid growth for American colleges and universities, sustained by strong public support from both states and the federal government for expanding academic programs, building campuses, funding research, and supporting students. Fortunately, during the 1930s and 1940s, Michigan's Alexander Ruthven had transformed the earlier "headmaster" character of University of Michigan leadership into more of a corporate model, expanding the number of executive officers to handle the growing activities of the institution and utilizing Regents as a true board of directors.

This corporate structure continued to evolve in the 1950s. Most resource decisions were made at the executive officer and Regent level. Put in simplest terms, each year the University would drive its budget "truck" up to Lansing, fill it with generous state support, and then drive it back and distribute it among the deans and directors of the various academic program and auxiliary activities. To be sure, many of these units were led by powerful and visionary deans capable of building both the quality and size of their programs. But since most support came from state appropriations and research grants, they had relatively little control of

their overall funding.

This system clearly made the provost at Michigan not only second-in-command to the president, but as both chief budget officer and chief academic officer, one of the most powerful such positions in the country. As Robben Fleming once put it, "If you start out as a president with a provost and chief financial officer who are superb people, you are about three-quarters of the way down the path of success, because these are your critical areas."

But in addition, it was critical to have key business managers scattered throughout the University. This was particularly important since deans and directors were for the most part former faculty members with little experience in management issues. Although the business managers in these units reported directly to their respective deans and had leadership responsibilities for the financial staff of their school, they also were part of a network of similar senior staff who had a dotted line relationship with the VPCFO. Hence, if there were any problems within an academic unit, an alert would immediately be passed along to the VPCFO and hence to the Executive Officers.

In fact, this network of experienced senior business managers was really the key to the decentralization of the University, since working arm-in-arm with the deans, they provided strong, experienced leadership with capability in both academic and financial matters. Their wisdom and integrity enabled the University to develop a remarkable capability to thrive even in the face of the most serious challenges, such as the loss of most of its state support.

Interestingly enough, despite their power, the Michigan provosts of the 1970s and 1980s not only appointed deans and directors of unusual ability, but they also began a gradual process of transferring more and more control over resources, appointments, and policy to them in their leadership roles of academic and administrative units. They realized that as the University continued to grow while becoming ever more complex, and the erosion of state support would require more diverse sources of revenues, most of which would be generated by the deans and their units (e.g., tuition revenue, research grants, and private gifts), the capacity of the Executive Officers to manage the institution through centralized authority was no



Harlan Hatcher



Robben Fleming



Harold Shapiro



Allan Smith



Frank Rhodes



Billy Frye



Wilbur Pierpont



James Brinkerhoff



Farris Womack

University of Michigan leaders in the late 20th Century

longer advisable or even practical.

But there was another important factor enabling the University to evolve into a more contemporary organization characterized by strong decentralization. As we noted in our brief history of the University in the first chapter, the State of Michigan's first constitution had given the University an unusual degree of autonomy as a "coordinate branch of state government". Full powers over all university matters were granted to the University's governing board of Regents. This constitutional autonomy periodically reaffirmed through court tests and constitutional conventions, enabled the university to have much more control over its own destiny than most other public universities.

Hence, it should not be surprising that the various academic units of the University also evolved with a strong sense of autonomy over their academic objectives and decisions. To be sure, the Executive Officers and Regents of the University had final authority, but this was generally exercised with considerable restraint to allow deans, directors, and chairs significant authority.

This decentralization of authority and autonomy throughout the University became even more important as state support began to erode in the late 1970s. By the 1990s, more than 90% of the resources supporting the institution were generated by the actions of individual units rather than by the central administration. Hence it was natural to cede even more authority over expenditures along with responsibility and accountability for costs incurred to the deans and directors of the University's various units. An open market strategy evolved where deans and directors were given the freedom as customers to decide for themselves where centralized services were more efficient and cost-effective than using outside vendors (e.g., facilities maintenance, communications services, etc.).

This realignment of both resource control and cost responsibility to the lowest levels of the organization where they occurred most naturally was key to the ability of the University to adapt to the very considerable financial pressures it would face by the late 20th Century. Michigan's long tradition of institutional autonomy positioned it well for such decentralization, a philosophy that was eventually adopted by many

other public universities facing serious erosion of state support.

The decentralization of Michigan's organization culture was also successful because of the extraordinary talents, dreams, and commitment of faculty, staff, and students. In particular, faculty members were provided with the freedom, the encouragement, and the incentives to move toward personal goals in highly flexible ways. A transactional culture had emerged in which everything was up for negotiation—except for fundamental academic values.

The University as an Adaptive Ecosystem

Today the University is structured and evolving as a loosely coupled and adaptive system responding to external changes in its environment. Much like a tropical rain forest, its strength comes from its roots, its students, faculty, and staff. The administration and governance comprising the more visible leaves and branches sometimes break and fall off, but the rain forest continues to grow from its roots, developing defensive mechanisms that ward off attackers and antibodies that attack invasive species. From this perspective, it is clear that while institutional leadership is important in identifying areas of opportunities and directing resources to those parts of the University capable of responding, it must never be forgotten that the key assets sustaining its core academic and service missions are its people.

But such a biological perspective also has risks. For example, the University could face limits to growth as it evolves to the point where there are insufficient resources. Or it could become so large it is threatened by other more powerful forces (e.g., Regents, politicians, new leaders). There might be a point of saturation that would slow or halt growth, or even an instability that might lead to collapse.

In contrast to an ecosystem, one might also view the university as the analog to the Internet, since with relatively weak central control, it depends primarily upon activity on the edge through deans and faculty. That is, it grows at the edge and adapts to changes and demand. It is indeed a "loosely coupled adaptive organization".

Interestingly enough, the two most decentralized

universities in the nation today are Michigan and Harvard. As explained by a former president of Harvard, his primary leadership role was to first select the deans who would lead Harvard's academic programs, and then turn them loose in these efforts. While the Harvard central administration would not provide direct support, it would provide financial analysis and an occasional loan. But financially and strategically, the schools were on their own, under the leadership of their deans.

Until recently Michigan has followed a very similar model, albeit occasionally hiring a president who attempted to exert more direct control by controlling resources and launching academic initiatives. Fortunately, however, the adaptive ecosystem characterizing Michigan, much like that of Harvard, has been extremely good in rejecting such invasive efforts to change its culture.

Of course, one of the challenges presented by such a university ecosystem that is always changing is to control instabilities that might occasionally arise from time to time. Sometimes these are a natural consequence of evolution or environment, such as the explosive growth of the UM health system. Sometimes they arise through external forces, such as the effort to impose inappropriate corporate management methods such as "shared services" (attempting to relocate all service staff from the academic units into a single off-campus facility) or "IT rationalization", an Accenture-driven effort to force commodity technology practices on a highly diverse research-driven organization. Fortunately, thus far at least, the Michigan ecosystem has been able to reject such invasive alien cultures and preserve the quality of the institution.

The Faculty and the Administration

In many if not most universities, the concept of management is held in very low regard, particularly by the faculty. Yet all large, complex organizations require not only leadership at the helm, but also effective management at each level where important decisions occur. All presidents, provosts, and deans have heard the suggestion that any one on the faculty, chosen at random, could be an adequate administrator. After all, if you can be a strong teacher and scholar, these skills

should be easily transferable to other areas such as administration. Yet, in reality, talent in management is probably as rare a human attribute as the ability to contribute original scholarship. And there is little reason to suspect that talent in one characteristic implies the presence of talent in the other.

To be sure, organizations in business, industry, and government are finding it important to flatten administrative structures by removing layers of management. Despite what the press, many politicians, and even a few trustees, think, most universities have rather thin management organizations compared to corporations, inherited from earlier times when academic life was far simpler and institutions were far smaller. In truth, universities, like other institutions, depend on strong leadership and effective management if they are to face the challenges and opportunities posed by a changing world, but this is exercised in a bottom-up rather than a top-down fashion.

The nature of academic administration reveals a good deal of ambivalence on the part of the faculty. On one hand, faculty members resist—indeed, deplore—the command/control style of leadership characterizing the traditional pyramid organizations of business and government. In fact, many faculty members sought careers in academe in part because they knew that there they would have no "supervisor" giving direct orders or holding them accountable. Faculty members can usually do as they wish. They enjoy exceptional freedom, as long as they are capable of strong teaching and scholarship in their field, and, at least at some universities, generating the resources necessary to support these activities.

Most among the faculty are offended by any suggestion that the university can be compared to other institutional forms such as corporations and governments. Pity the poor administrator who mistakenly refers to the university as a corporation, or to its students or the public at large as customers, or to its faculty as staff. The academy takes great pride in functioning as a creative anarchy. Indeed, the faculty generally looks down upon those who get mired in the swamp of academic administration. Even their own colleagues tapped for leadership roles become somehow tainted, unfit, no longer a part of the true academy, no matter how distinguished their earlier

academic accomplishments, once they succumb to the pressures of administration.

Yet the faculty also seeks leadership, not in details of its teaching and scholarship, but in the abstract, in providing a vision for their university, in articulating and defending fundamental values, stimulating a sense of optimism and excitement. Faculty members seek protection from the forces of darkness that rage outside the university's ivy-covered walls: the forces of politics, greed, anti-intellectualism, and mediocrity that would threaten the academic values of the university.

There remain signs of a widening gap between faculty and administration on many campuses. The rank and file faculty sees the world quite differently from campus administrators. There are significant differences in perceptions and understandings of the challenges and opportunities before higher education. It is clear that such a gap, and the corresponding absence of a spirit of trust and confidence by the faculty in their university leadership, can seriously undercut the ability of universities to make difficult yet important decisions and move ahead. Indeed, those universities that emerge as leaders in the twenty-first century may well be those institutions whose faculty develops the capacity to tolerate and sustain strong presidential leadership.

The growing epidemic of presidential turnover—with the average tenure of public university presidents now only five years—is due in part to this absence of faculty understanding of the nature of the modern university and support for its leadership. It is due as well to the stresses on universities and the deterioration in the quality of their governing boards. The faculty-administration gap has been exploited by external groups to attack universities. Such divisions have also been exploited by an array of special interest groups pushing one political agenda or another—not to mention an array of personal agendas.

In part, the widening gap between faculty and administration has to do with the changing nature of the university itself. The modern university is a large, complex, and multidimensional organization, engaged not only in the traditional roles of teaching and research, but in a host of other activities such as health care, economic development, and social change. At the same time, the intellectual demands of scholarship have

focused faculty increasingly within their particular disciplines, with little opportunity for involvement in the far broader array of activities characterizing their university. While they are—and should always remain—the cornerstone of the university's academic activities, they rarely have deep understanding or responsibility for the many other missions of the university in modern society.

The increased complexity, financial pressures, and accountability of universities demanded by government, the media, and the public at large has required far more capable management than in the past. Recent furors over indirect cost reimbursement, unrelated business income taxation, financial aid and tuition agreements all involve complex accounting, financial management, and oversight. While perhaps long ago universities were treated by our society—and its various government bodies—as largely well-intentioned and benign stewards of education and learning, today we find the university faces the same pressures, standards, and demands for accountability of any other billion-dollar corporation. But again, this is best exercised in a distributed fashion throughout the institution at the level of deans and department chairs.

The increasing specialization of faculty, the pressure of the marketplace for their skills, and the degree to which the university has become simply a way station for faculty careers have destroyed institutional loyalty and stimulated more of a “what's in it for me” attitude on the part of many faculty members. The university reward structure—salary, promotion, and tenure is clearly a meritocracy—in which there are clear “haves” and “have-nots.” The former generally are too busy to become heavily involved with institutional issues. The latter are increasingly frustrated and vocal in their complaints. Yet they are also all too often the squeaky wheels that drown out others and capture attention.

Finally, many large campuses have allowed the deterioration in the authority and attractiveness of mid-level leadership positions such as department chairs or project directors. This has arisen in part due to the increasing accountability demands on the management structure of the university, and in part in deference to concerns of formal faculty governance bodies that generally harbor deep suspicions of all administrative posts. As a result, many universities are

characterized by an administration structure that can best be characterized as a weakened bureaucracy, in which faculty leaders in posts such as department chair simply do not have the authority to manage, much less lead their units. So too, the lack of career paths and mechanisms for leadership development for junior faculty and staff has decimated much of the mid-level management.

To be sure, the university remains very much a bottom-up organization, a “voluntary” enterprise. Nevertheless, leadership plays a critical role even in the university, just as it does in other social institutions. If we examine carefully any major accomplishment of the institution—the excellence of a program, its impact on society—invariably we will find a committed, forceful, visionary, and effective leader. Perhaps it is a principal investigator, or a department chair, or even a dean. Indeed, in some cases—as astounding as it may sound, the leadership may even be provided by a member of that most sinister of all academic organizations, the dreaded “central administration.”

A Unique Management Culture

The trail-blazer character of the Michigan saga demands a risk-tolerant environment in which initiatives are encouraged at all levels among students, faculty, and staff. For example, the university intentionally distributes resources among a number of pots, so that entrepreneurial faculty with good ideas rarely have to accept “no” as an answer but instead can simply turn to another potential source of support.

Although senior academic and administrative leaders usually are hesitant to admit it, the University culture not only tolerates but encourages faculty, students, and staff to bypass bureaucratic barriers. For example, it is quite common for faculty to bypass deans and appeal directly to the provost or president, just as many, including the deans—and occasionally even a coach or athletic director—will occasionally find opportunities to execute an end-run to the Regents, a relatively easy thing to do since half of them live in Ann Arbor. Once faculty, chairs, and deans learn the Michigan culture, they quickly learn that the university also tolerates end-runs to state or federal government, e.g., the governor, legislature, congress, or federal

agencies. To be sure, sometimes a senior administrator might growl at them—particularly the vice-president for government relations worried about coordinating university relations with the state, or a president worried about inappropriate influence on a Regent. Most Michigan presidents soon learn that since these end-runs are so ingrained in the culture of the university, they will happen quite naturally, and attempts to stifle them are likely to be not only ineffective but could discourage many of the most creative, loyal, and well-intentioned people in the university. Hence it is far better to accept the end-run as a University tradition. It has been suggested that some Michigan presidents have even quietly encouraged this practice, since they had used it quite effectively themselves during their earlier roles as faculty members and deans!

Perhaps because of this long tradition of decentralization—even anarchy, at times—university-wide faculty governance through a faculty senate has been relatively ineffective at Michigan. Just as with the administration, the real power among the faculty and the ability to have great impact on the institution resides at the school, college, or department level, where powerful senior faculty, executive committees, chairs, and deans have the authority to address the key challenges and opportunities facing their academic programs. Should this power structure become distorted with poor appointments or weak faculty, the end-run culture acts as a check and balance by rapidly communicating such problems up or around the chain of command to the provost, president, or even the Regents.

From this discussion, it should be apparent that a top-down leadership style is quite incompatible with the Michigan culture. Those leaders, whether academic or administrative, who have chosen to ignore this reality or attempted to reign in this distributed power, to tame the Michigan anarchy, have inevitably failed, suffering a short tenure with inconsequential impact.

Not to suggest that Michigan will tolerate weak leadership. Those unable to adapt to the Michigan trailblazing saga, who are hesitant to push all the chips into the center of the table on a major initiative or incapable of keeping pace with the high energy level of the campus, will soon be rejected—or at least ignored—by the faculty. Michigan embraces bold visions, and

without these, effective leadership is simply impossible. But, as we have stressed, the University's history strongly suggests that such visions arise most naturally from the grassroots efforts of the faculty, students, and staff involved in academic activities that, in turn, are embraced and supported by the leadership rather than imposed from on high.

Of course, Michigan probably represents one of the extremes of a highly decentralized academic anarchy, although many institutions with exceptionally strong faculty lie in a similar regime of the governance spectrum. But there are other institutions that not only tolerate strong, centralized leadership but actually require it. Some are at an early stage of evolution and require strong, top-down leadership to set the priorities and make the tough lifeboat decisions to move the institution to the next rung in quality.

While the extreme decentralization of authority and accountability throughout the University was radical when introduced in the 1980s and 1990s in response to the decline in centrally obtained resources such as state support, it aligned well with the increasing complexity and scale of the University that evolved beyond centralized control. Hence, the advice that today should be provided to all new leadership recruited from outside is that "Michigan exists today and must remain highly decentralized in authority, and its evolution must be driven by the talent, achievements, and goals of faculty, students, and staff at the grass-roots level. Don't attempt to challenge this. Learn how to live with it!"

Yet, as the influence of powerful forces such as the changing needs of society, globalization, and technology reshape the activities of the university, one can expect its organization and structure to continue to evolve, albeit while preserving its decentralized character. Many research universities are already evolving into so-called "core-in-cloud" organizations in which academic departments or schools conducting elite education and basic research, are surrounded by a constellation of quasi-academic organizations—research institutes, think tanks, corporate R&D centers—that draw intellectual strength from the core university and provide important financial, human, and physical resources in return. Such a structure reflects the blurring of basic and applied research, education

and training, and the university and broader society.

More specifically, while the academic units at the core retain the traditional university culture of faculty appointments, tenure, and intellectual traditions, for example, disciplinary focus, those organizations evolving in the cloud can be far more flexible and adaptive. They can be multidisciplinary and project focused. They can be driven by entrepreneurial cultures and values. Unlike academic programs, they can come and go as the need and opportunity arise. And, although it is common to think of the cloud being situated quite close to the university core, in today's world of emerging electronic and virtual communities, there is no reason why the cloud might not be widely distributed, involving organizations located far from the campus. In fact, as virtual universities become more common, there is no reason that the core itself has to have a geographical focus. It could exist in cyberspace, independent of space and time.

To some degree, the core-in-cloud model revitalizes core academic programs by stimulating new ideas and interactions. It provides a bridge that allows the university to better serve society without compromising its core academic values. But, like the entrepreneurial university, it can also scatter and diffuse the activities of the university, creating a shopping mall character with little coherence. And it can create a fog that distorts the true nature of the university by the public.

If these institutions are to respond to future challenges and opportunities, the modern university must engage in a more strategic process of change. While the natural evolution of a learning organization may still be the best model of change, it must be guided by a commitment to preserve its fundamental values and mission. Universities must find ways to allow its most creative people at the grassroots level to drive their future. The challenge is to tap the great source of creativity and energy associated with this natural entrepreneurial activity in a way that preserves the university's core missions, characteristics, and values.

Leading and Managing Complexity

So how should university administrations—and particularly university presidents—approach the challenge of taming this fragmentation and unifying

the university into a more coherent focus on its fundamental values, mission, and public purpose? First it is important to acknowledge several realities of the contemporary university.

As we noted earlier, the contemporary university today has become one of the most complex institutions in modern society—far more complex, for example, than most corporations or governments. It is comprised of many activities, some nonprofit, some publicly regulated, and some operating in intensely competitive marketplaces. It teaches students; conducts research for various clients; provides health care; preserves and distributes cultural richness; engages in economic development; enables social mobility; and provides mass entertainment (athletics, theater, music, and other cultural events, etc.). And, of course, the university also has higher purposes such as preserving our cultural heritage, challenging the norms and beliefs of our society, and preparing the educated citizens necessary to sustain our democracy.

Clearly no president or executive team nor governing board can span the range of expertise and experience to manage in detail such an array of activities. Most knowledge and experience in universities resides at the grassroots level, as does creativity and value-added. Even when augmented by knowledgeable executives, the central administration really does not understand the details of much of the “business” of the university. Beyond the disciplinary expertise of academic leadership at the level of departments, schools, and colleges, other activities such as federally sponsored research, clinical programs, student services, information technology, investment management, and even intercollegiate athletics require highly specific, competent, and experienced management. Hence delegation of authority and decentralization of responsibility become essential.

Universities are quite unusual social institutions in the priority they give to individual over institutional achievement. Their culture is a highly competitive meritocracy, in which students and faculty are encouraged—indeed, expected—to push to the limits of their ability. While the sum of these individual activities can have great impact, the university itself is simply not designed to optimize institutional agendas.

One of the great strengths of American higher

education is its remarkable diversity both in the nature of its colleges and universities and how they perceive and pursue their missions. For example, community colleges and regional four-year public universities tend to be closely tied to the needs of their local communities. They are the most market-sensitive institutions in higher education, and they tend to respond very rapidly to changing needs. Liberal arts colleges tend to respond to change in somewhat different ways, ensuring that their core academic mission of providing a faculty-intensive, residential form of liberal education remains valued and largely intact. The research university, because of the complexity of its multiple missions, its size, and its array of constituencies, tends to be most challenged by change. While some components of these institutions have undergone dramatic change in recent years, notably those professional schools tightly coupled to society such as medicine and business administration, other parts of the research university continue to function much as they have for decades.

Recognizing the importance of this great diversity in character and mission is essential to developing effective approaches to addressing the fragmentation characterizing particular institutions. Striving to tame the anarchy of disciplinary fragmentation may be an appropriate strategy for some institutions such as liberal arts colleges. But for others such as the comprehensive public research university, engaged in not only undergraduate, graduate, and professional education and basic and applied research and scholarship, but as well in activities such as clinical care, technology transfer, international development, and social welfare, one must take great care that initiatives aimed at responding to the demands of the moment for public (and political) accountability and focus do not trample upon the complex intellectual structures for generating knowledge and serving civilization that have taken centuries to evolve.

Duderstadt References

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt, *The Third Century: A Roadmap to the University of Michigan's Future*, Final Edition (Ann Arbor, MI: Millennium Project, 2016)

James Duderstadt, *A 50 Year History of Social Diversity at the University of Michigan* (Ann Arbor, MI: Millennium Project, 2016)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

Chapter 5: Summary

1. The nature of the contemporary university and the forces that drive its evolution are complex and frequently misunderstood. In fact, one might depict U of M, Inc., as essentially a holding company of knowledge-intensive services. This would include the traditional components of a university—undergraduate colleges, graduate and professional schools, all clustered about an intellectual core of faculty masters and advanced student scholars. But it also includes an array of auxiliary enterprises including sponsored research institutes, laboratories, and projects; clinical activities such as hospitals and health systems; student housing and services; and, of course, public entertainment venues such as intercollegiate athletics, music, theater, and cultural events.. The university today has become one of the most complex institutions in modern society.

2. The modern university has become a highly adaptable knowledge conglomerate because of the interests and efforts of its faculty. It provides faculty with the freedom, the encouragement, and the incentives to move toward their personal goals in highly flexible ways. Universities have developed a transactional culture, in which everything is up for negotiation. The university administration manages the modern university as a federation.

3. The academic organization of the university is sometimes characterized as a creative anarchy. Faculty members possess two perquisites that are extraordinary in contemporary society: academic freedom, which allows faculty members to study, teach, or say essentially anything they wish; and tenure, which implies lifetime employment and security. Faculty members do what they want to do, and there is precious little that administrators can do to steer them in directions where they do not wish to go.

4. While management tools and governance structures provide useful tools in unifying the university, budgets and organization can only accomplish so much. Far more important is leadership capable of embracing those values that pull a fragmented community together to address a common and public purpose.

5. Today the University is structured and evolving as a loosely coupled and adaptive system responding to external changes in its environment. Much like a tropical rain forest, its strength comes from its roots, its students, faculty, and staff. The administration and governance comprising the more visible leaves and branches sometimes break and fall off, but the rain forest continues to grow from its roots, developing defensive mechanisms that ward off attackers and antibodies that attack invasive species. From this perspective, it is clear that while institutional leadership is important in identifying areas of opportunities and directing resources to those parts of the University capable of responding, it must never be forgotten that the key assets sustaining its core academic and service missions are its people.

6. But such a biological perspective also has risks. For example, the University could face limits to growth as it evolves to the point where there are insufficient resources. Or it could become so large it is threatened by other more powerful forces (e.g., Regents, politicians, new leaders). There might be a point of saturation that would slow or halt growth, or even an instability that might lead to collapse.

7. In many if not most universities, the concept of management is held in very low regard, particularly by the faculty. Yet all large, complex organizations require not only leadership at the helm, but also effective management at each level where important decisions occur.

8. Despite what the press, many politicians, and even a few trustees, think, most universities have rather thin management organizations compared to corporations, inherited from earlier times when academic life was far simpler and institutions were far smaller. In truth, universities, like other institutions, depend on strong leadership and effective management if they are to face the challenges and opportunities posed by a changing world, but this is exercised in a bottom-up rather than a top-down fashion.

9. Yet today there are signs of a widening gap between faculty and administration on many campuses.

The rank and file faculty sees the world quite differently from campus administrators. There are significant differences in perceptions and understandings of the challenges and opportunities before higher education. It is clear that such a gap, and the corresponding absence of a spirit of trust and confidence by the faculty in their university leadership, can seriously undercut the ability of universities to make difficult yet important decisions and move ahead.

10. To be sure, the university remains very much a bottom-up organization, a “voluntary” enterprise. Nevertheless, leadership plays a critical role even in the university, just as it does in other social institutions.

11. The trail-blazer character of the Michigan saga demands a risk-tolerant environment in which initiatives are encouraged at all levels among students, faculty, and staff. For example, the university intentionally distributes resources among a number of pots, so that entrepreneurial faculty with good ideas rarely have to accept “no” as an answer but instead can simply turn to another potential source of support.

12. Although senior academic and administrative leaders usually are hesitant to admit it, the University culture not only tolerates but encourages faculty, students, and staff to bypass bureaucratic barriers. For example, it is quite common for faculty to bypass deans and appeal directly to the provost or president, just as many, including the deans—and occasionally even a coach or athletic director—will occasionally find opportunities to execute an end-run to the Regents.

13. Perhaps because of this long tradition of decentralization—even anarchy—university-wide faculty governance through a faculty senate has been relatively ineffective at Michigan. Just as with the administration, the real power among the faculty and the ability to have great impact on the institution resides at the school, college, or department level, where powerful senior faculty, executive committees, chairs, and deans have the authority to address the key challenges and opportunities facing their academic programs.

14. From this discussion, it should be apparent that

a top-down leadership style is quite incompatible with the Michigan culture. Those leaders, whether academic or administrative, who have chosen to ignore this reality or attempted to reign in this distributed power, to tame the Michigan anarchy, have inevitably failed, suffering a short tenure with inconsequential impact.

15. Michigan embraces bold visions, and without these, effective leadership is simply impossible. But, as we have stressed, the University’s history strongly suggests that such visions arise most naturally from the grassroots efforts of the faculty, students, and staff involved in academic activities that, in turn, are embraced and supported by the leadership rather than imposed from on high.

Appendix for Chapter 5

A Handy-Dandy List of UM Operating Principles

How is the University of Michigan organized and managed?

1. Today the University is structured and evolving as a loosely coupled and adaptive system responding to external changes in its environment. Much like a tropical rain forest, its strength comes from its roots, its students, faculty, and staff. The administration and governance comprising the more visible leaves and branches sometimes break and fall off, but the rain forest continues to grow from its roots, developing defensive mechanisms that ward off attackers and antibodies that attack invasive species.

2. From this perspective, it is clear that while institutional leadership is important in identifying areas of opportunities and directing resources to those parts of the University capable of responding, it must never be forgotten that the key assets sustaining its core academic and service missions are its people.

3. The University serves its various constituencies best, its students and society more generally, when it provides faculty with the freedom, the encouragement, and the incentives to move toward their personal goals in highly flexible ways. One might even view the organization of a university—particular research universities—as a holding company of faculty entrepreneurs, who drive the evolution of the university to fulfill their individual goals.

3. The university administration manages the modern university as a federation. It sets some general ground rules and regulations, acts as an arbiter, raises money for the enterprise, and tries—with limited success—to keep activities roughly coordinated. In fact leading a university is less similar to that of a corporate manager and more akin to that of a conductor of an orchestra comprised of highly skilled and highly valuable knowledge professionals.

4. Budget authority is delegated to the lowest level where assets are acquired and costs are incurred. (Typically this is at the level of deans and directors.)

5. The most important voice for academic priorities usually comes from the deans, particularly when acting as a group. For this reason, every effort should be made to encourage the deans and provost to function as a true team.

6. Faculty governance works most effectively at the level of department, school, and college executive committees. Elected by knowledgeable faculty within their academic units, the executive committees are generally comprised of UM's strongest faculty.

7. The free flow of information is absolutely critical to the success of the loosely-coupled character of the University. Attempts to keep bad news in confidence and promote only good news (or exaggerated information) may benefit a few individuals but will seriously harm the University over the long term.

How do faculty get things done around here?

Rule 1: NEVER accept “no” for the answer to a request. In a highly decentralized organization, there are lots of folks who may have the capacity to say “yes”.

Rule 2: The most important play in the Michigan playbook is the “end run”...around chairs to deans, around deans to provosts, around presidents to Regents, and around the University to Lansing, Washington, or donors. Administrators should never try to block this, since the University would soon cease to function as an entrepreneurial organization.

Rule 3: It is more effective to seek forgiveness than ask permission.

Rule 4: Under no circumstances should faculty (or academic leaders) allow themselves to be constrained by staff from areas unrelated to core academic activities (e.g., development, communications, public relations, government relations). These individuals work to support the academic units, not to constrain them.

Some operating rules for UM academic leaders.

1. The faculty seeks leadership, not in details of its teaching and scholarship, but in the abstract, in providing a vision for their university, in articulating and defending fundamental values, stimulating a sense of optimism and excitement. Faculty members seek protection from the forces of darkness that rage outside the university's ivy-covered walls: the forces of politics, greed, anti-intellectualism, and mediocrity that would threaten the academic values of the university. This is a very important perspective that too many leaders either do not grasp or forget.

2. In simplest terms, the president's job is to help the deans raise the money needed by their programs, and the provost's job is provide advice and counsel on how they should spend it.

3. It is important that administrators with major authority have strong backgrounds in higher education or at least supervisors with such backgrounds.

4. Because of the decentralization of the University, every effort must be made to benchmark all operations against best practices at other institutions (e.g., funding, staffing, achievements). In a similar sense, a rigorous audit operation (both external and internal) is critical.

5. Finally, since universities are based on truth and learning (*veritus et lux*), every effort must be made to assure the flow of accurate information throughout the organization. Pravda-like organizations should never be tolerated!

6. Leaders, whether from within or from outside, must remember that Michigan thrives best with a highly decentralized form of authority, and its evolution must be driven by the talent, achievements, and goals of students, faculty and staff. While many aspects of the Michigan culture may be frustrating to new leaders, whether from within our outside, these have become key to its success. Leaders should not attempt to challenge or change this culture. Instead they should learn how to live with it!

Chapter 6

Leadership

As we have stressed in the preceding chapter, the modern research university has many of the characteristics of an international conglomerate of highly diverse businesses. It is not surprising that such a global enterprise requires visionary leadership and capable management. Many of the University's activities, such as its hospitals and high-technology research, require the rigor and accountability of mission-critical corporations. Yet the unique culture of the academic core of the University has a character almost orthogonal to the modern corporation since its most valuable employees are faculty members characterized by deep and highly valued knowledge and skills. They furthermore are protected from traditional top-down management methods by two unique characteristics: academic freedom and tenure. In fact, some describe academic leadership as more akin to pushing wheelbarrow full of frogs, since if you jostle them too much, they will jump out (into an intensely competitive higher education marketplace).

Hence the demand for leadership of such a large complex organization goes beyond competence and experience in academic administration. It requires a complex system of management talent covering a range of disciplines expertise that would be unusual even for a large multinational corporation. For example, beyond the expertise necessary for a large educational institution, it requires leadership capable of managing large medical centers, research facilities that are characterized by unusual characteristics (such as extremely hazardous biological or radioactive materials), computer facilities and networks at the cutting edge of technology, commercial activities in tech transfer, educational services, and college sports, and on and on. And most of all, it requires the sensitivity more akin to a political leader than a corporate CEO.

Hence while such discussions tend to focus primarily on the senior leadership of the University as an academic institution, it must be kept in mind that many of their responsibilities require a network of leaders with capabilities and experience in decidedly nonacademic areas.

The University President

Early college presidents were expected to provide primarily academic leadership. In some 19th century institutions, the president was not only the most distinguished scholar, but the only scholar. The intellectual influence of presidents on the faculty, the governing board, and the students was profound, as suggested by a Michigan student's admiration of President Tappan: "He was an immense personality. It was a liberal education even for the stupid to be slightly acquainted with him." (Peckham, 1994)

Today the charters of most American colleges and universities define the president as a chief executive officer, with ultimate executive authority and responsibility for all decisions made within the institution. Yet, despite the fact that university presidents have executive responsibilities for all of the activities of the university, the position has surprisingly little authority. The president reports to a governing board of lay citizens with limited understanding of academic matters and must lead, persuade, or consult with numerous constituencies (e.g., faculty and students) that tend to resist authority. Hence, the university presidency requires an extremely delicate and subtle form of leadership, sometimes based more on style than substance and usually more inclined to build consensus rather than take decisive action. The very phrases used to characterize academic leadership,

such as “herding cats” or “moving cemeteries,” suggest the complexity of the university presidency. Universities are led, not managed.

For example, while the president’s role in academic affairs remains important, it must be exercised in a more delicate fashion. Technically, the shared governance policies of most universities delegate academic decisions to the faculty (e.g., criteria for student admissions, faculty hiring and promotion, curriculum development, awarding degrees). Hence the faculty usually expects the university president to focus on political relations, fund-raising, protecting their academic programs from threats such as intercollegiate athletics and the medical center, and keeping hands off of academic matters.

Yet in reality the most successful university presidents are capable not only of understanding academic issues but also of shaping the evolution of academic programs and enhancing the academic reputation of their university. After all, if the success or failure of a presidency will be based on the goal of leaving the university better than one inherited it, it is hard to imagine how one could achieve this without some involvement in the core activities of the institution, teaching and scholarship. Yet this requires both skill and diplomacy, since faculty reaction to a president’s heavy-handed intrusion into academic affairs can be fierce. Presidential influence is more generally exercised through the appointment of key academic leaders such as deans or department chairs, by obtaining the funds to stimulate the faculty to launch new academic programs, or by influencing the balance among academic priorities rather than by giving orders.

Regardless of personal proclivities, successful presidential leadership styles must be responsive to both the nature of the institution and the demands of the times. The character of each institution—its size, mission, and culture—and, most important, its institutional saga will tolerate certain styles and reject others. Authoritarian leadership might be effective or even demanded at some institutions, but the culture of creative anarchies, such as Michigan, Berkeley, or Harvard, will demand a more subtle approach to building grassroots support for any initiative. It is important that university presidents be capable of adapting their own leadership styles to fit the needs of their institution. Rigidity is not a particularly valuable

trait for either the effectiveness or even the survival of university leaders.

The Elements of Presidential Leadership

Clearly, as the chief executive officer of the university, the president has a range of executive leadership responsibilities, such as supervising the university administration; ensuring the quality and integrity of academic programs; managing human, financial, and capital assets; and being accountable to the governing board (and the public) for the welfare of the university. In a sense, the responsibility for everything involving the university usually ends up on the president’s desk—where the buck stops—whether the president is directly involved or even informed about the matter or not. The corporate side of the university—the professional staff responsible for its financial operations, plant maintenance, public relations, and so forth—generally functions according to the business hierarchy of command, communications, and control.

The executive roles of university presidents demand at least some degree of management skills. Fortunately, most presidents have developed these through a sequence of earlier leadership experiences (e.g., department chair, dean, and provost). But this can also be taken to the extreme where the president becomes more of a technocrat or corporate CEO than an academic leader. After all, major universities are in reality very complex multibillion-dollar enterprises, with all of the accountability and demands of a modern business. Yet, as we have stressed, the academic organization of the university is best characterized as a creative anarchy. With academic freedom and tenure, faculty members do what they want to do, and there is precious little that administrators can do to steer them in directions where they do not wish to go.

Hence, the real key to an effective university presidency is the ability to attract and support talented people—students, staff, faculty, and particularly academic leaders—and then assist them in achieving THEIR objectives. This people-focused character of academic leadership requires considerable experience with the core activities of the university: teaching and scholarship. It also requires good taste in identifying talent, strong recruiting skills in attracting it, the insight

to develop it, the persuasive ability to retain it, and an acceptance of the highly decentralized nature of the contemporary university. And these are almost never understood or acknowledged as the most critical role of the university president, who instead are frequently measured by fund-raising achievements, newspaper headlines, campus calm, and (God forbid) football championships.

As chief executive officer, of the university, the president is particularly responsible for recruiting much of the key leadership of the university, not simply the executive officers (i.e., the vice presidents), but also the deans and even, on occasion, key faculty members. This headhunting function is absolutely essential, since universities are only as good as the leaders of their academic programs, whether in administrative roles (e.g., department chairs and deans) or in intellectual roles (e.g., chaired professors).

Equally important is the president's capacity to manage the relationship between the governing board and the university. Since most governing boards have little knowledge and even less experience with the core teaching and research activities of the university, a university president must devote considerable time and effort to educating the board, helping to shape its agenda, and providing the necessary background on key issues. Woe be to the president—and the university—whose governing board members believe they know more about the institution than the president.

In terms of executive leadership, the Office of the President is usually ground zero in any university crisis. Whether the university faces a student protest, an athletics scandal, a financial misstep, or a political attack, the president is usually the point person in crisis management. This has serious implications for scheduling the president's calendar, since in such a complex institution as the contemporary university, a considerable amount of the time of the leadership will invariably be consumed by unanticipated crises.

Another role of university presidents is academic leadership. Although the faculty usually expects the university president to focus on government relations, fund-raising, and keeping the governing board out of its hair, the most successful university presidents are capable of not only understanding academic issues but also influencing the evolution of academic

programs and enhancing the academic reputation of the university. To be sure, academic leadership must be exercised with great care (even sleight of hand)—through the appointment of key academic leaders (e.g., deans or department chairs) or by obtaining the funds to stimulate the faculty to launch new academic programs.

The same ambiguity characterizes another role of university presidents, political leadership. The management of the university's political relationships with various constituencies—state government, federal government, and various special interest groups—rests eventually with the president. Just as faculties may resist presidential involvement in academic matters that they regard as their domain, governing boards (particularly those for public universities) can pummel a president for over involvement in public or political issues—at least those not aligned with their particular political persuasion. Yet both constituencies will demand some expertise in academics and politics during the presidential search process. Moreover, most successful presidents find that their credibility as proven academics and their skills as politicians, both on and off campus, are essential to their ability to lead their university.

Although institutional needs and opportunities are different today than, say, a century ago, universities—just as our broader society—still require moral leadership. Universities, their communities, and their constituencies do seek guidance on such key moral issues as social diversity, civic responsibility, and social justice. Skillful presidents can transform crises—such as a racial incident, student misbehavior, or an athletics scandal—into teachable moments. Moreover, while the voice of the university president is sometimes drowned out by the din of political chatter, most presidents have ample opportunity to use their bully pulpit to speak out with courage and conviction on moral issues faced by our society, thereby providing role models for their students and perhaps even illuminating the discussion of moral issues with the perspective of the learned academy. Furthermore, through personal behavior, a leader can frequently influence the values and practices of an organization. If presidents value integrity, openness, truth, and compassion in their personal activities, these characteristics are more

likely to be embraced and valued by those within their universities. By the same token, if a president is arrogant or insensitive, deals harshly with subordinates, or is truth- and candor-impaired, these traits, too, will rapidly propagate throughout the institution.

The presidential family also plays a pastoral role. In a very real sense, the president and spouse are the dad and mom of the extended university family. Students look to them for parental support, even as they routinely reject official actions in loco parentis. Faculty and staff also seek nurturing care and sympathetic understanding during difficult times for the university. To both those inside and those outside the system, presidents are expected to be cheerleaders for their university, always upbeat and optimistic, even though they frequently share the concerns and are subject to the same stresses as the rest of the campus community.

Finally, there is the “vision thing”—providing strategic leadership of the university toward significant goals. All too often, the tenure of presidents is sufficiently brief and their loyalty to a given institution sufficiently shallow that acting in the long-term interests and evolution of the university is not a major priority. So, too, it is not uncommon to find presidents who tend to prefer backing into the future, by lauding the past with a nostalgic glow that confuses myth with reality. Strategic leadership requires a sense of institutional saga, a keen understanding of current challenges and opportunities, and the ability to see future possibilities. It also requires the skills necessary to develop a vision of the future, as well as the energy, determination, and courage to lead toward these objectives.

The Presidential Partner

Although unwritten in the university contract for a president, there has long been an expectation that the spouse of a president will be a full participant in presidential activities. Much like the presidency of the United States or the governorship of a state, a university presidency is really a two-person job, although usually only one partner gets paid and recognized in an employment sense. At many universities, such as Michigan, the “First Lady” or “First Mate” of the university is expected to play an important role not only as the symbolic host of presidential events—and perhaps

also as the symbolic parent of the student body—but in actually planning and managing a complex array of events, facilities, and staff. These responsibilities include hosting dignitaries visiting the campus; organizing almost daily events for faculty, students, and staff; and managing entertainment facilities, such as the President’s House or the hospitality areas of the football stadium.

Throughout the University of Michigan’s history, the spouse of the president has played an important role. Julia Tappan provided strong leadership for the frontier community of Ann Arbor and was affectionately called “Mrs. Chancellor.” Sarah Angell was strongly supportive of women on campus and was instrumental in launching the Women’s League. Nina Burton started the Faculty Women’s Club and served as its first president. Florence Ruthven, Anne Hatcher, and Sally Fleming all played key roles in building a sense of community on campus—hosting students, faculty, and visitors. In addition to her role as a faculty member in the School of Social Work, Vivian Shapiro provided important leadership for the university’s fund-raising activities, taking the lead in raising funds to expand Tappan Hall.

This partnership nature of the university presidency continues to be important in today’s era of big-time fund-raising, political influence, and campus community building. Looking across the higher education landscape, there are several approaches that presidential spouses can take to this challenge. Perhaps the simplest approach is a passive one—to just sit back and enjoy life as royalty. Here, the idea is to simply show up when one is supposed to, smile politely at guests, and let the staff take care of all the details, while enjoying the accouterments of the position. Of course, since the perks of today’s university presidency are few and far between, such a royal lifestyle has become a bit threadbare on many campuses. Moreover, giving the staff total control over presidential events can sometimes lead to embarrassment, if not disaster. But the laissez-faire approach is certainly one option.

The other extreme would be a take-charge approach, in which presidential spouses decide that rather than accept a merely symbolic role (with their calendar and activities determined by staff), they will become a more active partner with the president. Not only do these



Presidential teams of the 1960s, 1970s, 1980s, and 1990s

spouses assume major responsibility for planning, managing, and hosting presidential events, but they also sometimes become important participants in institution-wide strategy development in such areas as fund-raising and building the campus community.

A third approach that is increasingly common today is simply to reject any involvement whatsoever in presidential activities (as if to say, “A pox on you! I’m not a ‘first’ anything!”) and pursue an independent career. Although this is understandable in an era of dual-career families, it also can be awkward at times in view of the long tradition of university presidencies. In reality, many spouses with professional careers do double duty, participating fully in the presidency while attempting to maintain their careers, at considerable personal sacrifice. This may be particularly true, for example, of a “First Gentleman”, since many universities are now led by women. While many male spouses have independent careers, some have joined in partnerships with their presidential mates in advancing the interests of their university.

Fortunately, in our case, the Duderstadts had long approached university leadership positions—whether as dean, provost, or president—as true partnerships. To be sure, this required the leadership partner to assume a critical responsibilities for the myriad of events, facilities, and staff associated with the president’s role in institutional development. Beyond the responsibility for creating, designing, managing, and hosting the hundreds of presidential events each year there was the role of not only managing but also renovating several

major facilities—the President’s House; the Inglis Highlands estate, a large estate used for university academic meetings and development activities; and the reception and hosting areas at Michigan Stadium—as well as a talented staff. Fortunately, earlier university experiences as president of the Michigan Faculty Women’s Club and roles as partners as dean and provost had prepared us well for such a role. Through these efforts, we had developed considerable experience in designing, organizing, and conducting events and gained an intimate knowledge of both university facilities and staff. Important also was the development of a keen sense of just what one could accomplish in terms of quality and efficiency within the very real budget constraints faced by a public university.

Since the image of the university—as well as the president—would be influenced by the quality of an event, it was important that the hosts (i.e., the president and partner) be involved in key details of planning the event. Furthermore, strong management skill was required since running these many events on automatic pilot would inevitably lead to significant deterioration in quality over time, a rubber-chicken syndrome. Fortunately raising the expectations for quality at the presidential level, there could lead to a cascade effect in which other events throughout the university would be driven to develop higher quality standards. The challenge was to do this while simultaneously reducing costs. As with most such efforts, key was not only the ability to recruit and lead a talented staff, but also participation in all aspects of the activities, from

planning to arrangements, from working with caterers to designing seating plans, to welcoming guests to cleaning up afterward. No job was too large or too small, and very high standards were applied to all.

While the level of effort was perhaps unusual, there is nevertheless an expectation that the presidential spouse will be a partner in advancing the interests of the university. There is a certain inequity in the expectation of such uncompensated spousal service, and this expectation is an additional constraint placed on those seeking to serve as university presidents. But it is important to understand that even in these times of dual careers and the ascendancy of women to leadership roles, the university presidency remains a two-person job.

Go Downtown and Get the Money

Like other enterprises in our society, the operation of a university requires the acquisition of adequate resources to support its activities. This is a complex task for academic institutions, because of both the wide array of their activities and the great diversity of the constituencies they serve. The not-for-profit culture of the university, whether public or private, requires a different approach to the development of a business plan than one would find in business or commerce.

The university president, as CEO, has the lead responsibility in attracting the funds required by the institution, from state and federal government, donors, student fees, hospital revenues—whatever it takes. Harold Shapiro captured this well by noting a quote from an early issue of *Harpers Weekly*: “A university president is supposed to go downtown and get the money. He is not supposed to have ideas on public affairs; that is what trustees are for. He is not supposed to have ideas on education; that is what the faculty is for. He is supposed to go downtown and get the money.” (Shapiro, 1987)

Of course, much of a president’s time is spent as a salesperson, persuading government leaders to provide adequate appropriations or encouraging donors to make gifts to the university. The president is also the leader of an entrepreneurial organization of faculty seeking research grants and contracts from federal and industrial sponsors or marketing the clinical services

of the university medical center or the entertainment value of athletic programs. Although the provost generally determines the required level of student tuition and fees, it is the president’s responsibility to sell this recommendation to the governing board.

In times of budget constraints, presidents may play a key role in demanding cost-containment efforts or resource reallocation. Many of the executive decisions made by presidents and their executive officer team involve difficult financial issues, such as where to take budget cuts to meet revenue shortfalls, including the possible discontinuance of academic or administrative units. This is a particular challenge since the budget culture on most campuses begins with the assumption that all current activities are both worthwhile and necessary and that it is the responsibility of the administration to generate the revenue not only to sustain but to grow these activities. Beyond that, since there are always an array of worthwhile proposals for expanding ongoing activities or launching new activities, the university always seeks additional resources. The possibility of reallocating resources away from ongoing activities to fund new endeavors, “innovation by substitution,” is an alien concept on many campuses. Strategies from the business world aimed at cutting costs and increasing productivity also tend to bounce off academic institutions.

Of course, one way to enhance the security of a presidency is to launch a multiyear fund-raising campaign, since it is hard to dislodge a sitting president while a campaign is under way. Furthermore, a campaign can be used to shift attention from more controversial issues that threaten a presidency to an activity that benefits the institution while building a constituency of wealthy fund-raising volunteers to support the president. Perhaps this is not an adequate justification in and of itself for launching a megacampaign, but threatened presidents certainly use this practice on occasion.

Here it is important to offer a word of caution about the role of the president in fund-raising activities. In an era of what seem like ever-increasing costs and ever-declining public support, private giving is clearly important. Furthermore, the president must play a key role both in the symbolic leadership of fund-raising campaigns and in making “the ask” and closing the



Entertaining at the President's House: Faculty groups, athletic teams, distinguished visitors, governors, presidents, and even a god (the Dalai Lama)



The renovation of the President's House and the Inglis Highlands Estate

deal for major gifts. Yet this effort has to be kept in perspective, since private giving typically represents less than 10 percent of the revenue base of a major public university, such as Michigan. Put another way, the Michigan president plays the lead role in raising the roughly \$8 billion each year it cost to run the university. Hence, while soliciting gifts is important, so is making the case for adequate state support, lobbying Washington for federal research grants, making the case to the Regents for adequate tuition levels, investing the University's assets wisely, and developing business plans for various auxiliary activities (e.g., the University Hospital and intercollegiate athletics). Hence, while fund-raising is certainly important, presidents should carefully budget their personal efforts to reflect realistically the balance of revenue sources.

Crisis Management

One reason that university presidencies are so stressful is the role presidents play in responding to crisis. Each president has a particular suite of skills and talents, but regardless of their particular strengths, all presidents are expected to play key leadership roles during times of emergency. Because of the size and complexity of the University of Michigan, such incidents are both frequent and almost always unpredictable, bubbling up out of the complexity of the institution and its multiple constituencies. It is essential to develop a strategy for handling such crises. Otherwise, the leadership team would be continually in a reactive mode, responding to one crisis after another. A strategic framework not only enables the leadership to respond to unanticipated challenges but also sometimes allows it to transform a crisis into an opportunity that helped the university move toward an important objective.

Sometimes one is able to anticipate incidents. At the beginning of each academic year, it is useful to identify possible sources of crisis in the months ahead, develop possible strategies to head them off, and assign responsibility to a member of the executive officer team. Of course, many issues are one-day wonders that go with the territory (e.g., student protests or legislative thrashing) and do not merit any special action. Students will always pursue activities designed to upset their elders. There will always be politicians out to score

What are the priorities of academic leadership?

- Hiring?
- Program evaluation?
- Educational quality?
- Research and development?
- Fund raising?
- Public relations ("marketing")?
- Preserving "saga" and reputation?
- Launching new initiatives?
- Gaining visibility for next job...

points against the academy. Human character flaws, such as greed and dishonesty, are just as prevalent in a university community as they are in broader society. But some issues, such as racial unrest, can have lasting impact that could not only harm the university but distract the leadership from other important priorities. For these issues, some degree of anticipation and planning is desirable.

Yet it is still common to be taken completely by surprise on issues. Always being at ready condition—or DEFCON 3—for potential crises can be both stressful and wearing. Further, to sustain both the loyalty and morale of staff, the president and other senior officers frequently has to take the heat for situations they knew all too well are the responsibility of others. This goes with the territory, although to the great detriment of the university and the health and humor of the president.

Pushers and Coasters

It is important to recognize that universities, much like other social organizations, tend to cycle back and forth between periods of acceleration, coasting, and perhaps slowing to a halt or even sliding back down the hill. This ebb and flow in leadership should not be so surprising, since it characterizes most of the history of a university. In Michigan's early years, Tappan, Angell, Burton, and Hatcher were clearly pushers, determined to build the university, taking it to higher levels of achievement and capacity. Each was followed by successors who tended to accept the resulting quality or capacity of the university as they inherited it, consolidating gains and perhaps addressing other issues, sometimes dictated by challenges beyond the

campus such as the Great Depression, world wars, and the social disruption of 1960s activism.

Fortunately, at least in the history of the University of Michigan, the pushers seem to have achieved sufficient momentum for the institution to ride through the next coasting period with quality intact.

There are many lessons, both good and bad, to be learned from efforts at Michigan to lead the university toward common goals and a public purpose. Beyond the obvious challenges (build on institutional history; keeping one's eyes on the goals; being candid, demanding, and evidence-based in one's appraisal of progress), there are other important aspects of any successful effort that relate more to the unique nature of academic communities.

Large decentralized organizations such as universities will resist change. They will try to wear leaders down, or wait them out. Here one should heed the warning from Machiavelli: "There is no more delicate matter to take in hand, nor more dangerous to conduct, nor more doubtful of success, than to step up as a leader in the introduction of change. For he who innovates will have for his enemies all those who are well off under the existing order of things, and only lukewarm support in those who might be better off under the new." The resistance can be intense, and the political backlash threatening.

Yet it is also clear that the task of leading a large university toward institutional objectives cannot be delegated. Rather, the university president must play a critical role both as a leader and as an educator in such efforts to unify the campus community.

The Administration

One of the great myths concerning higher education in America—and one that is particularly appealing to faculty members, trustees, and legislators alike—is that university administrations are bloated and excessive. In reality, most universities have quite lean management structures, inherited from earlier times when academic life was much simpler and institutions were far smaller. Typically the number of administrative positions (and executive officers) in a university is only a small fraction of the number of senior administrators found

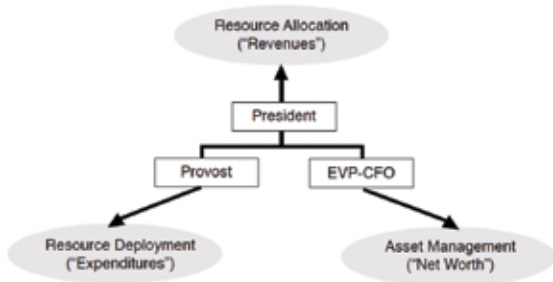
in corporations or government agencies of comparable size. Furthermore, in contrast to corporations or government agencies, universities have quite shallow organizational structures. For example, there are typically only five organizational levels in the academic ranks (president, provost, dean, department chair, faculty member), leading to an exceptionally broad, horizontal organization structure at the senior level.

The Executive Officers

The direct line reports of the university president are the executive officers of the university, with titles such as vice-president or vice-chancellor in various functional areas—e.g., academic affairs, research, student affairs, business and finance, fund-raising, and government relations. Since the success or failure of the university president depends upon the quality of these appointments, one of the most important responsibilities of the president is recruiting, building, and leading a quality team of executive officers.

Surprisingly, for one of the nation's largest and most complex universities in the world, the University of Michigan has traditionally operated with a quite small central administration. During our tenure we operated with a very lean team of executive officers, with only six vice presidents, plus two chancellors for the Dearborn and Flint campuses. Although the number of senior administrators has increased in recent years, relative to the size of the University, it is still modest compared to most other universities. Such a lean administration can only succeed with outstanding people, hence a premium is placed on developing or recruiting the very best people into these key positions. Their success requires, in turn, recruiting outstanding senior staff in each of their organizations, a stress on quality that tends to propagate throughout the institution.

At Michigan, the four key executive positions are the president, the provost (and executive vice president for academic affairs), the chief financial officer (and executive vice president for business and finance), and the executive vice president for the medical center. (Note the term "executive" was added in the 1990s to indicate that these three senior vice presidents also had authority over the branch campuses, UM Dearborn and UM Flint.) Much as in corporate organization,

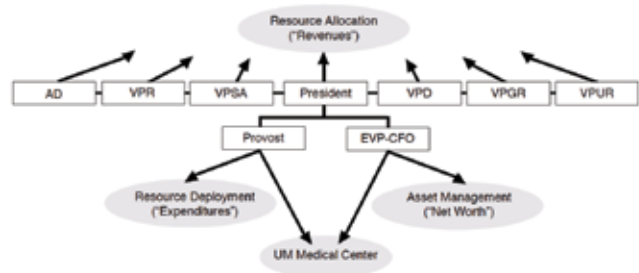


Responsibilities of the senior officers

the president, provost, and vice president for business and finance represent the executive leadership core of chief executive officer (CEO), chief operating officer (COO), and chief financial officer (CFO). From a simplistic perspective, the role of the president is to “go downtown and get the money”, the provost then decides who gets it, and the chief financial officer makes sure it gets spent the way the provost wants! Other vice presidents—such as those for research, student affairs, development, and government relations—generally had staff roles, although some had large administrative units reporting to them (e.g., student housing and research administration).

Next to the president, the provost (or chief academic officer) is the most important leader in the university. In effect, the provost is the chief operating officer of the university, with the line-reporting responsibility for all of the academic units of the university: schools and colleges through their deans; centers and institutes through their directors; and a host of academic service units, such as admissions and financial aid. In a sense, while the president determines the direction of the institution, the provost determines the pace through the selection of leadership and allocation of resources. Put another way, while the president leads, the provost pushes! The provost also serves as second in command and backup to the president and is usually tapped as acting president when the president is on leave or absent for an extended period.

Clearly, the position of the provost at a major university is daunting, as suggested by the formal definition used for the role at Michigan: “The provost is the intellectual and scholarly leader of the university, with ultimate responsibility for all academic programs, operations, initiatives, and budgets.” To clearly establish



The executive officer team

the priority of the academic mission of the institution, the Michigan provost also functions as the chief budget officer, preparing the budget that determines the detailed allocation of resources throughout the university and thereby integrating the academic and budget functions and priorities. Furthermore, the provost is given veto power over all other executive officers (with the exception of the president, of course) on issues that have implications for the academic activities of the university. This includes, for example, capital facilities, research priorities, student affairs, the priorities in university fund-raising, those aspects of the Medical Center that have impact on academic programs, and even intercollegiate athletics, particularly in such areas as student admission and eligibility.

At Michigan, the provost actually wears two hats: as chief academic officer, with the reporting of the deans and directors, and as chief budget officer. These two roles actually create two leadership paradigms in the position. Usually the provost is selected as a “people” person, capable of handling the complex reporting lines of deans and directors, while there is a “numbers” person, with strong budget experience leading the “back office” team in the Office of the Provost. Not surprisingly, the Office of the Provost is characterized by a very flat organization, with reporting lines for 18 deans; four associate vice presidents; numerous directors of academic service units, such as admissions and financial aid; and sundry interdisciplinary research centers and institutes.

Perhaps because of its vast size and complexity, Michigan has usually selected insiders as provosts (with only one external appointment in the past 50 years). Hence, it is logical that the relationship between provost and president is frequently an inside/outside

division of roles. Most often, the provost serves as chief operating officer, managing the internal affairs of the institution, while the president serves as CEO and “chairman of the board,” managing the university’s external relationships (actions involving state and federal government, fund-raising, public relations, intercollegiate athletics) and its sensitive relationships with the governing board (which could be extraordinarily time-consuming with a politically elected body).

The unusual responsibility and authority of Michigan’s provost position and the quality of the academic leaders who have served in this role give it high visibility and influence on the national scene. However, it also identifies the position as an important source of university leadership, as evidenced by the number of Michigan provosts who have gone on to university presidencies. Yet the turnover in the position can be a considerable challenge to the president.

The third member of the executive leadership core at Michigan and many other institutions is the chief financial officer, with responsibility for the financial, capital, and human resource assets of the university as well as its financial integrity. Needless to say, in an institution with billions of dollars of assets, hundreds of major facilities, tens of thousands of employees, and mission-critical obligations (e.g., health care), the position of vice president and chief financial officer (VPCFO) requires quite exceptional skills and experience. Michigan has been fortunate in attracting extraordinarily talented individuals into this position who have also provided national leadership on the financing of higher education.

There are many models of presidential leadership of an executive officer team. Some presidents prefer to act essentially as a judge, asking each executive officer to bring a recommendation on a particular issue and then selecting one of these options. Other presidents prefer to deal with the executive officers as a team, posing an issue to the group and asking them to thrash out the options until they reach agreement on a preferred direction. Still other presidents prefer a more authoritarian approach (much like a football coach), giving specific assignments to each member of the team within their narrowly defined range of responsibilities.

Some university presidents tend to stress loyalty

or subservience in their appointments. Others prefer to surround themselves with the best people they can find, recognizing that their own success—indeed, their survival—will depend on the talents of their executive officer team. A strong team of executive officers fills the important role of placing checks and balances on the president. The unforgiving environment of the president as chief executive officer, particularly in a public institution, demands great rigor in assessing the appropriateness of all decisions, including their compliance with various university and public policies.

Presidential decisions must be vetted with key bodies such as the governing board, with disclosure and transparency issues, and with an array of political considerations as seen by various constituencies both on and off the campus. Since no president can (or should) rely strictly on his or her own judgment across such a broad array of issues, the executive officers—particularly the team of provost, VPCFO, and general counsel—play an absolutely critical role in checking and challenging possible presidential decisions. Usually the VPCFO provides detailed scrutiny of presidential decisions and activities, including thorough audits of all compensation issues, travel activities, and presidential expenses.

University presidents can grow weary of the court politics that usually surround positions of power (real or perceived). Leading a team of strong administrative officers inevitably involves smoothing out conflicts and occasionally even picking winners and losers. It is also the case that the best executive officers and deans are usually quite ambitious and seek further advancement, including perhaps even a university presidency (particularly at such an institution as Michigan). Knitting these leaders into a cohesive team where institutional priorities dominate personal agendas can sometimes be a challenge, requiring extensive face time in one-on-one meetings. This becomes even more difficult when a particular administrator either falls short of satisfactory performance or decides to go his or her own way, even to the point of disloyalty to the institution or the president. In such cases, the necessary personnel changes are sometimes made difficult because of the political or personal sensitivities of key faculty groups or even the governing board.

At Michigan, there has been a long-standing practice



The Deans Team during the 1980s

of balancing internal versus external appointments to senior administrative positions, typically at a fifty-fifty percentage level, in an effort to preserve institutional memory and momentum while bringing new ideas and energy. Yet, perhaps because of the complexity of the university, it is frequently the case that outsiders have difficulty in understanding the institution (or its institutional saga) well enough to be effective leaders. While these external candidates may be capable, their institution-hopping careers can undermine both their ability to understand the culture and traditions of the university and the perception of their loyalty to their new institution.

The Deans

The University of Michigan is known throughout higher education as a “deans’ university”. Because of the University’s highly decentralized organization, deans of our many schools and colleges have unusual freedom and authority, albeit with considerable responsibility and accountability. Most of the progress made by schools and colleges can be traced to the leadership of their deans—although, of course, the

same can usually be said for the consequences of any shortcomings.

Clearly, being a faculty member is the best job in a university—the most prestige, the most freedom, the most opportunity. However, if one has to be an academic administrator, the best role is as a dean—at least at Michigan. Although some academic units such as the College of Literature, Science, and the Arts or the School of Medicine rival major universities in their size, financial resources, or organizational complexity, for most University of Michigan schools and colleges, both the size and intellectual span is just about right to allow true leadership. To be sure, a dean has to answer in both directions, to the provost from above and their faculty from below. But their capacity to control both their own destiny and that of their school is far beyond that of most administrators.

The cadre of deans is usually quite remarkable at a leading university. To be sure, there is always a pecking order among deans, with the “big dogs”—LS&A, Medicine, Engineering, Law, and Business—sometimes standing apart from the “little dogs”—Music, Art, Architecture, Social Work, Education, Pharmacy, Dentistry, Nursing, Natural Resources,

and Public Health. The Rackham Graduate School is usually an anomaly and, in fact, can sometimes serve as an intermediary between the superpowers and the nonnuclear states.

Although the deans generally meet regularly in a large council with the provost—once called the Academic Affairs Advisory Council but more recently called the Academic Policy Group—the size of this body mitigates against substantive discussion. In the late 1970s, when Al Sussman, former dean of the Graduate school, was serving as interim provost, he formed a clandestine group of deans known as the “SOUP” Group (for “Seminar on University Priorities”) for the purpose of breaking the deans into smaller discussion units. While this group, consisting of LS&A, Engineering, Law, Business, Social Work, Pharmacy, and Rackham was sometimes useful, it later evolved into an exclusive fraternity with members selected more for personality than priority of school (e.g., how could one possibly leave out Medicine while including Pharmacy). Nevertheless, for the most part, the family of deans was remarkable for the quality of its members and their commitment to the University.

Despite the decentralized nature of the University, the diversity of its academic programs, the tradition has been to encourage strong teamwork among the deans. And so it must be, since they both control and are responsible for both the assets and the quality of their schools and colleges, they must be the ones who work with one another to establish partnerships and work out common interests. And, at least in the past, the provost was a part of the deans team, perhaps to use a football analogy, its “captain”, not its “coach” and certainly not its “owner”. When provosts understood this teamwork concept and worked to support it, the decentralized structure of the University’s academic programs work well. However in those rare instances in which provosts or other members of the administration, perhaps threatened by the deans teamwork, attempted to “manage” the deans or weaken their power, the University ran into difficulties.

Since the University of Michigan is so heavily dependent on the quality of its deans, most presidents and provosts make a great effort to attract the very best people into these important positions. It is important for the president and provost to work closely together

not only in the appointment and support of these key academic leaders but also to build a sense of community among them, establishing friendships and bonds, since these, in turn, glue together the university. Perhaps because of our own experience as members of the “deans’ family,” we were always on the lookout for new ways to involve the deans more intimately in the leadership of the university.

To be sure, there are many drawbacks to academic leadership roles, such as department chairs or deans. These positions rarely open up at a convenient point in one’s career, since most productive faculty members usually have ongoing obligations for teaching or research that are difficult to suspend for administrative assignments. Although an energetic faculty member can sometimes take on the additional burdens of chairing a major academic committee or even leading a small department or research institute, the time requirements of a major administrative assignment such as department chair or dean will inevitably come at the expense of scholarly activity and the ability to attract research grants. The higher one climbs on the academic leadership ladder, from project director to department chair to dean to executive officer, the more likely it is that the rungs of the ladder will burn out below them as they lose the scholarly momentum (at least in the opinion of their colleagues) necessary to return to active roles in teaching and research.

UM Professor Dan Moerman, a longstanding member of faculty governance, suggests a very interesting perspective of the role of a dean as a broker between the two cultures of the university: the faculty (collegial, center-periphery, colleagues, peer respect) and the administration (hierarchical, top-down, bosses, performance evaluations). Moerman observes that, “When a president discusses things with deans, he calls a meeting; with the faculty, the president invites them to dinner. The dean is the mediator, the connecting link, between the two cultures. To be credible to the faculty, the dean must have scholarly credentials. But to relate to the administration, the dean needs to be competitive rather than collegial. This leads to a certain intentional ambiguity to the role. The dean is a broker, a middleman, betwixt and between—a trickster like Coyote or Janus.” Since deans must represent the views of the faculty and never be seen as losing, they

must become quite conservative, seeking to minimize risk and maximize flexibility. A president who interacts directly with the faculty becomes very threatening to a dean. (“If man can talk to God, what need is there for a priest?”) What to do? As Moerman suggests, “Kick ass” says the administrator; “consult” says the faculty; “confuse” thinks the dean...

Department Chairs

At the next level of academic leadership are the department chairs. It is at this level where the faculty reports and the intellectual activities such as teaching and research actually occur. Hence the role of a department chair is key to the quality and impact of the institution, and these leaders must be selected very carefully. Assisted by executive committees comprised of elected faculty, chairs determine faculty promotion, tenure, salaries, and academic assignments. In small departments, this is a manageable role usually assigned to long-standing faculty members with leadership ability. However in some schools, such as Medicine and LS&A, the departments can involve so many faculty members and students that they actually function almost like schools.

Most department chairs are appointed for five year terms, renewable for one term (10 year maximum), although LS&A has a tradition of rotating chairs. For most departments, it is possible for the chair to maintain an active research program, some even teaching (but most not). Typically the chairs receive both an administrative bonus as well as a 12 month appointment (in contrast to the usual 9 month faculty appointment).

Leadership Development

It is very important to view leadership development as a strategic issue for the University. While most faculty prefer to remain in academic roles, some are willing to accept additional responsibilities in leadership roles. Every effort should be made to encourage and support such activities, providing opportunities for further leadership development, albeit with strong evaluation of leadership ability. Interestingly enough, since academic leadership usually requires not only time and

effort, but also sacrificing one’s scholarly activity, such willingness to participate in faculty service or even governance should be recognized as a sign of possible leadership interest.

Concerns Raised and Lessons Learned

Leading the Academy

In seeking leadership, one seeks the ability to communicate a vision for the school or university, listen to the concerns that change always raised, and align faculty and staff to move forward in the desired direction. This is not necessarily a skill set that search committees even think about and certainly does align well with many of the attributes that our faculty-dominated search committees see as essential.

In contrast, a characteristic that can be a fatal flaw in a leader is the desire to micromanage. Given the scope of the schools and departments at the University, leaders must be comfortable delegating responsibility. This raises several important considerations. First, a leader must have excellent judgment to assemble a highly capable team. This also requires confidence as few can tolerate being surrounded by individuals more accomplished than they are, even if only in specific areas. It also requires that there be clarity of communication from the leader to those identified to carry out important actions. This should be two-way communication as the leader may be ill advised and would benefit from honest feedback. Finally the leader must stand behind the actions of those to whom he or she has delegated responsibility for facets of the enterprise.

Both judgment and empathy are particularly important attributes. Good leaders do not jump to a conclusion based on hearing one side of the story but rather make certain that a full investigation is done. If the situations are handled well, the leader needs to recognize that they will usually not be given credit, and indeed most faculty and staff will not and should not even know about the problems they address.

Leaders also need sensitivity to the broader needs of the communities they serve. For example, it is important that they attend recognition events, endowed professorships, and such since this shows

their respect and understanding of the importance of the individuals or groups being recognized. Indeed, in many ways, this is even more important for staff than faculty recognition.

Most universities face a great challenge in getting faculty to commit to institutional goals that are not necessarily congruent with their professional and personal goals. Furthermore, perhaps because of the critical and deliberative nature of academic disciplines, universities have a hard time assigning decision-making responsibilities to the most appropriate level of the organization. The academic tradition of extensive consultation, debate, and consensus building before any substantive decision is made or action taken is often incapable of keeping pace with the profound changes swirling about higher education. In the private sector, change is usually measured in months, not years; at the university, change is sometimes even measured in decades. In the university, as the saying goes, change occurs one grave at a time.

Clearly universities need to develop greater capacity to move more rapidly. Yet imposing changes on the university management culture can be a most difficult and dangerous undertaking, particularly for a university president. For example, suppose a university administration becomes convinced that major reorganization of the institution is necessary. How should one go about it? One approach would be a simple top-down edict. For example, some institutions have simply announced a major restructuring, in which the winners and losers are identified up front, and dissent is ignored or repressed. Yet this approach is problematic in the creative anarchy characterizing the contemporary university. It is always difficult for the university leadership to have sufficient understanding of intellectual issues, particularly within the disciplines, to determine the best organization. Furthermore, such top-down reorganization, while perhaps being an efficient way to respond to existing concerns, can result in new empires that will eventually dominate the institution and once again constrain change.

In particular, one needs to challenge a deeply ingrained management culture in higher education in which academic leaders are expected to purchase the cooperation of subordinates by providing them with incentives to carry out decisions. For example, deans

expect the provost to offer additional resources in order to gain their cooperation on various institution-wide efforts. This bribery culture is one of the major factors in driving cost escalation in higher education today. It is also quite incompatible with the trend toward increasing decentralization of resources. As the central administration relinquishes greater control of resource and cost accountability to the units, it will lose the pool of resources that in the past was used to provide incentives to deans, directors, and other leaders to cooperate and support university-wide goals.

Hence, it is logical to expect that both the leadership and management of universities will need increasingly to rely on lines of true authority similar to those found in business or government. That is, presidents, executive officers, and deans will have to become comfortable with issuing clear orders or directives, from time to time, which override the anarchy of disciplinary units. Throughout the organization, subordinates will need to recognize that failure to execute these directives will likely have significant consequences, including possible removal from their positions. Here the intent is not to suggest that universities adopt a top-down corporate model inconsistent with faculty responsibility for academic programs and academic freedom. Collegiality should continue to be valued and honored. However it is clear that the modern university simply must accept a more realistic balance between responsibility and authority.

Executive Compensation

One of the most controversial issues in American higher education today is the alarming increase in the compensation of university presidents, now rising to the million-dollar levels more characteristic of corporate CEOs (or football coaches) than academic leaders. This not only has undermined public confidence in the leadership and governance of the nation's universities, but it has also decoupled the university president from the faculty.

What about the compensation of senior academic leadership, at the level of deans, executive officers, chancellors, and presidents? While executive search consultants love to stress the importance of competitive compensation, one should be very skeptical of just how

important compensation is at this level.

To some degree this is due to governing boards that fail to understand that academic leadership is a “public calling” more akin to public leadership roles such as governor or national leadership than corporate management. It has also been driven by the increasing use of professional search consultants whose fees tend to be indexed to compensation. But there is also an alarming tendency of university leaders themselves to set aside the concept of academic service in favor of greed.

Perhaps such excessive compensation is not surprising in institutions willing to pay football and basketball coaches truly astronomical salaries. But it nevertheless is damaging, both to the public perception of financial behavior of academic institutions as well as to the reputation of their governing boards. While ambition and greed are frequently present in the negotiation of presidential compensation, hopefully some degree of public commitment and responsibility should also be encouraged.

Higher education should be viewed as both a “public good” to society as well as an individual benefit to graduates. As such, academic leadership roles have a “calling” character that should be understood and accepted as a public service, much like other public leadership roles. Leading an academic organization should be viewed as both a privilege and a responsibility, not as merely a route to fame and fortune.

Indeed, many in higher education today view the frequent institution hopping and excessive compensation of senior academic and administrative leaders in higher education as one of the unfortunate trends that has seriously undermined our society’s understanding of the contemporary American university and its public good character.

It is particularly important that governing boards view university leaders as *public servants* rather than corporate executives, both in their unique responsibilities, their accountability, and their compensation. To impose such a corporate culture, values, and compensation practices on an academic institution is both disruptive and dangerous to its fundamental purpose and mission.

Believe it or not, most senior academic leaders are rarely lured by the dollars. To be sure, a competitive

Inside Out	
Insider	UM Presidents
	*Haven
	Hutchins
	Ruthven
	Shapiro
	Duderstadt
	*Bollinger
	(*Left...then came back)
Outsiders	
	Tappan
	Angell
	Burton
	Little
	Hatcher
	Fleming
	Coleman
	Schlissel
Out-Placed	
	Haven
	Shapiro
	Bollinger

salary is viewed by some candidates as a measure of how much you want them. But it is rarely the deciding factor. Far more important is the challenge, opportunity, and prestige of building a top-ranked academic program.

Many candidates for senior leadership roles are seeking new opportunities because they have been blocked by the narrowing pyramid of the academic hierarchy in their own institution. Some are after wealth and fame, but NOT from the university, but rather from outside their academic appointment through corporate boards, national commissions, or other opportunities.

Some actually view academic leadership as a “higher calling”, with emotional rewards and satisfaction that simply cannot be quantified in terms of compensation. In fact, some actually have acquired a sense of loyalty to a university and view such assignments as a duty of service. If you doubt this, just look at the list of institutions with the highest executive salaries. Usually these are places you have to pay people to go, not at the

very best institutions!

One more caution here. While it is the case that some public universities use their fund-raising foundations to supplement the salaries of senior leadership, this is usually provided as a payment for their development responsibilities. It is quite another matter entirely to solicit private support specifically to bring senior leadership salaries up to market levels. Not only does such a practice run into optics problems, but it can start a public university down a very slippery slope where institutional integrity could be compromised by conflict of interest.

Inside Out

To be sure, it is important to seek a balance in leadership, bringing in leaders from outside for new ideas and energy while relying on internal appointments to sustain important traditions and values. This balance can sometimes be distorted through complacency with the status quo. More serious, it can be threatened by an effort by newcomers, frustrated with the University's resistance to change, to bring in too many outsiders in key roles as deans or executive officers in an effort to change the culture of the institutions. Fortunately, the decentralized organization of the University is not only capable of responding to a changing environment but also repelling invasive species that attempt dramatic change.

So what balance should be sought? Certainly the majority of deans should be chosen from inside, perhaps in a ratio of two to one over outsiders. To be sure this is difficult in an era in which universities are increasingly dependent upon executive search consultants, tempted to push their existing stable of external candidates and motivated by fees indexed to the compensation negotiated by selected candidates. At the executive officer level, perhaps a balance closer to 50%-50% seems best, balancing internal and external experiences.

While a similar balance is probably appropriate at the presidential level, Michigan's history reveals that most of its presidents have come from outside (Tappan, Angell, Burton, Little, Hatcher, Fleming, Coleman, and Schlissel) with only five from inside (Hutchins, Ruthven, Shapiro, Duderstadt, and Bollinger), which

reverses the 2 to 1 inside to outside pattern of deans. To some degree this is probably because the Board of Regents led the search and made the choice, reflecting perhaps a "devil you don't know always looks better than one you do".

Interestingly enough, one finds a correlation between the distinction of the university and its tendency to appoint insiders as presidents, with Harvard, Yale, Princeton, Stanford, and the University of California as prominent examples of leadership from inside. However any speculation about this arising from confidence that one's own people make the best leaders of outstanding universities is obliterated by the case of Cornell, which has chosen five of its presidents from Michigan!

The balance between the selection of leadership from within or without should be tracked very carefully, since it could lead to difficulties over time.

A Final Admonition

The decentralized structure of the university as a complex adaptive system has evolved over the centuries to solve extremely complex problems. Ironically fragmentation sometimes serves a useful purpose, since within the confines of the institution it allows people to apply themselves to solve problems that are impossibly difficult for individuals or groups working in an institution-free environment. Again quoting Lohmann, "In its ideal form, the university will remain precariously poised between powerful academic, bureaucratic, political, and market forces, servant to none. On the one hand, the university must preserve a free space in which specialized and creative inquiry can flourish. On the other hand, it must be responsive to social and technological change." (Lohmann, 2005)

What may appear to critics as a badly flawed institutional structure—particularly those from outside academe—is, in reality, one of the most valuable characteristics of the contemporary university. Comprehending the complex workings of this knowledge ecology is difficult for outsiders (and even those within academe). Over the century powerful walls have sprung up (e.g., university autonomy, academic freedom, tenure) to prevent outsiders from tampering with the university's affairs.

While university leaders should seek to pull together the fragmented academic communities to address many of the public purposes of higher education, they should also bear in mind an important caveat: It could well be that the contemporary university is so resistant to efforts to fix its fragmentation not because remedies are insufficiently strategic and robust or leadership is inadequate, but rather because the contemporary university, evolving as it has over many centuries, has acquired the optimal configuration of a complex adaptive system as the natural and logical organization of a knowledge institution.

Hence, in seeking remedies for the fragmented university, it is important that university presidents always bear in mind the physician's warning to "First, do no harm!"

Duderstadt References

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt, *The Third Century: A Roadmap to the University of Michigan's Future*, Final Edition (Ann Arbor, MI: Millennium Project, 2016)

James Duderstadt, *A 50 Year History of Social Diversity at the University of Michigan* (Ann Arbor, MI: Millennium Project, 2016)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *A University for the 21st Century* –(Ann Arbor, MI: University of Michigan Press, 2000) 280 pp

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

Chapter 6: Summary

1. The modern research university has many of the characteristics of an international conglomerate of highly diverse businesses. It is not surprising that such a global enterprise requires visionary leadership and capable management. Many of the University's activities, such as its hospitals and high-technology research, require the rigor and accountability of mission-critical corporations. Yet the unique culture of the academic core of the University has a character almost orthogonal to the modern corporation since its most valuable employees are faculty members characterized by deep and highly valued knowledge and skills.

2. Today the charters of most American colleges and universities define the president as a chief executive officer, with ultimate executive authority and responsibility for all decisions made within the institution. Yet, despite the fact that university presidents have executive responsibilities for all of the activities of the university, the position has surprisingly little authority. The president reports to a governing board of lay citizens with limited understanding of academic matters and must lead, persuade, or consult with numerous constituencies (e.g., faculty and students) that tend to resist authority. Hence, the university presidency requires an extremely delicate and subtle form of leadership, sometimes based more on style than substance and usually more inclined to build consensus rather than take decisive action.

3. The most successful university presidents are capable not only of understanding academic issues but also of shaping the evolution of academic programs and enhancing the academic reputation of their university. After all, if the success or failure of a presidency will be based on the goal of leaving the university better than one inherited it, it is hard to imagine how one could achieve this without some involvement in the core activities of the institution, teaching and scholarship. Presidential influence is generally exercised through the appointment of key academic leaders such as deans or department chairs, by obtaining the funds to stimulate the faculty to launch new academic programs, or by influencing the balance among academic priorities

rather than by giving orders.

4. As chief executive officer of the university, the president is particularly responsible for recruiting much of the key leadership of the university, not simply the executive officers (i.e., the vice presidents), but also the deans and even, on occasion, key faculty members. This headhunting function is absolutely essential, since universities are only as good as the leaders of their academic programs, whether in administrative roles (e.g., department chairs and deans) or in intellectual roles (e.g., chaired professors).

5. The presidential family plays a pastoral role. In a very real sense, the president and spouse are the dad and mom of the extended university family. Students look to them for parental support, even as they routinely reject official actions in loco parentis. Faculty and staff also seek nurturing care and sympathetic understanding during difficult times for the university. To both those inside and those outside the system, presidents are expected to be cheerleaders for their university, always upbeat and optimistic, even though they frequently share the concerns and are subject to the same stresses as the rest of the campus community.

6. Typically the number of administrative positions (and executive officers) in a university is only a small fraction of the number of senior administrators found in corporations or government agencies of comparable size. Furthermore, in contrast to corporations or government agencies, universities have quite shallow organizational structures. For example, there are typically only five organizational levels in the academic ranks (president, provost, dean, department chair, faculty member), leading to an exceptionally broad, horizontal organization structure at the senior level.

7. The direct line reports of the university president are the executive officers of the university, with titles such as vice-president or vice-chancellor in various functional areas—e.g., academic affairs, research, student affairs, business and finance, fund-raising, and government relations. Since the success or failure of the university president depends upon the quality of these appointments, one of the most important responsibilities

of the president is recruiting, building, and leading a quality team of executive officers. At Michigan, the four key executive positions are the president, the provost (and executive vice president for academic affairs), the chief financial officer (and executive vice president for business and finance), and the executive vice president for the medical center.

8. Next to the president, the provost (or chief academic officer) is the most important leader in the university. In effect, the provost is the chief operating officer of the university, with the line-reporting responsibility for all of the academic units of the university: schools and colleges through their deans; centers and institutes through their directors; and a host of academic service units, such as admissions and financial aid. In a sense, while the president determines the direction of the institution, the provost determines the pace through the selection of leadership and allocation of resources. Put another way, while the president leads, the provost pushes! The provost also serves as second in command and backup to the president and is usually tapped as acting president when the president is on leave or absent for an extended period.

9. The University of Michigan is known throughout higher education as a “deans’ university”. Because of the University’s highly decentralized organization, deans of our many schools and colleges have unusual freedom and authority, albeit with considerable responsibility and accountability. Most of the progress made by schools and colleges can be traced to the leadership of their deans—although, of course, the same can usually be said for the consequences of any shortcomings.

10. At the next level of academic leadership are the department chairs. It is at this level where the faculty reports and the intellectual activities such as teaching and research actually occur. Hence the role of a department chair is key to the quality and impact of the institution, and these leaders must be selected very carefully. Assisted by executive committees comprised of elected faculty, chairs determine faculty promotion, tenure, salaries, and academic assignments. In small departments, this is a manageable role usually assigned

to long-standing faculty members with leadership ability. However in some schools, such as Medicine and LS&A, the departments can involve so many faculty members and students that they actually function almost like schools.

11. It is important to seek a balance in leadership, bringing in leaders from outside for new ideas and energy while relying on internal appointments to sustain important traditions and values. Certainly the majority of deans should be chosen from inside, perhaps in a ratio of two to one over outsiders. To be sure this is difficult in an era in which universities are increasingly dependent upon executive search consultants, tempted to push their existing stable of external candidates and motivated by fees indexed to the compensation negotiated by selected candidates. At the executive officer level, perhaps a balance closer to 50%-50% seems best, balancing internal and external experiences.

12. While a similar balance is probably appropriate at the presidential level, Michigan’s history reveals that most of its presidents have come from outside (Tappan, Angell, Burton, Little, Hatcher, Fleming, Coleman, and Schlissel) with only five from inside (Hutchins, Ruthven, Shapiro, Duderstadt, and Bollinger), which reverses the 2 to 1 inside to outside pattern of deans. To some degree this is probably because the Board of Regents led the search and made the choice, reflecting perhaps a “devil you don’t know always looks better than one you do”.

Chapter 7

Governance

The contemporary university is one of the most complex social institutions of our times. The importance of this institution to our society, its myriad activities and constituencies, and the changing nature of the society it serves, all suggest the importance of experienced, responsible, and enlightened university governance and leadership.

As Harold Shapiro used to stress during his presidency, the relationship between the university and the broader society it serves is a particularly delicate one, because the university has a role not only as a servant to society but as a critic as well. (Shapiro, 1988) It serves not merely to create and disseminate knowledge, but to assume an independent questioning stance toward accepted judgments and values. To facilitate this role as critic, universities have been allowed a certain autonomy as a part of a social contract between the university and society. It is based on the value of independent teaching and scholarship that must accept controversy and a lack of consensus not only as tolerable but also as a normal state.

American universities have long embraced the concept of shared governance, involving public oversight and trusteeship, collegial faculty governance, and experienced but generally short-term administrative leadership. While shared governance engages a variety of stakeholders in the direction of the university, the complex relationship among participants with quite different backgrounds and agendas poses many challenges.

The Nature of Governance at the University of Michigan

It is apparent that the real key to the University's quality and impact over its two centuries of history has

been the very unusual autonomy granted the institution by the State Constitution of 1851. As a consequence, the University has always been able to set its own goals for the quality of its programs rather than allowing these to be dictated by the vicissitudes of state policy, support, or public opinion.

Put another way, although the University is legally "owned" by the people of the state, it has never been obligated to adhere to the priorities or whims of a particular generation of Michigan citizens. Rather, it has been viewed as an enduring social institution with a duty of stewardship to commitments made by generations past and a compelling obligation to take whatever actions were necessary to build and protect its capacity to serve future generations. Even though these actions might conflict from time to time with public opinion or the prevailing political winds of state government, the university's constitutional autonomy clearly gave it the ability to set its own course. When it came to objectives such as program quality or access to educational opportunity, the University of Michigan has always viewed this as an institutional decision rather than succumbing to public or political pressures.

The University of Michigan is certainly no exception in facing the multiple challenges of university governance. But our institution is anomalous in another respect. We are one of the very few American research universities whose governing board is determined through statewide popular election, involving partisan candidates nominated by political parties. With two of our eight regents up for election every two years for eight-year terms, the frequently changing political stripes of our governing board present a particular challenge both to the University and to its president.

To some degree this anomaly in the selection of the university's governing board is balanced by another



Interviewing a candidate for UM president

unusual feature of the university's governance. As we noted earlier, the Michigan constitution grants the university an extraordinary degree of autonomy as a "coordinate branch of state government," by giving its regents full powers over all university matters. More specifically, the constitution authorizes the board to "have the general supervision of the university and the direction and control of all expenditures from university funds." But the constitution also directs the board to elect a president who should preside, without vote, at all their meetings. This latter detail is very important, since it clearly identifies the president as both "chief executive officer" and "chairman of the board" (at least their meetings), a stature held by few other university presidents who generally attend governing board meetings only as observers. It allows the president both to determine the agenda and orchestrate the activities of the governing board. Through this mechanism, the state constitution deftly relieves the regents of the ability to administer the university. In theory, at least, they need only to determine policy—and, of course, hire and fire the president. (Peckham, 1993)

Faculty governance is also unusual at Michigan. To be sure, the university has a long tradition of strong faculty governance at the level of individual academic units such as departments or schools through faculty executive committees. Here the clearly identified responsibilities (hiring, promotion, tenure, budget priorities) attract the participation of our best faculty members and provides effective faculty governance.



A meeting of the University of Michigan Regents

But at the university-wide level, the limited authority of the Faculty Senate all too frequently transforms it into a debating society more concerned with "p-issues" (e.g., pay, parking, and the plant department) than strategic academic issues facing the university.

To be sure, most of those citizens and faculty members serving on various governing bodies do so with the best of intentions, loyal to the institution and committed to its welfare and capacity to serve. Yet all too frequently they do so within an awkward structure of shared governance that allows political forces to inhibit access to both adequate information and communication. It is also a structure that can easily be hijacked by those with strong personal or political agendas that could harm the university.

The Challenges of Shared Governance

Ask any group of university presidents about the greatest challenges to university leadership, and rapidly the issue of university governance emerges, whether internal through the shared governance of lay governing boards and faculty senates, or external through the complex web of political and regulatory forces exerted on their institutions by state and federal governments. Despite dramatic changes in the nature of scholarship, pedagogy, and service to society, American universities today are organized, managed, and governed in a manner little different from the far simpler colleges of a century ago. We continue

to embrace, indeed, enshrine, the concept of shared governance involving public oversight and trusteeship by governing boards of lay citizens, elected faculty governance, and experienced but generally short-term and usually amateur administrative leadership. Today, however, the pace of change in our society and the growing complexity and accountability of our universities are exposing the flaws in this traditional approach to university governance.

The politics swirling about governing boards, particularly in public universities, both distracts them from their important responsibilities and stewardship, while discouraging many of our most experienced, talented, and dedicated citizens from serving on these bodies. The increasing intrusion of state and federal government in the affairs of the university, in the name of performance and public accountability, can trample on academic values and micromanage many institutions into mediocrity. Furthermore, while the public expects its institutions to be managed effectively and efficiently, it weaves a web of constraints through public laws that make this difficult indeed.

These political pressures on governing boards and their institutions have become particularly severe in recent years. Surveys indicate that much of society has lost confidence in higher education, whether because of the increasing cost of attendance (a particular challenge to public universities facing declining state support), student behavior on campus, or a host of political attacks launched from both left and right in an increasingly politically divided nation.

Efforts to include the faculty in shared governance also encounter obstacles. To be sure, faculty governance continues to be both effective and essential for academic matters such as faculty hiring and tenure evaluation. But it is increasingly difficult to achieve effective faculty participation in broader university matters such as finance, capital facilities, or external relations. The faculty traditions of debate and consensus building, along with the highly compartmentalized organization of academic departments and disciplines, seem increasingly out of sync with the breadth and rapid pace required of the university-wide decision process.

It is important to recognize that shared governance is, in reality, an ever-changing balance of forces involving faculty, trustees, and administration. It represents the

effort to achieve a balance among academic priorities, public purpose, and operating imperatives such as financial solvency, institutional reputation, and public accountability. Different universities achieve this balance in quite different ways. For example, at the University of California a strong tradition of campus and system-wide faculty governance is occasionally called upon to counter the political forces characterizing the governing board. In fact, the University of California requires consultation with faculty governance by the Regents and administration on all academic matters, as indicated by their Bylaws:

The University of California Regents have delegated to the Senate primary responsibility over certain aspects of the academic enterprise, such as curricula, requirements for degrees, and admissions policy. The Senate must carry out these responsibilities effectively and professionally, making use of data and analysis from the administration, while also maintaining a two-way dialogue on how the Senate's agenda is moving forward. On other academic matters, such as those involving personnel, the library, or the budget, the Senate must be consulted by the administration and must respond in a timely fashion to such consultation. On such matters, the administration is obliged to consider the Senate's advice and to respond, providing reasons should they choose not to follow the Senate's advice. A healthy Senate is also one in which there is significant faculty engagement and one that can undertake initiatives both on matters within its purview and on matters in which its role is only advisory. In any case, a healthy shared governance environment has no surprises between the Senate and the administration.

As Richard Blumenthal, Chair of the UC Regents explains: "Shared governance is not a perfunctory consultation or a sharing of information after the fact; rather, it is a vigorous, ongoing dialogue in which each side respects, learns from, adapts to, and, most of all, responds to the other."

Similar policies clearly defining the role of faculty

governance are in place at most major public and private universities.

In contrast, at the University of Michigan, campus-wide, elected faculty governance has historically been rather weak, at least compared to faculty influence through executive committee structures at the department, school, and college level. Unlike other institutions such as the University of California, there are no bylaws requiring consultation on key issues with faculty governance by the Regents or the administration before acting. Although the leadership does meet with the Senate Advisory Committee on Academic Affairs (SACUA) from time to time, University-wide faculty bodies such as the Faculty Senate and SACUA have no real power. Instead the tradition has been to develop a strong cadre of deans, both through aggressive recruiting and the decentralization of considerable authority to the university's schools and colleges, and then depend upon these academic leaders to counter the inevitable political tendencies of the university's Regents from time to time. When the deans are strong, this checks-and-balance system works well. When they are weak or myopically focused on their own academic units, the university becomes vulnerable to more sinister political forces.

Where is the participation and influence of the university administration—particularly the president—in this balancing act? Usually out of sight or perhaps out of mind. After all, senior administrators, including the president, serve at the pleasure of the governing board. They are also mindful of faculty support, since they may be only one vote of no confidence away from receiving their walking papers—a long-standing academic tradition recently re-established by Harvard and several other universities. While it has always been necessary for the American university president to champion the needs of the academic community to the governing board and the broader society while playing a role in ensuring that the academic community is in touch with society's interests and needs, it is also not surprising that the administration is usually quite reluctant to get caught publicly in skirmishes between the governing board and the faculty.

The danger of such an imbalance in power arises when one party or the other is weakened. When the faculty senate loses the capacity to attract the

participation of distinguished faculty members, or when a series of poor appointments at the level of deans, executive officers, or president weaken the administration, a governing board with a strong political agenda can move into the power vacuum. Of course there have also been numerous examples of the other extreme, in which a weakened governing board caved into unrealistic faculty demands, e.g. by replacing merit salary programs with cost-of-living adjustments or extending faculty voting privileges to part-time teaching staff in such a way as to threaten faculty quality.

Part of the difficulty with shared governance is its ambiguity. The lines of authority and responsibility are blurred, sometimes intentionally. Although most members of the university community understand that the fundamental principals of shared governance rest on the delegation of authority from the governing board to the faculty in academic matters and to the administration in operational management, the devil in the details can lead to confusion and misunderstanding. Turf problems abound. One of the key challenges to effective university governance is to make certain that all of the constituencies of shared governance—governing boards, administrations, and faculty—understand clearly their roles and responsibilities.

Improving University Governance

More generally, today it is appropriate to question whether the key participants in shared governance—the lay governing board, elected faculty governance, and academic administrators—have the expertise, the discipline, and the authority, not to mention the accountability, necessary to cope with the powerful social, economic, and technological forces driving change in our society and its institutions. More specifically, is it realistic to expect that the shared governance mechanisms developed decades (or, in some cases, centuries) ago can serve well the contemporary university or the society dependent upon its activities? Can boards comprised of lay citizens, with little knowledge either of academic matters or the complex financial, management, and legal affairs of the university be expected to provide competent oversight for the large, complex institutions characterizing

American higher education? What is the appropriate role for the faculty in university governance, and is this adequately addressed by the current determination and conduct of faculty governing bodies? Can academics with limited experience in management serve as competent administrators (deans, provosts, presidents)? And, finally (and most speculatively), what works, what does not, and what to do about it?

Nothing is more critical to the future success of higher education than improving the quality and performance of boards of trustees. Today, during an era of rapid change, colleges and universities deserve governing boards comprised of members selected for their expertise and experience, members who are capable of governing the university in ways that serve both the long-term welfare of the institution and the more immediate interests of the various constituencies it serves. Trustees should be challenged to focus on policy development rather than intruding into management issues. Their role is to provide strategic, supportive, and critical stewardship for their institution and to be held clearly publicly, legally, and financially accountable for their performance and the welfare of their institution.

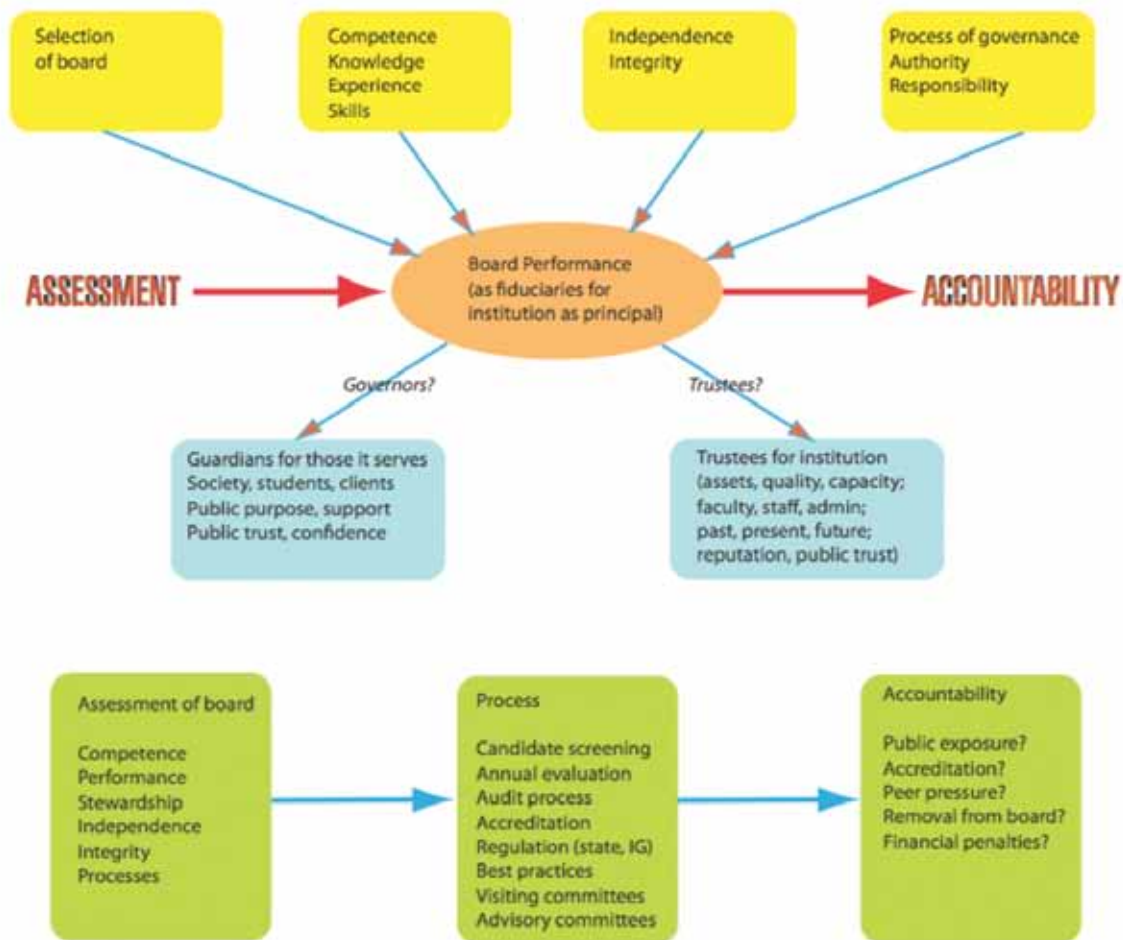
As the contemporary university becomes more complex and accountable, it may even be time to set aside the quaint American practice of governing universities with boards comprised of lay citizens, with their limited expertise and all too frequently political character, and instead shift to true boards of directors similar to those used in the private sector. Although it may sound strange in these times of scandal and corruption in corporate management, there is increasing evidence today that university governing boards should function with a structure and a process that reflects the best practices of corporate boards. Corporate board members are selected for their particular expertise in areas such as business practices, finance, or legal matters. They are held accountable to the shareholders for the performance of the corporation. Their performance is reviewed at regular intervals, both within the board itself and through more external measures such as company financial performance. Clearly, directors can be removed either through action of the board or shareholder vote. Furthermore, they can be held legally and financially liable for the quality of their decisions—a far cry from the limited accountability

of the members of most governing boards for public universities.

Perhaps the best approach to identifying possible reforms in faculty governance is to examine where it seems to work well and why. Faculty governance seems to work best when focused on academic matters at the department, school or college level in areas such as new faculty searches, promotion and tenure decisions, and curriculum decisions. This is because rank-and-file faculty members understand clearly not only that they have the authority and integrity to make these decisions but that these decisions are important to their academic departments and likely to affect their own teaching and research activities.

In sharp contrast, most active faculty members view university-wide faculty governance bodies, such as faculty senates, primarily as debating societies, whose opinions are invariably taken as advisory—and frequently ignored—by the administration and the governing board. Hence, rare is the case when a distinguished faculty member spares time from productive scholarship, teaching, or department matters for such university service. Of course, there are exceptions, but more common is the squeaky wheel syndrome, where those outspoken faculty members with an ax to grind are drawn to faculty politics, frequently distracting faculty governance from substantive issues, to focus it instead on their pet agendas.

Hence, a key to effective faculty governance is to provide faculty bodies with executive authority, rather than merely advisory consultation, thereby earning the active participation of the university's leading faculty members. Advisory bodies, paid only lip service by the administration or the board of trustees, rarely attract the attention or the participation of those faculty most actively engaged in scholarship and teaching. The faculty should become true participants in the academic decision process rather than simply watchdogs on the administration or defenders of the status quo. Faculty governance should focus on those issues of most direct concern to academic programs, and faculty members should be held accountable for their decisions. Faculties also need to accept and acknowledge that strong leadership, whether from chairs, deans, or presidents, is important if their institution is to flourish, particularly during a time of rapid social change.



A prescription for assessing and improving governing board performance

The contemporary American university presidency also merits a candid reappraisal and probably a thorough overhaul. The presidency of the university may indeed be one of the more anemic in our society, because of the imbalance between responsibility and authority, the cumbersome process used to select university leaders, and the increasing isolation of “professional” academic administrators from the core teaching and scholarship activities of the university. Yet it is nevertheless a position of great importance, particularly from the perspective of the long-term impact a president can have on an institution.

In conclusion, we should recognize that the current form of university governance, evolving over many decades is more adept at protecting the past than preparing for the future. All too often shared

governance tends to protect the status quo—or perhaps even a nostalgic view of some idyllic past—thereby preventing a serious consideration of the future. During an era characterized by dramatic change, we simply must find ways to cut through the Gordian knot of shared governance, of indecision and inaction, to allow our colleges and universities to better serve our society. Our institutions must not only develop a tolerance for strong leadership; they should demand it.

The complexity of the contemporary university and the forces acting upon it have outstripped the ability of the current shared governance system of lay governing boards, elected faculty bodies, and inexperienced academic administrators to govern, lead, and manage. Perhaps it is time to question whether the governance mechanisms developed decades or even centuries ago

for American higher education can serve well either the contemporary university or the society it serves. To blind ourselves to such issues is to perpetuate a disservice to those whom we serve, both present and future generations.

Duderstadt References

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *A University for the 21st Century* – (Ann Arbor, MI: University of Michigan Press, 2000) 280 pp

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. Duderstadt, *The Michigan Strategy Book: 1986 – 1996* (Ann Arbor, MI: Millennium Project, University of Michigan, 2000)

Some Questions for the Candidates for the Michigan Board of Regents

Question 1: Are the Regents of the University “governors” to protect the interests of the state? Or are they “trustees” to protect the mission, quality, and impact of the University?

Question 2: Should Regents primarily be concerned with providing maximum benefit to today’s Michigan residents? Or are they instead responsible as stewards for the investments in UM made in the past and guardians to protect this quality in the future, particularly during an era when the current generation of Michigan citizens are unwilling to maintain an adequate investment in the institution?

Question 3: What is the social contract between the University and the state of Michigan? To provide “an uncommon education for TODAY’s common man”, even if this causes an erosion in the quality of the University? Or to define the social contract in terms of what the state is willing to invest (similar to UC), that is, if it costs \$25,000/y for a Michigan quality education, and the state contributes only \$5,000, then the base (“sticker”) price for state residents is \$20,000. The UM will then try to use financial aid to reduce this cost to protect access, but those upper income families (say, above \$100,000) will pay the sticker price.

Question 4: What is the responsibility of the Regents to join with other public governing boards throughout the state to make the public case for adequate support and use their political influence on Lansing? After all, as elected public officials, they should be capable of using their influence to benefit the University they govern!!!

Chapter 7: Summary

1. Ask any group of university presidents about the greatest challenges to university leadership, and rapidly the issue of university governance emerges, whether internal through the shared governance of lay governing boards and faculty senates, or external through the complex web of political and regulatory forces exerted on their institutions by state and federal governments

2. American universities have long embraced the concept of shared governance, involving public oversight and trusteeship, collegial faculty governance, and experienced but generally short-term administrative leadership. While shared governance engages a variety of stakeholders in the direction of the university, the complex relationship among participants with quite different backgrounds and agendas poses many challenges.

3. The University of Michigan is unusual in being granted autonomy over the control of its academic programs by the State Constitution of 1851. As a consequence, the University has always been able to set its own goals for the quality of its programs rather than allowing these to be dictated by the vicissitudes of state policy, support, or public opinion.

4. But UM is anomalous in another respect since we are one of the very few American research universities whose governing board is determined through statewide popular election, involving partisan candidates nominated by political parties. To some degree this challenge is also mitigated by the State Constitution that directs the board to elect a president who should preside, without vote, at all their meetings.

5. Faculty governance at Michigan is also unusual since its strength is primarily with the faculty executive committees at the level of departments and schools and not with the university-wide level. In part this has to do with the absence of University bylaws that prescribe the authority of the University's Faculty Senate, unlike most other universities that actually require consultation by both the administration and governing

board with faculty governance on key issues.

6. Today it is appropriate to question whether the key participants in shared governance—the lay governing boards, elected faculty governance, and academic administrators—have the expertise, the discipline, and the authority, not to mention the accountability, necessary to cope with the powerful social, economic, and technological forces driving change in our society and its institutions.

7. Nothing is more critical to the future success of higher education than improving the quality and performance of boards of trustees. Today, during an era of rapid change, colleges and universities deserve governing boards comprised of members selected for their expertise and experience, members who are capable of governing the university in ways that serve both the long-term welfare of the institution and the more immediate interests of the various constituencies it serves.

8. Although it may sound strange in these times of scandal and corruption in corporate management, there is increasing evidence today that university governing boards should function with a structure and a process that reflects the best practices of corporate boards.

9. Corporate board members are selected for their particular expertise in areas such as business practices, finance, or legal matters. They are held accountable to the shareholders for the performance of the corporation. Their performance is reviewed at regular intervals, both within the board itself and through more external measures such as company financial performance.

10. Most active faculty members view university-wide faculty governance bodies, such as faculty senates, primarily as debating societies, whose opinions are invariably taken as advisory—and frequently ignored—by the administration and the governing board. Hence, rare is the case when a distinguished faculty member spares time from productive scholarship, teaching, or department matters for such university service.

11. Hence, a key to effective faculty governance is to

provide faculty bodies with executive authority, rather than merely advisory consultation, thereby earning the active participation of the university's leading faculty members.

12. Unfortunately the current form of university governance, evolving over many decades is more adept at protecting the past than preparing for the future. All too often shared governance tends to protect the status quo—or perhaps even a nostalgic view of some idyllic past—thereby preventing a serious consideration of the future. During an era characterized by dramatic change, we simply must find ways to cut through the Gordian knot of shared governance, of indecision and inaction, to allow our colleges and universities to better serve our society. Our institutions must not only develop a tolerance for strong leadership; they should demand it.

Chapter 8

Financials

The story of the financial support of the University of Michigan over the past five decades is one of a continued decline in state support, which in turn has forced the University to become ever more dependent on student tuition, federal support of research, private giving, the building of significant endowment assets through wise investments, and the capacity of its auxiliary activities such as hospitals, student housing, and athletics to tap price-insensitive markets. When we first arrived at Michigan in the late 1960s, Michigan was clearly a state-supported institution with over 70% of the funding for our academic programs coming from state appropriations. However, over the next several decades, state support has been withdrawn year after year, so that Michigan was forced to make transitions from a “state-supported” to a “state-assisted” to a “state-related”, and to a “state-located” institution, with less than 10% of our academic budget provided by the state. In fact, since today the activities of the University span not only the nation but have become worldwide, it remains a state institution in name only (e.g., the University of Michigan).

Yet, despite this loss of state support, the University remains very much a public university, shaped as such throughout history and reflected in our characteristics (scale, breadth, and social engagement). But today 95% of the publics the University serves and the publics that support it are no longer located in our state. Our support comes almost entirely from students and their parents paying tuition, from the federal government providing grants for research and student financial aid, from alumni, friends, foundations, and industry providing private support, and from the wise investment of University assets such as its endowment.

The story of this forced evolution from a state-supported institution to one that became largely

“privately supported, although still publicly committed” (in the words of former UM Provost and Cornell President, Frank Rhodes) is important not only for the University’s historical record but also as a model for most of the other flagship public research universities in this nation, which are now experiencing a similar erosion in state support.

First, however, it is useful to provide some background in university financing.

Financing the University: A Brief Tutorial

Like other enterprises in our society, the operation of a university requires the generation of adequate resources to cover the costs of activities. This is a complex task for academic institutions, both because of the wide array of their activities and the great diversity of the constituencies they serve. The not-for-profit culture of the university, whether public or private, requires a different approach to the development of a business plan than one would find in business or commerce.

Universities usually begin with the assumption that all of their current activities are both worthwhile and necessary. They first seek to identify the resources that can fund these activities. Beyond that, since there is always an array of worthwhile proposals for expanding ongoing activities or for launching new activities, the university always seeks additional resources. The possibility of reallocating resources away from ongoing activities to fund new endeavors has only recently been seriously considered. Strategies from the business world aimed at cutting costs and increasing productivity are relatively new to our institutions.

Most universities depend upon the following revenue sources:

- Tuition and fees paid by students
- State appropriations
- Federal grants and contracts
- Gifts and endowment income
- Auxiliary activities (such as hospitals, residence halls, and athletics)

Strategies for the expenditure side of the ledger include:

- Cost containment
- Strategic resource management
- Innovation through substitution
- Total quality management
- Re-engineering systems
- Selective growth strategies
- Restructuring the organization

The availability and attractiveness of each of these options varies greatly and depend upon the nature of the institution and the environment of which it is a part. Financial strategies also vary significantly with the particular circumstances faced by the institution. For many public institutions, more heavily dependent upon state appropriations, an appropriate strategy might be to build the political influence necessary to protect or enhance state support. Small private institutions with modest endowments depend heavily upon tuition and fees, and issues such as enrollments and tuition pricing and discounting play a key role in financial strategies. Small, highly focused research universities such as MIT and Caltech are heavily dependent upon federal research support and, needless to say, seek to influence federal research policies as part of their financial strategy.

The wise and efficient deployment of resources is as important as the effort to generate sufficient revenue when it comes to compensating for eroding public support. Understanding how to better use available resources to perform the many different missions of the contemporary university is key. Yet this can be a difficult task. Today's university is like a conglomerate, with many different business lines: education (undergraduate, graduate, professional), basic and applied research, health care, economic development,

entertainment (intercollegiate athletics), international development, etc. Each of these activities is supported by an array of resources: tuition and fees, state appropriation, federal grants and contracts, federal financial aid, private giving, and auxiliary revenues. Part of the challenge is to understand the cross-flows, e.g., cross-subsidies, among these various activities.

It is important to understand that the rising cost of tuition at the University of Michigan is essentially due to the decline in state support, not an increase in the actual cost of providing the instruction. In its study on research universities published in 2012, the National Academy found that the true *cost* of education in public universities has remained essentially constant since the 1980s. (Holliday, 2012) However the *price* has indeed gone up, since the states have largely continued to reduce their support of public higher education, which is down on the average of 35% since 2000 among flagship public universities such as the University of Michigan. (Here we stress that the situation is quite different for elite private universities where the costs have indeed increased rapidly, amounting to 3 to 4 times as much as public universities.)

What about the *value* of a college education? Clearly this is important today, particularly for those students who borrow to pay for college expenses (which include beyond tuition, room and board). Currently, the average rate of return on the personal investment in a college education is about 15% in this country—in fact, it is the highest return of any investment an individual can make. And for students in high-demand majors such as engineering, law, medicine, and business, the return is even higher.

Today's Financial Challenges

Today much of American higher education is still recovering from the impact of the Great Recession of 2008 and 2009. State support on a per student basis has continued to drop over the past decade to the lowest levels in three decades. Faculty and staff layoffs and furloughs are still common.

Yet in the 2000s and beyond, the University of Michigan appeared to be enjoying a period of relative peace, prosperity, and growth. In contrast to much of the rest of higher education, Michigan appears to

be financially secure, having completed a \$3.3 billion fundraising campaign several years ago and exceeding the goal of \$4 billion of the Bicentennial campaign in 2017. It touts a series of efforts to reduce costs and improve productivity in its business activities to keep its top AAA credit rating intact. Student applications and enrollments continue to grow, as do research expenditures, exceeding \$1.4 billion per year. The spirit of the campus seems upbeat, confident, and secure. Or at least so we are told.

Yet, below the surface there are growing concerns about whether the University has a realistic and sustainable financial model as the University begins its third century. As state support declined over the past five decades, the University of Michigan has found itself a predominantly “privately-supported” public university, in the sense that roughly 95% of its revenues came from non-state sources such as student tuition, clinical fees, research grants, private gifts and endowment earnings that are determined by competitive markets (as shown in charts detailing the financials of the University).

While the University’s state appropriation today at \$314 million (UMAA) is still very important, state support has fallen behind all of the University’s other patrons including students (tuition), the federal government (research grants and student financial aid), and private contributors (gifts and endowment income). This erosion in state support is demonstrated convincingly by charts showing the elements of the General Fund (academic) budget as well as an estimate of the loss in state support over the past decade (the so-called “jaws” diagram).

A more detailed discussion of the current strategy for compensating for the loss of state support and financing the University is provided below:

1) Enrollment Increases: The University has been able to adjust revenues to compensate for the loss of state support largely by increasing enrollments (by 30% or 12,000 students), increasing student tuition (particularly for non-resident students, now in excess of \$50,000/year), and shifting the student mix of in-state to out-of-state students. Yet here there are worries about the future. While once the state appropriation was viewed as providing the tuition discount provided

in-state students, this is clearly no longer the case. Today the high tuition charged to out-of-state students is covering the cost (subsidizing the education) of Michigan resident students. While this may strike some as robbing Peter to pay Paul, it is perhaps better to frame it as a Robin Hood approach to university financing since wealthy out-of-state students are being asked to subsidize the education of modest-income in-state students.

However there are several serious concerns about this strategy. First, while the loss of state support has largely been compensated for with nonresident tuition, this has approached a ceiling. Today the current out-of-state undergraduate tuition has caught up with leading private universities such as Harvard and Stanford. Furthermore although there are strong financial pressures to continue to grow enrollment, while holding permanent faculty lines relatively constant, the increasing instructional load in UM’s large undergraduate colleges, LS&A and Engineering, are already becoming burdensome for many faculty members, particular those with research grants.

Finally, as we will discuss later, this strategy of increasing the enrollment of students capable of paying essentially private tuition levels has distorted both the economic distribution of the student body as well as the culture of the University. This has also placed the public purpose of the University in jeopardy, since it is in part responsible for the major decline in the number of low income and underrepresented minority students. However here one should properly also place the blame on state higher education policies that place the State of Michigan at the bottom of the states in the level of need-based financial aid it provides to resident students.

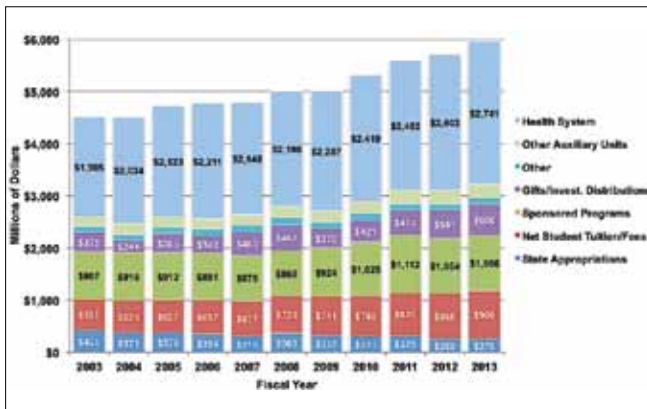
2) Sponsored Research: If the University is successful in sustaining the quality of its faculty, it should remain among the national leaders in the level of sponsored research expenditures. However, roughly 30% (\$380 million in 2017) of research expenditures are provided by the University itself, both to support research and scholarship where federal funds are not available and to cover inadequate indirect cost recovery and cost sharing. This high level of research activity also imposes additional costs on the University that must

Ann Arbor Campus Summary of Budgeted Revenues and Expenditures by Fund

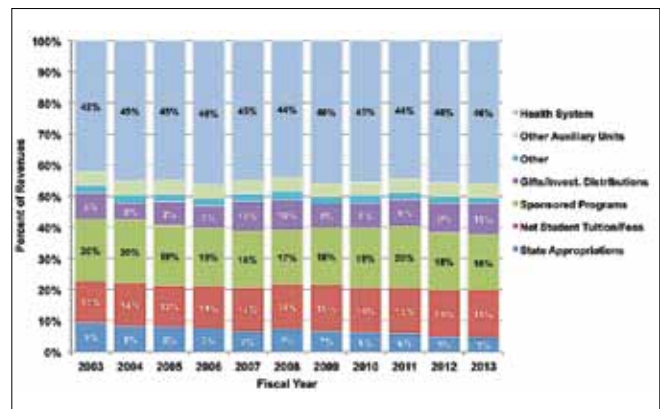
	2016-2017				Total	2015-2016 Total	\$ Change
	General	Designated	Auxiliary Activities	Expendable Restricted			
Revenues:							
State Appropriations	\$ 308,639,000	\$ -	\$ -	\$ -	\$ 308,639,000	\$ 299,430,600	\$ 9,208,400
Student Tuition & Fees	1,395,166,026	-	-	-	1,395,166,026	1,308,818,621	86,347,405
Government Sponsored Programs:							
Federal	750,000	-	-	930,000,000	930,750,000	874,300,000	56,450,000
Non-Federal	-	-	-	4,250,000	4,250,000	3,050,000	1,200,000
Non-Government Sponsored Programs	-	-	-	194,000,000	194,000,000	220,000,000	(26,000,000)
Indirect Cost Recovery	226,543,000	22,276,000	-	-	248,819,000	239,928,289	8,890,711
Indirect Cost Recovery Alloc to Gen Oper	-	-	-	(248,819,000)	(248,819,000)	(239,928,289)	(8,890,711)
Private Gifts	-	1,000,000	3,666,875	128,000,000	132,666,875	121,094,975	11,571,900
Income from Investments:							
Endowment and Other Invested Funds	-	45,200,000	74,115,104	191,450,000	310,765,104	297,772,365	12,992,739
Other	-	16,578,000	-	4,570,000	21,148,000	19,886,000	1,262,000
Auxiliary Activities:							
UM Health System	-	-	3,720,925,563	-	3,720,925,563	3,454,129,626	266,795,937
Other Auxiliary Units	-	-	333,480,510	-	333,480,510	335,081,541	(1,601,031)
Departmental Activities	8,845,000	111,116,000	-	1,000,000	120,961,000	120,966,000	(5,000)
Total Revenues	\$ 1,939,943,026	\$196,170,000	\$4,132,188,052	\$1,204,451,000	\$7,472,752,078	\$ 7,054,529,728	\$ 418,222,350
Total Expenditures	\$ 1,939,943,026	\$196,170,000	\$4,062,276,396	\$1,189,451,000	\$7,387,839,422	\$ 7,113,835,164	\$ 274,004,258
Forecast Margin	\$ -	\$ -	\$ 69,912,656	\$ 15,000,000	\$ 84,912,656	\$ (59,305,435)	

Total UM Health System revenue as shown on Schedule D:

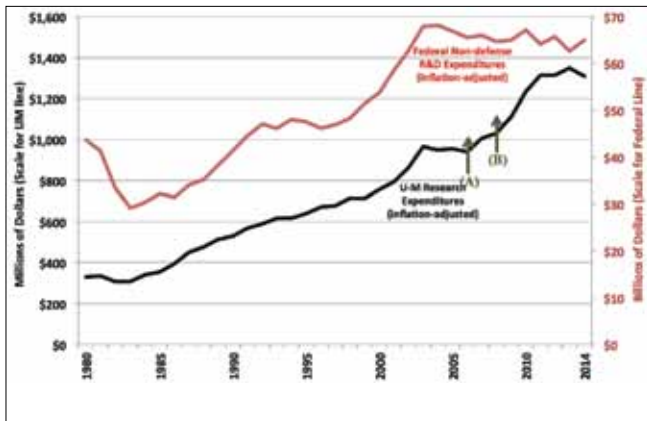
UM Health System Auxiliary Activities	\$ 3,720,925,563	\$ 3,454,129,626
Endowment and Other Invested Funds	74,115,104	76,572,365
Private Gifts	3,666,875	1,569,975
Total UM Health System Revenue	\$ 3,798,707,542	\$ 3,532,671,966



Operating Revenues (dollars)



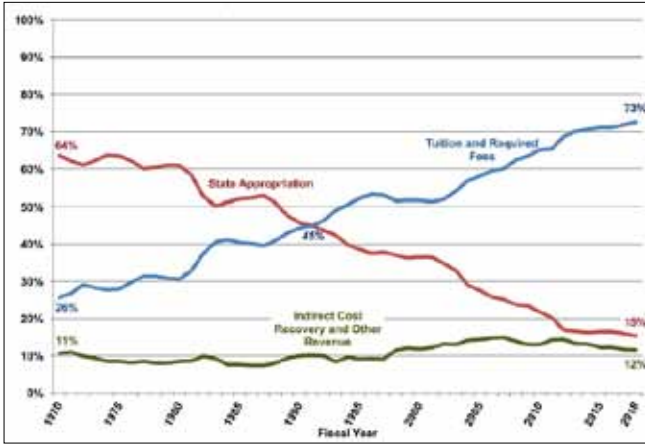
Operating Revenues (percentages)



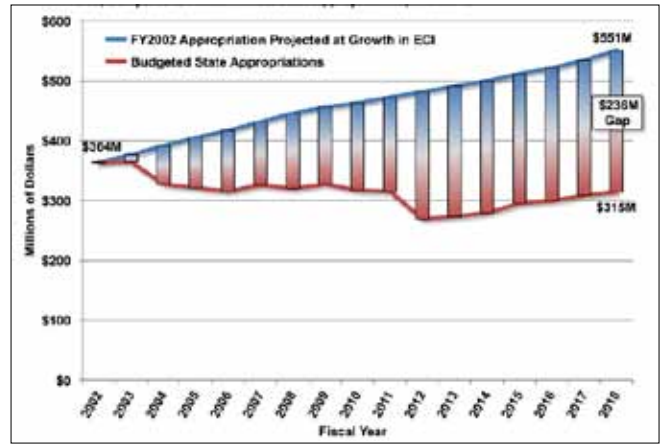
Growth in research expenditures (inflation adjusted)



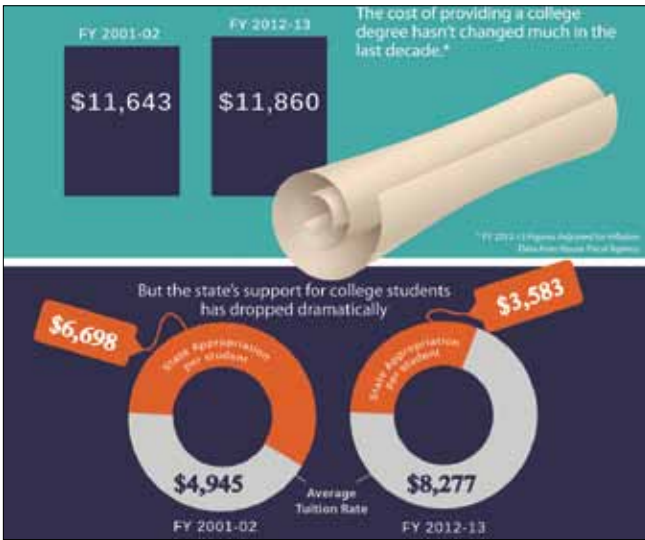
Gifts to the University



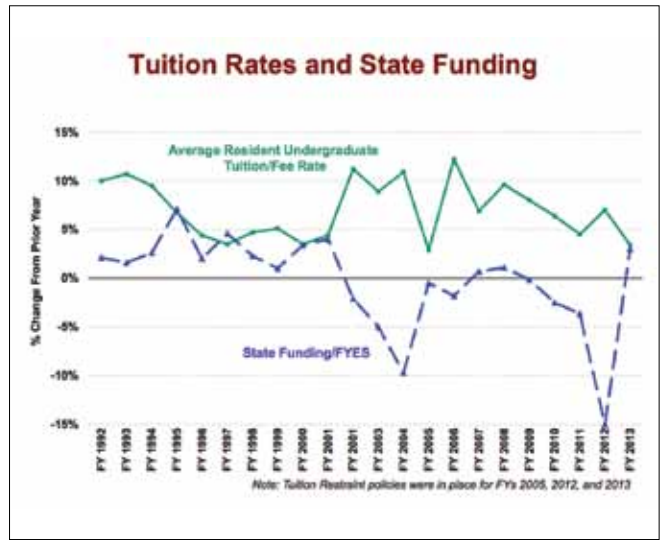
General contribution of state support to the UMAA General Fund budget



The "Jaws" diagram showing the erosion in state support compared to the CPI



The actual costs of higher education in Michigan have been constant since the 1980s.



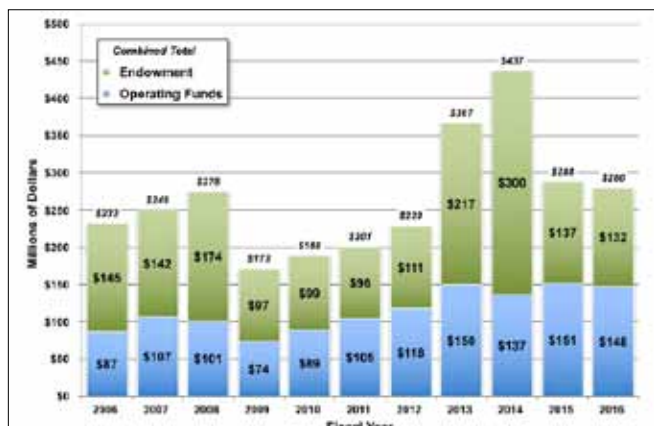
However the declining state support has pushed the tuition up to cover the constant costs

be addressed by revenue from other activities such as student tuition and patient fees (unless, of course, research sponsors such as the federal government can be persuaded to cover more of the indirect costs of the research they procure).

3) Fund Raising: Clearly private support has been essential to the welfare of the University. As state support for major capital facilities disappeared in the 1990s, this provided a critical source of funding for new buildings. It has also been critical for ongoing operations, bringing in roughly \$100 M/y to \$150 M/y for this purpose. Private gifts also provide much of the funding for the University's essential student

financial aid programs. But its most critical impact is building an endowment whose growth can then be managed to provide significant ongoing support for academic programs for the long term. The ability of the University to build its endowment through fund-raising campaigns and effective asset management has been impressive, resulting in endowment growth to \$11 billion in 2018 after recovering from the 2008 recession.

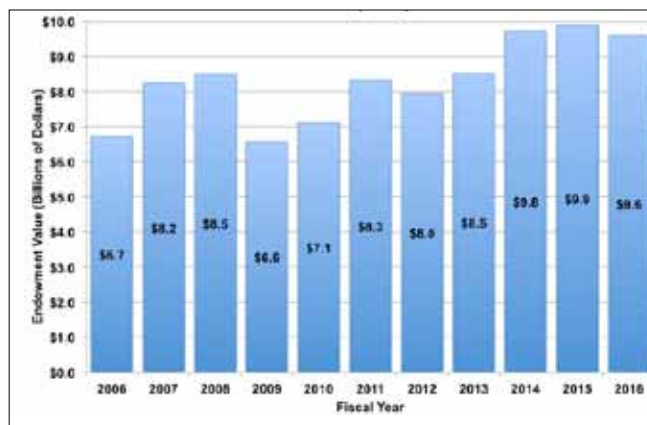
However several caveats are important here: Although the UM completed a successful \$3.3 billion fund-raising campaign in the 2000s and went past its goal on a \$4 billion fund-raising campaign associated with the Bicentennial in 2017, these largely provide only marginal operating resources within a \$8.4 billion



Endowment Growth

per year budget—and could well result in launching new initiatives demanded by donors that dilute academic programs even further. It is also important to recognize that most large gifts for capital facilities fail to cover either the full construction or operating costs of the building, requiring substantial additional University expenditures. This is a particularly serious issue for those naming gifts (i.e., “the edifice complex”) for facilities that are not among the University’s highest priorities. Furthermore, most of the University’s endowment is for specified purposes (including those funds associated with hospital reserves) and not available for general support.

4) Endowment: Although Michigan’s endowment appears impressive, its impact is limited by the size of the University. As a rule of thumb, the wealthiest private institutions achieve endowments capable of sustaining their institutions only when their endowments reach a level of \$1 million per student (since this generates sufficient payout at 4.5% to 5% comparable to tuition levels, a primary source of support). With the rapid growth in Michigan’s enrollment, its endowment per student for academic purposes would amount to only \$230,000 per student. Hence while impressive, the University’s endowment falls far short of that required to provide independence from state support with our current enrollment. In contrast to wealthy private universities such as Harvard and Stanford that support 30% or more of their operations from endowment income, Michigan’s endowment support amounts to less than 10% of its General Fund, compared to 36% for tuition revenue.



Endowment Market Value

5) Cost Containment: On the other side of the ledger, the University has launched a cost reduction effort during the past decade, with the goal of trimming roughly 1.5% to 2.0% each year of annual expenditures. While this has resulted in part from more efficient management of energy and supply acquisition and administration, many of these savings have been achieved by taxing the expenditures of academic units to leverage reductions in their budgets and by increasing employee and retiree contributions to staff benefits. Both approaches put academic quality at risk. It is clear that efforts to enhance efficiency, productivity, and cost containment must be broadened to include both academic units and revenue-generating activities such as development and marketing.

Furthermore, the massive expansion of the staffing in areas such as communications, marketing, and development, coupled with the dramatic increase in compensation of senior administrators and staff in the central administration, raise serious concerns about the viability of the current cost containment strategy.

There are several longer-term concerns that should be kept in mind about future options for strengthening the University’s financial situation.

6) State Support: Since much of the State of Michigan’s tax revenue base has been eliminated by the tax policies of recent conservative Republican administrations, it is unlikely that there will be significant restoration of state appropriations for higher education for many years. Michigan is likely to continue to rank in the lowest quartile of the states in its support

of its public universities. Since the population of college age students in Michigan is projected to drop by 20% over the next decade, it is likely that state support will at best track inflation and will not increase sufficiently to cover the funding cuts of the past two decades.

7) Enrollment Growth: Although there will likely be strong pressures to continue to grow enrollment while holding tenure-track faculty size relatively constant, the concerns about the negative impact on academic quality of further enrollment growth, the pressure on faculty retention driven by increasing instructional load, and the fact that out-of-state tuition rates are approaching the ceilings experienced by private universities, suggests that this option may be limited.

8) Cost Containment: Much of the highly touted recent “savings” of the University have come largely out of faculty-staff benefits, cutting health care, retirement benefits, and salary programs. Furthermore faculty and staff compensation during the past 20 years have been modest, dropping 20% below several of its private university peers and lagging behind even other leading public universities. Hence there is a serious concern that further cuts in benefits would cripple UM’s efforts to attract outstanding faculty and staff. Instead, it is becoming clear that the University must simply assess more carefully those areas where most staff growth has occurred (e.g., communications and development). Furthermore the Regents must demand more rigorous and defensible compensation policies for senior administrators comparable to peer institutions.

9) Securing the University’s “Public Purpose”: As we will discuss later in Chapter 11, the loss of state support coupled with the enrollment of large numbers of out-of-state students paying high tuition has seriously eroded Michigan’s public purpose. The fraction of low-income and first-generation college students has dropped below that of most public universities and even several leading private universities, leading to UM’s characterization as “an engine of inequality”.

10) Competition among Academic vs. Auxiliary Units: There is increasing concern about the very significant growth in the auxiliary units of the

University, which operate in relatively price-insensitive markets with few Regent constraints such as those imposed on tuition. Yet this unbridled growth has serious implications for academic units. For example, the University’s debt capacity is determined by tuition revenue rather than auxiliary revenues, thereby raising the concern that to some degree auxiliary facilities growth could well constrain academic opportunities. More serious is the aggressive growth in the fund-raising activities of auxiliary units that are now going after prospects and fund-raising opportunities in competition with academic units.

In summary, the University’s current financial model looks increasingly unsustainable: Its academic programs are largely sustained by high tuition from out-of-state students, which is approaching Ivy League levels. Fund-raising, while very strong for a public university, aligns more with donor interests than University priorities. Although the University faculty remains highly successful in attracting sponsored research support, roughly 30% of the \$1.4 billion of annual research expenditures is currently provided by the University itself. While the University has taken advantage of low interest rates to enable investment in capital facilities at the rate of roughly \$1 billion per year, the capacity of longer term revenues to support both the debt and operating costs of these facilities is questionable.

Bricks and Mortar

While outstanding faculty, students, and staff are the key assets of a great university, the quality of facilities clearly influences the ability both to recruit outstanding people and to support their efforts to achieve excellence. As Winston Churchill once stated: “We shape our buildings. Thereafter, they shape us.” Maintaining and enhancing the quality of the campus, buildings, grounds, and other infrastructure is a major priority of the university, and it must be a responsibility of the president. In most cases, the need for facilities and other campus improvements bubble up from the various programs of the university, and then the deans and the president work together to acquire the resources necessary to support these projects.



North Quad



Weill Hall



Life Sciences Institute



Biomedical Sciences Building



Ross School of Business Administration



Law School South Hall



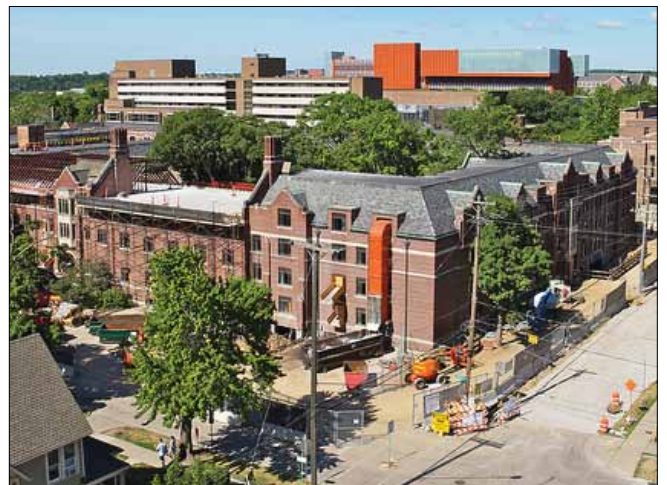
Mott Children's Hospital



Cardiovascular Hospital



Hill Dining Hall



East Quad Renovation



Michigan Stadium



Chrysler Center Expansion



School of Nursing



Beyster Laboratory



Ross Addition to Business Administration



Munger Graduate Resident Hall



Biosciences Building



Ross Athletic Campus

Although the needs of academic units should take precedence in capital improvements, any visit to a university campus will soon reveal that much of the activity exists in auxiliary units, such as the medical center, student housing, and intercollegiate athletics because of their independent capacity to generate funding (e.g., patient fees, rents, ticket income, television revenue, or gifts).

Most of the campus growth (75%) over the past two decades, at least in terms of investment (\$2.5 B), has occurred in auxiliary units (i.e., clinical activities, housing, athletics) and were funded by auxiliary revenue streams, albeit with debt secured by student fee revenues. Those buildings responding to academic needs have generally depended upon anticipated federal research support (e.g., Public Health Annex and biosciences complex) or private funding (Ross Business School, Weill Hall). This raises a serious question as to just how, in the absence of state support, the University could meet the future capital facilities needs of those academic units that had no donors or other external revenue sources (e.g., federal R&D).

Many of the donor funded facilities required substantial additional University contributions because of the nature of the gift (e.g., through pledges and bequests that led to present worth values that fell far short of the proclaimed size of the gift) and the requirement of further cost sharing by the University for both the construction of the facility and its eventual operation. Here the lesson frequently overlooked was that large donors usually give money for what they want rather than what universities need, hence all too frequently incurring sizeable additional university expenses for resources only peripheral to academic priorities. It has become clear that the University simply must “look these gift horses in the mouth” and assess the true cost of the construction and maintenance of these designated “gifts” buildings.

Financial Futures

So how might we assess the financial state of the University today? To be sure, the University has survived in the face of losing over 80% of its state support since the 1980s (in constant dollars), with its reputation largely intact. In fact, in the 1990s the

National Academy ratings of academic quality ranked the University of Michigan 3rd in the nation (and world) behind only Stanford and the University of California Berkeley in the quality across the full spectrum of its graduate programs.

But it could be argued that this was primarily because of decisions and actions taken during the three-decade period during the late 20th Century. Tuition was increased to more realistic levels reflecting the decline in state subsidy. Strong support and incentives were provided to encourage the faculty in obtaining external research support (with Michigan moving to 1st in the nation in research activity as a result). Authority and accountability for resources was decentralized to the level of deans and directors, where assets are acquired and costs are incurred. The effort was launched to more aggressively to manage the University’s endowment increasing it during the 1990s by 10 fold to over \$2.5 B. And a central “bank” was created by the VPCFO to manage University assets in a highly creative and effective manner. Largely as a result of these actions, the University was able to achieve in 1997 the top AAa credit rating and maintain this rating through the past decade and a half.

In contrast, more recently a series of short term actions have been taken that may have walked the University out on a financial limb. The dramatic increase of 30% in student enrollments, designed to generate additional tuition particularly from out-of-state students, has both overloaded instructional capacity and seriously eroded the socioeconomic diversity of the student body. Furthermore, launching massive debt-financed capital facilities projects in auxiliary enterprises to take advantage of market-insensitive pricing and low interest rates has not only incurred significant debt but encumbered much of the University’s borrowing capacity (determined primarily by student tuition and fee revenue rather than auxiliary revenues).

Hence today there remain serious concerns about the University’s financial sustainability, since enrollments have now reached (or in some cases exceeded) instructional and facilities capacity. Nonresident tuition is approaching the ceiling experienced by the top private institutions, while instate tuition continues to be highly constrained by political factors. While endowment has continued to grow, endowment-per-student is at only

one-tenth the level of leading private institutions.

Financial Integrity

A key to the strength, impact, and success of a university in its many roles of serving society is its financial integrity. Few events can more rapidly damage the credibility of an institution and stimulate more public concerns than flaws in its financial management.

The financial integrity of a university depends on several factors. First, of course, is the integrity and experience of those in the university responsible for its financial resources. This includes not only professional management staff but also those in leadership positions, from department chairs to deans to executive officers to the president and the governing board.

The second key factor is the network of experienced business managers serving the university. For example, while department chairs and deans usually come from academic backgrounds with little experience in management or accounting, at Michigan they have experienced business managers at the school or college level to assist them in financial matters. These business managers function with a dotted line reporting relationship to the central administration (and the University's chief financial officer) so that financial problems that arise at the unit level usually can be sensed by the University administration and rapidly addressed.

Similar to large corporations, the University also has an extensive internal accounting organization that continually monitors financial practices. In fact, when assisted by business managers, these accounting staff members also play a key role in educating University leaders with only academic experience. This accounting function is also strengthened through the use of external accounting firms, particularly in complex areas like medical services, and frequently reports directly to the Board of Regents.

Finally, the financial integrity of the University depends upon both the experience and integrity of the president. To this end, it has long been the custom that Michigan presidents are both allowed and encouraged to serve on the board of directors of major corporations, so that they gain additional experience and judgment in the complex financial management and accounting

practices of Fortune 500 companies. For example, Jim served as a director of CMS Energy, a global energy company, and Unisys, a leading IT company. He also served on the governing boards of complex federal agencies such as the National Science Board (which he chaired), the Department of Energy's Nuclear Research Committee (also as chair), and the Intelligence Science Board (providing advice to the nation's intelligence community, e.g., the CIA, FBI, and NSA). Through these experiences he rapidly gained the perspective and experience necessary to maintain the financial integrity of the University of Michigan, also an "international corporation of Fortune 500 scale" in its size and complexity.

One final observation is important here. While the University's business organizations, management structure, leadership experience, and role of the Board of Regents are all essential to the financial integrity of the University, in the end it is its insistence on the highest level of commitment, experience, accountability of its faculty and staff that secures and protects its financial integrity.

Duderstadt References

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt and Farris W. Womack, *The Future of the Public University in America: Beyond the Crossroads* (Baltimore: Johns Hopkins University Press, 2002), 236 pp.

James J. Duderstadt, *A University for the 21st Century* (Ann Arbor, MI: University of Michigan Press, 2000) 280 pp

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. Duderstadt, *The Michigan Strategy Book: 1986 - 1996* (Ann Arbor, MI: Millennium Project, University of Michigan, 2000)

Chapter 8: Summary

1. Over the past half century, state support has been withdrawn year after year, so that Michigan was forced to make transitions from a “state-supported” to a “state-assisted” to a “state-related”, and to a “state-located” institution, with less than 10% of our academic budget provided by the state. In fact, since today the activities of the University span not only the nation but have become worldwide, it remains a state institution in name only (e.g., the University of Michigan).

2. Yet, despite this loss of state support, the University remains very much a public university, shaped as such throughout history and reflected in our characteristics (scale, breadth, and social engagement). But today 95% of the publics the University serves and the publics that support it are no longer located in our state. Our support comes almost entirely from students and their parents paying tuition, from the federal government providing grants for research and student financial aid, from alumni, friends, foundations, and industry providing private support, and from the wise investment of University assets such as its endowment.

3. Universities usually begin with the assumption that all of their current activities are both worthwhile and necessary. They first seek to identify the resources that can fund these activities.

- Tuition and fees paid by students
- State appropriations
- Federal grants and contracts
- Gifts and endowment income
- Auxiliary activities (such as hospitals, residence halls, and athletics)

Strategies for the expenditure side of the ledger include:

- Cost containment
- Strategic resource management
- Innovation through substitution
- Total quality management
- Re-engineering systems
- Selective growth strategies

- Restructuring the organization

4. The wise and efficient deployment of resources is as important as the effort to generate sufficient revenue when it comes to compensating for eroding public support. Understanding how to better use available resources to perform the many different missions of the contemporary university is key. Yet this can be a difficult task. Today’s university is like a conglomerate, with many different business lines: education (undergraduate, graduate, professional), basic and applied research, health care, economic development, entertainment (intercollegiate athletics), international development, etc. Each of these activities is supported by an array of resources: tuition and fees, state appropriation, federal grants and contracts, federal financial aid, private giving, and auxiliary revenues. Part of the challenge is to understand the cross-flows, e.g., cross-subsidies, among these various activities.

5. It is important to understand that the rising cost of tuition at the University of Michigan is essentially due to the decline in state support, not an increase in the actual cost of providing the instruction. In its study on research universities published in 2012, the National Academy found that the true *cost* of education in public universities has remained essentially constant since the 1980s. (Holliday, 2012) However the *price* has indeed gone up, since the states have largely continued to reduce their support of public higher education, which is down on the average of 35% since 2000 among flagship public universities such as the University of Michigan.

6. What about the *value* of a college education. Clearly this is important today, particularly for those students who borrow to pay for college expenses (which include beyond tuition, room and board). Currently, the average rate of return on the personal investment in a college education is about 15% in this country—in fact, it is the highest return of any investment an individual can make. And for students in high-demand majors such as engineering, law, medicine, and business, the return is even higher.

7. In the 2000s and beyond, the University of Michigan appeared to be enjoying a period of relative peace, prosperity, and growth. In contrast to much of the rest of higher education, Michigan appears to be financially secure, having completed a \$3.3 billion fundraising campaign several years ago and exceeding the goal of \$4 billion of the Bicentennial campaign in 2017. It touts a series of efforts to reduce costs and improve productivity in its business activities to keep its top AAa credit rating intact. Student applications and enrollments continue to grow, as do research expenditures, exceeding \$1.4 billion per year. The spirit of the campus seems upbeat, confident, and secure. Or at least so we are told.

8. Yet, below the surface there are growing concerns about whether the University has a realistic and sustainable financial model as the University begins its third century. As state support declined over the past five decades, the University of Michigan has found itself a predominantly “privately-supported” public university, in the sense that roughly 95% of its revenues came from non-state sources such as student tuition, clinical fees, research grants, private gifts and endowment earnings that are determined by competitive markets (as shown in charts detailing the financials of the University).

9. The University has been able to adjust revenues to compensate for the loss of state support largely by increasing enrollments (by 40% or 15,000 students), increasing student tuition (particularly for non-resident students, now in excess of \$50,000/year), and shifting the student mix of in-state to out-of-state students. Yet here there are worries about the future. While once the state appropriation was viewed as providing the tuition discount provided in-state students, this is clearly no longer the case. Today the high tuition charged to out-of-state students is covering the cost (subsidizing the education) of Michigan resident students.

10. Although the University leads the nation in research expenditures (\$1.4 B), 30% of these (\$380 M) are supported by internal funds rather than research sponsors.

11. Private support is strong, but donors give to their priorities, not necessarily the University needs. Furthermore in the case of buildings (“the edifice complex”), the gifts rarely cover full construction costs and never operating costs, so these “gifts” actually cost the University more money.

12. While the University’s \$11 billion dollar is impressive, because of its large enrollment, its value per student (\$250,000) is much less than leading private universities (> \$1 M)

13. In summary, the University’s current financial model looks increasingly unsustainable: Its academic programs are largely sustained by high tuition from out-of-state students, which is approaching Ivy League levels. Fund-raising, while very strong for a public university, aligns more with donor interests than University priorities. Although the University faculty remains highly successful in attracting sponsored research support, roughly 30% of the \$1.4 billion of annual research expenditures is currently provided by the University itself. While the University has taken advantage of low interest rates to enable investment in capital facilities at the rate of roughly \$1 billion per year, the capacity of longer term revenues to support both the debt and operating costs of these facilities is questionable.

14. More recently a series of short term actions have been taken that may have walked the University out on a financial limb. The dramatic increase of 30% in student enrollments, designed to generate additional tuition particularly from out-of-state students, has both overloaded instructional capacity and seriously eroded the socioeconomic diversity of the student body. Furthermore, launching massive debt-financed capital facilities projects in auxiliary enterprises to take advantage of market-insensitive pricing and low interest rates has not only incurred significant debt but encumbered much of the University’s borrowing capacity.

15. Nothing is more critical to the reputation of the University than the integrity of its financial operations, secured by rigorous audit practices.

Chapter 9

Auxiliary Activities

Although the academic activities of the University remain key to its reputation and impact, much of the attention of large universities these days is focused on nonacademic opportunities, so-called *auxiliary activities*, such as medical centers, student housing, and intercollegiate athletics. These activities are particularly important at Michigan because of scale. The University of Michigan Health Center has a budget of \$3.7 billion, larger than the academic enterprise; student housing is a critical need for an enrollment of 46,000 students; and with the nation's largest football stadium (110,000), Michigan Athletics has immense public visibility. Yet during the first decades of the new century there has been a growing faculty concern that the rapid growth of the Michigan's auxiliary activities (hospitals, housing, and athletics), now comprising over 50% of the University's budget, has driven an increased focus on these activities by the leadership and governance of the institution to the neglect of academic programs.

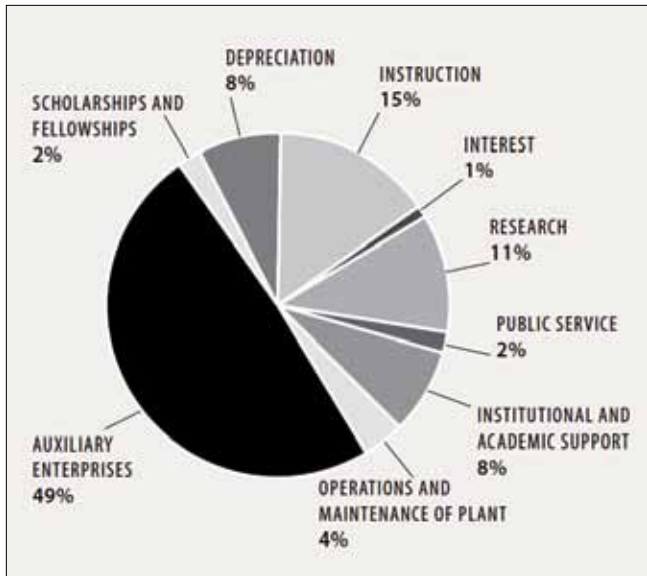
To be sure, the auxiliary units operate in markets that are relatively insensitive to pricing compared to the tuition constraints and limited public support of academic units. But there is a growing concern that this rapid growth is also driven by unusually aggressive leadership of auxiliary units as well as the priority given by the University's leadership and governance. There is also the related issue as to whether the aggressive growth of the auxiliary units actually competes with and draws resources away from the academic core. This concern about academic priorities applies not only to resource allocation but also to the attention of governance (the Regents), leadership (the Executive Officers), and management (central administration functions such as development and communications).

The University Medical Center

Perhaps the best example of the manner in which the missions of education, research, and service interweave is the academic medical center, certainly the most complex component of the university. Furthermore, its missions of education, research, and clinical care are conducted all on a scale that dwarfs most other university programs. There is no part of the university that has experienced such powerful forces of change in recent years because of the profound changes in the ways in which health care is delivered and financed in this country. There is also no part of the university that has required so much time and attention of university leaders.

American universities have long been an important source not only of physicians, nurses, dentists, pharmacists, and other health care professionals but also for health care provided by their hospitals and clinics. Medical education and practice has been an important priority for the University since its earliest days in Ann Arbor. During the late 19th century Michigan, together with Penn and Columbia, defined the character of medical education within a graduate paradigm based upon laboratories and teaching hospitals. With one of the largest hospitals in the nation, built during the 1920s, the University became one of the leading providers of health care to the state and of medical research for the world.

Education in the health professions—medicine, dentistry, nursing, pharmacy, and public health—has been an important mission of comprehensive universities in America. Many universities own and operate hospitals to support their teaching and research efforts in the health sciences; others have important affiliations with community hospitals to serve as sites



The 2015 UM Budget demonstrating the balance between academics and auxiliary activities.

for clinical training.

Beyond this teaching and research role, the American university has long played a major role in the delivery of health care. Teaching hospitals have evolved into complex health care centers, offering a broad range of services. The changing nature of health care delivery and costs stimulated both major growth and concentration of health care services in these centers to the point where many have become comparable in size to their host university.

The University of Michigan Health Center

The University of Michigan Health Center makes an excellent case study of the evolution of the academic medical center, especially since Michigan was the first American university to build, own, and operate its own teaching hospitals over 150 years ago. During the early days of the University, over half of its students were enrolled in its Medical School. Beyond medicine, the University developed a broad array of instructional programs in the health professions: medicine, dentistry, nursing, dental hygiene, pharmacy, public health, and social work.

The Medical School and the University Hospital have always been closely linked together. Although in theory the primary function of the University Hospital was to provide a site for teaching, training, and research,

in practice it soon became the cornerstone of health care delivery in the state. Its size, comprehensiveness, and sophistication attracted the most complex medical cases. As a public institution, it played a major role in providing health care to those unable to afford treatment at private hospitals. The University Hospital operated as a closed shop in the sense that only faculty of the Medical School had practicing physician privileges. Furthermore, all of its “house officers,” its interns and residents, were also all members of the Medical School.

Despite this close relationship between the Medical School and the University Hospital, each unit had separate leadership, a Dean of the Medical School and a Director of the University Hospital, with separate administrations. Furthermore, each unit had a different reporting line, with the Dean reporting through academic channels to the Provost, and the University Hospital Director reporting through financial channels to the Vice President and Chief Financial Officer. As a result, the differences that would occasionally arise due to inevitable conflict between academic and clinical goals would frequently require resolution at the level of the President. In order to deal with these issues the University eventually formed a special executive officer team consisting of the President, Provost, Vice President and Chief Financial Officer, Dean of the Medical School, and University Hospital Director.

Both the Medical School and the University Hospital have experienced rapid growth throughout the past several decades. Even though the enrollment of students in the Medical School has remained relatively constant, the increasing needs for clinical staff to address the growing needs of the Medical Center has driven a dramatic increase in the number of clinical faculty, now numbering over 1,800. Similarly, both the physical size and the level of patient activities of the University Hospital—more correctly “hospitals,” since the medical center spawned separate facilities for activities, such as pediatrics, maternal care, geriatrics, cancer treatment, ophthalmology, and so on—continues to grow. Today, the medical center receives almost two million patient visits per year, with total revenues of \$3.7 billion, ranking it as one of the largest academic medical centers in the nation. The primary reason for this extraordinary growth was, of course, both the rising health care needs of our population as well the



The clinical services of the University of Michigan Hospitals provide an extraordinary resource to the citizens of the State of Michigan, but their financial scale and management can threaten the University itself.

need to generate revenue from patient care to support medical education and research.

The revenues from patient care are critical to the Medical School, supporting faculty, students, and research activities. Faculty in clinical departments have long benefited financially through the provision of patient care. Indeed, less than 20 percent of the support of the Medical School is derived from academic revenue sources such as tuition and state support, which characterized other university programs.

The changing nature of the health care marketplace continues to require major growth, particularly in the areas of primary care, in order to provide the referrals to the tertiary care provided by the Medical Center. The University established a network of primary care clinics throughout the southeastern Michigan area, acquired other practices, and formed a series of alliances with other health care providers and managed care organizations. This growth in the Medical Center drove major growth in the number of faculty in the Medical School. It also shifted the attention of both the University Hospitals and the Medical School away from the core missions of teaching and research to focus instead on the financial profitability of clinical services.

As each wave of changes in health care swept across the nation, the University Medical Center, both because of commitments made in the past and an aggressive vision for the future, seemed continued to grow in facilities and staffing. But signs of stress continued to appear as further change loomed on the horizon. Faculty were under increasing pressure to generate more and more clinical income in order to support the Medical School operations, particularly to cover the debt associated with building new facilities. Junior faculty, in an effort to achieve promotion and tenure, are under particularly severe stresses because the need to generate clinical income came on top of those to build competitive research programs. And instability in federal policy, such as the restructuring of the Affordable Care Act, present even more challenges to financial operation.

Furthermore, the balance between the academic mission of the Medical School and the service mission of the Medical Center—now renamed as “Michigan Medicine”—was disrupted by a decision to merge the role of Executive Vice President for Health Affairs with the

role of Dean of the Medical School, effectively leaving the academic programs without an independent voice. Beyond the complexity of managing both a \$3.57 billion clinical system and one of the world’s largest medical schools, this merger has threatened the financial and academic independence of one of the University’s most important schools.

Today’s Challenges Facing the Medical Center

Today, all academic medical centers are under great stress, not only because of changing federal health policies such as the Affordable Care Act and its successors, but also because of the changing nature of the marketplace for health care. The rapid growth of managed care organizations (where payment is not structured around clinical services but on a fixed basis for maintaining the health of each individual) has changed dramatically the nature and financing of health care. The marketplace has become intensively competitive because of an excess of hospital capacity, and the entry of for-profit organizations. Because of the high costs associated both with the tertiary clinical mission and teaching function, many academic medical centers face serious financial challenges today that threaten their very survival.

It is increasingly clear that for teaching hospitals to survive, they must have increasing freedom to control their costs—to operate like a business—with attention given to the bottom line. But this can pose a serious threat to the quality and integrity of the teaching and research missions of their health science schools. In particular, most teaching hospitals are taking a far more aggressive stance toward negotiating physician services from their associated medical schools. In practical terms, this means that the clinical centers are seeking to shift the risk associated with health care costs once again, this time to the faculty and the programs of the health sciences schools.

Since the medical centers at many universities have now become comparable in size and complexity to the academic programs themselves, the stresses and challenges from the medical center faces threaten the university as well, both financially and in terms of priorities. As one of our faculty members put it, organizations are loath to change until they see the

wolf at the door—and become convinced that it is big enough to eat them! If so, they need only look at their medical centers, since these are indeed large enough to devour their host institutions.

Like many other roles assumed by the university over the years, it could well be that the delivery of health care has reached the stage where it is time to spin it off. Several other universities have reached this same conclusion, creating independent health care systems, merging them with other health care providers, or even selling them to for-profit organizations. The academic management culture and the glacial speed of the academic decision process makes it increasingly difficult for a university to manage a viable health care system in the intensely competitive world of modern health care. To attempt to do so puts the university at financial risk and distracts the attention of its leadership.

To be sure, such devolution of teaching hospitals from universities reduces the influence of medical schools over the academic medical center and, not surprisingly, is generally resisted by medical faculty. But the management demands and risks attendant to health care delivery on a sufficient scale for financial viability seem increasingly incompatible with the mission and culture of the university.

Student Life

Many of the activities of students such as residence halls, dining facilities, and intramural athletic facilities are supported by separate fees and hence also regarded as auxiliary activities, separate from academic programs. With a student body of 46,000, the university maintains a very large activity in the support of “student life” amounting to over \$200 million year. The massive University investment in student housing, amounting to \$1 billion over the past decade, coupled with the unusually high quality of both dining and lounging facilities (see illustrations) was driven not only by the 30% increase in student enrollments but also by the need to attract high-income students capable of paying private tuition levels. To compete with the Ivys, Michigan had to offer amenities similar to the wealthy private universities.

However only about one-third of the student body lives in University housing. Another 6,000 live in

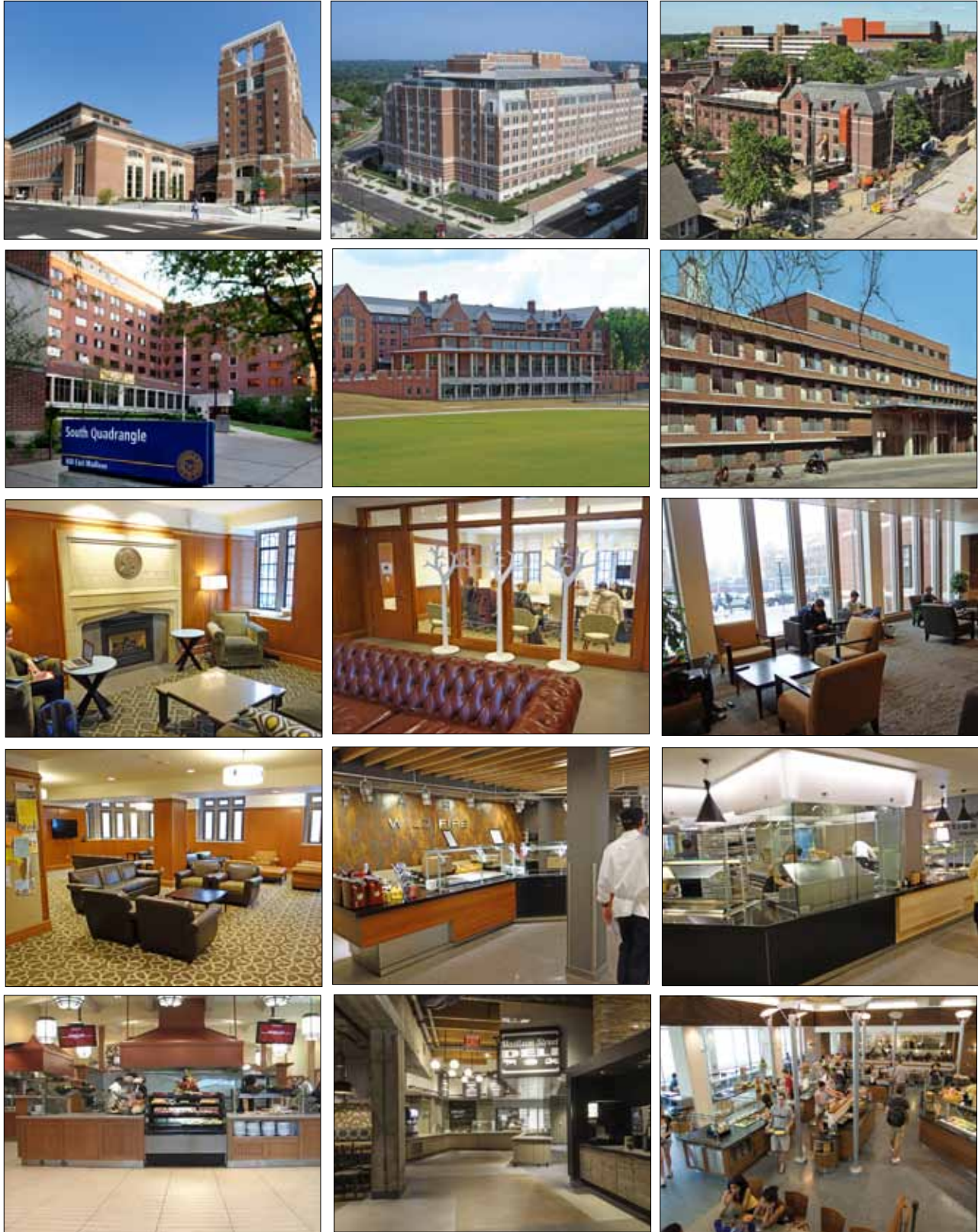
fraternities and sororities, while the remainder live in rental properties scattered among housing in Ann Arbor and increasingly in high-rise apartment complexes. While these alternatives to University housing do not involve direct financial management by the institution, they do require University involvement in other ways.

For much of its history, the University had kept an arm’s length distance from fraternities and sororities, despite the fact that large numbers of undergraduates each year chose them as their residential community. This reluctance to become involved grew, in part, from the University’s concern about liability for the institution should it become too closely linked with Greek life. This attitude of benign neglect changed in the late 20th Century when the University—and the Ann Arbor community—became increasingly concerned about a series of fraternity incidents involving drinking and sexual harassment. The administration concluded that it had a major responsibility, to both its students and the Ann Arbor community, to become more involved with the Greeks.

The key message from the University administration was to remind the students of Michigan’s heritage of leadership and challenge them to strengthen their capacity to discipline renegade members through organizations such as the Interfraternity Council. Although beginning with a strong challenge for self-discipline, it was also stated quite clearly that the university would act with whatever force necessary to protect the student body and the surrounding community. Fraternity leaders picked up this challenge, and a new spirit of responsible behavior and discipline began to appear. Policies were adopted forbidding drinking during rush along with strong sanctions for entertaining minors from the Ann Arbor community in the houses. The university took further steps by hiring a staff member to serve as liaison with the Greeks.

This is not to suggest that misbehavior in Greek life vanished from the campus. Indeed, several fraternities suffered from such a pattern of poor behavior that their national organizations agreed to withdraw their charter, and they were removed from campus. But in general, the nature of Greek life became one of far greater responsibility and self-discipline.

As University enrollment increased from 34,000 students in the 1990s to 46,000 today, the marketplace



The investment in high-end residential and dining facilities to attract high income students



Urbanization of Ann Arbor by Student Rentals

for student rentals exploded, leading to a massive building of high-rise apartment buildings that now dot the Ann Arbor skyline. While certainly necessary to accommodate a larger University enrollment, it is also creating an increasingly urban character to the city of Ann Arbor adjacent to the campus.

Intercollegiate Athletics

Mention Ann Arbor, and the first images that probably come to mind are those of a crisp, brilliant weekend in the fall; walking across campus through the falling leaves to Michigan Stadium; gathering at tailgate parties before the big game; and the excitement of walking into that magnificent stadium—the “Big House”—with 110,000 fans thrilling to the Michigan Marching Band as they step onto the field playing “Hail to the Victors.” Intercollegiate athletics at Michigan are not only an important tradition at the university, but they also attract as much public visibility as any other university activity. They are also a critical part of a university leadership’s responsibilities.

Most concerns about college sports today derive from the fact that the culture and values of intercollegiate athletics have drifted far away from the educational principles and values of their host universities. Today’s athletic departments embrace commercial values driven by the perception that the primary purpose of athletic competition is mass entertainment. There is ample evidence that the detachment of intercollegiate athletics from the rest of the university—its mission



Michigan takes the field!

and values, its policies and practices—has led to the exploitation of students and has damaged institutional reputation to an unacceptable degree.

First, while most of intercollegiate athletics are both valuable and appropriate activities for universities, big-time college football and basketball stand apart, since they have clearly become commercial entertainment businesses. Today, they have little, if any, relevance to the academic mission of the university. Furthermore, they are based on a culture—a set of values—that, while perhaps appropriate for show business, are viewed as highly corrupt by the academy and deemed corrosive to our academic mission.

Second, although one can make a case for the relevance of college sports to our educational mission to the extent that they provide a participatory activity for our students, there is no compelling reason why American universities should conduct intercollegiate athletic programs at the current, highly commercialized, professionalized level of big-time college football and basketball simply for the entertainment of the American public; the financial benefit of coaches, athletic directors, conference commissioners, and NCAA executives; and the profit of television networks, sponsors, and manufacturers of sports apparel. Of course, these two statements are nothing new. Many have voiced them, including most American university faculties.

Third, and most significantly, there is growing evidence that big-time college sports do far more damage to the university, to its students and faculty, its leadership, its reputation and credibility, that most

realize--or at least are willing to admit. The evidence seems overwhelming:

Far too many of our athletics programs exploit young people, recruiting them with the promise of a college education—or a lucrative professional career—only to have the majority of Division 1-A football and basketball players achieve neither.

Furthermore, particularly in violent sports such as football and hockey, student-athletes are subjected to unacceptable health risks through injuries that could cripple them for life, without adequate protection or lifelong health security.

Scandals in intercollegiate athletics have damaged the reputations of many of our colleges and universities (with the recent tragic examples of Penn State, Baylor, and Michigan State.)

Big time college football and basketball have put inappropriate pressure on university governance, as boosters, politicians, and the media attempt to influence governing boards and university leadership.

The impact of intercollegiate athletics on university culture and values has been damaging, with poor behavior of both athletes and coaches, all too frequently tolerated and excused.

So too, the commercial culture of the entertainment industry that characterizes college football and basketball is not only orthogonal to academic values, but it is corrosive and corruptive to the academic enterprise

What to Do? The Traditional Approach

So what should university leaders do in the face of such overwhelming concerns? Some actions are obvious (if usually ignored):

Freshman Ineligibility: All freshmen in all sports should be ineligible for varsity competition. The first year should be a time for students to adjust intellectually and emotionally to the hectic pace of college life.

Financial Aid: Eliminate the “athletic scholarship” or “grant-in-aid” and replace it with need-based financial aid. Note this would not only substantially reduce the costs of college sports, but it would also eliminate the legal risks of continuing what has become, in effect, a “pay for play” system.

Mainstream Coaches: Throttle back the salaries

of coaches, athletic directors, and other athletic department staff to levels comparable to faculty and other university staff. Subject coaches to the same conflict of interest policies that govern other faculty and staff (e.g., eliminating shoe contracts, prohibiting the use of the university’s name and reputation for personal gain, etc.)

Mainstream the Administration of Intercollegiate Athletics: Intercollegiate athletics is a student extracurricular activity and, as such, should report to the vice president for student affairs. Academic matters such as student eligibility, counseling, and academic support should be the responsibility of the university’s chief academic officer (e.g., the provost). Financial matters should be under the control of the university’s chief financial officer. Medical issues should be under the control of staff from the university medical center or student health service.

Financial Support: We should adopt the principle that if intercollegiate athletics are of value to students, they should be subsidized by the General and Education budget of the university. To this end, we might consider putting athletics department salary lines (coaches and staff) on the academic budget and under the control of the provost. We could then use a counter flow of athletic department revenue into the General and Education budget to minimize the net subsidy of college sports.

Faculty control: We need to restructure faculty athletics boards so that they are no longer under control of athletic directors but instead represent true faculty participation. It is important to keep “jock” faculty off these boards and to give priority to those faculty with significant experience in undergraduate education. It is also important for faculty boards to understand and accept their responsibilities for seeing that academic priorities dominate competitive and commercial goals, while student welfare and institutional integrity are priorities.

Rigorous Independent Audits and Compliance Functions: Here we need a system for independent auditing of not simply compliance with NCAA and conference rules, but as well financial matters, student academic standing, progress toward degrees, and medical matters.

Limits on Schedules and Student Participation: We should confine all competitive schedules to a

single academic term (e.g., football in fall, basketball, hockey in winter, etc.). Competitive schedules should be shortened to more reasonable levels (e.g., football back to 10 games, basketball to 20 games, etc.). We need to constrain competitive and travel schedules to be compatible with academic demands (e.g., no weekday competition). Student participation in mandatory, noncompetitive athletics activities during off-season should be severely limited (including eliminating spring football practice, summer conditioning requirements, etc.).

Throttle Back Commercialization: It is time to forget about the possibility of Division 1-A football playoffs and drastically reduce the number of post-season bowls. Perhaps we should return the NCAA Basketball Tournament to a two-week, conference champion only event. Furthermore, we need to stop this nonsense of negotiating every broadcasting contract as if dollars were the only objective and chase the sports press out of the locker rooms and lives of our students.

Of course, the first arguments launched against such reform proposals always have to do with money. College football and basketball are portrayed as the geese that lay the golden eggs for higher education. However these arguments, long accepted but rarely challenged, are flawed. Essentially all intercollegiate athletic programs are subsidized, to some degree, by the academic programs of the university (when all costs are included, such as amortization of facilities and administrative overhead.) Furthermore, in the scheme of things, the budgets of these programs are quite modest relative to other institutional activities (e.g., at Michigan, the \$150 M/y budget of our athletic department is only about 2% of our total budget, and, more to the point, less than the amount of state support we have lost over the past three years!).

The current culture of college sports is driven by the belief that the team that spends the most wins the most. Not surprisingly, therefore, the more revenue athletic programs generate, the more they spend. Since most of the expenditures are in areas such as grants-in-aid, coaches and staff salaries, promotional activities, and facilities, many of the proposals in the previous section would dramatically reduce these costs.

More generally, the first step in reconnecting college sports to the academic enterprise is to stop treating our

athletic departments, coaches, and student-athletes as special members of the university community, subject to different rules and procedures, policies and practices than the rest of university. The key to reform is to mainstream our athletics programs and their participants back into the university in three key areas: financial management, personnel policies, and educational practices.

But Where Does Reform Begin?

Certainly not with the NCAA, the athletic conferences, or the athletics departments. After all, these foxes are already in the henhouse.

What about university presidents? Unfortunately most presidents are usually trapped between a rock and a hard place: between a public demanding high quality entertainment from the commercial college sports industry they are paying for, and governing boards who have the capacity (and all too frequently the inclination) to fire presidents who rock the university boat too strenuously. It should be clear that few contemporary university presidents have the capacity, the will, or the appetite to lead a true reform movement in college sports.

Well, what about the faculty? Of course, in the end, it is the governing faculty that is responsible for the academic integrity of a university. Faculty members have been given the ultimate protection, tenure, to enable them to confront the forces of darkness that would savage academic values. The serious nature of the threats posed to the university and its educational values by the commercialization and corruption of big-time college sports has been firmly established in recent years. It is now time to challenge the faculties of our universities, through their elected bodies such as faculty senates, to step up to their responsibility to defend the academic integrity of their institutions, by demanding substantive reform of intercollegiate athletics.

Yet as the influence of the faculty has been pushed out of intercollegiate athletics by eliminating oversight boards, as athletic departments have taken over control of academic counseling (and at some institutions, even student admission and academic standing), and as even faculty participation as spectators has eroded due to premium pricing of tickets, little wonder that

most faculty members treat the Athletics Department with benign neglect (at least until its missteps severely damage the integrity of their institution).

What about trustees? The next obvious step in this process is for the faculties to challenge the trustees of our universities, who in the end must be held accountable for the integrity of their institutions. To be sure, there will always be some trustees who are more beholding to the football coach than to academic values. But most university trustees are dedicated volunteers with deep commitments to their institutions and to the educational mission of the university. Furthermore, while some governing boards may inhibit the efforts of university presidents willing to challenge the sports establishment, few governing boards can withstand a concerted effort by their faculty to hold them accountable for the integrity of their institution. In this spirit, several faculty groups have already begun this phase of the process by launching a dialogue with university trustees through the Association of Governing Boards.

Ironically, it could well be that the long American tradition of shared university governance, involving public oversight and trusteeship by governing boards of lay citizens, elected faculty governance, and experienced but generally short-term and usually amateur administrative leadership, will pose the ultimate challenge to big time college sports.

After all, even if university presidents are reluctant to challenge the status quo, the faculty has been provided with the both the responsibility and the status (e.g., tenure) to protect the academic values of the university and the integrity of its education programs. Furthermore, as trustees understand and accept their stewardship for welfare of their institutions, they will recognize that their clear financial, legal, and public accountability compels them to listen and respond to the challenge of academic integrity from their faculties.

There are still several possibilities on the horizon that could become “planet killers” for big-time college sports as we know them today:

The federal government could finally step up to its responsibility to treat big-time athletics like other business enterprises, subjecting it to more reasonable treatment with respect to tax policy, employee treatment (meaning student-athletes), monopoly and cartel restrictions, and possibly even salary constraints.

There are early signs that student-athletes may be given rights that protect them against exploitation by coaches and athletic departments, and others for personal gain.

But the most serious threat on the horizon is the increasing evidence of the damage that intensifying violent sports such as football, basketball, and hockey do to the health of young athletes. In recent years, there is growing medical evidence about the long-term impact of concussions and other trauma on longer-term illness such as dementia and chronic traumatic encephalopathy (CTE). These concerns are broadening out to explore the epidemiology of longer health impact including life expectancy (now found to be as low as 57 for NFL players). Although most attention has been focused on the health implications of competition at the high school and professional level, it is only a matter of time before college sports falls under the microscope. Beyond the concerns about the impact of violent sports on the health of student athletes, these studies are likely to open up a Pandora’s Box of litigation on issues such as institutional liability and requirements for the support of long-term health care that could financially cripple many institutions that insist on continuing to compete at the current level of intensity. In fact, the threat of litigation as class action suits could even eliminate violent sports such as football and hockey as we know them today at all but the professional levels.

A Final Observation

Today there are a growing number of past and current university leaders who believe that higher education has entered an era of great challenge and change. Powerful social, economic, and technological forces are likely to change the university in very profound ways in the decades ahead. As our institutions enter this period of transformation, it is essential that we re-examine each and every one of our activities for their relevance and compatibility with our fundamental academic missions of teaching, research, and serving society.

If we are to retain intercollegiate athletics as an appropriate university activity, it is essential we insist upon the primacy of academic over commercial values by decoupling our athletic programs from the entertainment industry and reconnecting them with the



Apparently the Michigan Marching Band is also worried about the integrity of college sports!

educational mission of our institutions.

The American university is simply too important to the future of this nation to be threatened by the ever increasing commercialization, professionalization, and corruption of college sports.

Is this a hopeless quest for change? Here one might recall a quote from Thomas Paine's *Common Sense* (February 14, 1776) that applies to this issue (sent by a colleague attempting to reign in college sports, Frank Splitt) :

"Perhaps the sentiments contained in these pages are not yet sufficiently fashionable to procure them general favour; a long habit of not thinking a thing wrong, gives it a superficial appearance of being right, and raises at first a formidable outcry in defense of custom. But the tumult soon subsides. Time makes more converts than reason."

Duderstadt References

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt, *Intercollegiate Athletics and the American University*: (Ann Arbor, MI: University of Michigan Press, 2002)

Chapter 9: Summary

1. Although the academic activities of the University remain key to its reputation and impact, much of the attention of large universities these days is focused on nonacademic opportunities, so-called *auxiliary activities*, such as medical centers, student housing, and intercollegiate athletics.

2. To be sure, the auxiliary units operate in markets that are relatively insensitive to pricing compared to the tuition constraints and limited public support of academic units. But there is a growing concern that this rapid growth is also driven by unusually aggressive leadership of auxiliary units as well as the priority given by the University's leadership and governance. There is also the related issue as to whether the aggressive growth of the auxiliary units actually competes with and draws resources away from the academic core.

The University Medical Center

3. Perhaps the best example of the manner in which the missions of education, research, and service interweave is the academic medical center, certainly the most complex component of the university. Furthermore, its missions of education, research, and clinical care are conducted all on a scale that dwarfs most other university programs. There is no part of the university that has experienced such powerful forces of change in recent years because of the profound changes in the ways in which health care is delivered and financed in this country. There is also no part of the university that has required so much time and attention of university leaders.

4. Today, all academic medical centers are under great stress, not only because of changing federal health policies such as the Affordable Care Act and its successors, but also because of the changing nature of the marketplace for health care.

5. It is increasingly clear that for teaching hospitals to survive, they must have increasing freedom to control their costs—to operate like a business—with attention given to the bottom line. But this can pose a serious

threat to the quality and integrity of the teaching and research missions of their health science schools.

6. Furthermore, the balance between the academic mission of the Medical School and the service mission of the Medical Center—now renamed as “Michigan Medicine”—was disrupted by a decision to merge the role of Executive Vice President for Health Affairs with the role of Dean of the Medical School, effectively leaving the academic programs without an independent voice. Beyond the complexity of managing both a \$3.5 billion clinical system and one of the world's largest medical schools, this merger has threatened the financial and academic independence of one of the University's most important schools.

7. Like many other roles assumed by the university over the years, it could well be that the delivery of health care has reached the stage where it is time to spin it off. Several other universities have reached this same conclusion, creating independent health care systems, merging them with other health care providers, or even selling them to for-profit organizations.

8. To be sure, such devolution of teaching hospitals from universities reduces the influence of medical schools over the academic medical center and, not surprisingly, is generally resisted by medical faculty. But the management demands and risks attendant to health care delivery on a sufficient scale for financial viability seem increasingly incompatible with the mission and culture of the university.

Student Life

9. Many of the activities of students such as residence halls, dining facilities, and intramural athletic facilities are supported by separate fees and hence also regarded as auxiliary activities, separate from academic programs. With a student body of 46,000, the university maintains a very large activity in the support of “student life” amounting to over \$200 M/y. The massive University investment in student housing, amounting to \$1 billion over the past decade, coupled with the unusually high quality of both dining and lounging facilities (see illustrations) was driven not only by the 30% increase

in student enrollments but also by the need to attract high-income students capable of paying private tuition levels. To compete with the Ivys, Michigan had to offer amenities similar to the wealthy private universities.

Intercollegiate Athletics

10. Most concerns about college sports today derive from the fact that the culture and values of intercollegiate athletics have drifted far away from the educational principles and values of their host universities. Today's athletic departments embrace commercial values driven by the perception that the primary purpose of athletic competition is mass entertainment. There is ample evidence that the detachment of intercollegiate athletics from the rest of the university—its mission and values, its policies and practices—has led to the exploitation of students and has damaged institutional reputation to an unacceptable degree.

11. There is growing evidence that big-time college sports do far more damage to the university, to its students and faculty, its leadership, its reputation and credibility, than most realize—or at least are willing to admit. The evidence seems overwhelming:

Far too many of our athletics programs exploit young people, recruiting them with the promise of a college education—or a lucrative professional career—only to have the majority of Division 1-A football and basketball players achieve neither.

Furthermore, particularly in violent sports such as football and hockey, student-athletes are subjected to unacceptable health risks through injuries that could cripple them for life, without adequate protection or lifelong health security.

Scandals in intercollegiate athletics have damaged the reputations of many of our colleges and universities (with the recent tragic examples of Penn State, Baylor, and Michigan State).

The commercial culture of the entertainment industry that characterizes college football and basketball is not only orthogonal to academic values, but it is corrosive and corruptive to the academic enterprise.

12. What to do?

The traditional approaches

Freshman ineligibility

Eliminate athletic “scholarships”

Mainstream coaches (particularly salaries)

Faculty control

Rigorous independent audits and compliance

Limits on schedules and student participation

Throttle back commercialization

Yet the resistance to each of these suggestions is usually overwhelming.

12. But there are “planet killers” on the horizon. The federal government could finally step up to its responsibility to treat big-time athletics like other business enterprises, subjecting it to more reasonable treatment with respect to tax policy, employee treatment (meaning student-athletes), monopoly and cartel restrictions, and possibly even salary constraints.

There are early signs that student-athletes may be given rights that protect them against exploitation by coaches and athletic departments, and others for personal gain.

But the most serious threat on the horizon is the increasing evidence of the damage that intensifying violent sports such as football, basketball, and hockey do to the health of young athletes. In recent years, there is growing medical evidence about the long-term impact of concussions and other trauma on longer-term illness such as dementia and chronic traumatic encephalopathy (CTE). Beyond the concerns about the impact of violent sports on the health of student athletes, these studies are likely to open up a Pandora's Box of litigation on issues such as institutional liability and requirements for the support of long-term health care that could financially cripple many institutions.

13. If we are to retain intercollegiate athletics as an appropriate university activity, it is essential we insist upon the primacy of academic over commercial values by decoupling our athletic programs from the entertainment industry and reconnecting them with the educational mission of our institutions.

14. The American university is simply too important to the future of this nation to be threatened by the ever increasing commercialization, professionalization, and corruption of college sports.

Chapter 10

Diversity and Public Purpose

As with most of higher education, the history of diversity at Michigan has been complex and often contradictory. There have been many times when the institution seemed to take a step forward, only to be followed by two steps backward. Michigan was one of the earliest universities to admit African-Americans and women in the late 19th century. At our founding, we attracted students from a broad range of European ethnic backgrounds. In the early 1800s, the population of the state swelled with new immigrants from the rest of the country and across the European continent. The University took pride in its large enrollments of international students at a time when the state itself was decidedly insular. By 1860, the Regents referred “with partiality,” to the “list of foreign students drawn thither from every section of our country.” Forty-six percent of our students then came from other states and foreign countries. Today more than one hundred nations are represented at Michigan.

In contrast, our record regarding Native Americans has been disappointing. In 1817, in the treaty of Fort Meigs, local tribes became the first major donors when they ceded 1,920 acres of land for “a college at Detroit.” A month later the Territorial Legislature formed the “University of Michigania,” and accepted the land gift in the college’s name. Today, although the number of Native American students enrolled is very low, they continue to make vital cultural and intellectual contributions to the University.

The first African American students arrived on campus in 1868, without official notice. In the years following Reconstruction, however, discrimination increased. Black students joined together to support each other early in the century and staged restaurant sit-ins in the 1920s. It was not until the 1960s that racial unrest finally exploded into campus-wide concerted action.

Michigan’s history with respect to gender is also mixed. Michigan was the first large university in America to admit women. At the time, the rest of the nation looked on with a critical eye. Many were certain that the “experiment” would fail. The first women who arrived in 1870 were true pioneers, the objects of intense scrutiny and resentment. For many years, women had separate and unequal access to facilities and organizations. Yet, in the remaining decades of the 19th Century, the University of Michigan provided strong leadership for the nation as the enrollment of women rose rapidly. However, during the early part of the 20th Century, and even more with the returning veterans after World War I, the representation of women in the student body declined significantly. It only began to climb again during the 1970s and 1980s and briefly exceeded that of men. During the past several decades, the University took a number of steps to recruit, promote, and support women staff and faculty, modifying University policies to better address their needs. True equality has come slowly, driven by the efforts of many courageous and energetic women.

The Importance of Diversity

The increasing diversity of the American population with respect to race, ethnicity, and national origin has long been perceived as one of our nation’s greatest strengths. A diverse population gives us great vitality. A diversity of perspectives and experiences is also critical for sustaining an innovation-driven economy, perhaps the United States’ most significant core competency in a global, knowledge-driven economy. And, of course, such diversity helps us to relate to a highly diverse world. However, today it is also one of our most serious challenges as a nation since 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, as well as a backlash against long-accepted programs designed to achieve social equity (e.g., affirmative action in college admissions).

Our schools, colleges, and universities have played a major role in assimilating each wave of arrivals, whether in bondage, indentured servitude, or as immigrants. A distinguishing characteristic and great strength of American higher education is its growing commitment over time to serve all segments of our pluralistic society. Higher education's broadening inclusion of talented students and faculty of diverse ethnic, racial, economic, social, political, national, or religious background, has allowed our academic institutions to draw on a broader and deeper pool of talent, experience, and ideas than more exclusive counterparts in other places and times. This diversity invigorates and renews teaching and scholarship in American universities, helping to challenge long-held assumptions, asking new questions, creating new areas and methods of inquiry, and generating new ideas for testing in scholarly discourse.

The Case for Diversity

When one discusses the topic of diversity in higher education, it is customary to focus on issues of race and ethnicity, and we shall do so in much of this chapter. But it is also important to recognize that human diversity is far broader, encompassing characteristics such as gender, class, national origin, and sexual orientation. These, too, contribute to the nature of an academic community. In both the narrow and broader sense, it is important to set out a compelling rationale for seeking diversity in American higher education. First and foremost, the case rests on moral responsibility and democratic ideals, based on our social contract with society. Diversity is a critical element in sustaining the quality and relevance of our education and scholarship. Our nation's campuses have a unique opportunity to offer positive social models and provide leadership in addressing one of the most persistent and seemingly intractable problems of human experience—overcoming the impulse to fear, reject, or harm the

“other.” In addition, there are persuasive pragmatic reasons for academia to pursue diversity.

Social and Moral Responsibility

American colleges and universities are founded on the principle that they exist to serve their society through advancing knowledge and educating students who will, in turn, apply their knowledge not only for their own advancement but also to serve others. Hence, higher education, indeed all educational institutions, are responsible for modeling and transmitting essential civic and democratic values and helping to develop the experience and skills necessary to put them into practice. In this sense, then, higher education's commitment to reflect the increasing diversity of our society in terms of both our academic activities and the inclusiveness of our campus communities is based in part on the American university's fundamental social, institutional, and scholarly commitment to freedom, democracy, and social justice.

To further these lofty goals, our colleges and universities must overcome inequities deeply embedded in our society by offering opportunity to those who historically have been prevented from participating fully in the life of our nation. Over the years our universities have broadened their commitment to providing equal opportunity for every individual regardless of race, nationality, class, gender, or belief. They have done so as part of their basic obligations to serve those who founded and support us, to serve as models of social interaction, and to serve as a major source of leaders throughout society. This is a fundamental issue of equity and social justice that must be addressed if we are to keep faith with our values, responsibilities, and purposes.

Educational Quality

Perhaps most important in this regard is the role diversity plays in the education of our students. We have an obligation to create the best possible educational environment for the young adults whose lives are likely to be significantly changed during their years on our campuses. Their learning environment depends on the characteristics of the entire group of

students who share a common educational experience. Students constantly learn from each other in the classroom and in extracurricular life. The more diverse the student cohort, the more opportunities for exposure to different ideas, perspectives and experiences and the more chances to interact, develop interpersonal skills, and form bonds that transcend differences.

There is ample research to suggest that diversity is a critical factor in creating the richly varied educational experience that helps students learn. Since students in late adolescence and early adulthood are at a crucial stage in their development, diversity (racial, demographic, economic, and cultural) enables them to become conscious learners and critical thinkers, and prepares them to become active participants in a democratic society. Students educated in diverse settings are more motivated and better able to participate in an increasingly heterogeneous and complex democracy.

Intellectual Vitality

Diversity is similarly fundamental for the vigor and breadth of scholarship. Unless we draw upon a greater diversity of people as scholars and students, we cannot hope to generate the intellectual vitality we need to respond to a world characterized by profound change. The burgeoning complexity and rapidly increasing rate of change forces us to draw upon a broader breadth and depth of human knowledge and understanding. For universities to thrive in this age of complexity and change, it is vital that we resist any tendency to eliminate options. Only with a multiplicity of approaches, opinions, and ways of seeing can we hope to solve the problems we face. Universities, more than any other institution in American society, have upheld the ideal of intellectual freedom, open to diverse ideas that are debated on their merits. We must continually struggle to sustain this heritage and to become places open to a myriad of experiences, cultures, and approaches.

In addition to these intellectual benefits, the inclusion of underrepresented groups allows our institutions to tap reservoirs of human talents and experiences from which they have not yet fully drawn. Indeed, it seems apparent that our universities could not sustain such high distinctions in a pluralistic world society without diversity and openness to new

perspectives, experiences, and talents. In the years ahead, we will need to draw on the insights of many diverse perspectives to understand and function effectively in our own as well as in the national and world community.

Serving a Changing Society

Our nation's ability to face the challenge of diversity in the years ahead will determine our strength and vitality. We must come to grips with the fact that those groups we refer to today as minorities will become the majority population of our nation in the century ahead, just as they are today throughout the world. The truth, too, is that most of us retain proud ties to our ethnic roots, and this strong and fruitful identification must coexist with—indeed enable—our ability to become full participants in the economic and civic life of our country. Pluralism poses a continuing challenge to our nation and its institutions as we seek to build and maintain a fundamental common ground of civic values that will inspire mutually beneficial cohesion and purpose during this period of radical transformation of so many aspects of our world.

Human Resources

Today, higher education's capacity to serve the educational needs of a diverse population has become even more important as our world has entered a period of rapid and profound economic, social, and political transformation driven by a hypercompetitive global economy that depends upon the creation and application of new knowledge and hence, upon educated people and their ideas. It has become increasingly apparent that the strength, prosperity, and welfare of a nation in a global knowledge economy will demand a highly educated citizenry enabled by development of a strong system of tertiary education. It also requires institutions with the ability to discover new knowledge, develop innovative applications of these discoveries, and transfer them into the marketplace through entrepreneurial activities.

The demographic trends we see in our future hold some other significant implications for national economic and political life and especially for education. Our clearly demonstrated need for an educated

workforce in the years ahead means that America can no longer afford to waste the human potential, cultural richness, and leadership represented by minorities and women.

The Challenges of Diversity

Although American higher education has long sought to build and sustain diverse campuses, this is a goal that has faced many challenges. Our nation continues to be burdened by prejudice and bigotry that plague our neighborhoods, our cities, and our social institutions. Although we think of America as a melting pot in which diverse cultures come together in common purpose, in reality, most among us seek communities of like rather than diverse colleagues. All too frequently we define ourselves in terms of our differences from others, and we have great difficulty in imagining the world as others see it. And, although change is always a difficult task for tradition-bound institutions such as universities, it has proven particularly so in the areas of diversity.

The Challenge of Racism

Prejudice and ignorance persist on our nation's campuses as they do throughout our society. American society today still faces high levels of racial segregation in housing and education in spite of decades of legislative efforts to reduce it. Furthermore, most students complete their elementary and secondary education without ever having attended a school that enrolled significant numbers of students of other races and without living in a neighborhood where the other races were well represented.

Yet, because of the distinctly different historical experiences of white and non-white Americans, race continues to affect outlook, perception, and experience. For example, most white Americans tend to think that race has only a minor impact on the daily experiences and future expectations of Americans whatever their background and that blacks receive the same treatment as they do both personally and institutionally. Most non-whites, in contrast, feel that race still matters a great deal, and considerable numbers report having experienced discriminatory treatment in shops and

restaurants or in encounters with the public. Whether explicit or more subtly, our society continues to perpetuate stereotypes which reinforce the idea that one race is superior to another.

Not surprisingly, new students arrive on our campuses bringing with them the full spectrum of these experiences and opinions. It is here that many students for the first time have the opportunity to live and work with students from very different backgrounds. In many ways our campuses act as lenses that focus the social challenges before our country. It is not easy to overcome this legacy of prejudice and fear that divides us. Not surprisingly, our campuses experience racial incidents, conflict, and separatism. When these occur, we must demonstrate clearly and unequivocally that racism on our campuses will not be tolerated. Programs are also needed to promote reflection on social values and to encourage greater civility in social relations. It is also critical to develop new networks and forums to promote interaction and open discussion among campus groups.

The Challenge of Community

In an increasingly diverse country, deep divisions persist between whites, blacks, Hispanics, Native Americans, and other ethnic groups. There is nothing natural about these divisions. They are not immutable facts of life. Rather they are a consequence of a troubled and still unresolved past. Racial and ethnic groups remain separated by residence and education. There are unfortunately few places in American society where people of different backgrounds interact, learn from each other, and struggle to understand their differences and discover their commonality. The fundamental issue that we face at the end of the 20th Century is to work to overcome our divisions in the spirit of the venerable American motto, *E Pluribus Unum*. To build unity from pluralism, to recognize diversity and learn from it, to fashion a democracy of many voices, is still an unfinished project. Its success is vital to our nation's future.

As a social institution, the university can find direction in its history and tradition of openness. We must set forth a vision of a more varied and tolerant environment—a more pluralistic, cosmopolitan

community. We have to become a community in which all barriers to full participation of all people in the life of our institution are removed; a place where we can all draw strength from the richness of our human variety; but also a place where we can work constructively together as a community of scholars and as citizens of a democratic society. This is the challenge before us. As citizens we have to reaffirm our commitment to justice and equality. As scholars we have to support unwaveringly our shared commitment to academic freedom and the pursuit of excellence.

Seeing Difference Differently

We need to work diligently to transform our campuses, encouraging respect for diversity in all of the characteristics that can be used to describe our human species: age, race, gender, disability, ethnicity, nationality, religious belief, sexual orientation, political beliefs, economic background, and geographical origin. Yet, in doing so, we will have to move in two directions at once. We have to set aside the assumption that people from groups different from ours necessarily have the same needs, experiences, and points of view that we do. At the same time, we cannot succumb to the equally pernicious assumption that “they” are all the same. Real barriers, experiences, and culture may be shared by many in a group, but that does not give us permission to treat people as though they conform to some stereotyped image of “white,” “gay,” or “Latino.” We seek a community where various cultures and ethnicity are valued and acknowledged, but where each individual has the opportunity to find her or his own path.

At the same time, we should recognize that not everyone faces the same consequences for their differences. The experience of an Asian American student on our campus is not the same as that of an African American student or a white woman or a person with a disability. We should not forget that issues of difference are inextricably intertwined with issues of power, opportunity, and the specific histories of groups and of each individual. As we pursue a pluralistic campus, we should realize that equality will require effort, resources, and commitment to both structural change and education. We must learn to see difference

differently. The multicolored skein that would be a multicultural university has to be woven together, becoming a tapestry, with each thread retaining its unique character while part of a larger design.

The Challenge of Change

It is important not to delude ourselves. Institutions do not change quickly and easily any more than do the societies of which they are a part. Achieving our democratic goals of equity and justice for all often requires intense struggle, and we remain far from our goals as a nation. In confronting the issues of racial and ethnic inequality in America we are probing one of the most painful wounds of American history.

Throughout the latter half of the 20th Century, progress towards greater racial equity in our society and our social institutions has been made, in part, through policies and programs that recognize race as an explicit characteristic. For some time, universities with highly selective admissions have used race as one of several factors (e.g., special athletic, artistic, scientific or leadership talent, or geographic origin; status as children of alumni; or unique qualities of character or experience) in determining which students to admit to their institutions. Special financial aid programs have been developed to address the economic disadvantages faced by underrepresented minority groups. Minority faculty and staff have been identified and recruited through targeted programs.

Yet, despite its utility, the use of race as an explicit factor in efforts to achieve diversity or address inequities is being challenged with great force through popular referenda, legislation, and by the courts. For example, actions taken in several states now prohibit the consideration of race in college admissions. In such instances, it is sometimes suggested that other approaches such as admitting a certain fraction of high school graduates or using family income could be used to achieve the same diversity objectives. Yet, the available evidence suggests such alternatives may not suffice. Income based strategies are unlikely to be good substitutes for race-sensitive admissions policies because there are simply too few Black and Latino students from poor families who have strong enough academic preparation to qualify for

admission to highly selective institutions. Furthermore, standardized admissions tests such as the SAT, ACT and LSAT are of limited value in evaluating “merit” or determining admissions qualifications of all students, but particularly for underrepresented minorities for whom systematic influences make these tests even less diagnostic of their scholastic potential. There is extensive empirical data indicating that experiences tied to one’s racial and ethnic identity can artificially depress standardized test performance.

Hence, progress toward diversity will likely require some significant changes in strategy in the years ahead. Unfortunately, the road we have to travel is neither frequently walked nor well marked. We can look to very few truly diverse institutions in American society for guidance. We will have to blaze new trails, and create new social models.

At the University of Michigan during the 1990s it became clear that we needed both a commitment and a plan to achieve diversity. We took the long view, one that required patient and persistent leadership, as well as the commitment and hard work of people throughout our community and beyond.

The Michigan Mandate

Although the University of Michigan sustained its commitment to diversity throughout the 20th century, its progress reflected many of the challenges facing our society during the years of discrimination based upon race, religion, and gender. Many were the times we took one step forward toward greater diversity, only to slide two steps back through later inattention. The student disruptions of the 1960s and 1970s triggered new efforts by the University to reaffirm its commitments to affirmative action and equal opportunity, but again progress was limited and a new wave of concern and protests hit the campus during the mid-1980s, just prior to the appointment of our administration. (Duderstadt, 2016)

By the late 1980s, it had become obvious that the University had made inadequate progress in its goal to reflect the rich diversity of our nation and our world among its faculty, students and staff. Of course, here we faced many challenges: prejudice and ignorance persist on our nation’s campuses, as they do throughout

our society. American society today still faces high levels of racial segregation in housing and education in spite of decades of legislative efforts to reduce it. In an increasingly diverse country, deep divisions persist between Europeans, African-American, Hispanics, Native Americans, Asians, and other ethnic groups.

There is nothing natural about these divisions. They are not immutable facts of life. Rather, they are a consequence of a troubled and still unresolved past. Racial and ethnic groups remain separated by residence and education. There are unfortunately few places in American society where people of different backgrounds interact, learn from each other, and struggle to understand their differences and discover their commonality.

We also faced a particular challenge because of our geographic location. As a state university, we draw many of our students from the metropolitan Detroit area, a region with an unusually large black population (90% of Detroit public school students) resulting from the Great Migration of the descendants of slaves to the northern cities during the early 20th century. In fact, Detroit is the second most segregated metropolitan area in the country. Many suburban communities on the borders of Detroit have remained almost completely white despite their proximity to adjoining minority-dominated city neighborhoods. Drawing a significant fraction of our undergraduate enrollment from such a racially segregated environment presented a particularly serious challenge and responsibility for the University.

Yet, there are other significant ethnic challenges. Another Michigan community, Dearborn, has the highest concentration of Arab-Americans in the nation. At the same time, the historic openness of the University to Jewish students, particularly from large eastern cities such as New York, coupled with our institution’s size (46,000 students), gives Michigan one of the largest enrollment of Jewish students in the nation. Hence, we also experience many of the ethnic tensions now characterizing the Middle East. And the list goes on...

It was apparent that although the University had approached the challenge of serving an increasingly diverse population with the best of intentions, it simply had not developed and executed a plan capable of achieving sustainable results. The University would



The Michigan Mandate: MLK Day Unity March, addressing student and alumni groups, Professor Bunyon Bryant, Professor Charles Moody (with President Ford), Dean Rhetaugh Dumas, Associate Vice Provost Lester Monts, toasting the heros of the successful Michigan Mandate.

have to leave behind many reactive and uncoordinated efforts that had characterized its past and move toward a more strategic approach designed to achieve long-term systemic change. Sacrifices would be necessary as traditional roles and privileges were challenged. In particular, we foresaw the limitations of focusing only on affirmative action; that is, on access, retention, and representation. We believed that without deeper, more fundamental institutional change these efforts by themselves would inevitably fail.

More significantly, we believed that achieving our goals for a diverse campus would require a very major change in the institution itself. Hence, we began to think of the challenge of diversity as, in reality, the challenge of changing an institution in a very fundamental way—not an easy challenge for university leaders in an

institution where change tends to occur “one grave at a time!” Our diversity agenda would be, in fact, a major exercise in institutional transformation.

The challenge was to persuade the university community that there was a real stake for everyone in seizing the moment to chart a more diverse future. More people needed to believe that the gains to be achieved through diversity would more than compensate for the necessary sacrifices.

The first and most important step was to link diversity and excellence as the two most compelling goals before the institution, recognizing that these goals were not only complementary but would be tightly linked in the multicultural society characterizing our nation and the world in the future. As we moved ahead, we began to refer to the plan as: *The Michigan*

Mandate: A Strategic Linking of Academic Excellence and Social Diversity.

The mission and goals of the Michigan Mandate were stated quite simply:

1. To recognize that diversity and excellence are complementary and compelling goals for the University and to make a firm commitment to their achievement.
2. To commit to the recruitment, support, and success of members of historically underrepresented groups among our students, faculty, staff, and leadership.
3. To build on our campus an environment that seeks, nourishes, and sustains diversity and pluralism and that values and respects the dignity and worth of every individual.

The Michigan Mandate was one of those efforts that required leadership on the front lines by the president, since only by demonstrating commitment from the top could we demand and achieve the necessary commitments throughout the institution. By 1995, Michigan could point to significant progress in achieving diversity. By every measure, the Michigan Mandate was a remarkable success, moving the University far beyond our original goals of a more diverse campus.

The representation of underrepresented students and faculty more than doubled over the decade of the effort. Minority student enrollments rose to one-third of our enrollments, reflecting levels in the more general American population. For example, increasing African-American student enrollments to 9.5%. In fact, when I stepped down as president, 5 of the University's 10 executive officers were African American, including my successor.

But, perhaps more significantly, the success of underrepresented minorities at the University improved even more remarkably, with graduation rates rising to the highest among public universities, promotion and tenure success of minority faculty members becoming comparable to their majority colleagues, and a growing number of appointments of minorities to leadership positions in the University. The campus climate not only

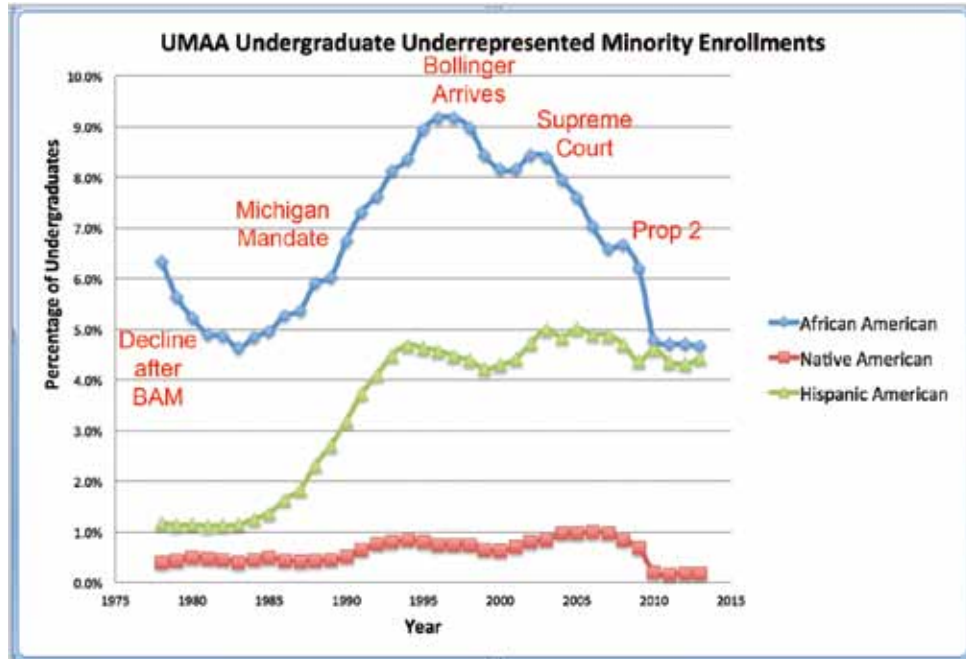
became far more accepting and supportive of diversity, but students and faculty began to come to Michigan because of its growing reputation for a diverse campus. And, perhaps most significantly, as the campus became more racially and ethnically diverse, the quality of the students, faculty, and academic programs of the University increased to the highest level in history. This latter fact seemed to reinforce our contention that the aspirations of diversity and excellence were not only compatible but, in fact, highly correlated.

The Michigan Agenda for Women

Even while pursuing the racial diversity goals of the Michigan Mandate, we realized we could not ignore another glaring inequity in campus life. If we meant to embrace diversity in its full meaning, we had to attend to the long-standing concerns of women faculty, students, and staff. Here, once again, it took time—and considerable effort by many women colleagues (including the first lady)—to educate the President and the rest of the administration to the point where we began to understand that the university simply had not succeeded in including and empowering women as full and equal partners in all aspects of its life and leadership.

Many of our concerns derived from the extreme concentration of women in positions of lower status and power—as students, lower-pay staff, and junior faculty. The most effective lever for change might well be a rapid increase in the number of women holding positions of high status, visibility, and power. This would not only change the balance of power in decision-making, but it would also change the perception of who and what matters in the university. Finally, we needed to bring university policies and practices into better alignment with the needs and concerns of women students in a number of areas including campus safety, student housing, student life, financial aid, and childcare.

Like the Michigan Mandate, the vision was again simple, yet compelling: that by the year 2000 the university would become the leader among American universities in promoting and achieving the success of women as faculty, students, and staff. Rapidly, there was again significant progress on many fronts for women students, faculty, and staff, including the



The decline and fall of UM's racial diversity with a new administration in the late 1990s.

appointment of a number of senior women faculty and administrators as deans and executive officers, improvement in campus safety, and improvement of family care policies and childcare resources. Getting women into senior leadership positions was critical – appointing the first women deans of LS&A, Rackham, and the Vice Provost for Health Sciences, leading to the appointment of Michigan's first woman provost and later its first woman president.

Other Areas of Diversity and Social Justice

The university also took steps to eliminate those factors that prevented other groups from participating fully in its activities. For example, we extended our anti-discrimination policies to encompass sexual orientation and extended staff benefits and housing opportunities to same-sex couples (and more recently, to transgender students). We had become convinced that the university had both a compelling interest in and responsibility to create a welcoming community, encouraging respect for diversity in all of the characteristics that can be used to describe humankind: age, race, ethnicity, nationality, gender, religious belief, sexual orientation, political beliefs, economic background, and geographical background.

Asleep at the Wheel

But, of course, this story does not end with the successful achievements of the Michigan Mandate in 1996. Beginning first with litigation in Texas (the Hopwood decision) and then successful referendum efforts in California and Washington, conservative groups such as the Center for Individual Rights began to attack policies such as the use of race in college admissions. Perhaps because of Michigan's success with the Michigan Mandate, the University soon became a target for those groups seeking to reverse affirmative action with two cases filed against the University in 1997, one challenging the admissions policies of undergraduates, and the second challenging those in our Law School.

Even as the new Bollinger administration launched the expensive legal battle to defend the use of race in college admissions, it discontinued most of the effective policies and programs created by the Michigan Mandate, in part out of concern these might complicate the litigation battle, but also because such action was no longer a priority of the new administration. Indeed, even the mention of the Michigan Mandate became a forbidden phrase in its effort to erase the past.

As a consequence of these actions, the enrollment

Change in Minority Enrollments

Minority	1996	2017	Change
African Am	2,824	1,930	-32%
Hispanic	1,473	2,597	+40%
Native Am	227	85	-60%
Underrep	4,524	4,612	-14%

Change in Minority Percentages

Minority	1996	2017	Change
African Am	9.3%	4.9%	-48%
Hispanic	4.5%	5.4%	+20%
Native Am	0.7%	0.25%	-64%
Asian Am	11.6%	13.5%	+13%
Underrep	14.1%	10.1%	-32%
Fresh AA	9.3%	5.1%	-45%

The drop in underrepresented minorities over the past 20 years.

of underrepresented minorities began to drop almost immediately at Michigan, eventually declining from 1997 to 2010 by over 50% for African American students overall and by as much as 80% in some of UM's professional schools. In 1996 half (5) of the Executive Officers were minority, but by the early 2000s, only one out of 11 executive officers and one out of 18 deans in the new administration were underrepresented minorities.

Although the 2003 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 stated, 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 most selective colleges and universities throughout the United States. But more significantly, it reaffirmed both the importance of diversity in higher education and established the principle that, appropriately designed,

race could be used as a factor in programs aimed at achieving diverse campuses.

While an important battle had been won with the Supreme Court ruling, we soon learned that the war for diversity in higher education was far from over. As university lawyers across the nation began to ponder over the court ruling, they persuaded their institutions to accept a very narrow interpretation of the Supreme Court decisions as the safest course. Minority enrollments continued to decline at Michigan throughout the 2010s as the new priority became attracting large numbers of wealthy out-of-state students capable of paying high tuition and generating the revenue to compensate for the loss of state support. No effort was made to resume those programs that had been so successful in the 1990s under the Michigan Mandate. As the charts above indicate, Michigan's decline in diversity ranked among the most precipitous among its peers during this period.

In 2006, Michigan voters approved a constitutional referendum similar to that of California's Proposition 209 to ban the use of affirmative action in public institutions. Although most of the decline in minority enrollments had occurred by this time, this referendum prevented Michigan colleges and universities from using even the narrowly tailored prescriptions of the 2003 Supreme Court decision, and the decline in the enrollments of underrepresented minority students continued, erasing most of the gains with the Michigan Mandate strategy in the 1990s and returning this measure of diversity to the levels of the 1960s.

Economic Diversity

Throughout the last decade, there has been an increasing concern that many public universities, particularly flagship research universities such as Michigan, were also losing the economic diversity that characterized their public purpose as they attempted to replace declining state support by recruiting more out-of-state students capable of paying private college tuitions. More specifically, Michigan's percentage of Pell Grant students in its freshman class (the most common measure of access for low-income students) has fallen to 16%, well below most other public universities including Michigan State (23%) and the University of

Percent of undergrads with Pell grants	
AAU Publics (average, excluding U-M)	25%
AAU Privates (average)	17%
University of California-Irvine	45%
University of California-Davis	43%
University of California-San Diego	40%
University of California-Santa Barbara	38%
University of California-Los Angeles	36%
Stony Brook	34%
University of Arizona	33%
University of Florida	32%
University of California-Berkeley	31%
Rutgers University	30%
University at Buffalo	30%
University of Texas at Austin	26%
University of Oregon	25%
University of Washington	25%
Michigan State University	23%
University of Southern California	23%
Iowa State University	22%
Ohio State University	22%
Texas A & M University	22%
University of Kansas	22%
Columbia University	21%
Emory University	21%
New York University	21%
University of Illinois	21%
University of Minnesota	21%
University of Missouri	21%
University of North Carolina	21%
Brandeis University	20%
Purdue University	20%

Percent of undergrads with Pell grants	
University of Maryland	20%
Case Western Reserve University	19%
University of Iowa	19%
Georgia Institute of Technology	18%
Massachusetts Institute of Technology	18%
University of Colorado	18%
University of Rochester	18%
Pennsylvania State University	17%
Rice University	17%
University of Pittsburgh	17%
Brown University	16%
Cornell University	16%
Indiana University	16%
Stanford University	16%
UNIVERSITY OF MICHIGAN	16%
Tulane University of Louisiana	15%
University of Wisconsin	15%
Boston University	14%
Carnegie Mellon University	14%
Duke University	14%
Northwestern University	14%
University of Pennsylvania	14%
Vanderbilt University	14%
Harvard University	13%
Johns Hopkins University	13%
Princeton University	13%
University of Virginia	13%
University of Chicago	12%
Yale University	12%
California Institute of Technology	11%
Washington University	7%

Michigan's ranking in Pell Grant students lags badly behind other public universities.

California (32%); it even lags behind several of the most expensive private universities including Harvard, MIT, and Stanford. (Campbell, 2015).

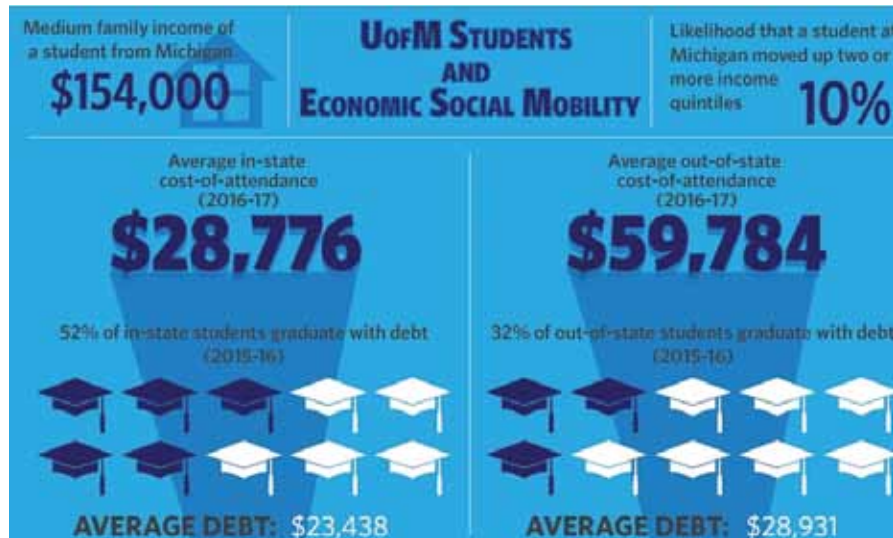
An analysis by the Education Trust, *Opportunity Adrift*, stated: "Founded to provide 'an uncommon education for the common man', many flagship universities have drifted away from their historic mission". (Haycock, 2010) Analyzing measures such as access for low-income and underrepresented minority students and the relative success of these groups in earning diplomas, they found that the University of Michigan and the University of Indiana received the lowest overall marks for both progress and current performance among all major public universities in these measures of public purpose.

From 2006 to 2016 the percentage of UM students

from family incomes less than \$100,000 declined while the percentage from family incomes greater than \$250,000 increased from 13% to 25%. The median UM family income is now \$154,000. Clearly Michigan has been shifting from the "common man" to the "uncommonly rich".

Yet, another important measure of the degree to which public universities fulfill their important mission of providing educational opportunities to a broad range of society is the degree to which they enroll first generation college students. Today 12% of the University's enrollment consists of such students, compared to 16% by its public university peers and 14% of the enrollments of highly selective private universities.

What was happening? To be sure, the State of



Michigan ranks at the bottom of the states in the amount of need-based financial aid it provides to college students, requiring the University to make these commitments from its own internal funds. But it is also due to the decision made in the late 1990s to compensate for the loss of state support by dramatically increasing enrollments with a bias toward out-of-state students who generate new revenues with high tuition. Clearly students who can pay annual tuition and room and board at the out-of-state rates of \$60,000 come from highly affluent families. Indeed, the average family income of Michigan undergraduates now exceeds \$150,000 per year, more characteristic of the “top 5%” than the “common man”.

Lessons Learned

It seems appropriate to end this chapter on the University’s public purpose with several conclusions: First, we must always keep in mind that the University of Michigan is a public university, created as the first such institution in a young nation, evolving in size, breadth, and quality, but always committed to a truly public purpose of “providing an uncommon education for the common man”.

Today there is an even more urgent reason why the University must once again elevate diversity to a higher priority as it looks toward the future: the rapidly changing demographics of America. The populations of most developed nations in North America, Europe, and Asia are aging rapidly. In our nation today there are

already more people over the age of 65 than teenagers, and this situation will continue for decades to come. Over the next decade the percentage of the population over 60 will grow to over 30% to 40% in the United States, and this aging population will increasingly shift social priorities to the needs and desires of the elderly (e.g., retirement security, health care, safety from crime and terrorism, and tax relief) rather than investing in the future through education and innovation.

However, the United States stands apart from the aging populations of Europe and Asia for one very important reason: our openness to immigration. In fact, over the past decade, immigration from Latin America and Asia contributed 53% of the growth in the United States population, exceeding that provided by births. (National Information Center, 2006) This is expected to drive continued growth in our population from 300 million today to over 450 million by 2050, augmenting our aging population and stimulating productivity with new and young workers. As it has been so many times in its past, America is once again becoming a nation of immigrants, benefiting greatly from their energy, talents, and hope, even as such mobility changes the ethnic character of our nation. By the year 2030 current projections suggest that approximately 40% of Americans will be members of minority groups; by mid-century we will cease to have any single majority ethnic group. By any measure, we are evolving rapidly into a truly multicultural society with a remarkable cultural, racial, and ethnic diversity. This demographic revolution is taking place within the context of the

continuing globalization of the world's economy and society that requires Americans to interact with people from every country of the world.

If we do not create a nation that mobilizes the talents of all of our citizens, we are destined for a diminished role in the global community and increased social turbulence. Higher education plays an important role both in identifying and developing this talent. And the University of Michigan faces once again a major challenge in reclaiming its leadership in building a diverse campus.

To be sure, there is ample evidence today from states such as California and Texas that a restriction to race-neutral policies will limit the ability of elite programs and institutions to achieve diversity across all underrepresented groups. As former UC President Richard Atkinson and his colleagues concluded, "Today if we look at enrollment overall, racial and ethnic diversity at the University of California is in great trouble. A decade later, the legacy of Proposition 209 is clear. Despite enormous efforts, we have failed badly to achieve the goal of a student body that encompasses California's diverse population. The evidence suggests that—without attention to race and ethnicity—this goal will ultimately recede into impossibility."

However, when one turns to economic diversity, the University of California provides a sharp contrast to the University of Michigan. Today 42% of all UC undergraduates are Pell Grant eligible, compared to 16% at UM. 46% of UC's entering California residents come from families where neither parent graduated from college, compared to 6% for UM. Approximately 25% of undergraduates come from underrepresented minority populations (African American, Chicano/Latino, and Native American) compared to 12% at UM (although this later comparison is due in part to the very large growth in the Latino population of California). Key to the UC's success in achieving this remarkable economic diversity have been two key factors: i) the importance of the state's Cal Grant program providing need-based financial aid that essentially doubles the support of Pell Grant eligible students, and ii) a strategic relationship between California's community colleges and the University of California, carefully articulated in the California master plan, that enables their associated degrees to serve as stepping stones from secondary

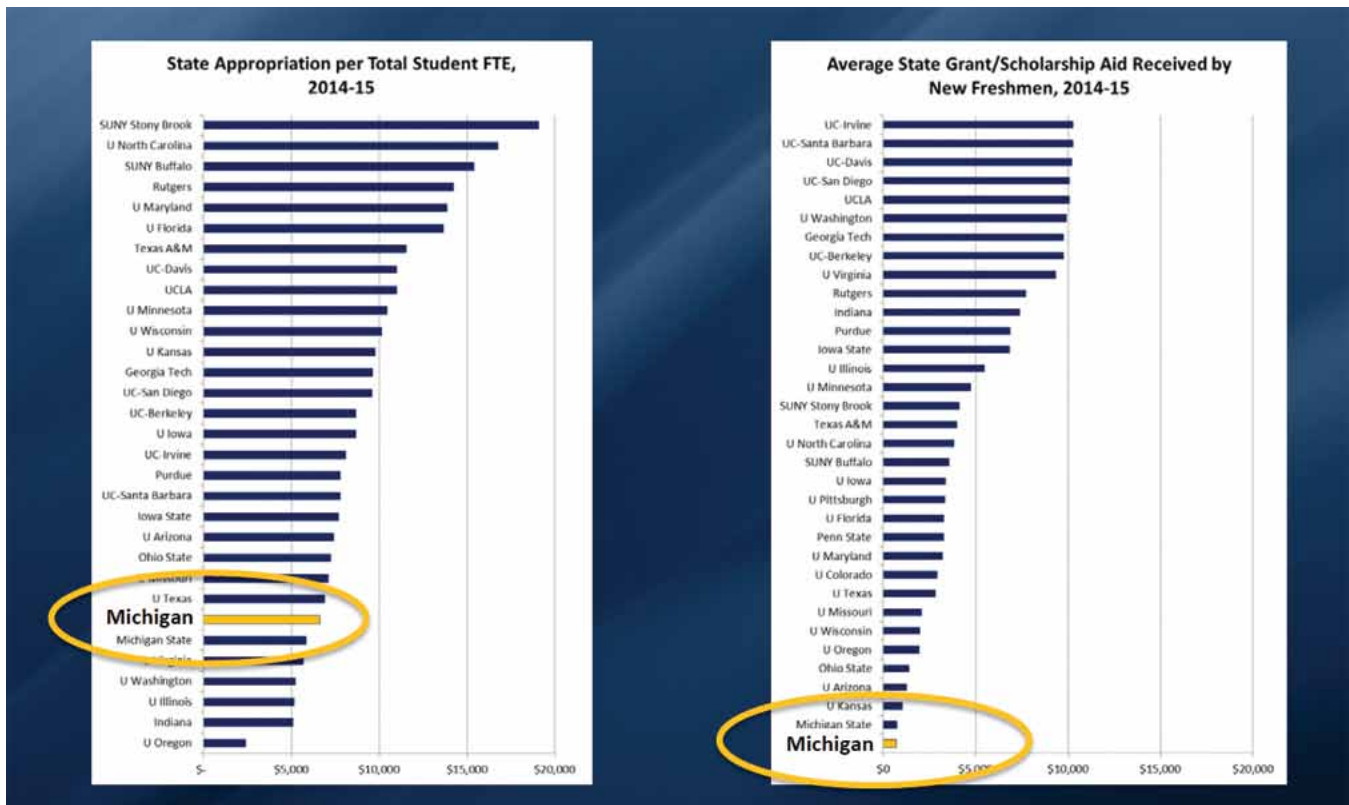
school into baccalaureate programs at UC.

In sharp contrast, the State of Michigan during the 2000s eliminated essentially all state funded need-based financial aid and now ranks last among the states in that form of support. Furthermore, the autonomy granted Michigan's community colleges allows them to focus more on providing more adult education programs in their communities rather than serving as "junior colleges" to prepare students for admission to university programs.

To be sure, rising tuition levels in Michigan's public universities have also been a factor. However this has not been the fault of higher education in the state, since there is strong evidence that the actual cost of its educational programs has increased only at the inflation rate. Instead, the real blame for the increasing costs seen by parents must fall on the State of Michigan, which has dramatically cut its support of higher education. In fact, a chart comparing state appropriations with University tuition and fees demonstrates that almost all of the increase in the costs faced by students and parents has been driven by the erosion of the state subsidy through appropriations. Hence restoring the University's economic diversity will require action along several fronts.

Hence achieving the University's objectives for diversity will require not only a serious restructuring of Michigan's financial strategies, but even more important, a renewed commitment to the fundamental public purpose that has guided the University for almost two centuries. While the University of Michigan's concerted effort to generate support from other patrons, particularly through private giving and sponsored research, it simply must realize that these will never be sufficient to support a world-class university of this size, breadth, or impact. Without substantial public support, it is unrealistic to expect that public universities can fulfill their public purpose.

Clearly the highest priority should be to re-engage with the people of Michigan to convince them of the importance of investing in public higher education and unleashing the constraints that prevent higher education from serving all of the people of this state. This must become a primary responsibility of not only the leadership of the University, but its Regents, faculty, students, staff, alumni, and those Michigan citizens



Michigan ranks among the bottom of the states both in state appropriations and financial aid for colleges.

who depend so heavily on the services provided by one of the great universities of the world.

Returning again to President Atkinson's analysis, he suggests: "We need a strategy that recognizes the continuing corrosive force of racial inequality but does not stop there. We need a strategy grounded in the broad American tradition of opportunity because opportunity is a value that Americans understand and support. We need a strategy that makes it clear that our society has a stake in ensuring that every American has an opportunity to succeed—and every American, in turn, has a stake in our society. Race still matters. Yet we need to move toward another kind of affirmative action, one in which the emphasis is on opportunity and the goal is educational equity in the broadest possible sense. The ultimate test of a democracy is its willingness to do whatever it takes to create the aristocracy of talent that Thomas Jefferson saw as indispensable to a free society. It is a test we cannot afford to fail." (Atkinson, 2008)

Next Steps

Although there has been extensive planning

concerning "diversity, equity, and inclusion" strategies in recent years, these have generally been quite scattered and largely ignored past successful approaches. Hence it seems appropriate to end this chapter with several recommendations that would amount to a "Michigan Mandate II".

First, it is important to recognize that such a strategy must be quite comprehensive, in effect embracing the "uncommon education for the common man" theme with a broad definition of "diversity" including race, gender, economic, and international. It should set targets for deliverables such as student enrollment, student success, faculty recruitment and success, and leadership appointments. It must be highly visible, characterized by careful tracking and reporting of progress, building publicly available databases, and perhaps decoupling the reporting activity from the usual University communications channels to ensure timely and accurate reporting to the UM community. It should also be bold, e.g., taking on major challenges such as persuading the electorate to roll-back the constraints on affirmative action contained in the 2006 amendment to the Michigan constitution.

More specifically, the following actions might be considered:

1. First, it is important to understand where the University is today and why it has not made more progress. Enrollment data should not only be publically available, but it should be carefully analyzed. Complete and accurate information is a key to success. One will never know how to get to where they want to go if they don't know where they are and how they got there.

2. Next, one needs to carefully set targets. Comparisons with other peer universities are important (particularly U California, Michigan State, U Wisconsin, and Ohio State). It is important to gather and analyze population data, and finally it is essential to talk to experts and recruit knowledgeable allies (particularly former UM leaders of successful efforts such as James Jackson, Lester Monts, Ren Farley, John Matlock, Henry Meares, Ted Spencer, and Janet Weiss,).

3. It is important to examine possible approaches, both those that have been successful and those that have failed. For example, one would begin by analyzing the successful effort of the 1990s Michigan Mandate to consider what might work today. Information should be gathered about admissions and recruitment policies at peer institutions (particularly U California and U Texas, which have used admissions based on high school ranking to achieve targets in both economic and racial diversity).

4. Alternative approaches to financial aid should be considered, such as giving high priority to state-based financial aid programs based on need such as the California CalGrant program (which stands in sharp contrast to Michigan's abandonment of need-based financial aid at the state level). Community programs such as the Kalamazoo Promise are also possibilities. And entirely new approaches such as the "learn grants" where public funds are used to establish 529 accounts for preschool children to provide both resources and incentives for preparing for college.

5. The culture of the University is important. One should examine how diversity goals are folded into

incentives for academic leadership, particularly at the deans' level. The University should commit to releasing complete information about racial and income characteristics of students, both committing to its collection and regular distribution as part of a long term time series (several decades).

6. Strong support for such programs should be built within the Board of Regents

7. Finally, the University should be both bold and creative in its diversity objectives and efforts. Here earlier successful examples from the Michigan Mandate such as the Target of Opportunity program for faculty recruiting and linking diversity achievement to leadership compensation should be reconsidered.

Duderstadt References

James Duderstadt, *A 50 Year History of Social Diversity at the University of Michigan* (Ann Arbor, MI: Millennium Project, 2016)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt, *Intercollegiate Athletics and the American University*: (Ann Arbor, MI: University of Michigan Press, 2002)

Chapter 10: Summary

1. The increasing diversity of the American population with respect to race, ethnicity, and national origin has long been perceived as one of our nation's greatest strengths. A diverse population gives us great vitality. A diversity of perspectives and experiences is also critical for sustaining an innovation-driven economy, perhaps the United States' most significant core competency in a global, knowledge-driven economy. And, of course, such diversity helps us to relate to a highly diverse world.

2. However, today it is also one of our most serious challenges as a nation since 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 aggregation and non-assimilation of minority cultures, as well as a backlash against long-accepted programs designed to achieve social equity (e.g., affirmative action in college admissions).

3. Higher education's commitment to reflect the increasing diversity of our society in terms of both our academic activities and the inclusiveness of our campus communities is based in part on the American university's fundamental social, institutional, and scholarly commitment to freedom, democracy, and social justice. To further these lofty goals, our colleges and universities must overcome inequities deeply embedded in our society by offering opportunity to those who historically have been prevented from participating fully in the life of our nation.

4. The case for diversity:

There is ample research to suggest that diversity is a critical factor in creating the richly varied educational experience that helps students learn.

Diversity is similarly fundamental for the vigor and breadth of scholarship.

In addition to these intellectual benefits, the inclusion of underrepresented groups allows our institutions to tap reservoirs of human talents and experiences from which they have not yet fully drawn.

Our nation's ability to face the challenge of diversity

in the years ahead will determine our strength and vitality.

5. The challenges of diversity:

Our nation continues to be burdened by prejudice and bigotry that plague our neighborhoods, our cities, and our social institutions.

Prejudice and ignorance persist on our nation's campuses as they do throughout our society.

In an increasingly diverse country, deep divisions persist between whites, blacks, Hispanics, Native Americans, and other ethnic groups.

We need to work diligently to transform our campuses, encouraging respect for diversity in all of the characteristics that can be used to describe our human species: age, race, gender, disability, ethnicity, nationality, religious belief, sexual orientation, political beliefs, economic background, and geographical origin. Yet, in doing so, we will have to move in two directions at once. We have to set aside the assumption that people from groups different from ours necessarily have the same needs, experiences, and points of view that we do. At the same time, we cannot succumb to the equally pernicious assumption that "they" are all the same.

6. Hence, progress toward diversity will likely require some significant changes in strategy in the years ahead. Unfortunately, the road we have to travel is neither frequently walked nor well marked. We can look to very few truly diverse institutions in American society for guidance. We will have to blaze new trails, and create new social models.

7. By the 1980s while the University had addressed the challenge of serving an increasingly diverse population with the best of intentions, it simply had not developed and executed a plan capable of achieving sustainable results. We believed that without deeper, more fundamental institutional change these efforts by themselves would inevitably fail. We believed that achieving our goals for a diverse campus would require a very major change in the institution itself.

8. The Michigan Mandate

The mission and goals of the Michigan Mandate

were stated quite simply:

1. To recognize that diversity and excellence are complementary and compelling goals for the University and to make a firm commitment to their achievement.

2. To commit to the recruitment, support, and success of members of historically underrepresented groups among our students, faculty, staff, and leadership.

3. To build on our campus an environment that seeks, nourishes, and sustains diversity and pluralism and that values and respects the dignity and worth of every individual.

9. By every measure, the Michigan Mandate was a remarkable success, moving the University far beyond our original goals of a more diverse campus.

The representation of underrepresented students and faculty more than doubled over the decade of the effort.

Minority student enrollments rose to one-third of our enrollments, reflecting levels in the more general American population. For example, increasing African-American student enrollments to 9.5%. In fact, when I stepped down as president, 5 of the University's 10 executive officers were African American, including my successor.

And, perhaps most significantly, as the campus became more racially and ethnically diverse, the quality of the students, faculty, and academic programs of the University increased to the highest level in history. This latter fact seemed to reinforce our contention that the aspirations of diversity and excellence were not only compatible but, in fact, highly correlated.

10. Even while pursuing the racial diversity goals of the Michigan Mandate, we realized we could not ignore another glaring inequity in campus life. If we meant to embrace diversity in its full meaning, we had to attend to the long-standing concerns of women faculty, students, and staff. Again the vision was simple, yet compelling: that by the year 2000 the university would become the leader among American universities in promoting and achieving the success of women as faculty, students, and staff.

11. We had become convinced that the university had both a compelling interest in and responsibility to create a welcoming community, encouraging respect for diversity in all of the characteristics that can be used to describe humankind: age, race, ethnicity, nationality, gender, religious belief, sexual orientation, political beliefs, economic background, and geographical background.

11. Unfortunately, due to inattention, and external events such as the State of Michigan's ban on affirmative action, much of the progress in diversity achieved during the 1990s has been lost over the past two decades.

12. Furthermore, new challenges appeared as flagship research universities such as Michigan began to lose the economic diversity that characterized their public purpose as they attempted to replace declining state support by recruiting more affluent out-of-state students capable of paying private college tuitions.

13. Today there is an even more urgent reason why the University must once again elevate diversity to a higher priority as it looks toward the future: the rapidly changing demographics of America as our population ages. However, the United States stands apart from the aging populations of Europe and Asia for one very important reason: our openness to immigration. As it has been so many times in its past, America is once again becoming a nation of immigrants, benefiting greatly from their energy, talents, and hope, even as such mobility changes the ethnic character of our nation.

14. Clearly the highest priority should be to re-engage with the people of Michigan to convince them of the importance of investing in public higher education and unleashing the constraints that prevent higher education from serving all of the people of this state. We need a strategy that makes it clear that our society has a stake in ensuring that every American has an opportunity to succeed—and every American, in turn, has a stake in our society.

Chapter 11

Communities

Beyond characteristics such as size, quality, and financial sustainability that can be tracked over time through quantitative data, there are other important characteristics of a university that require a more subjective approach. Universities are complex organizations that develop unique cultures over time, not only influencing their fundamental missions of learning, discovery, and engagement with society, but also how they function as communities. In many cases these characteristics are not only unique to the institution but soon become evident to visitors, usually associated with the institutional “saga” of an institution, developing over a long period of time. (See Chapter 1.) Other characteristics such as how an institution accepts new members, or sustains community activities, or operates in making decisions or commitments are more subtle and can change significantly over a few years because of external or internal events.

In fact, one of the core competencies of the university is its capacity to create learning communities. As a consequence there are many communities within the institution that are key to its intellectual, cultural, and social life. Some are organized along academic lines through faculty groups, institutes, centers, symposia, and salons. Others are organized about events, such as athletics and performing arts, and involve families and friends of the University. Most require resources such as meeting places (e.g., Inglis Highlands), performance venues (e.g., Hill Auditorium, Power Center, Walgreen Center), and athletic complexes (...ah, yes...even the “Big House”).

Changes in academic communities tend to occur slowly, particularly in the faculty, student, and staff cultures, because of its complexity and diversity. Fundamental academic values—academic freedom, intellectual integrity, striving for excellence—still

dominate the faculty culture, as they must in any great university. Yet today fewer faculty members look to the University for long term academic careers and instead became nomadic, moving from institution to institution in an increasingly competitive academic marketplace.

Student communities change more rapidly, dependent in part on the nature of the student body. For example, although fraternities and sororities dropped off the chart during the activism of the 1960s, they have become important once again as the student body has come from wealthier backgrounds (particularly those paying out-of-state tuition). So, too, student communities have once again become more political, sensitive to challenges facing our society, e.g., conflicts, inequities, diversity, and the challenges of finding a job after graduation.

The many activities of the University also create an even broader range of communities. Many of the activities of the University such as the performing and visual arts have stimulated the creation of “friends” groups to help support these activities through engagement and financial donations. There are also an array of community groups, comprised of University members, families, and friends who provide important services such as the Faculty Women’s Club. And, of course, there are the gigantic communities formed by those who cheer on the Michigan Wolverines at athletic events.

Radical changes in University communities can also happen due to “invasive species”, new people joining the University with limited knowledge or respect for its long-standing traditions. For example, the Michigan Wolverines have always attracted an intensely loyal community of fans, consisting of students, alumni, and friends. Yet several years ago this was pushed aside by a new athletic director who proclaimed his

intensely commercial approach as. "If it ain't broke, then break it!" He proceeded to break apart the loyal fan community by commercializing Michigan athletics to raise ticket prices so high that many students, faculty, staff, alumni, and loyal fans were pushed aside.

This philosophy of breaking apart communities that were certainly not broken has occurred in many other areas, usually by those unfamiliar or uncaring about University values and traditions. The academic and pastoral role of deans for the faculty community was broken apart by demanding highest priority given to the whims of wealthy donors. Resources that support faculty activities were discarded, such as replacing the University Club in the Michigan Union by an Au Bon Pan fast-food court and first restricting the Inglis Highlands estate for fund-raising purposes and then selling it rather than return it to academic use. And, as we will demonstrate, the practice of "breaking the unbroken" continues and poses a constant threat that requires a sustained battle to protect important University traditions.

But first it is important to understand how these many communities had evolved as they were once nurtured.

University Communities

The contemporary university is much like a city, comprised of a bewildering array of neighborhoods and communities. To the faculty, it has almost a feudal structure, divided up into highly specialized academic units, frequently with little interaction even with disciplinary neighbors, much less with the rest of the campus. To the student body, the university is an exciting, confusing, and sometimes frustrating complexity of challenges and opportunities, rules and regulations, drawing students together in major events, such as fall football games or campus protests. To the staff, the university has a more subtle character, with the parts woven together by policies, procedures, and practices evolving over decades, all too frequently invisible or ignored by the students and faculty. In some ways, the modern university is so complex, so multifaceted, that it seems that the closer one is to it and the more intimately one is involved with its activities, the harder it is to understand its entirety and the more

likely one is to miss the forest for the trees.

But a university is also a diverse community of many families: students, faculty, staff, and students; deans and executive officers; office staff and even presidents. While Michigan enjoys an intense loyalty among these families, it can also be a tough environment for many. It is a very large and complex institution, frequently immersed in controversial social and political issues. Senior academic and administrative leaders not only become members of these families but also must assume responsibilities to understand, support, encourage, and protect these communities, to understand their concerns and their aspirations, and to advance their causes.

Students

Students, of course, comprise the most important community for the university, but they are also the most diverse, and for very large institutions such as Michigan, they are also the largest of our families. While one generally thinks of the student body as comprised of young high school graduates, roughly one third of the students in major research universities are adults engaged in graduate or professional study. In fact, an increasing number are adults with families and careers seeking further education. Hence both understanding and relating to this exceptionally diverse constituency can be a considerable challenge, particularly when it has a strongly activist nature such as Michigan.

Faculty

The faculty—rather, the many faculties, since they are quite diverse by discipline—comprise another family, responsible not only for the intellectual life and impact of a university but also for its quality. Yet here too there is great diversity, from young scholars striving to achieve the quality of scholarship, teaching, and grantsmanship necessary for tenure, to more mature scholars commanding great respect and impact in the fields, to senior faculty approaching the end of careers and contemplating the endgame of retirement. Most departments have an array of communities, some around intellectual issues, and some involved in social or athletic activities.

For most of its history the senior faculty has enjoyed a number of clubs for both scholarly conversation and social engagement. Many of these clubs, dating from the 19th Century, such as the Apostles and Church Wardens and the Catholospistimead, have long since disappeared. However several still remain: the Scientific Club (now comprised of faculty from any of the University disciplines), the Azazels (a Hebrew word for scapegoat), and the Economics Dinner Group (containing both faculty and business leaders) still are active, their composition has become older and their meetings more difficult to organize.

Staff

Although students and faculty members tend to take the staff of a university pretty much for granted, these are the people who provide the environment they need for teaching and research. Throughout the university, whether at the level of secretaries, custodians, or groundskeepers or the rarified heights of senior administrators for finance, hospital operations, or facilities construction and management, the quality of the university's staff, coupled with their commitment and dedication, is critical to making Michigan the remarkable institution it has become.

Administrators

The deans and department chairs themselves form yet another family of the university, occasionally in competition with one another, more frequently working together, but always requiring the attention and the pastoral care of the president and the provost. Although there is great diversity in the size and character of the various schools and colleges of the University, the roles of deans are sufficiently similar that they easily form a community of common interests.

Executive Officers

The executive officers are also a family, although, quite unlike the deans, they are characterized by a great diversity in roles and backgrounds. Although many of the executive officers at universities come from outside the academy (e.g., business and finance), Michigan has

usually benefited from those few executive officers with academic roots, some even with faculty appointments and ongoing teaching and research responsibilities. This not only provides a leadership team with a deep understanding of academic issues, but it gives the University important flexibility in breaking down the usual bureaucracy to form multi executive officer teams to address key issues, such as federal research policy, fund-raising, resource allocation, and even academic policy—issues that would be constrained to administrative silos in other universities.

Regents

The UM Board of Regents comprises yet another family. Although most governing board members are dedicated public servants with a strong interest and loyalty to the university, as with any family, there are occasional disagreements—indeed, long-standing feuds—that might last months or even years. But this is not surprising for public governing boards that owe both their selection and support to highly partisan political constituencies.

Faculty Families

The family members of the faculty are also drawn into an array of communities. Some have long-standing service roles, such as the Faculty Women's Club, comprised of partners and women faculty members, founded in the early 20th Century to serve the needs of the University through welcoming new members and hosting an array of interest groups that engage faculty families across the University. Here it is important to stress just how important such community organizations are to new faculty families. The University is a very diverse and complex organization, broken up into smaller social groups usually aligned with academic departments or work areas. One can image the differences among academic units such as Law, Medicine, Engineering, and LS&A, or among the diverse departments and programs in each of these units. While most of these organizations made some effort to welcome and orient their new faculty members, their families are generally ignored. In contrast, the Faculty Women's Club span the entire



The President's House



The Inglis Highlands Estate

university, hosting an unusually broad set of activities and interest groups both for faculty partners and more broadly their families. In fact, since being launched by President Marion Burton's wife, Nina Burton, in the 1920s, it had become the primary social organization for pulling together faculty members and their families across the University. While many of the women in the Faculty Women's Club would remain active throughout their lives (including many of the wives of senior university leaders such as presidents and deans), the FWC Newcomers group played a particularly important role both in welcoming new arrivals to the University and providing them with opportunities to become engaged in its broad range of activities, both as members and as families.

Of course, there were other opportunities for faculty members to come together, such as family events (school programs, summer activities), cultural events (performing arts), or "cosmic athletic events" (UM football and basketball), which usually appealed to particular interests or periods in family life (e.g., school-age children). There are also numerous cultural events such as the concerts hosted by the University Musical Society and the array of performances by students and faculty of the School of Music, Theatre, and Dance.

The Role of Leadership Partners in Building and Sustaining Communities

Over the history of the University, the partners of academic leaders have played a particularly important

role in building and sustaining communities. Of course, the role of the spouse of the University's president first comes to mind, since until recently the University behaved much like Washington in depending upon the activities of "the first lady". And, indeed, the achievements of most of the partners of the Michigan presidents have been quite substantial through its history, not only hosting events and launching new organizations such as the Women's League, but becoming an active partner in University advancement in areas such as fund-raising and political influence. They have managed the staff for University facilities such as the President's House, the Inglis Highlands Estate, and even the guest areas at athletic events. Some have taken on broader issues such as stimulating new academic programs and strengthening University activities in embracing its history and traditions.

This tradition of leadership by faculty couples extends throughout the ranks, from department chairs to deans to executive officers. The roles of the partners of University leaders, while usually voluntary, have been absolutely critical to the formation and strengthening of important communities across the University and throughout its history.

The Ebb and Flow

Of course, with new leadership come new ideas, priorities, agendas, and people, which over time leads to the appearance of new cultures and characteristics. This was certainly true for the administrations of the

recent decades, which established new priorities and practices for engagement and outreach that created new communities while casting aside others.

Many of the events designed to build leadership teams among the deans, Executive Officers, and Regents disappeared during the early years of the new century. No longer do the Regents and executive officers gather for dinner and discussions at Inglis House during their monthly meetings. So too, the fall, holiday, and spring events for the deans and executive officers hosted by the president have disappeared. With the withdrawal of Inglis House for faculty and academic events during the fund-raising campaigns of the 2000s, the monthly faculty dinners by the provosts and the many events to honor distinguished achievements by faculty have also vanished.

While there are still faculty social communities within various departments or smaller schools, many of the University-wide faculty activities have weakened. The University's faculty governance through the Senate Assembly and Senate Advisory Committee on University Affairs has assumed more of an advisory role, in contrast to the strong working relationship that existed with the president and executive officers in the 1960s to 1990s. Its role as the voice of the faculty, once symbolized by its meetings in the amphitheater of the Rackham Hall of Graduate studies, has been muted by moving its meetings to the Palmer Commons. While there remain numerous committees and boards seeking faculty members, there also has been a long-standing suspicion that when the administration wants to avoid action, it appoints yet another committee which tends to discourage faculty participation.

Unlike many other universities, Michigan has not had a University-wide faculty club for many years. Decades ago the Michigan Union had provided not only a University Club but also a bar and tap room, but today these spaces have been transformed into an Au Bon Pain food court. Efforts to build faculty support for such facilities or perhaps even a club for emeritus faculty have failed to receive strong support from either faculty or the University leadership.

The Faculty Women's Club remains quite active and includes both faculty partners and women faculty. But like the other clubs, its membership has declined somewhat over the past several decades, although

it continues to perform valuable services for the University.

There are several possible reasons for the decline of interest in these clubs. With the increasing number of two-career couples and the limited time for family activities, these clubs are clearly not the priority for the limited free time of faculty. The increasing cost of housing in Ann Arbor have pushed many faculty families into neighboring communities such as Saline, Dexter, and Chelsea, where they form their social groups.

It is also the case, however, that in recent years the leadership of the University has simply not given these groups the attention of earlier presidents. Although the Faculty Women's Club still holds a holiday reception in the Presidents House, a tradition throughout its history, the president's partner stopped attending years ago and, in fact, charges the group thousands of dollars each year for this affair. The Inglis Highlands estate, a nine acre estate given to the University in the 1950s, has long been the meeting place for important groups such as the Economics Dinner Group, the Henry Russell Lecturers, and the Faculty Women's Club, as well as faculty meetings with the provost and other executive officers (not to mention fund-raising activities). Unfortunately, the estate was withdrawn from University use in 2012, with the clandestine intent to allow it to deteriorate sufficiently that the Regents could be persuaded to sell it for commercial development, a short-sighted decision to the extreme. These groups now must meet in off-campus space such as local restaurants and Washtenaw Community College, an embarrassing experience for a great University!

There are few opportunities for members of the University community—students, faculty, staff, alumni—to join together for major events. Over the long history of the University, athletic events (particularly football, basketball, and hockey) and musical and theatrical performances (both the University Musical Society and the School of Music) have provided these.

Yet, driven by aggressive new leadership of the Athletic Department in 2010, Michigan athletics became more focused on achieving national leadership in revenues and expenditures (already doubling budgets to rank 2nd in the nation) rather than building winning programs or serving University needs. It raised ticket



Student Communities



Pastoral Care for the Faculty Families



Entertaining the deans



The Executive Officer Team



Working with the Regents



Celebrating the staff

prices beyond the range of all but the wealthiest fans. Few faculty members, staff, or even Ann Arbor residents could afford the ticket prices characterizing Michigan Stadium (averaging \$230 per game, including premium and seat license fees). Student ticket prices rose to the highest in the nation. And, as a result, the crowds attending events in Michigan Stadium and the Crisler Center and the “wow” entertainment provided to them soon became more typical of professional athletics.

Fortunately, the ability of the University’s ecosystem to repel invasive species soon took over. After strong protests from both students and fans, the athletic director departed, along with most of the marketing staff that had been hired to promote Michigan Athletics. Once again, Michigan Athletics became a strong community experience for both the University and the thousands of fans who followed its teams.

Unfortunately, the May Festival disappeared as a campus tradition in the 1990s. While the extraordinary quality of the events hosted by the University Musical Society provides a wonderful community experience for a great many members of the Ann Arbor community, the rising prices of these events are a challenge for many. Perhaps here the solution is not through pricing, which is driven by a broader commercial market, but rather more strongly promoting the availability of the extraordinarily diverse array of student and faculty performances provided at modest cost (or even free of charge by the School of Music, Theatre, and Dance). It is also important that both the University Musical Society and School of Music better coordinate and promote their activities and avoid competing for either audiences or donors.

The Town-Gown Community

Many years ago, Esquire magazine published an article on what it called “academic womb” communities. These were small cities dominated by major universities, places like Madison, Berkeley, Cambridge, Chapel Hill, and, of course, Ann Arbor. The cultural, economic, and social characteristics of these communities were determined largely by the universities within them. The term “womb” referred to the fact that, after living in one of these academic communities for an extended period, one found it difficult to return to “the real

world,” and tended to move from university town to university town. As examples, although Presidents Harlan Hatcher and Robben Fleming both left Ann Arbor after their presidencies, they returned later to retire in the community and re-established their close relationships with the University.

On the plus side is the fact that the university provides the community with an extraordinary quality of life. It stimulates the development of outstanding schools, provides rich opportunities in the visual and performing arts and athletic events, and generates an exciting and cosmopolitan community. The income generated by the university insulates these communities from the economic roller coaster faced by most other cities. Without such universities, these cities would be like any other small city in America; with them they become exciting, cosmopolitan, richly diverse, and wonderful places to live and work.

Duderstadt Book References

James J. Duderstadt, *The View from the Helm: Leading the JAmerican University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt and Anne Duderstadt, *For the Love of Michigan: A Half Century of Serving the University of Michigan* (Ann, Arbor, MI: Millennium Project, 2014)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan’s Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *The Michigan Strategy Book: 1986 – 1996* (Ann Arbor, MI: Millennium Project, University of Michigan, 2000)

Chapter 11: Summary

1. The contemporary university is much like a city, comprised of a bewildering array of neighborhoods and communities. To the faculty, it has almost a feudal structure, divided up into highly specialized academic units, frequently with little interaction even with disciplinary neighbors, much less with the rest of the campus.

2. These communities are key to its intellectual, cultural, and social life. Some are organized along academic lines through faculty groups, institutes, centers, symposia, and salons. Others are organized about events, such as athletics and performing arts, and involve families and friends of the University.

3. Changes in academic communities tend to occur slowly, particularly in the faculty, student, and staff cultures, because of its complexity and diversity. Student communities change more rapidly, dependent in part on the nature of the student body. The many activities of the University also create an even broader range of communities.

4. Over the history of the University, the partners of academic leaders have played a particularly important role in building and sustaining communities. Of course, the role of the partner of the University's president first comes to mind, since until recently the University behaved much like Washington in depending upon the activities of "the first lady". And, indeed, the achievements of most of the partners of the Michigan presidents have been quite substantial through its history, not only hosting events and launching new organizations such as the Women's League, but becoming an active partner in University advancement in areas such as fund-raising and political influence.

5. Radical changes in University communities can also happen due to "invasive species", new people joining the University with limited knowledge or respect for its long-standing traditions. While there are still faculty social communities within various departments or smaller schools, many of the University-wide faculty activities have weakened. The University's

faculty governance through the Senate Assembly and Senate Advisory Committee on University Affairs has assumed more of an advisory role, in contrast to the strong working relationship that existed with the president and executive officers in earlier times.

6. Unlike many other universities, Michigan has not had a University-wide faculty club for many years. Decades ago the Michigan Union had provided not only a University Club but also a bar and tap room, but today these spaces have been transformed into an Au Bon Pain food court. Efforts to build faculty support for such facilities or perhaps even a club for emeritus faculty have failed to receive strong support from either faculty or the University leadership.

7. There are few opportunities for members of the University community—students, faculty, staff, alumni—to join together for major events. Over the long history of the University, athletic events (particularly football, basketball, and hockey) and musical and theatrical performances (both the University Musical Society and the School of Music, Theatre, and Dance) have provided these. Yet driven by excessive expenditures, ticket prices for such activities have soared, breaking apart the long-standing communities that used to depend upon them.

8. The city of Ann Arbor provides yet another fertile site for establishing communities because of the presence of a large, world class university in a small city where most families live. The university provides the community with an extraordinary quality of life. It stimulates the development of outstanding schools, provides rich opportunities in the visual and performing arts and athletic events, and generates an exciting and cosmopolitan community. The income generated by the university insulates these communities from the economic roller coaster faced by most other cities. Without such universities, these cities would be like any other small city in America; with them they become exciting, cosmopolitan, richly diverse, and wonderful places to live and work.

Chapter 12

A Tough Neighborhood

The University of Michigan, characterized by its free and liberal spirit since its early years, has a long history of activism on the part of its students, faculty, and alumni. Student and faculty concerns upon and extending beyond the University's campus have frequently not only addressed but also influenced major national issues, such as civil rights and the Teach-Ins against the war in Vietnam in the 1960s, the environmental movement of the 1970s, and in the 1980s and 1990s, the University's leadership in helping reaffirm the importance of diversity to higher education. Of course this sometimes runs against the grain of political opinion in the community, state government, or the public at large. But the University's constitutional autonomy, coupled with the long-standing principle of academic freedom, gives it both the capacity and the responsibility to challenge the norms and beliefs of society from time to time.

While Ann Arbor may be a small Midwestern community, the University itself has always had more of the hard edge characterizing the urban centers of the Northeast. Although sports fans might suggest this flows naturally from Michigan's reputation in violent sports such as football and hockey, in reality it has evolved as a defensive mechanism to protect the University against the reality of its harsh political environment. In a sense, the University of Michigan grew up in a rough neighborhood and had to become lean and mean and capable of looking out for itself.

Michigan is a state characterized by confrontational politics. It was long dominated by the automobile industry—big companies, big labor unions, and big state government. During the last half of the 20th century, as the state's economy and population faced the challenges and hardships driven by global competition and poverty in its industrial cities, this political

atmosphere has become more strident, with organized labor fighting to retain its control of the Democratic party while the conservative communities of western Michigan, dominated by the religious right, now controlling the Republican party and State government through the effective use of gerrymandering.

In many ways, Ann Arbor is an oasis, a liberal eastern community planted in the center of a tough Midwestern state. The politics of the city of Ann Arbor still reflect the rebellious spirit of the protest days of the 1960s (declaring itself in the 1980s as "a nuclear free zone"!). The community continues to this day to mark its history of civil disobedience by celebrating each April 1 with the annual Hash Bash, where thousands come to promote and experience the evil weed, uninhibited by Ann Arbor's pot law, a \$5 fine for possession of marijuana.

State Government

The relationship between public universities and their states varies significantly. Some universities are structurally organized as components of state government, subject to the same hiring and business practices characterizing other state agencies. Others possess a certain autonomy from state government through constitutional provision or statute. All are influenced by the power of the public purse—by the nature and degree of state support.

Although the University of Michigan faces many of the challenges experienced by other state universities—declining state appropriations, intrusive sunshine laws, over-regulation, politically motivated competition among state institutions, and a politically determined governing board—there are two characteristics of our relationship with the state that are quite unique.

First, as noted earlier the University was given unusual autonomy in the state constitution, autonomy comparable to that of the Legislature, Executive, and Judicial branches. While it is certainly subject to state funding decisions and regulations, the University's elected Board of Regents possesses exceptionally strong constitutionally derived powers over all academic activities of the institution, strengthened over the years by successful litigation. Second, both because of the University's autonomy and its long history, first as a territorial institution and then later, in effect, as a national university—and today, one might argue, a world university—it has been determined to do whatever was necessary to protect both the quality of and access to its academic programs on a national and international basis.

In particular, the University refuses to allow the quality of its academic programs to be determined by state appropriations or policies, which are usually insufficient to support a world-class institution. Instead it has developed an array of alternative resources to supplement state support, including student tuition: federal research support, private giving, endowment earnings, and auxiliary activities such as clinical care. Furthermore, it uses its constitutional autonomy to defend its commitment to serving a diverse population, reaching out not only to underserved minority communities and students from low income families, but also to students from across the nation and around the world. While this philosophy of independence has been key to the quality of the University and its ability to serve not simply the people of the state, but those of the nation and the world, it does not always endear the University to state government, which tends to equate the University's independence with arrogance.

Political winds shift over time, and this has certainly been the case for the political fortunes of the University of Michigan. For its first century, the University enjoyed a privileged position. Many of its alumni were in the state legislature and in key positions in government and communities across the state. Political parties were disciplined, and special interests had not yet splintered party solidarity. In that environment the University had little need to cultivate public understanding or grassroots support. A few leaders from the University met each year with the governor and leaders of the

legislature to negotiate our appropriation (rumored to have been in a duck blind...). That was it. The University was valued and appreciated. There was a historic and intense public commitment to the support of public higher education that had characterized the founders of the University of Michigan and the generations of immigrants who followed, sacrificing to provide quality public education as the key to their children's future. Today, however, this broad public support for a world class public research university is a far cry from the political cauldron in which flagship public universities find themselves.

The University of Michigan's privileged position and broad support changed dramatically in the 1950s and 1960s, both because of the aggressive ambition of the other state colleges and universities and the detached and occasionally arrogant attitude of the University of Michigan. A long-time leader of the state legislature portrayed Michigan during this period of its history as a university led by a distinguished but conservative president and moneyed Republican Regents determined to hang onto the past. They were surprised when the state legislature not only labeled Michigan as arrogant but actually took great delight in disadvantaging it relative to other public universities. The student protests on campus during the 1960s provided even more ammunition to those who wanted to attack Michigan for political reasons. The University entered the 1970s with both a bruised ego and a damaged reputation—at least in Lansing.

Slowly the University began to realize that the world had changed, and that it no longer had monopoly on state support. The state was in the midst of a profound economic transformation that was driving change in the political environment. Political parties declined in influence. Special-interest constituencies proliferated and organized to make their needs known and influence felt. Even as the University became more central in responding to the needs of the state, it was also held more accountable to its many publics.

Despite the changing nature of its economics very much by a blue-collar mentality in the 1980s, perhaps best illustrated by a comment by a senior executive of General Motors during a visit to GM headquarters: "As long as we can put a car on the showroom floor for fewer dollars per pound than anybody else, we



Senator Don Riegle and Tom Butts



Senator Carl Levin



Congressman Bob Carr



Congressman Bill Schutte



UM Congressional Breakfast



Pollster Bob Teeter



Governor John Engler



VP Dan Quale and Gov Engler



Governor John Engler



Senator Lana Pollack and Governor James Blanchard



Hearing with Senator Joe Schwartz



Testifying with Gil Whitaker

Politicians we have known...

will dominate the global marketplace!" Of course, the Japanese demonstrated convincingly that people no longer bought cars by the pound—they chose quality instead. Similarly, in the global, knowledge-driven economy of the 21st Century, it was the quality of a workforce that counts, as evidenced by the increasing tendency of American companies to outsource—rather, offshore, in contemporary language—not only unskilled labor but high-skilled activities such as software engineering. Higher education in Michigan tended to be treated at best with benign neglect and at worst as a convenient political whipping boy.

Driving the complexity of this situation was a growing socioeconomic shift in priorities at both the state and federal level. In Michigan, as in many other states, priorities shifted from investment in the future through strong support of education to a shorter-term focus, as represented by the growing expenditures for prisons, social services, and federal mandates such as Medicaid, even as conservative administrations cut taxes in the 1990s. This was compounded by legislation that earmarked a portion of the state budget for K-12 education, leaving higher education to compete with corrections and social services for limited discretionary tax dollars. As a result, the state's support for higher education declined rapidly in real terms during the early 1980s and continued to drop, relative to inflation, throughout the remainder of the century to only 4% of its academic support and 8% of its total budget.

The key factor allowing the University to sustain its quality during this difficult period was again its constitutional autonomy. Relying heavily on this autonomy to control its own destiny, the University began to increase both its tuition and its nonresident enrollments to compensate for the loss of state support. Yet even the constitutional autonomy of the University faced formidable challenges from legislative efforts to control admissions, gubernatorial efforts to freeze tuition, and even onslaught from the media under the guise of the state's sunshine laws to control everything from presidential searches to Regental elections.

Today, however, in the face of limited resources and the pressing social priorities of aging populations, this decline in public support has steepened. While the needs of our society for advanced education and research will only intensify as we continue to evolve

into a knowledge-driven global society, it is not evident that these needs will be met by further expansion of our existing system of state universities. The terms of the social contract that led to these institutions are changing rapidly. The principle of general tax support for public higher education as a public good and the partnership between the states, the federal government, and the universities for the conduct of basic research and education, established in 1862 by the Morrill Act and reaffirmed a century later by post-WWII research policies, are both at risk.

These forces are already driving major change in the nature of the nation's public research universities. One consequence of declining state support has been the degree to which many leading public universities may increasingly resemble private universities in the way they are financed, managed, and governed, even as they strive to retain their public character. Public universities forced to undergo this privatization transition—or, in more politically acceptable language, "self-sufficiency"—in financing must appeal to a broader array of constituencies at the national—indeed, international—level, while continuing to exhibit a strong mission focused on state needs. In the same way as private universities, they must earn the majority of their support in the competitive marketplace, that is, via tuition, research grants, and private giving, and this will require actions that come into conflict from time to time with state priorities. Hence, the autonomy of the public university will become one of its most critical assets, perhaps even more critical than state support for many institutions.

Yet such efforts to portray these financial transitions in the face of declining state support as "privatizing" the public university is a flawed concept. The public character of state research universities runs far deeper than their financing and governance and involves characteristics such as their large size, disciplinary breadth, and deep engagement with society through public service. These universities were created as, and today remain, public institutions with a strong public purpose and character. Hence the issue is not whether the public research university can evolve from a "public" to a "private" institution, or even a "privately funded but publicly committed" university. Rather, the issue is a dramatic broadening of the "publics" that

these institutions serve, are supported by, and become accountable to, as state support declines to minimal levels.

In view of this natural broadening of the institutional mission, coupled with the increasing inability (or unwillingness) of states to support their public research universities at world-class levels, it is even possible to conclude that the world-class “state” research university may have become an obsolete concept. Instead, many of America’s leading public research universities may evolve rapidly into “regional,” “national,” or even “global” universities with a public purpose to serve far broader constituencies than simply the citizens of a particular state who no longer are able or willing to provide sufficient support to sustain their programs at world-class levels. In fact, one might well argue that states today would be better off if they encouraged their flagship public research universities to evolve into institutions with far broader missions (and support), capable of accessing global economic and human capital markets to attract the talent and wealth of the world to their regions.

Today public research universities have become critical to the national interests such as security, prosperity, and public welfare. Yet in recent years the states seem to have backed away from their role in supporting these institutions so critical to both their people and the nation. State governments have not only cut dramatically their support of higher education but then criticized public colleges and universities for the consequent rise in tuitions as the state subsidy has been withdrawn. In fact, many state leaders have actually attacked their public universities for personal political gain. Clearly it is necessary to alert the body politic concerning what is at risk in this environment. As the states turn their backs on their public universities, they are ignoring the needs of the nation during a time of great challenge to America.

The Federal Government

The situation is quite different in the University’s relationships with the federal government. Although the United States leaves most of the responsibility for higher education to the states and the private sector, the federal government does have a considerable influence

on higher education, both through federal policies, in areas such as student financial aid and through the direct support of campus activities such as research and health care. In fact, some would maintain that the most transformative changes in American higher education have usually been triggered by federal actions such as the Land Grant Acts of the 19th Century, the G. I. Bill and government-university research partnership (Vannevar Bush’s “Science, the Endless Frontier” following World War II, and the Higher Education Acts of the 1960s).

As Washington became convinced that higher education was important to the future of the nation in the decades after World War II, the federal government began to provide funding to colleges and universities in support of research, housing, student financial aid, and key professional programs such as medicine and engineering. Of course, with significant federal support also came massive federal bureaucracy. Universities were forced to build large administrative organizations just to interact with the large administrative bureaucracies in Washington. Federal rules and regulations snared universities in a web of red tape that not only constrained their activities but became important cost drivers. Universities were frequently whipsawed about by the unpredictable changes in Washington’s stance toward higher education as the political winds shifted direction each election year. Yet, it was strong federal support rather than state support or philanthropy that transformed universities like Michigan into global leaders as research universities.

In more recent years, the populism characterizing political support has driven the federal government to become increasingly hostile to higher education. Even as our world becomes increasingly dependent upon knowledge, the very technology that is key to creating, archiving, and making available knowledge is ironically being used to attack and undermine it. In the Trump era, social media not only has become a powerful tool of American politics, but it provides the capacity to distort knowledge and truth, the “alt-truth” phenomenon that allow a tidal wave of anger built on the social media Twitter to not only win a presidential election but to build a powerful, almost mythological force capable of challenging the evidence-based truth critical to a democracy. (Brooks, 2017) While counterforces such as Wikipedia and digital libraries were thought of as

powerful technologies capable of distributing facts and truth, the worry today is that the alt-truth deluge from social media may in fact be eroding American democracy. (The Economist, Technology and Politics, 2016)

Xenophobic and racist dialog creates an electorate that is not only unwilling to accept truth established by evidence, but has largely abandoned the scientific method (with only 25% of Americans now expressing confidence in scientific discovery). (Miller, 2016) Both parents and young people are beginning to question the value of higher education. Indeed, one wealthy billionaire is even trying to bribe students not to go to college.

Policy makers, determined to serve their populist constituencies, are erecting barriers to higher education based on race and class. Nearly two decades into our new century, there are unmistakable signs that America's fabled social mobility is in trouble, as stated by Todd Gitlin, former UM professor. "We are faced with a challenge to liberalism by populists who are challenging the ideas of freedom, equality, human rights, representative democracy and globalization with our current post-truth age in which expertise on matters such as climate change is rubbished and institutions are deemed untrustworthy." (Gitlin, 2017)

Town-Gown Relationships

The presence of a large, dynamic, and politically active university has given the City of Ann Arbor both unusual character and some particular challenges, just as universities have created similar challenges in cities such as Berkeley and Madison. It seems clear that both the City and the University suffered for several decades from what might be regarded as the "hangover of the 1960s," which saw a dramatic rise in political activism that stressed rights rather than responsibilities. The unusual political activism of the University in the community sometimes leads to a "let's save the world, but to hell with our town" attitude. At times the University becomes preoccupied with the cosmic, when we really need to focus on problems in our own backyard. Both the University and the City are guilty of spending a great deal of time developing their "foreign policies" when they should probably be paying more

attention to the domestic concerns of their citizens.

Most people fail to understand or appreciate the rapidly changing nature of the City, particularly its interaction with its broader regional environment. The extraordinary changes of demography, the world community, the age of knowledge—all of which affect the University of Michigan and Ann Arbor—create great but largely unacknowledged challenges. We see this in the apparent inability to pull together a leadership group, either within or outside City government, capable of thinking and dealing strategically with the future of the City and its relationship with the University. In most meetings assigned to explore strategic issues, almost inevitably the first subject that arises, either within the community or on the campus, is parking. As Clark Kerr once noted, this seems to be about the only unifying theme in the modern university.

It is clear that the most important thing that the University can do to help its surrounding community is to continue doing what it does best: It can attract exciting, talented people as students, faculty, and staff. It can continue working closely with the community to attract new business. It can continue its efforts to spin off its research activities as independent companies. It can continue to serve as the cultural center through its extraordinary array of activities in the performing arts, the visual arts, and intercollegiate athletics. The University can provide the Ann Arbor community with world-class health care. It can also play a vital role in strengthening K-12 education.

Since the Duderstadts had been members of the Ann Arbor community for two decades before assuming the role as president, we saw this town-gown relationship from two sides. While we understood well the university's interests, we also had experienced the frustration with the occasional negative impact of the university—rising property taxes as the university took more property off the tax rolls, traffic and parking congestion, student disruptions, and, not infrequently, a university attitude of insensitivity and even arrogance concerning city issues. Unfortunately, the contentious nature of city politics, aggravated by an Open Meetings Act that required that all meetings of government bodies such as the City Council or Ann Arbor School Board be televised, made interactions with city officials very difficult. Hence while in the presidency we moved

rapidly to create an informal group of community leaders, drawn primarily from the private sector, with whom the executive officers could meet monthly on a private basis. We also developed quite good relations with the mayors of the city, who not infrequently had strong university ties.

Although this informal process did little to satisfy the appetite of the local media and City Council, it did provide a very productive mechanism for discussing important strategic issues facing the city and the university. It led to a genuine effort to strengthen relationships between the leadership of the university, city government, and the local business community. It also established important informal channels of communication so that neither town nor gown was taken off guard on important decisions. During our leadership years, we were able to establish a broad range of strategic efforts designed to improve relationships with the local community. The University intensified its outreach efforts with other Michigan communities. Its Schools of Education, Public Health, and Social Work intensified their activities with the metropolitan Detroit area. Many other units and individual faculty became engaged in research and service in Detroit and worked to strengthen relations with the city's leadership. Efforts with other Michigan cities also gained momentum. Not that we were successful in every effort, since sometimes the barrier of local politics was simply too difficult to overcome.

Public Relations

Universities are clearly accountable to many constituents. We have an obligation to communicate with the people who support us—to be open and accessible. For many years the University was not the object of much public or media interest—aside from intercollegiate athletics. Many of our institutions essentially ignored the need to develop strong relationships with the media. Our communications efforts have been frequently combined with development and focused on supporting fund raising rather than media relations.

The public's perception of higher education is ever changing. For many years public opinion surveys have suggested that at the most general level, the

public strongly supports high-quality education in our colleges and universities. They believe it essential that higher education remain accessible to every qualified and motivated student, but they also remain convinced that the vast majority of these students can still get a college education if they want it. However, when one probes public attitudes more deeply, many concerns about cost, student behavior (alcohol, drugs, political activism), and intercollegiate athletics appear. There is a growing concern that too many students entering our universities are not sufficiently prepared academically to benefit from a college education. In fact, in the wake of the Trump administration, polls have indicated that 58% of conservative voters no longer trust American universities.

People want to know what we are doing, where we are going. We have an obligation to be forthcoming. But here we face several major challenges. First, we have to be honest in admitting that communication with the public, especially via the press, does not always come easily to academics. We are not always comfortable when we try to reach a broader audience. We speak a highly specialized and more exacting language among ourselves, and it can be difficult to explain ourselves to others. But we need to communicate to the public to explain our mission, to convey the findings of our research, to share our learning.

Second, as noted earlier, the public's perception of the nature and role of the modern university is inconsistent with reality. To be sure, we remain a place where one sends the kids off to college. Such concerns as cost, student behavior, athletics, and political correctness are real and of concern to us just as they are to the public. But the missions and the issues characterizing the contemporary university are far more complex than the media tends to portray them.

One of the curses of the American public is our willingness to embrace the simplest possible solutions to the most complex of problems. Higher education is certainly an example. People seem eager to believe that our system of higher education—still the envy of the world—is wasteful, inefficient, and ineffective and that its leaders are intent only on protecting their perquisites and privileges. Public university presidents recognize there is a very simple formula for popularity with the public.



There were times when we went to higher authorities...the 60 Minutes cast and the Dalai Lama!

1. Freeze tuition and faculty salaries.
2. Support populist agendas, such as sunshine laws.
3. Limit the enrollment of out-of-state students.
4. Sustain the status quo at all costs.
5. Field winning football teams.

But most university leaders also recognize this as a Faustian bargain, since it would also put their institutions at great risk with respect to academic program quality, diversity, and their capacity to serve society.

The Media

In earlier times, the relationship between the university and the press was one of mutual trust and respect. Given the many values common to both the profession of journalism and the academy, journalists, faculty, and academic leaders related well to one another. The press understood the importance of the university, accepted its need for some degree of autonomy similar to its own First Amendment freedoms, and frequently worked to build public understanding and support for higher education.

In today's world, where all societal institutions have come under greater scrutiny by the media, universities prove to be no exception. Part of this is no doubt due to an increasingly adversarial approach taken by both politicians and journalists toward all of society, embracing a certain distrust of everything and everyone as a

necessary component of investigative journalism. Partly to blame is the arrogance of many members of the academy, university leaders among them, in assuming that the university is somehow less accountable to society than are other social institutions. But the shift in the media's approach is also due in part to the increasingly market-driven nature of contemporary journalism, as it merges with or is acquired by the entertainment industry and trades off journalistic values and integrity for market share and quarterly earnings statements.

While the interactions with the media has always been a major priority of the University, particularly when facing vigorous investigative journalism, the demise of the Ann Arbor News, coupled with the shift in the interest of the Detroit papers from statewide interests to the collapse of the City of Detroit in the late 1990s left only the Michigan Daily as a truly independent source of news. This erosion of the fourth estate was intensified by a massive increase in the communications, marketing, and public relations activities of the University, which took over control of most of the information flow both within the University and to the media. When electronic news media began to appear, such as MLive.com, their staff was easily co-opted by controlling their access to University sources (particularly Michigan Athletics) based on their behavior toward the University. That left only the blogosphere as independent critics of the institution. The refusal of the University to respond to requests for information, even when accompanied by formal FIOA searches became a problem. The windowless character

of the Fleming Building that houses the central administration became reflective of the attitude of the University toward controlling all communications activity.

University Politics

As the University entered the new century, it was clear that it faced a political paradox: On the one hand, it was clear that the universities were becoming more critical players in a society increasingly dependent upon knowledge, upon educated people and their ideas. They were not only more important to society than ever, but they were more deeply engaged through a broad range of activities ranging from education to health care to public entertainment (through athletics). Yet, even as the university moved front and center stage, it also came under attack from many directions: the cost of education, political activities on campus, student and faculty behavior, and racial diversity and affirmative action. The American university became for many just another arena for the exercise of political power, an arena for the conflict of fragmented interests, a bone of contention for proliferating constituencies. It was increasingly the focus of concern for both the powerful and the powerless.

Washington posed another ongoing threat, usually through the meddling of federal agencies or Congressional action. There were times when even members of our own Michigan Congressional delegation would make the list, for example, when manipulated by their staff into taking positions hostile to the University in order to win political influence or visibility at the national level.

While the media had been a challenge during earlier eras, the demise of the printed news had a major negative impact on the University. The disappearance of the Ann Arbor News, the focus of the Detroit papers on the urgent problems of their city, and the shift of the Michigan Daily away from campus issue to athletics and entertainment eliminated much of the opportunity for substantive discussion and analysis of University issues.

It is important to regard the people of the University, its faculty, students and staff, always as allies rather than challenges. To be sure, on occasion student

activism can be annoying to administrators. Michigan certainly has had its share of outspoken students and faculty members, some enjoying the spotlight of campus politics, some as squeaky wheels pushing one personal agenda or another, and some speaking out on issues of considerable importance to the institution or broader society. But generally this should be regarded as a normal—indeed desirable—characteristic of a campus with an activist tradition. We preferred to not only tolerate but actually encourage such behavior, even when, in one case, it led to the Supreme Court case on affirmative action. Although we occasionally had outspoken staff members as well, particularly on union issues, most staff were intensely loyal university citizens and were viewed as strong allies rather than threats.

Certainly there was the usual array of special-interest groups, some on campus, some off, inclined to use the University as a convenient and highly visible target to further their particular cause. Here the list was very long and ever changing, spanning the political spectrum from the Marxist left to the Genghis Khan right.

Finally, there is always a bit of “court politics” swirling about any leader, whether president, executive officer, dean, or chair. Sometimes staff, whether administrative or even clerical, exert too much influence on a leader, transforming personal agendas into university priorities. While it is natural for a new leader to initially retain the staff of their predecessor, over time it is probably wise to build a new staff more aligned with their particular style and agenda. The same might be said for more senior administrative officers, since longevity can sometimes build an inappropriate level of influence.

Today’s Challenges

Some of the most significant short-term pressure for change in universities is driven by a converging political agenda at every level with multiple, not always compatible goals: to limit educational costs, even at the expense of quality; to make education ever more widely available; to draw back from the national commitment to research support, at least in the forms and amounts we have depended on since World War II;

and to accelerate institutional transformation through application of information technology.

Running counter to these goals are a few troublesome trends already affecting our universities. Public funding for higher education has been declining in a climate where education is seen increasingly as a personal economic benefit rather than as a public good in and of itself. Long-standing policies such as affirmative action, which represented earlier commitments to equity and social justice, are now being challenged by governing bodies, in the courts, and through public referenda. The allocation of research funding is increasingly driven by those with great skepticism (or fear) of scientific reasoning, particularly in areas such as the social sciences and climate change. Our curriculum is deformed by the competitiveness and vocational demands of students whose debt load impels them toward excessive careerism, even as other voices call for a return to an idealized “classical” curriculum based on the great works of Western civilization.

Of particular concern is the intrusion of political forces in nearly every aspect of university governance and mission. State and federal government seek to regulate admissions decisions and financial aid. There are egregious examples of political or judicial intrusion in the research process itself, for example, Star Chamber hearings before government bodies investigating scholarly research integrity or the expenditure of research funds. We are over regulated, and the costs of accountability are excessive both in dollars and in administrative burden. Governance of public institutions is too often in the hands of people selected for partisan political reasons rather than for their understanding and support of higher education. Most distressing, there is an increasing tendency by ambitious politicians to use the university as a whipping boy for personal political gain. The ultraconservative populist spirit that has recently gained political power in our nation has attacked higher education, stimulating an erosion of public confidence in universities, parallel the loss of trust in our institutions across the board. This will become an increasingly dangerous challenge to higher education in the years to come, and universities need to develop a strategy for challenging new trends such as “alt-truth”.

Of course we in universities are not entirely

blameless. We too often have been reactive rather than proactive in responding to demands from students, faculty, government, politicians, ideologues, and demagogues who distort or undermine our fundamental values and purposes. Academic structures are too rigid to accommodate the realities of our rapidly expanding and interconnected base of knowledge and practice. Higher education as a whole has been divided and competitive at times when we need to speak with a single unequivocal voice. Our entrenched interests block the path to innovation and creativity. Perhaps, most dismaying, we have yet to come forth with a convincing case for ourselves, a vision for our future, and an effective strategy for achieving it.

The fortunes of higher education in America seem to ebb and flow from generation to generation. The principal themes of America’s colleges and universities during the latter half of the 20th Century have been diversification and growth. In the three decades following World War II, strong public investments allowed our system of higher education to expand rapidly to keep pace with expanding populations and growing aspirations. The research university became the cornerstone of our national effort to sustain American leadership in science and technology, thereby ensuring both our economic prosperity and military security. The triad mission of our colleges—teaching, research, and service—acquired a degree of prestige and public support unprecedented in our history.

Today, higher education faces a much different world with its own unique challenges. In many parts of the country, the pool of college-bound students graduating from high school has been declining for two decades, as the surge of post-war baby boomers has swept through. Although we will hit the bottom of this demographic dip this decade, growth in this traditional source of college students will remain modest for at least another decade, with the exception of sunbelt states experiencing the impact of immigration. Yet at the same time, the increasing skill and education requirements of the high performance workplace are spurring a rapid growth in the number of adult college students. Universities are also facing both the challenge and the uncertainty of an aging professoriate, no longer compelled to retire after the removal of mandatory retirement caps and increasingly posing a logjam for

younger academicians.

Public support of higher education has leveled off in the face of other competing social needs. As the share of college costs financed by both state and federal governments has fallen, the share borne by families has inevitably increased. And as families have been asked to bear a larger share of the costs of educating their offspring, the outcry about the “excessive” cost of a college education has reached a crescendo.

At times we are tempted to respond to our critics: “We agree with you. Our universities are not good enough, not accountable enough, and not smart enough. But they are the best in the world.” And in fact, the American university is the envy of the world, both as attested by the multitude of foreign students seeking education in our institutions and by the effort of other nations to imitate the American approach to higher education. But this argument may no longer suffice, particularly if the university should become more detached from a changing world or should other social institutions compete more effectively for our roles.

A Final Word

When the Duderstadts first arrived in Michigan in 1968, our parents’ generation was in the final stages of a massive effort to provide educational opportunities to all Americans. Returning veterans funded through the GI bill had doubled college enrollments. The post-WWII research strategy developed by Vannevar Bush would transform our campuses into research universities responsible for most of the nation’s basic research. The Truman Commission proposed that all Americans should have the opportunity of a college education, and California responded with its Master Plan, which not only provided all Californians with the opportunity of at least a community college education, but simultaneously created the University of California system, today the leading research university in the world.

Our nation—and, indeed, the world—benefited greatly from these efforts both to provide the educational opportunity and new knowledge necessary for economic prosperity, social well being, and national security. We saw spectacular achievements such as sending men to the Moon, decoding the human

genome, and, of course, creating the Internet and the digital age. So too our class benefited greatly from the commitments of the “Greatest Generation”, although our priorities at the time lay elsewhere—protesting the establishment, fighting for civil rights, and saving the environment.

Yet, fast-forwarding to today, fifty years later, much of this earlier commitment by our parents seems to have waned. The quality of our primary and secondary schools lags many other nations as K-12 teaching has been transformed into a blue-collar profession, dominated by union demands and administrative bureaucracy. Over the past decade, state support of our public universities has dropped by roughly 35%, putting even the great University of California at risk (which has lost almost two-thirds of its state support per student). After a brief surge during the 1990s with the doubling of the budget of the National Institutes of Health, both federal and industrial support of basic and applied research have fallen significantly, while fields such as the social sciences have been savaged by conservative political forces. And perhaps most telling of all, the inequities characterizing educational opportunity have become extraordinary. As one colleague has put it: “If you are poor and smart, today you have only a one-in-ten chance of obtaining a college degree. In contrast, if you are dumb and rich, your odds rise to nine-in-ten!” Something has gone terribly wrong!

Both the tragedy and irony of this situation flows from the realization that today our world has entered a period of rapid and profound economic, social, and political transformation driven by knowledge and innovation. It has become increasingly apparent that the strength, prosperity, and welfare of region or nation in a global knowledge economy will demand a highly educated citizenry enabled by the development of a strong system of education at all levels. It will also require institutions with the ability to discover new knowledge, develop innovative applications of these discoveries, and transfer them into the marketplace through entrepreneurial activities.

Now more than ever, people see education as their hope for leading meaningful and fulfilling lives. Just as a high school diploma became the passport to participation in the industrial age, today, a century later, a college education has become the requirement

for economic security in the age of knowledge. Furthermore, with the ever-expanding knowledge base of many fields, along with the longer life span and working careers of our aging population, the need for intellectual retooling will become even more significant. Even those with advanced degrees will soon find that their continued employability requires lifelong learning.

Education in America has been particularly responsive to the changing needs of society during early periods of major transformation, e.g., the transition from a frontier to an agrarian society, then to an industrial society, through the Cold War tensions, and to today's global, knowledge-driven economy. As our society changed, so too did the necessary skills and knowledge of our citizens: from growing to making, from making to serving, from serving to creating, and today from creating to innovating. With each social transformation, an increasingly sophisticated world required a higher level of cognitive ability, from manual skills to knowledge management, analysis to synthesis, reductionism to the integration of knowledge, invention to research, and today innovation, and entrepreneurship.

It is very difficult to peer over the horizon, but there are already trends suggesting that we are facing yet another era of profound transformation. Increasingly robust communications technologies (always on, always in contact, high-fidelity interaction at a distance) are stimulating the evolution of new types of communities (e.g., self-organization, spontaneous emergence, collective intelligence, "hives"). Info-bio-nano technologies continue to evolve at the current rate of 1,000 fold per decade. During the 20th century, the life expectancy in developed nations essentially doubled (from 40 to 80 years). Suppose it doubles again in the 21st century?

More generally, it is clear that as the pace of change continues to accelerate, our schools, colleges, and universities will need to become highly adaptive if they are to survive. Such future challenges call for bold initiatives. It is not enough to simply build upon the status quo. Instead, it is important that we consider more expansive visions that allow for truly over-the-horizon challenges and opportunities, game changers that dramatically change the environment in which our

institutions must function.

Today a rapidly changing world demands a new level of knowledge, skills, and abilities on the part of our citizens. Just as in earlier critical moments in our nation's history when its prosperity and security was achieved through broadening and enhancing educational opportunity, it is time once again to seek a bold expansion of educational opportunity. But this time we should set as the goal providing all American citizens with universal access to lifelong learning opportunities, thereby enabling participation in the world's most advanced knowledge and learning society.

Let us end this chapter by suggesting that perhaps it should be our generation's legacy to ensure that our nation accepts a responsibility as a democratic society to provide all of its citizens with the educational, learning, and training opportunities they need and deserve, throughout their lives, thereby enabling both individuals and the nation itself to prosper in an ever more competitive global economy. While the ability to take advantage of educational opportunity will always depend on the need, aptitude, aspirations, and motivation of the student, it should not depend on one's socioeconomic status. Access to lifelong learning opportunities should be a right for all rather than a privilege for the few if the nation is to achieve prosperity, security, and social well being in the global, knowledge- and value-based economy of the 21st century.

Duderstadt Book References

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt, *A University for the 21st Century* (Ann Arbor, MI: University of Michigan Press, 2000)

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. Duderstadt and Anne Duderstadt, *For the Love of Michigan: A Half Century of Serving the University of Michigan* (Ann Arbor, MI: Millennium Project, 2014)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *The Michigan Strategy Book: 1986 – 1996* (Ann Arbor, MI: Millennium Project, University of Michigan, 2000)

Chapter 12: Summary

1. The University of Michigan, characterized by its free and liberal spirit since its early years, has a long history of activism on the part of its students, faculty, and alumni. Of course this sometimes runs against the grain of political opinion in the community, state government, or the public at large. But the University's constitutional autonomy, coupled with the long-standing principle of academic freedom, gave it both the capacity and the responsibility to challenge the norms and beliefs of society from time to time.

2. In many ways, Ann Arbor is an oasis, a liberal eastern community planted in the center of a tough Midwestern state. The politics of the city of Ann Arbor still reflect the rebellious spirit of the protest days of the 1960s (declaring itself in the 1980s as "a nuclear free zone"!). The community continues to this day to mark its history of civil disobedience by celebrating each April 1 with the annual Hash Bash, where thousands come to promote and experience the evil weed, uninhibited by Ann Arbor's pot law, a \$5 fine for possession of marijuana.

3. Although the University of Michigan faces many of the challenges experienced by other state universities—declining state appropriations, intrusive sunshine laws, over-regulation, politically motivated competition among state institutions, and a politically determined governing board—there are two characteristics of our relationship with the state that are quite unique. The University's elected Board of Regents possesses exceptionally strong constitutionally derived powers over all academic activities of the institution, strengthened over the years by successful litigation. Second, both because of the University's autonomy and its long history, first as a territorial institution and then later, in effect, as a national university—and today, one might argue, a world university—it has been determined to do whatever was necessary to protect both the quality of and access to its academic programs on a national and international basis.

4. One consequence of declining state support has been the degree to which many leading public

universities may increasingly resemble private universities in the way they are financed, managed, and governed, even as they strive to retain their public character. Yet such efforts to portray these financial transitions in the face of declining state support as "privatizing" the public university is a flawed concept. The public character of state research universities runs far deeper than financing and governance and involves characteristics such as their large size, disciplinary breadth, and deep engagement with society through public service. These universities were created as, and today remain, public institutions with a strong public purpose and character.

5. The situation is quite different in the University's relationships with the federal government. Although the United States leaves most of the responsibility for higher education to the states and the private sector, the federal government does have a considerable influence on higher education, both through federal policies, in areas such as student financial aid and through the direct support of campus activities such as research and health care. In fact, some would maintain that the most transformative changes in American higher education have usually been triggered by federal actions such as the Land Grant Acts of the 19th Century, the G. I. Bill and government-university research partnership (Vannevar Bush's "Science, the Endless Frontier" following World War II, and the Higher Education Acts of the 1960s).

6. In more recent years, the populism characterizing political support has driven the federal government to become increasingly hostile to higher education. Even as our world becomes increasingly dependent upon knowledge, the very technology that is key to creating, archiving, and making available knowledge is ironically being used to attack and undermine it. Xenophobic and racist dialog creates an electorate that is not only unwilling to accept truth established by evidence, but has largely abandoned the scientific method (with only 25% of Americans now expressing confidence in scientific discovery). Both parents and young people are beginning to question the value of higher education. Indeed, one wealthy billionaire is even trying to bribe students not to go to college.

7. Universities are clearly accountable to many constituents. We have an obligation to communicate with the people who support us—to be open and accessible. For many years the University was not the object of much public or media interest—aside from intercollegiate athletics. The relationship between the university and the press was one of mutual trust and respect. Given the many values common to both the profession of journalism and the academy, journalists, faculty, and academic leaders related well to one another.

8. In today's world, where all societal institutions have come under greater scrutiny by the media, universities prove to be no exception. Part of this is no doubt due to an increasingly adversarial approach taken by both politicians and journalists toward all of society, embracing a certain distrust of everything and everyone as a necessary component of investigative journalism. Partly to blame is the arrogance of many members of the academy, university leaders among them, in assuming that the university is somehow less accountable to society than are other social institutions.

9. Public support of higher education has leveled off in the face of other competing social needs. As the share of college costs financed by both state and federal governments has fallen, the share borne by families has inevitably increased. And as families have been asked to bear a larger share of the costs of educating their offspring, the outcry about the "excessive" cost of a college education has reached a crescendo.

10. Both the tragedy and irony of this situation flows from the realization that today our world has entered a period of rapid and profound economic, social, and political transformation driven by knowledge and innovation. It has become increasingly apparent that the strength, prosperity, and welfare of region or nation in a global knowledge economy will demand a highly educated citizenry enabled by development of a strong system of education at all levels. It will also require institutions with the ability to discover new knowledge, develop innovative applications of these discoveries, and transfer them into the marketplace through entrepreneurial activities.

11. Today a rapidly changing world demands a new level of knowledge, skills, and abilities on the part of our citizens. Just as in earlier critical moments in our nation's history when its prosperity and security was achieved through broadening and enhancing educational opportunity, it is time once again to seek a bold expansion of educational opportunity. But this time we should set as the goal providing all American citizens with universal access to lifelong learning opportunities, thereby enabling participation in the world's most advanced knowledge and learning society.

12. Perhaps it should be our generation's legacy to ensure that our nation accepts a responsibility as a democratic society to provide all of its citizens with the educational, learning, and training opportunities they need and deserve, throughout their lives, thereby enabling both individuals and the nation itself to prosper in an ever more competitive global economy. While the ability to take advantage of educational opportunity will always depend on the need, aptitude, aspirations, and motivation of the student, it should not depend on one's socioeconomic status. Access to lifelong learning opportunities should be a right for all rather than a privilege for the few if the nation is to achieve prosperity, security, and social well being in the global, knowledge- and value-based economy of the 21st century.

Chapter 13

Preserving the Past to Sustain the Future

To be a successful leader at Michigan, it is absolutely essential to understand both the history of the University and the culture that has evolved over the past two centuries. Whether long experienced as a member of the faculty or an outsider bringing a new perspective to leadership, the key to success—indeed, to survival in such roles—requires a thorough understanding of both its past history and its resulting character today. To put it more bluntly, leaders who learn, understand, and appreciate the history of the University of Michigan are usually successful. Those who ignore this history or fail to preserve it are doomed to failure and only brief tenure in their leadership roles.

This is particularly important for those in academic leadership roles such as department chairs, deans, and particularly university presidents. To provide the continuity required by such enduring institutions, it is critical to understand and acknowledge the accomplishments of one's predecessors and build upon their achievements. Each new leader at the University must strive to pass along to their successor an institution that is better, stronger, and more vital than the one they inherited. Indeed, this strong tradition of improvement from one leader to the next is the guiding spirit of such an institution.

Tradition

Great universities are sustained over time by important traditions. What are the most familiar Michigan traditions?

Avoiding stepping on the "M" on the Diag to avoid flunking your first exam?

The football team running out under the M-Club banner?

The Michigan Band playing "Hawaiian War Chant" and "Temptation" at the football games.

(You can't have one without the other...)?

Perhaps the president "spinning the Cube" to start up the University each morning?

These are certainly well-known, but they are simply amusing anecdotes rather than important traditions sustaining the quality and impact of the University. Instead, let us suggest the following traditions for more careful consideration:

The *Catholepistemiad* or *University of Michigania* (a university founded in 1817 by Woodward in the Enlightenment spirit of civil rights, equality, and public purpose).

The flagship of public universities or "mother of state universities" (although, of course, UM was created and financed by the U.S. Congress as a territorial university and hence is as much a national university as a state university).

A commitment to providing "an uncommon education for the common man", in the words of Angell (although this has become increasingly difficult as public support has declined).

The "broad and liberal spirit" of its students and faculty (as noted by a 19th century article in *Harpers Weekly* and always to be encouraged).

The university's control of its own destiny, due to its constitutional autonomy providing political independence as a state university and to an unusually well-balanced portfolio of assets enabling independence from the usual financial constraints of a state university.

An institution diverse in people and character yet unified in values.



A Michigan Tradition: The Rock

- A center of critical inquiry and learning (ranked as one of the world's great research universities)
- A tradition of student and faculty activism
- A heritage of leadership (most prominent and effective at the grassroots level among our faculty, students, and staff).
- The "leaders and best" (a boast from the Michigan fight song, but also an aspiration for achievement).

Capturing the History of the University

We both believed it was very important to always keep in mind the historical context for leadership. Institutions such as the University of Michigan have existed for centuries and will continue to do so, served by generation after generation of leaders. To serve the University, any Michigan leader must understand and acknowledge the accomplishments of his or her predecessors and build upon their achievements. Each must strive to pass along to his or her successor an institution that is better, stronger, and more vital than the one they inherited. Indeed, this strong tradition of improvement from one leader to the next had long been the guiding spirit.

When we moved into the President's House we realized that we knew very little about the house or the people who had occupied it before us. We were aware that the President's House was the only original building on the campus. Working with the Bentley Historical Library we gathered photos of the house as it changed over the 150 years of its existence, with the



Displaying the Portraits of Earlier Presidents in the President's House

additions made by each President. We also gathered photos of the presidents and their families and displayed them as one would with their own families. It was an inspiration to have our "University Family" with us as we carried out our duties. We also made a concerted effort to keep former presidents and first ladies actively involved in the life of the university.

Beyond simply understanding the history of the University, its leaders also have a responsibility to capture and preserve this history for future generations. Perhaps some personal examples illustrate this role best.

Although while serving in both the provost role and the presidency we viewed ourselves as change agents, preparing the University to face a challenging and quite different future, we also believed it important that this effort build on those traditions, and values from the University's past. Here, part of the challenge in making this connection between the past, the present, and the future was the degree to which the slash-and-burn activism of the 1960s and 1970s had essentially decoupled the University from its past.

Until the late 20th century, when women began to take their place in the professions, university faculties, presidents and other university leadership positions, wives of faculty were expected to be a full participating partner in all of the university's leadership positions.

Women were admitted to the University of Michigan in 1870. For many years there was concern that women students had no opportunity of meeting one another nor the advantage of meeting faculty wives, who might

serve as their mentors. Alice Freeman Palmer, one of the early women students and later President of Wellesley College, addressed these issues. She suggested that “every college girl should so live, that at least one home among the Faculty should be opened to her, and she should be made to feel that there were those among the older ladies of this circle who were personally interested in her welfare, and ready to help in any time of need, with sympathy and advice”. Sarah Angell, wife of President James Angell, chaired a meeting in the University Chapel to announce a new organization, named the Women’s League. The first duties of the new society were to welcome Freshmen women, help them find their way around campus, introduce them to their professors, and assist them in finding suitable room and board. (Women’s League houses were later established) When the Barbour Gymnasium for women was completed in 1900, the students named the assembly room the “Sarah Caswell Angell Hall” in honor of Mrs. Angell.

In 1921, Nina Burton, wife of President Marian Burton, organized the Faculty Women’s Club, and served as president for four years. The purpose of the club was to bring together women faculty and faculty wives from across the university.

The late 1920’s, women students, faculty and faculty wives raised funds to build the Michigan League, a building to house the activities of all university women, just as the Michigan Union served university men.

Vivian Shapiro led the effort to raise the funds necessary to renovate and preserve Tappan Hall.

Florence Ruthven, wife of Alexander Ruthven, and an alumna of the University, was known for her student teas.

Anne Hatcher and Sally Fleming carried on the tradition and added their own flare of service to the University and Ann Arbor community.

Julia Tappan, wife of the first president, Henry Tappan, was so loved that the students gave her the title of “Mrs. Chancellor”.

Hence, following in the footsteps of former first ladies, it was natural for Anne to continue in this role of service to the university. With a strong interest and appreciation for Michigan’s remarkable history and traditions and its impact on higher education, she sensed the importance of developing a greater



UM History and Traditions Committee
(Robert Warner, Anne Duderstadt, Nicholis Steneck
Carole LaMantia, Fran Blouin)

awareness of this history among students, faculty, and staff, and rapidly began to play an important leadership role both in capturing and preserving the history of the University.

During our provost years, we had established base funding for the course on the history of the University taught by Nick and Peg Steneck, since this had always been at some risk due to changing funding whims in LS&A. The Bentley Library was given a more formal role and funded (\$500,000 per year) to serve as archive for the University’s historical materials along with the necessary budget, and guidelines were established for historical documentation and preservation.

As we moved into the presidency, Anne intensified these efforts, pulling together several distinguished and committed faculty members: Bob Warner, former Dean of Library Science and Director of the National Archives; Nick and Peg Steneck, through their years of effort in both preserving University materials and teaching a course on the history of the University; Fran Blouin, as Director of the Bentley Historical Library; and Carole LaMantia as staff from the President’s Office. The first step was to create a formal University History and Traditions Committee, appointed by the president and staffed by the Office of the President.

Next we established the position of University Historian, and Bob Warner was appointed by the Regents as the first holder of this title. In this role, he would also chair the History and Traditions Committee.

One of the most important efforts of the History



Working closely with Sandy Whitesell, Anne played an important leadership role in raising the funding and priority for renovating the Detroit Observatory.



Anne led the effort to renovate two historic University facilities: the President's House and the Inglis House Estate.

and Traditions Committee was historical preservation. Anne led the effort to restore and preserve the Detroit Observatory, one of the earliest university scientific facilities in America and key to the early evolution of the research university. This particular project illustrated the effort required to preserve such important facilities. Anne led the effort to raise the roughly \$2 million necessary to renovate and endow the facility. She enlisted the support and interest of key members of the University administration including the Vice President for Research, Homer Neal.

In turn, VP Neal appointed one of his most talented staff members, Sandy Whitesell, to direct the project. Anne's love of historical preservation coupled with her knowledge of working with University staff was the key to this project. She and Sandy researched historical photographs in the Bentley Library to display throughout the building. They worked together in the hard task of cleaning the facility to ready it for University groups. On May 21, 1999, after five years of meticulous restoration, the University of Michigan's Detroit Observatory was rededicated.

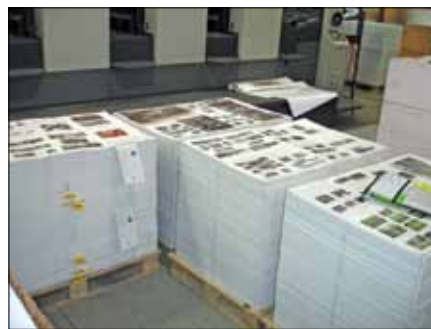
Anne became involved in an array of other historical projects. She helped to arrange for a gift of historical materials from the ancestors of one of the early students

of the University, and then assisted in the installation of a major exhibition gallery for this gift in the new Heutwell Visitor Center. This display featured a re-creation of the first student dorm room.

During our presidency, Anne led the major effort to renovate both the President's House and the Inglis Highlands Estate, facilities not only of major historical importance but key resources for the University.

A process was launched to obtain personal oral histories from earlier leaders of the University, including Harlan and Anne Hatcher, Robben and Sally Fleming, Allen and Alene Smith, and Harold and Vivian Shapiro. The University's 175th anniversary provided a marvelous opportunity to host a symposium involving the living presidents of the University.

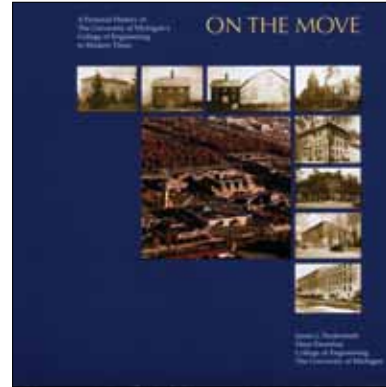
Anne was also involved in the effort to create a number of publications on the University's history. The Stenecks were commissioned to update the popular history of the University by Howard H. Peckham, *The Making of the University of Michigan*. One of Anne's most significant projects was to develop a seasonal photographic essay of the University that would serve for advancing the interests of the University with key donors in the Campaign for Michigan.



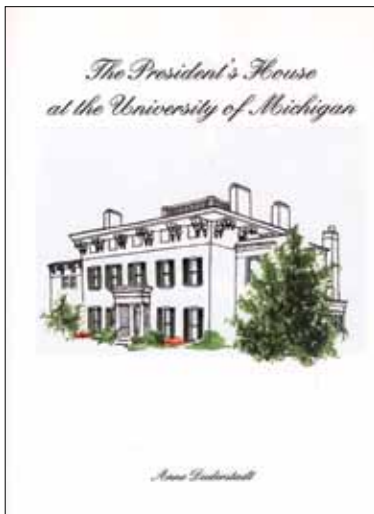
Anne's efforts to create *The University of Michigan: A Photographic Saga*



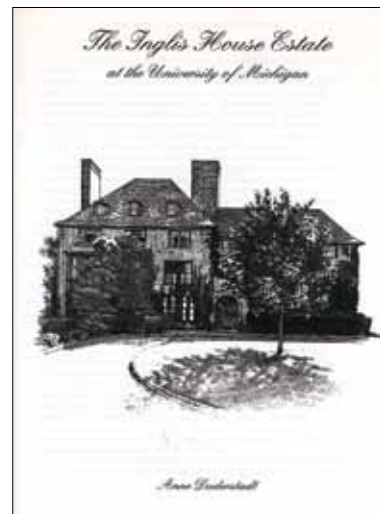
A Pictorial History of the College of Engineering



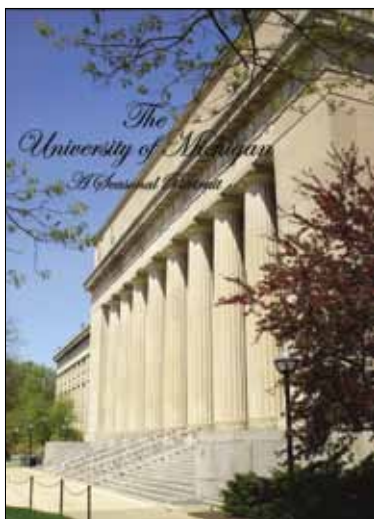
On the Move: A Personal History of the UM College of Engineering in Modern Times



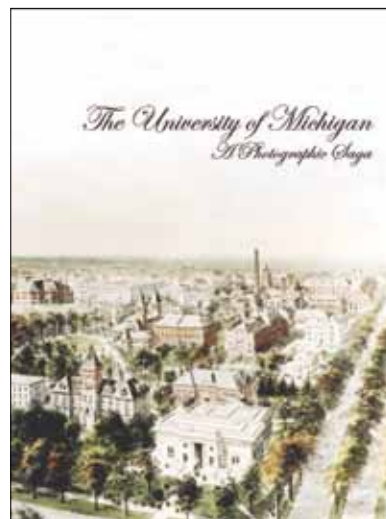
The President's House of the University of Michigan



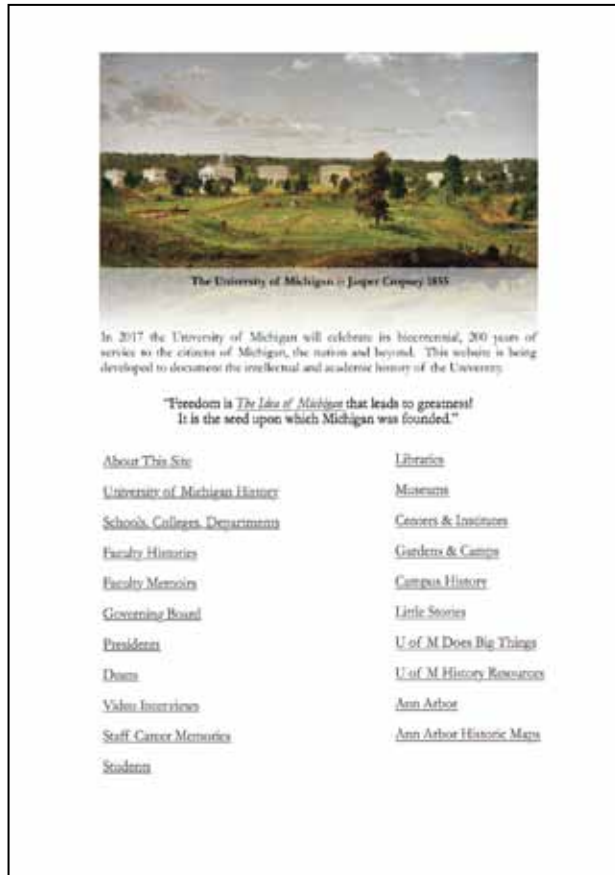
The Inglis House Estate



The University of Michigan: A Seasonal Portrait



The University of Michigan: A Photographic Saga



The UM 1817-2017 Web Portal



Mort's Map (by Myron Mortensen)

Historical Activities of the Millennium Project

After we left the presidency, it was natural that one of the major activities within the Millennium Project would become an effort to document the history of the University of Michigan. Both the mission of the Millennium Project and its location in the Duderstadt Center provided a unique access to rapidly emerging digital technologies that were ideal for supporting history projects. We recognized that the challenge of capturing the rich history of a complex, consequential, and enduring institution such as the University of Michigan is considerable. To be sure, there are numerous scholarly tomes and popular histories of the institution, its leaders, and its programs. Yet the history of the University required much more. In fact, Michigan's history, those characteristics evolving over time that have determined its distinctiveness and shaped its impact on society, assume the form of a saga requiring many forms of narratives, words, images, music, and

even digital simulations!

Anne began with a series of illustrated books on the history of the University. The first was a pictorial history of the College of Engineering, since it was celebrating its sesquicentennial in 2004. Jim added his own personal history of his years as Dean of Engineering and the move of the College to the North Campus of the University.

This was followed by two more books on the history of the President's House and the Inglis Highlands estate, of particular interest because of her role in renovating these historical facilities. Her next two projects were somewhat more elaborate. First was a seasonal portrait of the University, using photographs that Jim had taken. But the major project was a "photographic saga", with hundreds of historical photographs accompanied by historical text from important documents such as Howard Peckham's, *The Making of The University of Michigan*.

Anne next turned to extending her historical projects



The Faculty History Project

to demonstrate just how powerful the University's rapidly expanding digital technology environment could be in gathering and providing access to its activities, both present and past. The combination of the University's cyberinfrastructure environment, search engines such as Google, and most important of all, the leadership of the University of Michigan Library in digital archiving and distribution, gave Michigan a quite extraordinary opportunity to define the path these knowledge-intensive institutions should take in the digital age. Working closely with both students and staff of the Duderstadt Center, Anne played a leadership role in the development of these important new digital histories of the University.

The UM 1817-2017 Web Portal

The first effort was to design and build a comprehensive web portal to a vast array of historical information about the University of Michigan, including summaries of the histories of its academic programs, visual material concerning its campus and activities, links to hundreds of historical documents, and databases providing both biographical information on the evolution of the campus and historical information about its faculty, staff, students, and alumni.

http://um2017.org/2017_Website/Entry_Page.html

This website provides an array of links to access this rapidly growing collection of materials designed to be easily searchable and readily available in digital form.



The Faculty Memoir Project

Included in these resources are:

- 1) Digital models of the evolution of the campus, beginning with the detailed historical map of Myron Mortensen and adding 3D digital representations during its history.
- 2) Historical information about the many thousands of faculty members who have served the university since its earliest years, searchable and available as biographies, memorials, and photographs.
- 3) Histories of the myriad academic programs of the University—schools and colleges, departments and programs, centers and institutes, with a particular focus on the intellectual life and academic impact of the institution including links to many of their historical documents.
- 4) The evolution of the Ann Arbor campus of the University through the years, with interactive maps and histories of all of the major buildings and facilities of the University.
- 5) Information on the important role of staff members in the University, both through brief histories and short vignettes illustrating their remarkable talent, dedication, and diversity of roles.
- 6) Student life through the years through an array of historical documents.



The Ann Arbor UM MapApp Project



Expanding the Ann Arbor Map to show the campus

- 7) Access to an interactive collection of memoirs by contemporary Michigan faculty members concerning the intellectual life of the University.
- 8) A vast collection of historical photographs and video materials made available in digital format.

In many of these efforts, the powerful resources of the HathiTrust, was used, already the largest digital library in the world. We have persuaded the Regents of the University to release copyright control to provide full-text access to all University publications, books and periodicals, which have relevance to the history of the University. These can be found in a special search collection:

<http://babel.hathitrust.org/cgi/mb?a=listis;c=745985614>

The Faculty History Project

The next project was even bolder: the development of a database providing information about all of the faculty members who have been associated with the University of Michigan since 1837, organized by their schools and colleges. Working with a very talented undergraduate, Alex Burrell, a student who quickly became experienced in programming in Drupal, developed a website capable of accessing information on faculty, with dates of appointment, memoirs, and photographs, if available.

<http://um2017.org/faculty-history/>

As noted in the preamble to the website, one can only understand the intellectual impact of the University of Michigan by understanding who its faculty members were (and are) and what they did (and are doing). To appreciate the intellectual vitality of this institution, it is necessary to trace the lives of its faculty members, their contributions, and their circles of discourse. One needs to capture their stories and link them to the University's academic programs, its schools and colleges, departments and institutes.

Yet this is a formidable challenge since many of the University's schools, colleges, and departments have only brief histories on websites or buried away in file drawers. Furthermore those histories that do exist are usually more concerned with buildings or enrollments or who was dean or chair than the intellectual life or achievements and impact of the faculty.

The broad intellectual span and size of the institution makes it hard to capture its history (or even understand its present nature) through conventional means such as popular histories or occasional papers. Instead it seems more productive to take advantages of the University's exceptional capacity in digital technology to build online resources that would evolve over time to serve those wishing both to understand and analyze not only the University's history but even its intellectual structure and impact today.

The goal of this project is to document, remember, and celebrate those achievements of our faculty that have made Michigan a great university; to use such

resources to reaffirm academic achievement and excellence as the cornerstone of the quality, strength, and impact of the university; and to rededicate today's faculty members and University leaders as faithful stewards for the remarkable legacy left by previous generations of Michigan faculty members, accepting the challenge of adding their own contributions to extend this legacy

Today the Faculty History Project has around 20,000 entries for the Ann Arbor campus (with ongoing additions and corrections). It has already become an invaluable tool for understanding the role of faculty at the University, and its open access availability leads to its frequent appearance in Google searches for people with Michigan ties. (Note: This includes only past faculty members up to the Bicentennial Year 2017 and not those currently active at the University at that time.

The Faculty Memoir Project:

A similar database was created to contain the memoirs of senior faculty members concerning the intellectual life and impact of the University.

<http://www.lib.umich.edu/faculty-memoir/>

The University of Michigan Faculty Memoir Project assembles the memoirs of senior University faculty members concerning both their personal academic work and their reflections concerning the intellectual life of the University more generally. It is intended both to capture the history of the Michigan faculty as well as provide a vivid demonstration of the extraordinary impact that faculty members have had on the quality, strength, and impact of the University throughout its two centuries of service to the state, the nation, and the world

This website has been designed to enable senior and emeritus faculty members to contribute reflections on their intellectual experiences through an interactive process that allows them to add and edit their biographies, curricula vitae, photographic or video materials, and memoirs, thereby helping build a rich and accessible resource describing faculty contributions to the University and broader society.

The Town-Gown Historical Maps Project

Anne launched another project to develop interactive historical maps of the City of Ann Arbor with links to historical photographs, descriptions of key buildings, and stories about the early citizens of Ann Arbor. The maps begin with the original platting of Ann Arbor in 1824 and then continue through each decade until the early 20th century. By using the power of IOS technologies to develop a "MapApp", this powerful technology will be capable of extension to the study of other historical maps. Key in this efforts has been the extraordinary collection of the University of Michigan Library's Map Collection and the programming skills of an extraordinary Michigan undergraduate, Nathan Korth.

<http://specular.dmc.dc.umich.edu/map/drag/>

Threats to the University's History

Of course, capturing and preserving the history of the University can run into challenges, particularly from those who move into leadership or governance roles with little respect for the history and traditions of the institution.

It was also ironic that the University Regents and administration chose the Bicentennial Year as the moment to take action to sell the Inglis Highlands estate, a facility not only of historical significance used not only to accommodate guests such as American presidents, world-renown performers, and the Dalai Lama but also an important asset for academic programs. And, as if to add insult to injury, they decided in the same year to spend \$150 million to move the administration and Regents facilities out of the Fleming Building, stating their intent to demolish the building, the most important project of the noted Michigan architect Alden Dow, and yet another important part of Michigan history.

Understanding the History of the University

While change and transformation are important if the institution is to evolve to serve a changing world, one should always be aware of the important traditions that endure to shape and guide these changes. Those



The Inglis Highlands Estate



The Fleming Administration Building

faculty and staff who commit their careers to the University not only learn about these traditions but also play important roles in sustaining them. Others, such as students, have only a brief moment to sense them and understand their importance. Fortunately, the learning experiences we design for our students are intended not only to introduce them to these traditions, but also provide them with opportunities to adjust them to their own situations.

Of more concern here are those faculty, staff, and leaders who spend only a brief time in our university before moving on to their next assignment, frequently with little opportunity to learn or appreciate the traditions that have made Michigan a great academic institution. It is natural for newcomers to attempt to put their own stamp on the institution, but one should beware of the “if it ain’t broke, break it” approach taken by those with only a very superficial understanding of this institution, its most important missions, and its most enduring traditions. Fortunately, however, great universities have a self-correcting nature, and challenges and changes of the moment that conflict with the institution’s long-standing traditions are quickly cast aside and sink beneath the waves without a ripple.

As we noted in Chapter 1, universities such as Michigan are based on long-standing traditions and continuities evolving over many generations (in some cases, even centuries), with very particular sets of values, traditions, and practices. Burton R. Clark, a noted sociologist and scholar of higher education, introduced the term “institutional saga,” to refer to

those long-standing characteristics that determine the distinctiveness of a college or university. These might consist of long-standing practices or unique roles played by an institution, or even in the images held in the minds (and hearts) of students, faculty, and alumni. (Clark, 1970)

In Chapter 2 we noted that Michigan’s unique combination of quality, breadth, scale, and spirit has given it a unique capacity for leadership in higher education. We suggested that Michigan’s unique role in American higher education was that of a *pathfinder and a trailblazer*, building on its tradition of leadership to reinvent the university, again and again, for new times, new needs, and new worlds. And it is this unique character as a pathfinder and trailblazer that should shape the University’s mission, vision, and goals for the future. Such bold efforts both capture and enliven the institutional saga of the University of Michigan. And these are the traits that must be recognized, honored, and preserved to earn its reputation as a “leader and best”.

So where to begin in understanding the history of this University? Perhaps it is best to begin by reading the popular history of the University through the 19th and 20th centuries, *The Making of the University of Michigan*, written by Howard H. Peckham for the University’s sesquicentennial in 1963 and then updated to the 1990s by faculty members Nicholas H. Steneck and Margaret L. Steneck.

<https://babel.hathitrust.org/cgi/pt?id=mdp.39015043301285;view=1up;seq=7>

Yet another important resource is the UM Encyclopedic Survey, a history of its schools and departments..

<https://babel.hathitrust.org/cgi/pt?id=mdp.39015046427251;view=1up;seq=11>

Finally, the Millennium Project has developed a web portal to the University that contains a number of additional resources of interest:

<http://milproj.dc.umich.edu>

Duderstadt Book References

Anne M. Duderstadt, *The University of Michigan: A Photographic Saga* (Millennium Project, The University of Michigan: Ann Arbor, 2006)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

Anne Duderstadt, *A History of the Presidents House* (Ann Arbor, MI: Millennium Project 2016)

Anne Duderstadt, *A History of the Inglis Highlands Estate* (Ann Arbor, MI: Millennium Project 2016)

Duderstadt Website History Links

<http://um2017.org>

<http://milproj.dc.umich.edu>

Chapter 13: Summary

1. To be a successful leader at Michigan, it is absolutely essential to understand both the history of the University and the culture that has evolved over the past two centuries. Whether long experienced as a member of the faculty or an outsider bringing a new perspective to leadership, the key to success—indeed, to survival in such roles—requires a thorough understanding of both its past history and its resulting character today. To put it more bluntly, leaders who learn, understand, and appreciate the history of the University of Michigan are usually successful. Those who ignore this history or fail to preserve it are doomed to failure and only brief tenure in their leadership roles.

2. This is particularly important for those in academic leadership roles such as department chairs, deans, and particularly university presidents. To provide the continuity required by such enduring institutions, it is critical to understand and acknowledge the accomplishments of one's predecessors and build upon their achievements. Each new leader at the University must strive to pass along to their successor an institution that is better, stronger, and more vital than the one they inherited.

3. While change and transformation are important if the institution is to evolve to serve a changing world, one should always be aware of the important traditions that endure to shape and guide these changes. Those faculty and staff who commit their careers to the University not only learn about these traditions but also play important roles in sustaining them. Others, such as students, have only a brief moment to sense them and understand their importance. Fortunately, the learning experiences we design for our students are intended not only to introduce them to these traditions, but also provide them with opportunities to adjust them to their own situations.

4. Of more concern here are those faculty, staff, and leaders who spend only a brief time in our university before moving on to their next assignment, frequently with little opportunity to learn or appreciate the traditions that have made Michigan a great academic

institution. It is natural for newcomers to attempt to put their own stamp on the institution, but one should beware of the “if it ain't broke, break it” approach taken by those with only a very superficial understanding of this institution, its most important missions, and its most enduring traditions. Fortunately, however, great universities have a self-correcting nature, and challenges and changes of the moment that conflict with the institution's long-standing traditions are quickly cast aside and sink beneath the waves without a ripple.

Chapter 14

Things that Need Fixing...

To illustrate the types of issues that future leaders of the University of Michigan might consider, at all levels from department chairs to deans to president, it seemed appropriate in these final chapters to analyze the current status of the University and suggest some of the items that need fixing.

Today the University of Michigan appears to be enjoying a period of relative peace, prosperity, and growth. Student applications and enrollments continue to increase, as do research expenditures, now topping \$1.4 billion. New buildings are appearing across the campus—North Quad, the new Mott Pediatrics Hospital, a massive renovation of Michigan Stadium to add sky boxes and premium seating, new buildings for the Ross Business School and Law School, a privately-funded residence hall for graduate students, and a massive complex for biological sciences. The University seems financially secure, completing a \$3.3 billion fundraising campaign in the 2000s and achieved an even larger \$4 billion goal in the 2017 Bicentennial year. Both the University Health System and the Athletics Department are generating small operating profits. The endowment has reached \$11 billion, and the University has managed to keep its top AAa credit rating intact.

Yet, if one looks more closely, there are numerous warning signs that suggest that below the surface the University community should not be so sanguine. American higher education was just recovering from the impact of the Great Recession of 2008 and 2009, when it was hit by the great tsunami of populism, “alt-truth”, and Trumpism following the 2016 elections. State support per student remains at its lowest levels since the 1960s, with little hope that a state that ranks 45nd in the nation in support of higher education and governed by a conservative legislature determined to cut taxes even further would increase support of the University. While there has been significant new debt-financed construction in auxiliary units (notably the Medical

Center, student housing, and athletics), academic units have seen only a handful of projects financed by gifts, debt financing, or reallocation, but none with significant state support. Much of highly touted cost savings have come from assigned cost cutting targets for academic units and constrained faculty / staff salaries and benefits programs. While research expenditures continue to lead the nation, externally sponsored research has declined while University subsidies of sponsored research projects have now grown to over 30% of research volume. Student applications have increased to almost 60,000 largely because of the Common Application now used in higher education. The yield rate from instate students remains high at 69%, but it drops to only 31% for out-of-state students.

Faculty quality has been challenged by the University’s struggle to retain top faculty in the face of increasing instructional loads, modest compensation, and aggressive offers from competing institutions. Over the past two decades the University has suffered a serious erosion in its public purpose with the tragic decline in enrollments of underrepresented minority and low income students. Compared to earlier decades, the University’s pathfinding achievements appear to be lagging both in number and impact.

Beyond these early signals of possible problems, a broader investigation suggests that Michigan is clearly facing many of the challenges currently experienced by the rest of higher education, e.g., the unsustainability of its traditional sources of financial support, the increasing competition for the best students and faculty, mission creep in auxiliary activities that dilutes the academic mission of the institution, and the challenges of working with a government hostile to public investment and higher education. Cracks are beginning to appear in our façade of confidence. There is a growing fear we may be whistling through the graveyard, ignoring serious issues and concerns that



The Scream....

could threaten our most fundamental goals of quality, public purpose, leadership, and even our institutional saga as a pathfinder for American higher education.

And to top it off, a new White House administration appeared in 2017 that tossed aside earlier federal policies and priorities—including the truth—and proceeded to dismantle not only the support of higher education and research but the commitments of earlier administration that had provided the foundation for critical national needs such as health care, public safety, and national security.

In this chapter we will suggest several of the challenges faced by the University as it enters its third century that are likely to face both the current and future University leadership at all levels. Some of these were briefly mentioned in earlier chapters, but it is important that we consider them together in this chapter to understand the challenges facing new university leaders at all levels. But, not to worry! We will suggest some possible remedies in the next chapter.

Warning Signs

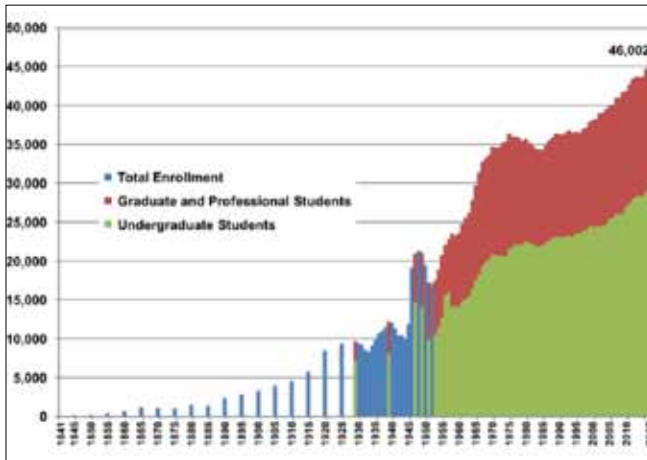
All too frequently we tend to measure progress of a university by inputs (e.g., funds raised, buildings built, students enrolled, events hosted, etc.) rather than outputs (e.g., academic quality, faculty and

student achievement, impact on society, etc.). If we were to measure progress of the University over a period of time, we might construct a university “business dashboard” comprised of indicators such as academic quality, diversity, faculty achievement, student quality, reputation, financial strength, and societal impact that are relatively straightforward. There are also more subjective measures such as values (integrity), innovation (excitement), and alignment with institutional saga (for Michigan, pathfinder and trailblazer), more difficult to measure but nevertheless extremely important to track.

Scale

The University of Michigan has continued to grow over the past two decades, with a total budget now exceeding \$8.2 billion/year (of which \$3.4 billion/year is for academic programs), a campus continuing to expand both with new buildings and the acquisition of the 200 acre site for research and office facilities of the former Pfizer Global Research Laboratories (now the University’s North Campus Research Center), and a research budget now in excess of \$1.45 billion/year, one might well claim that the Ann Arbor campus of the University of Michigan has become the largest, most comprehensive, and most complex university campus in the world. Of particular note here has been the growth in student enrollments, from 34,000 in the 1990s to almost 46,000 today, a 30% growth occurring mostly at the undergraduate level with a particular recent emphasis on enrolling wealthy out-of-state students in an effort to increase tuition revenue to compensate for the loss of state support.

Growth has also driven a major expansion of student housing (on the part of both the University and private developers), and threatens to overload other academic infrastructure such as libraries, study space, academic and student life facilities, and course availability. This rapid growth in student population has also had a significant impact on the nature of the Ann Arbor community. It has triggered a massive building boom of high-rise apartment complexes about Ann Arbor, designed to accommodate more affluent out-of-state students, many of who are “paying for the party” rather than seeking a rigorous undergraduate



Over the last 15 years UM enrollments have increased by 12,000 students (+30%).

education. (Armstrong, 2013)

Beyond the concern that Michigan's recent enrollment growth may be taking it toward the characteristics of very large, undergraduate campuses, such as Michigan State, Ohio State, and U Texas, there is also a serious financial concern as to whether academic quality is sustainable with such enrollments as state support continues to dwindle. While overwhelming size commands respect, it also demands serious thought be given to how one organizes and manages such scale. In fact, we have many disturbing examples of how size and complexity can lead to disaster (e.g., the dinosaurs and General Motors). Yet, now that the University has walked out on this limb of massive enrollments, it will be very difficult financially to return to more historical enrollment levels should evidence of deterioration in academic quality become apparent.

Quality

There are many measures of institutional quality, some highly visible, such as the various rankings of academic programs, and some more subtle indicators, such as the ability of the university to recruit and retain outstanding faculty members and students. Most of the popular rankings or "league tables" continue to place the overall academic reputation of the University among the leading public research universities in the nation and the world, although well below many of the elite private institutions. For example, in 2017 US News & World Report ranks the University of



Growth of high-rise apartments in Ann Arbor.

Michigan 27th among all national universities, public and private, and 4th among public universities, behind UC-Berkeley, UCLA, and the University of Virginia. At the international level, Michigan is ranked 21th by the London Times rankings, 23rd by Shanghai Jiao Tong, and 23th in the QS rankings.

Although entering student quality remains strong, at least as measured by high school grade point averages and scores on standardized entrance examinations such as the SAT and ACT, both the University's selectivity in admissions and yield rates lag considerably behind those of many peer public and private universities. For example, in 2017 the University admitted 45% of in-state applications, with a yield rate of 69%, while out-of-state selectivity was 22%, with a yield rate of 31%, suggesting that for many of these students, Michigan is viewed as a "safety" school backup to Ivy League applications. Furthermore, as the University has become increasingly dependent on students from affluent backgrounds capable of paying high out-of-state tuition, room and board (\$60,000), there is some indication that student academic work habits have weakened somewhat in favor of social and extracurricular activities.

Academic Priorities

Although the academic activities of the University remain key to its reputation and impact, the attention of recent University administrations and Regents has increasingly been focused on nonacademic opportunities. During the first decades of the new

12.1.1 U.S. News & World Report Rankings for National Undergraduate Universities, U-M and Peers¹, 2011-15.

University (Private in italics)	2011	2012	2013	2014	2015	
					All	Public
<i>Princeton University</i>	1	1	1	1	1	—
<i>Harvard University</i>	1	1	2	2	2	—
<i>Yale University</i>	3	3	3	3	3	—
<i>Columbia University</i>	4	4	4	4	4	—
<i>University of Chicago</i>	5	4	5	4	4	—
<i>Stanford University</i>	5	6	5	4	4	—
<i>University of Pennsylvania</i>	5	8	7	8	9	—
<i>Northwestern University</i>	12	12	12	13	12	—
<i>Cornell University</i>	15	15	16	15	15	—
<i>University of California-Berkeley</i>	21	21	20	20	20	1
<i>University of California-Los Angeles</i>	25	24	23	23	23	2
<i>University of Virginia</i>	25	24	23	23	26	2
MICHIGAN	28	29	28	29	29	4
<i>University of North Carolina</i>	29	30	30	30	30	5
<i>University of Illinois</i>	45	46	41	42	41	11
<i>University of Wisconsin</i>	42	41	41	47	41	11
<i>University of Washington</i>	42	46	52	48	52	16
<i>University of Minnesota</i>	68	65	69	71	69	25
<i>Indiana University</i>	75	83	75	76	75	27

12.2.2 Times Higher Education (London) World Reputation Rankings, U-M and Peers¹, 2012-16.

University (Private in italics)	2012	2013	2014	2015	2016
<i>Harvard University</i>	1	1	1	1	1
<i>Stanford University</i>	4	6	3	5	3
<i>University of California Berkeley</i>	5	5	6	6	6
<i>Princeton University</i>	7	7	7	7	7
<i>Yale University</i>	10	10	8	8	8
<i>Columbia University</i>	15	13	12	10	9
<i>University of Chicago</i>	14	14	14	11	11
<i>University of California Los Angeles</i>	9	8	10	13	13
University of Michigan	12	12	15	19	14
<i>University of Pennsylvania</i>	19	18	22	23	16
<i>Cornell University</i>	16	17	17	20	17
<i>University of Washington</i>	25	27	31	33	29
<i>University of Illinois</i>	23	24	23	30	30
<i>Northwestern University</i>	35	37	37	47	30
<i>University of Wisconsin</i>	27	30	28	35	35
<i>University of Minnesota</i>	47	51-60	51-60	71-80	49
<i>University of North Carolina</i>	46	51-60	61-70	61-70	51-60
<i>Indiana University</i>	—	—	71-80	—	81-90
<i>University of Virginia</i>	—	—	—	—	—

SOURCE: Times Higher Education.

National and World Rankings of the University of Michigan

century there has been a growing faculty concern that the rapid growth of the Michigan's auxiliary activities (hospitals, housing, and athletics), now comprising over 50% of the University's budget, has driven an increased focus on these activities by the leadership and governance of the institution to the neglect of academic programs.

This was certainly the case in areas such as the University's investment in capital facilities—e.g., the new \$750 million pediatrics hospital, the \$650 million investment in renovation of residence halls, and the \$500 million additions to Michigan Stadium, the Crisler Center, and the Ross Athletic Campus—in comparison to the modest investments in the academic core limited to the \$150 M Business school complex, a \$100 M Law addition, a \$50 million building for Nursing, and the \$261 M biosciences building in LS&A. To be sure, the auxiliary units operate in markets that are relatively insensitive to pricing compared to the tuition constraints and limited public support of academic units. But there is growing concern that this rapid growth is also driven by unusually aggressive leadership of auxiliary units as well as the priority given by the University's leadership and governance.

This concern about academic priorities applies not only to resource allocation but also to the attention of governance (the Regents), leadership (the Executive Officers), and management (central administration functions such as development and communications). Too many universities have seen the quality of their academic programs deteriorate through the distraction

of important but clearly secondary activities such as fund-raising (e.g., donor cultivation and influence), the management of billion-dollar enterprises such as health systems, the public visibility of intercollegiate athletics, and the misguided efforts to force upon universities many of the inappropriate practices of business and commerce (e.g., "shared services" and IT "rationalization").

Faculty

Looking back over the past 50 years, it is clear that the career trajectories of the faculty have changed significantly. The opportunities for establishing an academic career are dwindling, with non-tenure track appointments as post-doctoral scholars, lecturers, and adjunct faculty now providing the majority of lower division instruction, a feature driven by the efforts of universities to cut costs and improve productivity with a more flexible faculty workforce. As a consequence, today over 40% of the instructional staff is comprised of non tenure-track faculty.

No longer do young faculty expect a career at a single institution, but they anticipate more of a nomadic path moving from institution to institution in order to rise up the promotion ladder. The marketplace has become even more intense with faculty members typically remaining less than a decade at each waystation on their route to a professorial chair or administrative position. New elements have been added to the package of negotiations, including not only promotion, salary

increases, startup funding, and perhaps an endowed chair, but now dual-career family placement, more generous sabbatical leaves, lower teaching assignments, and even signing bonuses. The competition among institutions has become ever more intense.

There are growing concerns that the combination of heavier instructional loads driven by increasing enrollment in larger academic units (LS&A and Engineering) and eroding faculty salaries relative to well-endowed private universities have made both the recruiting and retention of high quality faculty more difficult. More specifically over the period 2004 to 2011, the University lost 40% of faculty receiving offers from other institutions, including 55 to Harvard, 54 to UC Berkeley, 46 to Stanford, and 37 to Chicago, and 24 to Columbia. Of course, it has been challenged to compete with peer private institutions, particularly these days when the gap between faculty salaries at public and private universities have grown to over 20%. But perhaps even more serious are the growing losses to public universities, such as 33 to U Texas, 28 to U North Carolina, 25 to Maryland and 23 to Ohio State.

Viewed from the perspective of many of our peers, Michigan has now become a major supplier of many of its very best faculty members to other institutions, and the loss to this University has been immense. Although some of this is due to the long-standing process of tenure evaluation, the number of young faculty with distinguished records who leave the University for appointments at peer institutions (e.g., Harvard, MIT, Yale, Stanford, University of California) is cause for concern. The analysis of faculty attrition during the past 15 years finds that the loss of Michigan faculty to other institutions has been unusually high among junior faculty, and particularly among women and minorities.

University's schools and colleges (particularly LS&A) have had effective programs for successful mentoring of junior faculty members. In fact, Michigan has long had a strong reputation for building an outstanding faculty through the recruiting and development of young talent, in contrast to many private institutions, which tend to recruit faculty at more senior levels after they have achieved tenure and established reputations elsewhere. For Michigan to have its young faculty members recruited away just as they have successfully achieved promotion and tenure, not

**Comparison of 2012 Faculty Salaries among
Provost's List of Peer Institutions**
(*Chronicle of Higher Education*, Feb. 12, 2015)

Rank	Institution	Average Salary		
		Prof.	Assoc. Prof.	Asst. Prof.
1	Stanford	195,400	131,200	109,800
2	Harvard	198,400	120,900	109,800
3	Penn	181,600	117,800	112,300
4	Duke	175,300	114,500	96,000
5	MIT	171,800	120,300	102,800
6	Northwestern	172,100	110,200	98,900
7	UCLA	162,600	107,400	87,400
8	Berkeley	154,000	104,600	92,300
9	Cornell endowed	161,800	113,000	97,000
10	Washington Univ. SL	172,400	100,200	96,800
11	Cornell	143,600	103,700	93,400
12	NYU	184,200	106,100	99,700
13	USC	155,900	105,300	93,300
14	Notre Dame	150,200	97,200	90,200
15	Virginia	151,600	95,000	80,300
16	UM	148,800	98,200	85,800
17	UNC	144,000	94,600	80,500
18	Texas	140,700	89,900	83,900

UM Rank: #16 out of 18

Faculty Salary Comparisons

only raises the perception that the institution is serving as a "farm club" for other institutions, but furthermore raises a serious question about its continued capacity to build and retain its senior faculty through faculty development.

It also must be recognized that despite rhetoric to the contrary, faculty salaries simply have not been a priority of the University administration in recent years. Recent comparative analyses of faculty and staff salaries found the average salary of full professors at Michigan not only has fallen 20% below those of private universities but also lags many public universities. In sharp contrast, the compensation of senior administrators (Executive Officers, deans, and senior financial administrators) are 30% to 40% higher than all other peer public universities.

Students

Of particular note here has been the growing concern about the increase in student enrollments, from 34,000 in the 1990s to 46,000 today, a 30% growth occurring

mostly at the undergraduate level with a particular emphasis on enrolling wealthy out-of-state students in an effort to increase tuition revenue to compensate for the loss of state support. This enrollment growth has had a significant impact both on the character of the University's academic programs and the nature of the University community. Since tenure-track faculty size has increased only modestly in those units undergoing major expansion (e.g., LS&A and Engineering), this has shifted lower division instruction toward an increasing dependence on part-time or nontenure-track faculty (who now provide over 40% of lower division undergraduate instruction). Teaching loads, as measured by students per tenure-track faculty member, are the highest in recent history.

There is also a concern about the significant growth in students from high income backgrounds (with student family incomes now averaging over \$150,000/year) are distorting the culture of the student body. In fact, there is considerable evidence that the University is no longer honoring its long-standing public purpose of providing "an uncommon education for the common man". . . More specifically, the percentage of Pell Grant students enrolled at UM Ann Arbor (the standard measure used by higher education of measuring enrollment by low income students) has dropped to 15% (compared to an average among flagship public universities of 22%), while its fraction of underrepresented minorities is now down to 10% (low again compared to an average of 25%). It is also disturbing that its percentage of first generation college students has now dropped to less than 6% compared to 16% of its public university peers and 14% of the enrollment of highly selective private universities.

Of comparable concern is the significant drop in enrollments of underrepresented minority students, dropping from 14% of enrollments in 1996 (including 9.4% African American) to 10% in 2015 (4.8% African American). Once Michigan's professional schools were leaders in minority enrollments (with Medicine, Business, and Law at 12% African American enrollments in the 1990s); today they have fallen badly to levels of 5% or less. Although this dramatic decline is usually blamed on the state's adoption in 2006 of a constitutional amendment banning affirmative action in college admissions, it actually began in the late 1990s

Change in Minority Enrollments

Minority	1996	2017	Change
African Am	2,824	1,930	-32%
Hispanic	1,473	2,597	+40%
Native Am	227	85	-60%
Underrep	4,524	4,612	-14%

Change in Minority Percentages

Minority	1996	2017	Change
African Am	9.3%	4.9%	-48%
Hispanic	4.5%	5.4%	+20%
Native Am	0.7%	0.25%	-64%
Asian Am	11.6%	13.5%	+13%
Underrep	14.1%	10.1%	-32%
Fresh AA	9.3%	5.1%	-45%

The drop in underrepresented minorities over the past 20 years.

when a new administration abandoned the successful programs of the Michigan Mandate. Minority enrollments continued to decline throughout the 2010s, even with the positive Supreme Court decision of 2003, declining to levels even below those of the 1960s. It was clear that the University leadership no longer gave diversity the priority that it had received in the 1990s.

This decline was particularly tragic since during the 1990s the University led the nation in its efforts to achieve diversity through efforts such as the Michigan Mandate, which doubled the population of underrepresented minority students, faculty, and staff. But, perhaps even more significantly, during the 1990s, the success of underrepresented minorities at the University improved even more remarkably, with graduation rates rising to the highest level among public universities, promotion and tenure success of minority faculty members becoming comparable to their majority colleagues, and a growing number of appointments of minority candidates to leadership positions in the University. The campus climate not only became more accepting and supportive of diversity, but students and faculty were attracted to Michigan because of its growing reputation for a diverse campus. Perhaps most significantly, as the campus became more racially and ethnically diverse, the quality of the students, faculty,

and academic programs of the University increased to the highest level in the institution's history. This fact reinforced the premise of the Michigan Mandate that the aspirations of diversity and excellence were not only compatible but, in fact, highly correlated. By every measure, the Michigan Mandate was a remarkable success, moving the University beyond our original goals of a more diverse campus while enhancing its excellence and achievement.

To be sure, the State of Michigan ranks at the bottom of the states in the amount of need-based financial aid it provides to college students, requiring the University to make these commitments from its own internal funds. But it is also due to the decision made in the late 1990s to compensate for the loss of state support by dramatically increasing enrollments with a bias toward out-of-state students who generate new revenues with high tuition. Clearly students who can pay annual tuition, room and board at the out-of-state rates of \$60,000 come from highly affluent families. Indeed, the average family income of Michigan undergraduates now exceeds \$150,000 per year, more characteristic of the "top 1%" than the "common man".

Financial Strength

As state support has declined over the past three decades, the University of Michigan now finds itself a predominantly "privately-supported" public university, in the sense that roughly 95% of its revenues come from non-state sources such as student tuition, clinical fees, research grants, and private gifts that are determined by competitive markets. Actually, it is more enlightening to separate off the \$4.7 billion auxiliary functions of the University including the UM Health System, student residential housing, and athletics and to consider only the \$3.1 billion revenues that support the academic missions of the university.

While the University's state appropriation is still important today at \$320 M/y, (UMAA), the State of Michigan's support has fallen behind all of the University's other patrons including students (tuition), the federal government (research grants and student financial aid), and private contributions (gifts and endowment income). This erosion in state support is demonstrated convincingly by charts showing the

elements of the General Fund (academic) budget as well as an estimate of the loss in state support over the past decade (the so-called "jaws" diagram).

The University has been able to adjust revenues to compensate for the loss of state support largely by increasing enrollments (by 40% since the 1990s), increasing student tuition (particularly for non-resident students who now pay fees at Ivy League levels), and shifting the student mix of instate to out-of-state students. This combination of actions has generated a revenue increase of roughly \$400 million/y, more than enough to compensate for declining state appropriations.

Yet here, there are worries about the future. While once the state appropriation was viewed as providing the tuition discount for instate students, this is clearly no longer the case. A very rough estimate of the annual cost of education at Michigan (across all undergraduate and graduate/professional programs) would range between \$25,000 to \$30,000 per student, a cost similar to other leading public universities such as UC Berkeley, U Wisconsin, and U Virginia. State support of the roughly 27,000 instate students enrolling in the University averages out roughly to \$5,000, which when combined with instate tuition still falls roughly \$10,000 short of the actual cost. Hence, it seems clear that the higher tuition charged out-of-state students (\$50,000 and up) generates a sufficient surplus over actual costs to partially subsidize the low tuition charged instate students while providing financial aid. Yet, these high tuition levels are now approaching the ceilings experienced by private universities, while enrollment growth (now 46,000 students) has exceeded the capacity of current faculty and facilities.

Other revenue streams face similar challenges. While the University faculties have been extraordinarily successful in attracting sponsored research grants, to maintain the level of research funding (not to mention UM's leadership in research expenditures) in the face of federal budget challenges, the University has increased its subsidy of campus sponsored research to \$380 million/year in 2016, roughly 30% of its \$1.4 B/y total expenditures. Currently this subsidy comes from sources such as clinical income for biomedical research and tuition revenue from academic units.

Clearly private support has been important to the

University, since, as state support for major capital facilities disappeared in the 1990s, this provided a critical source of funding for new buildings. It has also been critical for ongoing operations, bringing in roughly \$100 M/y to \$150 M/y for this purpose. Yet it is also the case, as mentioned before, that even as our development activities are successful in rapidly increasing private support, to some degree this also has the potential to distort University priorities. After all, donors usually direct their gifts to their own priorities, not necessarily to the universities most serious needs. This is a particularly serious issue for those naming gifts (i.e., “the edifice complex”) for facilities that are not among the University’s highest priorities. In fact, many of the contributions attracted by our development staff actually end up costing the institution more than they benefit academic programs.

Perhaps this is due in part to the enormous increase in effort focused on generating resources, or in the words of one of our former deans, “feeding the money machine”. All too frequently we seem to forget the purpose of philanthropy is to support the academic mission of the university. It is critically important for leaders of the university, from deans and department chairs to executive officers, to understand that we simply cannot afford all gifts. While this may put leaders at odds with their development staff, the academic priorities of the university must trump those of potential donors.

The most important financial asset in recent years has been the University’s endowment, built initially during the 1990s by VPCFO Farris Womack, as he swept University reserve funds into its modest endowment and increased it 10-fold through shrewd management to \$2.5 billion by 1998. The endowment has grown still further over the past two decades, amounting to \$10 billion today and ranking 7th nationally. Put another way, the large endowment Michigan created during the 1990s has now reached the size when it is managed more like an investment bank rather than a fund-raising priority, similar to those of other well-endowed institutions such as Harvard and Yale.

Finally, although Michigan’s endowment is impressive, its impact is limited by the size of the University. As a rule of thumb, the wealthiest private institutions achieve endowments capable of sustaining

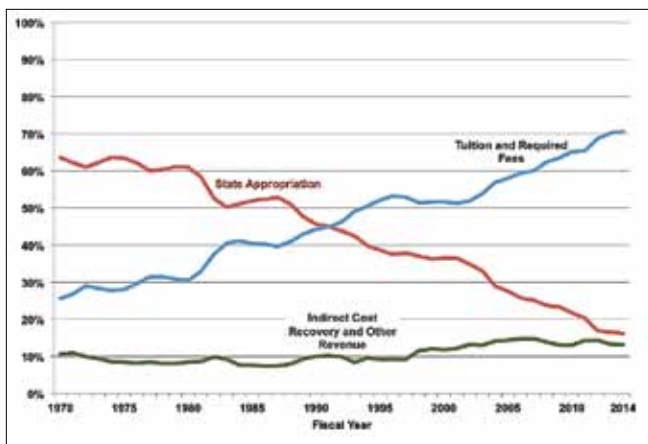
their institutions when their endowments reach a level of \$1 million per student (since this generates sufficient payout at 4.5% to 5% to cover tuition levels). With the rapid growth in Michigan’s enrollment, its endowment for academic purposes amounts to only \$230,000 per student. Hence, while impressive, the University’s endowment falls far short of that required to provide independence from state support and policies with our current enrollment.

Actually, perhaps the most important financial asset of the University is its top-ranked Wall Street credit rating, AAa, achieved during the 1990s as the first for a public university. This has allowed the University to debt-finance capital facilities at the lowest possible interest rate.

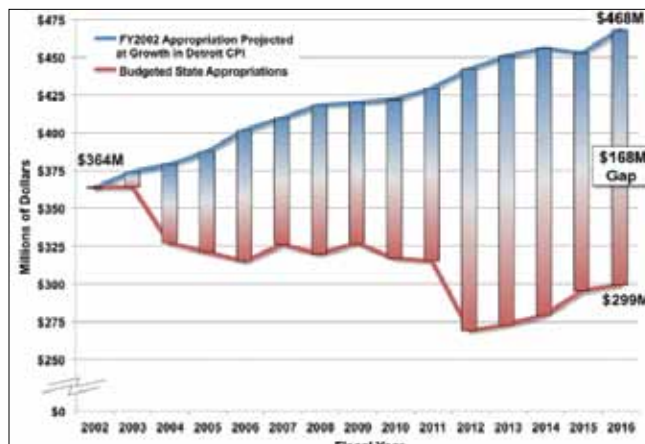
On the other side of the ledger, the University has launched a cost reduction effort during the past decade, aiming to trim roughly 1.5% to 2.0% each year off the base budget. While this has resulted in part, from more efficient management of energy and supply acquisition, much of these savings have been achieved by constraining faculty and staff salaries, and demanding academic units achieve targeted savings. The University has compounded this top-down approach to cost containment by entering expensive contracts with external consultants (e.g., Accenture) that have attempted to impose corporate practices (centralizing all service activities). This has not only demoralized staff and enraged faculty, but it has also been found to generate savings of less than 0.1% of the University’s budget (e.g., “penny wise but pound foolish”). To date administrative efforts have largely ignored the unprecedented expansions in administrative staffing and cost of growing peripheral activities such as public relations, marketing, and “institutional advancement” as well as the unusually high levels of compensation of senior administrators, now approaching extreme levels and practices (e.g., bonuses and deferred compensation) more appropriate for the corporate sector than higher education.

Intensifying Competitive Forces

The intensely competitive nature of higher education in America, where universities compete aggressively for the best faculty members, the best students, resources



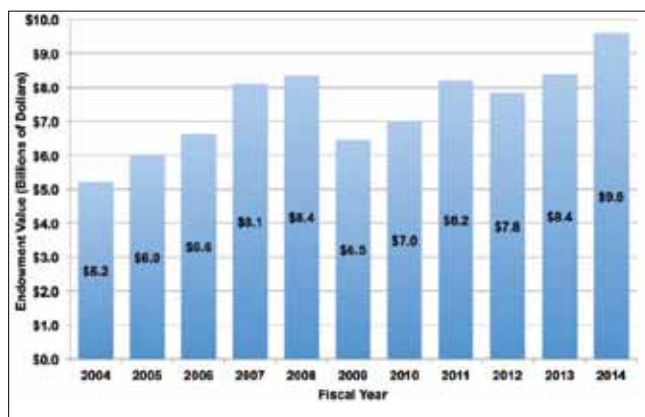
General contribution of state support to the UMAA General Fund budget



The "Jaws" diagram showing the erosion in state support compared to the CPI



Gifts to the University



Growth in Endowment

from public and private sources, athletic supremacy, and reputation, has created an environment that demands achievement. However, while competition within the higher education marketplace can drive quality, if not always efficiency, it has an important downside. When serious imbalances arise in available funding, policy restrictions, and political constraints, such competition can deteriorate into a damaging relationship that not only erodes institutional quality and capacity, but also more seriously threatens the national interest. It can create an intensely Darwinian winner-take-all ecosystem in which the strongest and wealthiest institutions become predators, raiding the best faculty and students of the less generously supported and more constrained public universities and manipulating federal research and financial policies to sustain a system in which the rich get richer and the poor get devoured.

This ruthless and frequently predatory competition

poses a particularly serious challenge to the nation's public research universities. These institutions now find themselves caught with declining state support and the predatory wealthy private universities competing for the best students, faculty, and support. Of course, most private universities have also struggled through the recent recession, though for some elite campuses this is the first time in decades they have experienced any bumps in their financial roads. Yet their endowments and private giving are recovering rapidly with a recovering economy, and their predatory behavior upon public higher education for top faculty and students has returned to an aggressive level.

The reality is that over the longer term, the rich private universities are once again becoming richer at an accelerating rate. Several universities already have massive endowments that will continue to double in size every seven to ten years. Today's Harvard's endowment is roughly \$40 B, in 7-10 years it will be \$80

B, then \$160 B. Stanford's endowment of \$22 B doubles to \$44 B then \$88 B. Their capacity to raid top students and faculty from other institutions will be formidable.

This reinforces the fact that current federal tax policy is allowing the endowment-rich private institutions to decouple from the rest of higher education, including not only major public universities but also those private universities with far smaller endowments. Will the public universities or smaller private universities simply become faculty farm systems for a handful of universities that will become the Harvards and Stanfords? Will real competition be lost, especially in expensive fields such as biomedical science or physical sciences?

Campus Expansion

The University of Michigan campus has continued to evolve over the past two decades, despite the disappearance of state support for major capital facilities. The two major complexes designed by architect Robert Stern, Weill Hall (for the Ford School) and North Quad, provide elegant entrances to the Central Campus. The major buildings of the Ross School of Business Administration and expansion of the Law School are also important academic projects. While Venturi's Life Sciences complex is actually a somewhat smaller version of a buildings he designed for Yale and UCLA, the biosciences research complex on Huron and Observatory is important for the continued expansion of research activity in the life sciences, as will be the recently acquired North Campus Research Center (the former Pfizer R&D Center). The University has taken advantage of exceptionally low interest rates (in part because of its top credit rating) to launch a massive series of renovations of residence halls (\$650 million) that will be important for the growing student enrollment. The addition of skyboxes and club facilities has brought in additional revenue for Michigan athletics, albeit at possible risk because of its dependence on generous federal tax treatment and its serious impact on the morale of long-time campus and community fans who can no longer afford to attend events. The clinical facilities for the University Hospitals have grown very significantly with the addition of the Frankel Cardiovascular Center and the

new Mott Pediatrics Hospital, along with planned \$1 billion renovation and expansion of the Adult General Hospital, although there are already warning signs about the costs of these very large new clinical facilities in view of the current health care market in Michigan and the future restructuring of federal health care policies such as the Affordable Care Act.

Yet, here there are also more general concerns. While the capital expansion of the University has been averaging over \$1 billion per year over the past decade, most of the growth (75%) has occurred in auxiliary units (i.e., clinical activities, housing, athletics) and are funded by auxiliary revenue streams, albeit with debt secured by student fee revenues. Those buildings responding to academic needs have depended in part upon anticipated federal research support (e.g., Public Health Annex) or private funding from donors (Ross Business School, Weill Hall). This raises a serious question as to just how, in the absence of state support, the University will meet the future capital facilities needs of those academic units that have no donors or other external revenue sources. (e.g., federal R&D.)

We noted earlier that at Michigan there is some truth to the old saying that the academic core of the contemporary university is a quite fragile institution struggling to survive between the forces exerted by the football stadium on one end of the campus and the university hospital on the other. But more serious is the issue of how one sustains the highest priority for the academic core of the university in an increasingly resource-driven (and for many academic units, resource-starved) environment constrained by "fund accounting", in which it is increasingly difficult to provide cross-subsidies from one unit to another (and particularly from auxiliary units to academic units).

Shifting Policies and Practices

Leadership and Governance

One of the most serious recent trends in University leadership has been the erosion of the power of the deans and directors. As we have noted, the strength of the University's academic programs has been due in large measure to the quality of the leadership of the deans. The deans are the key line officers of the



North Quad



Weill Hall



Life Sciences Institute



Biomedical Sciences Building



Ross School of Business Administration



Law School South Hall



Michigan Stadium Expansion



Chrisler Center Expansion



Mott Children's Hospital



Frankel Cardiovascular Hospital



Hill Dining Hall



Munger Graduate Residence Hall



Central Campus Biosciences Complex



Central Campus Weiser Hall



North Campus Architecture Wing



North Campus Diag "landscaping" project



North Campus Research Center



Athletics Campus Ross Olympic Complex

University. They are also the ones most responsible for maintaining its academic priorities and quality. Great deans create and lead great schools and colleges, not to mention generating over 90% of the resources of the University.

Yet in recent years there is some evidence that the traditional roles and power of the deans have been weakened. The rigid application of 10 year limits on the appointments of deans, with little attention given to easing their transitions to “life after leadership”, has been very discouraging and led to the departure of several of the University’s most talented leaders. So too, there was a clear trend over the past two decades to fill most open dean positions with outsiders with little experience with decentralized management.

The long-standing practice of achieving a balance between the appointment of internal and external candidates for senior leadership positions such as deans seems to have been abandoned. During the 1970s through the 1990s, the majority of the deans came from internal appointments of outstanding faculty. In recent years there has been a very significant preference for external candidates, now comprising over two-thirds of the deans and the majority of the executive officers. Indeed, by 2015, 13 of 19 dean positions had been filled with external candidates. When combined with the 10-year limit on deans’ appointments, the influence of the deans on University-wide issues has been substantially weakened.

There has been similar erosion in both the academic credentials and experience of the executive officers. In the past, most of the University’s senior leadership team had sufficient academic experience to merit faculty appointments in addition to their administrative assignments. Today, however, only four executive officers (president, provost, VP Research, and EVP Health System) have faculty credentials. The recent trend to appoint senior officers without academic background or experience has decoupled the central administration from the academic core of the University to an alarming degree.

Michigan has also seen some change in its shared governance involving faculty, trustees, and administration. Such a system represents the effort to achieve a balance among academic priorities, public purpose, and operating imperatives such as

Years Served in University of Michigan Dean Role

School	Years Served
Architecture	0
Rackham	0
Public Health	0
Public Policy	0
Sustainability	0
Music	0
Information	1
Business	1
Engineering	1
Nursing	1
Education	1
Kinesiology	1
Social Work	1
ISR	2
LS&A	3
Pharmacy	3
Dentistry	4
Law	4
Library	4
Art	5

The Relative Inexperience of the 2017 Deans Team

financial solvency, institutional reputation, and public accountability. Quality universities require quality leadership and governance. Nothing is more critical than attracting experienced and dedicated citizens in standing for election to Michigan’s Board of Regents and attracting distinguished faculty members into leadership positions in faculty governance.

But here the University of Michigan system of faculty governance is somewhat different than most institutions. Its Senate Assembly, the campus-wide, elected faculty governance, is primarily advisory in nature, in contrast to the strong executive committee structures at the department, school, and college level. Hence while the faculty governance is strong at the school and college level, it is relatively weak on University-wide issues, since unlike other leading universities such as the University of California,

Michigan has no bylaws requiring Regents and the administration to consult with the faculty before acting.

Hence the deans must play an important role, since the decentralized nature of the University allocates to them not only the power of resource control but also the responsibility for defending University-wide academic priorities. When the deans are strong, this checks-and-balance system works well. When they are weak, myopically focused on their own academic units, or ignored by the central administration and government board, the university becomes vulnerable to political forces.

Organization and Management

Today, the primary missions of the University, its teaching, research, and service to society, are characterized by extraordinary scale and complexity. To accommodate the necessary financial restructuring and growth of the University during the 1980s and 1990s, the University of Michigan began a decade-long effort to decentralize both authority and responsibility to the level of its academic and auxiliary operating units, with the deans and directors assuming the role of distributed management responsibility for both revenue generation and expenditure controls. This system allowed the University not only to adapt and maintain academic priorities and quality, but its “loosely coupled adaptive ecosystem” structure has enabled it to withstand stresses that might cripple smaller institutions.

Unfortunately, as the University entered a new century, the recruitment of new deans and senior administrators from institutions with more centralized cultures has stimulated efforts to recentralize the institution, leading to major growth in both the numbers and compensation of administrators. It also resulted in efforts to apply corporate management styles, complete with the demands to centralize and standardize services, bonus-based compensation systems, and excessive investment in corporate-like functions (e.g., marketing, branding, advertising, and other forms of “institutional advancement”). Such attempts to recentralize the institution’s management have encountered strong faculty opposition because of the threat of damage to the core academic mission by such a corporate-style central administration.

Here, Michigan provides a disturbing example of the impact of the increasingly “corporate” nature of large research university, with an increasing fraction of its central administration comprised of senior staff with little if any experience in higher education, and decision making largely detached from academic considerations (e.g., the efforts to recentralize resource control, weakening the power of deans and directors, launching new initiatives from the central administration rather than harvesting them from faculty and students, and imposing upon faculty and academic programs a corporate bureaucracy). We have become bogged down in endless bureaucracy more characteristic of the corporate world that the traditional nimbleness that was once used to solve problems quickly and seize on opportunities through people-to-people interactions among academic leaders.

We should remember that the key to Michigan’s successful adaptation to a rapidly changing era while sustaining both its public purpose and its institutional saga of pathfinding in the face of the loss of our state support has been a decentralization of authority over resources and personnel to the lowest level where resources are generated and costs are incurred. As state support declined during the 1970s and 1980s, Harold Shapiro embraced this philosophy of decentralization to the level of deans and directors. This philosophy was continued throughout the 1990s by implementing the practice of many leading private universities and appointing deans and directors of the highest quality who were capable of leading their units in such a decentralized environment.

Yet, despite the fact that today over 95% of the resources of the University are generated by academic and auxiliary units, in recent years there has been an alarming effort to “recentralize” the University by pulling back key administrative staff from the units and weakening the authority of deans and directors. External consultants have been retained (at great expense) to apply corporate management methods to an academic institution, with devastating impact on faculty and staff morale as resources and staff critical to research and teaching have been withdrawn from academic units.

There is a growing faculty concern that the increasing scale and complexity of the University may

inhibit the grass-roots innovation and experimentation that so energizes the trailblazing character of the institution. While becoming too big to fail is always a misconception—witness the collapse of General Motors and Chrysler—this perspective can sometimes inhibit the willingness to embark on high-risk activities so essential to the Michigan spirit.

The final warning flag has to do with the use of initiatives at the presidential or executive officer level to lead or steer the university, since Michigan throughout its history has been very much a bottom-up driven institution. It is not just that most top-down initiatives are soon rejected by the Michigan grassroots culture and fade away into obscurity, but more important, the true creativity, wisdom, and drive flourishes best at the grass-roots level with outstanding faculty members, students, and staff rather than administrators. Contrast the limited success of the earlier presidential initiatives such as the repertory theater planned to be originally sited next to the Power Center, the Venturi-Scott-Brown master plan for the campus, the brief (and expensive) tenure of the Royal Shakespeare Theatre group, the “Halo” design of Michigan Stadium, and even the Life Sciences Institute. Some have sunk beneath the waves, some have been bailed out and still float (at considerable expense), but none is a dramatic success. Contrast these with grass-roots initiatives such as NSFnet (later to become the Internet), the Molecular Medicine Institute (a precursor to the Human Genome Project), and the Digital Library Project (leading eventually to the PageRank algorithm, Google, and the HathiTrust).

In fact, it is probably best to approach leadership in such a decentralized bottom-up environment much as a farmer would approach growing crops, by planting seeds to encourage innovation: watering, fertilizing, and nurturing exciting grassroots initiatives (and occasionally weeding out failures), and then harvesting the success for all to share.

Auxiliaries vs. Academics

We have noted many signs of the erosion of the academic priorities of the University: the rapid expansion (and expenditures) of auxiliary units relative to academic programs, the relative priority given administrative and auxiliary needs relative

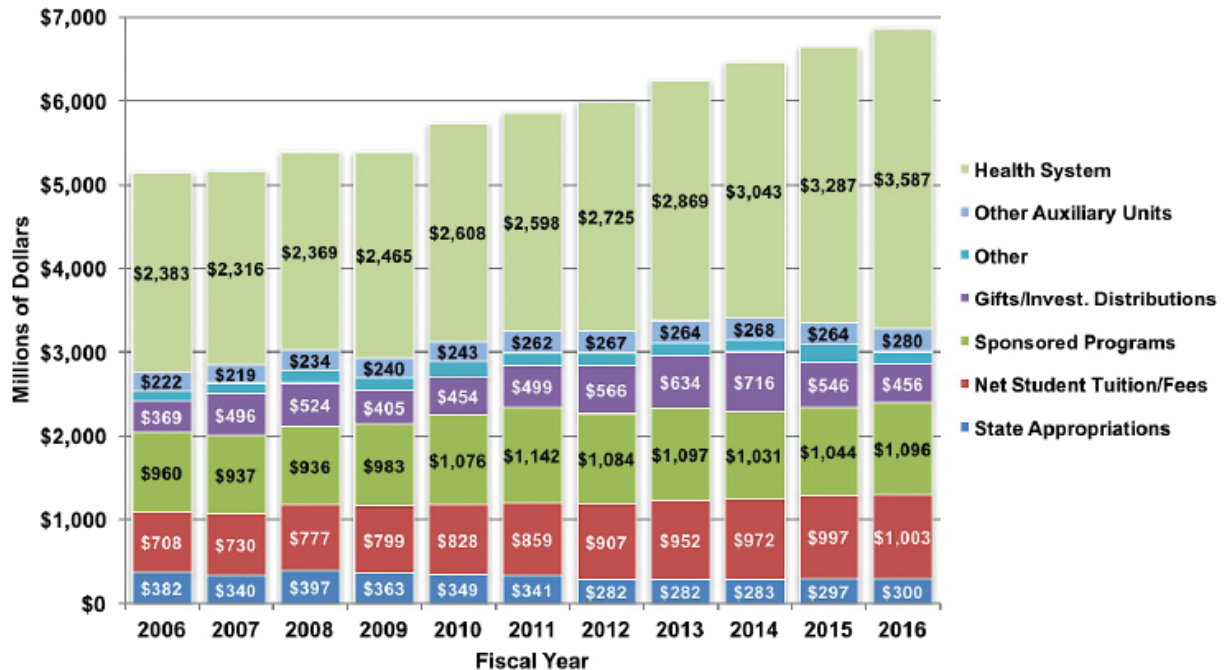
to academic needs in investment decisions such as cyberinfrastructure, the rapid growth of administrative salaries during a period of stagnant faculty and staff salaries (now lagging 20% below leading private universities), the extraordinary growth in staffing in nonacademic functions such as communications, marketing, and “advancement”, largely at the expense of adequate staffing to support faculty academic needs such as teaching and research (compounded by the negative impact of the “shared services” initiative).

It is probably not surprising that at a time when the academic programs continue to be seriously constrained by available funds and overloaded by the rapid enrollment growth, the University leadership has turned its attention instead to the auxiliary units (hospitals, housing, and athletics), which not only have the advantage of a price-insensitive market unconstrained by Regent politics, but can use the unusually low interest rates characterizing the University’s top credit rating earned during the 1990s to go on a debt-financed building spree amounting to billions of dollars.

There is also the related issue as to whether the aggressive growth of the auxiliary units actually competes with and draws resources away from the academic core. To be sure, the strong influence of the clinical units in the medical center on fund raising is understandable and probably beneficial to the Medical School. However the aggressive fund-raising of the Athletics Department and UM-related units such as the Alumni Association and the University Musical Society is competing to some degree with the academic units for donors. While there is disagreement about how damaging this has been to academic priorities, it is certainly appropriate to raise the policy issue of the priority given auxiliary unit fund-raising activities relative to that given academic units.

Financial Sustainability

Despite the success of the University during the past three decades in compensating for the loss of over 50% of its state support through major expansion of enrollments since the late 1990s (up 12,000 students, most of whom are paying out-of-state tuition), private fund-raising and endowment management, cost



In contrast to the modest increase in the academic budget over the past decade because of the erosion of state support, the budgets of the auxiliaries (hospitals, housing, and athletics) have increased rapidly.

containment and staff benefits reductions, there are growing concerns about both the sustainability of the current financial model and their impact on the quality of the University.

Ratings agencies such as Moody's have warned higher education about serious trends such as a ceiling on public acceptance of tuition increases, continued weakness in state appropriations, constraints on federal spending on research and student financial aid, volatility of the capital markets characterizing endowments, weakening of philanthropic support, and risks to health care revenues.

But there are also several concerns specific to the current financial model characterizing the University of Michigan:

1) Since much of the State of Michigan's tax revenue base has been eliminated by the tax policies of recent conservative state governments, it is unlikely that there will be significant restoration of state appropriations for higher education for many years, that is, unless the University recommits itself to a leadership role in making the case for adequate investment in higher education across the state (similar to the "treetops" campaign of the 1990s).

2) Although there will likely be strong pressures to continue to grow enrollment while holding tenure-track faculty size constant, the concerns about the negative impact on academic quality of further enrollment growth, the adequacy of current University facilities (classroom and study space), the pressure on faculty retention driven by increasing instructional load, and the fact that out-of-state tuition rates are approaching the ceilings experienced by private universities, suggests that this option may be limited.

3) Although the UM continues to launch major fund-raising campaigns such as the \$3.3 B and \$4 B efforts of the past two decades, these will largely provide only modest resources compared to its \$7.8 B annual budget and could well result in launching new initiatives demanded by donors that not only increase University costs but actually dilute academic programs. Furthermore, in recent years while Michigan has been able to achieve increased annual fund-raising activity, it still lags behind not only leading privates but several publics as well (Wisconsin, UC, etc.) While it is understandable that a very large university like Michigan would not attract the deep loyalty and

commitment of Ivy League institutions, it also does not seem to be attracting the support characterizing several other leading public institutions, typically ranking 20th in fund-raising efforts.

4) On a much more positive note, the effort of the 1990s that created one of the largest endowments in public higher education (and led to the University's exceptional AAa credit) has now become one of the primary resources supporting the University. In 2017 its current size of \$11 B ranks 2nd highest among public universities and 7th among all universities. At current payout policies of 4.5% per year, the endowment is now generating considerably more than state support (\$320 M/y) and cash gifts received (\$250 M/y). Although it still falls far short of the wealthiest private institutions, particularly on a per student basis, it is certainly one of the bright spots in an otherwise questionable financial future.

In summary, the University's current financial model looks increasingly unsustainable: Its academic programs are largely supported by high tuition revenues from out-of-state students, which are approaching both enrollment and tuition ceilings. Fund-raising seems increasingly suspect, inadequately aligned with university priorities and insufficient to have the major impact characterizing private universities. Although the University faculty remains highly successful in attracting sponsored research support, roughly 30% of the \$1.4 billion of annual research expenditures is currently provided by the University itself. While the University has taken advantage of its high credit rating low interest rates to enable massive investments in auxiliary enterprises (\$650 million of resident hall renovations, \$2 billion of medical center expansions, and \$500 million in new or renovated athletic facilities), the capacity of longer term revenues to support both the debt and operating costs of these facilities is questionable. Only its fund raising and large endowment stand out as a key positive feature.

Phase Transitions

The rapid growth in student enrollments coupled with the unbridled expansion of auxiliary activities

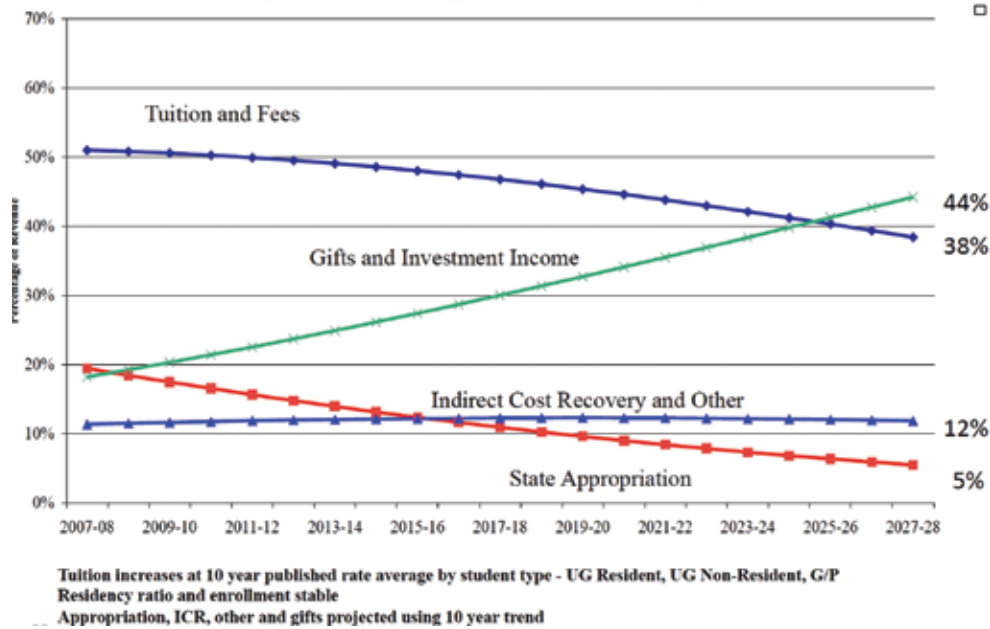
(hospitals, housing, and athletics) has triggered concern that the University is on a determined path toward becoming big, bigger, and biggest at the expense of the quality of its academic program. There are "phase transitions" that occur with changing institutional scale. On the positive side, once endowments reach the \$1 M/student, a university becomes essentially independent of traditional revenues (tuition, gifts, etc.), although clearly this goal moves farther away with each increase in enrollment. However more generally, one can imagine that there is another phase transition now that the endowments of the rich private institutions have become so large (e.g., Harvard passing \$100 B) that the "tax expenditures" associated with the tax exempt status of these massive endowments have motivate Congress to begin to tax these endowments.

A similar phase transition may occur when a university becomes sufficiently large that centralized leadership and governance becomes impossible, requiring a highly decentralized structure to withstand stresses that might cripple smaller institutions. Here the University of Michigan may become a good test case (as has the University of California at the system level).

A third issue concerns the relative balance between undergraduate and graduate/professional enrollments. Leading private universities (Harvard, Stanford) typically have a majority of graduate and professional students. For most of its recent history, Michigan led all public universities with 40% grad/prof compared to 25% to 30% for other leading public research universities. But with the recent dramatic increase in undergraduate enrollments, this has dropped to 35%, suggesting a shift in academic focus.

Management Culture and Priorities

The budget growth of auxiliary units (hospitals, housing, athletics) raises the important issue of university priorities and balance. But more serious is the issue of how one sustains the highest priority for the academic core of the university in an increasingly resource-driven (and for many academic units, resource-starved) environment, particularly when there is a very significant difference in management philosophy characterizing auxiliary (centralized) and academic (decentralized) units.



Projections of the changing financials of the academic budget (Hanlon)

To be sure, the tension between centralization (by expanding central administration staff and control) and decentralization (where cacophony leads to innovation) can be very threatening, particularly to those parts of the University that need to make sure that the trains run on time (e.g., financial services, hospitals, etc.) University consultants such as Accenture prefer a coordinated approach at the enterprise level, a so-called “rationalization” of services that seeks to reduce redundancy. Yet this approach has generated great concerns within the academic community. In fact, many academic units are under the impression that as the University’s rationalization juggernaut moves ahead, it will attempt to pluck out the top talent in their units and relocate it to the enterprise level through “shared services” operations. Were this to occur, it would be both an absolute disaster to the academic units and seriously undermine the confidence of faculty and staff in the role played by the central administration itself.

The spirit of “rationalization” that may work quite well in some areas of corporate management could turn into a disaster if it pulls our best staff away from the academic units where the real innovation is driven by the interests of faculty and students working closely with outstanding staff with extraordinary skills. Similarly, to impose on the University’s academic programs an enterprise-level of shared services unable to respond

rapidly to the unique needs and technologies required for cutting-edge learning and discovery would cripple the University’s leadership as a research university. The 2014 petition in which the majority of Michigan faculty opposed the efforts of the University administration to impose a shared services plan on academic units revealed the faculty concern about such corporate approaches, a reaction seen in other peer institutions.

The Importance of Communication in Loosely-Coupled, Adaptive Ecosystems

This report has stressed the importance of Michigan’s organizational culture as a loosely coupled, adaptive ecosystem that evolves and excels based on the extraordinary talents, dreams, and commitment of faculty, staff, and students. There has long been a belief, adopted by four generations of University leadership, (Fleming, Rhodes, Shapiro, Frye, and Duderstadt), that the true secret of leading an academic institution is actually quite simple. “You recruit outstanding people. You provide them with the resources to achieve their dreams. And then you get out of their way!!!!” We must never forget this basic principle, particularly when we select those for leadership roles. We must also take care that those joining our institution are not only educated about but also accepting the principles of Michigan’s

historical character of decentralization to tap the great strength and energy of faculty, students, and staff engaged in academic activities.

But there are other important principles that must be present for the success of the Michigan approach. And perhaps none is more important than the availability of open, accurate, pervasive, and accessible information throughout the entire University. After all, a university is the ultimate knowledge organization, and any attempt to hide, distort, or manipulate information can seriously damage its most fundamental activities of discovery, learning, and engagement.

To be sure, such an open form of communications can be alien to those from backgrounds such as advertising, marketing, public relations, fund raising, and politics. Yet without complete access to accurate information, both good news and bad news, universities are seriously hindered. Any attempt to sequester information, replacing truth with fiction, or attempting to propagate myths or distortions to further a particular agenda should be challenged and revealed as damaging to the academic process. This is particularly important in these times when the role of the traditional media supporting investigative journalism and openness has been challenged by the pervasive character of electronic media and social networking.

The Vision Thing

It has been suggested throughout this document that the Michigan saga can best be described as a pathfinder and trailblazer. The University has been a leader, not a follower. It succeeds by launching new initiatives, by taking risks at scale to lead higher education and serve the state, the nation, and the world.

Looking back over the history of the University, one can clearly see this leadership role in the vision and priorities of its deans, officers, and presidents. Yet such priorities are rarely stimulated or achieved through top-down initiatives. Rather they are harvested from the grassroots interests and inspiration of faculty and students.

To be sure, initiatives launched from on high in areas such as “sustainability”, “entrepreneurship”, “internationalization”, and “interdisciplinary scholarship” get public relations visibility, but they

are of a “same old, same old” variety and unlikely to provide leadership for the University. Contrast these with significant initiatives in the past such as creating the Institute for Social Research or launching NSFnet and the Internet or the Molecular Medicine program in the Medical School, which had a “change the world” character. Each of these involved placing very large bets on high-risk ventures involving our very best faculty where the University had established strength and leadership. They were clearly not “branding” efforts.

In Summary

So what has been the trajectory of the University over the past 50 years? On the positive side, Michigan has managed to preserve most of its quality and its reputation even while losing over 80% of its state support (in CPI adjusted value). In fact, in the 1990s the National Academy ratings of academic quality ranked the University of Michigan 4rd in the nation (and world) behind only Harvard, Stanford, and the University of California Berkeley in the quality across the full spectrum of its graduate programs

This success in sustaining the quality of the University even as it suffered the loss of most of its state support was due largely to efforts to launch major fundraising efforts, creating an endowment that earned it Wall Street’s top credit rating of AAA, providing strong incentives to faculty members for attracting sponsored research grants, shifting enrollments to attract out-of-state students capable of paying private tuition levels, and moving to a more decentralized management system in which deans and directors were made responsible for both revenue generation and cost containment.

But there remain serious concerns about the University’s financial sustainability today, since enrollments have now reached (or in some cases exceeded) faculty and facilities capacity. Nonresident tuition is approaching the ceiling experienced by the top private institutions, while instate tuition continues to be highly constrained by political factors. While endowment has continued to grow, endowment-per-student is at only one-fifth the level of leading private institutions.

Equally serious is the fact that the University has

failed to sustain its public purpose. While it achieved significant progress in racial diversity during the 1990s, minority enrollments have since fallen back to the low levels of the 1960s. Largely because of the growth in the enrollment of high income nonresident students coupled with the low level of state support (particularly in the absence of state-based financial aid programs), the University has lost much of its economic diversity. Indeed, some even question whether the University's long-standing commitment to providing "an uncommon education for the common man" has now been replaced by efforts to attract and educate uncommonly rich students.

In contrast, during the past two decades, the auxiliary units (i.e., health system, student housing, and intercollegiate athletics) have thrived. UM's AAa credit rating coupled with inelastic pricing markets experienced by auxiliary activities has allowed a massive investment and growth in new facilities, in contrast to the modest investment in new academic facilities.

Duderstadt Book References

James J. Duderstadt, *The View from the Helm: Leading the American University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt, *A University for the 21st Century* –(Ann Arbor, MI: University of Michigan Press, 2000)

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. Duderstadt and Anne Duderstadt, *For the Love of Michigan: A Half Century of Serving the University of Michigan* (Ann, Arbor, MI: Millennium Project, 2014)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *The Michigan Strategy Book: 1986 – 1996* (Ann Arbor, MI: Millennium Project, University of Michigan, 2000)

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. Duderstadt, *Adventures in Higher Education Policy* (Ann Arbor, MI: Millennium Project, 2017)

James Duderstadt, *Case Studies in Strategic Roadmapping for University Planning* (Ann Arbor, MI: Millennium Project, 2017)

Chapter 14: Summary

1. **Scale:** The University of Michigan has continued to grow over the past two decades, with a total budget now exceeding \$7.8 B/y/year, research expenditures of \$1.4 B/y, growth of facilities by \$1 B/y, and of particular note, a growth in student enrollments, from 35,000 in the 1990s to almost 46,000 today. While overwhelming size commands respect, it also demands serious thought be given to how one organizes and manages such scale.

2. **Quality:** Most rankings place the overall academic reputation of the University among the leading public research universities in the nation and the world, although well below many of the elite private institutions. But there are concerns, e.g., while, in 2017 the University admitted 45% of in-state applications, with a yield rate of 69%, while out-of-state selectivity was 22%, with a yield rate of 31%, suggesting that for many of these students, Michigan is viewed as a “safety” school backup to Ivy League applications.

3. **Academic Priorities:** There is a growing faculty concern that the rapid growth of Michigan’s auxiliary activities (hospitals, housing, and athletics), now comprising over 50% of the University’s budget, has driven an increased focus on these activities by the leadership and governance of the institution to the neglect of academic programs. This is certainly the case when one compares facilities investment in areas such as the Medical Center, Housing, and Athletics with those in academic facilities.

4. **Faculty:** The opportunities for establishing an academic career are dwindling, with non-tenure track appointments as post-doctoral scholars, lecturers, and adjunct faculty now providing the majority of lower division instruction, a feature driven by the efforts of universities to cut costs and improve productivity with a more flexible faculty workforce. As a consequence, today over 40% of the instructional staff is comprised of non tenure-track faculty. There are growing concerns that the combination of heavier instructional loads driven by increasing enrollment in larger academic units (LS&A and Engineering) and eroding faculty salaries relative to well-endowed private universities

have made both the recruiting and retention of high quality faculty more difficult.

5. **Students:** The enormous growth in enrollments over the past two decades (from 35,000 to 46,000) with priority given to out-of-state students paying private level tuition has distorted the economic diversity of the student body, with student family incomes now averaging over \$150,000 while the percentage of low income (e.g. Pell Grant eligible) students has dropped to 15%, well below the levels of other public universities. Yet it is also the case that much of the surplus generated by the high tuition charged out-of-state students is used to provide need-based financial aid for Michigan resident students, no longer adequately supported by state appropriations.

6. **Financial Strength:** As state support has declined over the past three decades, the University now finds itself a predominantly “privately-supported” public university, in the sense that roughly 95% of its revenues come from non-state sources such as student tuition, clinical fees, research grants, and private gifts that are determined by competitive markets. While private support is important, it tends to flow to donor intent (e.g., athletics, hospitals, and named buildings, i.e., “the edifice complex”) rather than to University academic priorities. Furthermore, there are concerns that an inordinate amount of the effort of deans and chairs is now diverted to “feeding the money machine” rather than providing academic leadership.

7. **Intensifying Competitive Forces:** The intensely competitive nature of higher education in America, where universities compete aggressively for the best faculty members, the best students, resources from public and private sources, athletic supremacy, and reputation, has created an environment that demands achievement. This ruthless and frequently predatory competition poses a particularly serious challenge to the nation’s public research universities.

8. **Campus Expansion:** While the capital expansion of the University has been averaging over \$1 billion per year over the past decade, most of the growth (75%) has occurred in auxiliary units (i.e., clinical activities,

housing, athletics) and are funded by auxiliary revenue streams, albeit with debt secured by student fee revenues. The challenge in the absence of state support is how the University will meet the future capital facilities needs of those academic units that have no donors or other external revenue sources (e.g., federal R&D)

Shifting Policies and Practices

9. **Leadership and Governance:** In recent years there has been a serious erosion in the power of deans and directors, long considered the most important leaders of the University. The 10-year limit on leadership appointments, the priority given to external appointments, and the limited academic experience of executive officers and senior administrators has further weakened academic leadership. There has been a similar weakening of faculty governance, particularly at the Senate Assembly level (because of the absence of adequate university bylaws requiring consultation).

10. **Organization and Management:** The recruitment of new deans and senior administrators from institutions with more centralized cultures has stimulated efforts to recentralize power in the University, leading to major growth in both numbers and compensation. So too, the imposition of corporate models proposed by consultations such as shared services and IT rationalization has had a devastating impact on faculty and staff morale as resources and staff critical to research and teaching have been withdrawn from academic units.

11. **Auxiliaries vs. Academics:** The rapid growth of auxiliary activities (health care, housing, athletics) tends to compete for both priority and funding available to the academic core, while imposing a more corporate culture on the institution.

12. **Financial Issues:** While the University has been unusually successful in attracting external resources from higher enrollments and tuition, sponsored research, philanthropy, and the remarkable growth of its endowment, and while it has managed to retain its top AAA Wall Street credit rating, there are increasing

concerns about the viability of its current financial model.

13. Similarly, the rapid growth of the University over the past two decades—in enrollment, research, facilities, clinical activities, and public visibility (e.g., athletics) has begun to raise concerns about the impact of “big, bigger, biggest” on its academic priorities. Some suggest it may be approaching a “phase transition” when it will become sufficiently large that centralized leadership and governance becomes impossible, requiring an even more decentralized structure to withstand the stresses of excessive size.

14. **Management Culture and Priorities:** Perhaps most serious is the issue of how one sustains the highest priority for the academic core of the university in an increasingly resource-driven (and for many academic units, resource-starved) environment, particularly when there is a very significant difference in management philosophy characterizing auxiliary (centralized) and academic (decentralized) units.

15. **In Summary:** So what has been the trajectory of the University over the past 50 years? On the positive side, Michigan has managed to preserve most of its quality and its reputation even while losing over 80% of its state support (in CPI adjusted value). In fact, in the 1990s the National Academy ratings of academic quality ranked the University of Michigan 4rd in the nation (and world) behind only Harvard, Stanford, and the University of California Berkeley in the quality across the full spectrum of its graduate programs. But there remain serious concerns about the University’s financial sustainability today, since enrollments have now reached (or in some cases exceeded) faculty and facilities capacity. Equally serious is the fact that the University has failed to sustain its public purpose in achieving the diversity necessary to fulfill its mission of “providing an uncommon education for the common man”.

Chapter 15

How to Fix Them

In considering how the University of Michigan has evolved over the past half-century, the events that have occurred, the actions that have been taken, and the challenges that remain today, a number of possible options for the future have become apparent. In this chapter we pull these ideas together for each of the topics considered earlier to suggest possible options for future leaders at the University.

Growth

It is critical that the University develop a more strategic approach to growth. One of the problems with a loosely coupled adaptive ecosystem is how to control growth, e.g., to prevent explosive growth in some components at the expense of others or even the entire organism. A key is communication among components and across the institution. When such communication is artificially limited or distorted (whether intentional or not), instabilities can set in. Hence it is important to use a multiplicity of networks both to monitor growth and subject it to assessments of its relationship to University priorities such as quality, financial sustainability, and impact. Bigger is not always better!

Here an excellent example is enrollment growth. Although this allows the University to serve more students, the dramatic growth in enrollments over the past two decades was clearly driven not by a desire to broaden the University's impact but rather to increase tuition revenue to compensate, in part, for the loss of state support. However in the process, enrollment growth threatens to overload both faculty and facilities resources, shifting much of instruction to the use of part-time or non-tenure-track faculty and driving the priorities for capital facilities. It has also driven a major private construction boom in Ann Arbor of high-cost apartment complexes designed for the expanding student population.



The importance of controlling growth

Hence any strategy for enrollment growth must take into account the impact on faculty, staff, facilities, campus infrastructure, and the city of Ann Arbor, itself, in addition to priorities such as quality and mission. The desire for additional tuition revenue through enrollment growth should also consider other options such as year-round operation, distance learning, and other forms of Internet-based academic services such as collaboratories and virtual organizations.

Finally, careful consideration should be given to strategic issues of institutional balance and priorities. While the relative scale of different academic programs such as schools and colleges is an important issue for University leadership and governance, perhaps even more so is the balance among academic and auxiliary activities. For example, auxiliary activities such as clinical services, student housing, and intercollegiate athletics have increased in scale (by any measure—financial, personnel, visibility) at rates considerably faster than those characterizing the core academic activities of the University. Perhaps the time is approaching for a serious consideration of exploring a different organizational structures (e.g., a holding

company) to govern and manage such rapidly growing auxiliary enterprises so different in character to the academic core of the University.

Quality

The quality of the University of Michigan academic programs is the most fundamental determinant of both its leadership and its contributions to society. However, a comprehensive and diverse array of intellectual, social, and cultural experiences is also important for its leadership role in higher education. The scale of our programs not only contributes to the richness and quality of the University (e.g., the size and quality of central resources such as libraries, computing networks, and athletic facilities), but it also determines its potential impact on society. Rather than viewing the quality, breadth, and scale of the University as competing objectives—or possibly even as constraints on what it can accomplish within a world of limited resources—instead these characteristics, when linked together creatively, can provide an unusual opportunity.

More generally, how does one sustain the quality and leadership of academic programs in an unusually large and complex institution such as the University of Michigan that is continually challenged to balance rapidly changing challenges, responsibilities, and opportunities? For example, highly selective private institutions sometimes sacrifice breadth and size in an effort to achieve absolute excellence in a small number of fields. This results in institutions highly focused in an intellectual sense, which while certainly capable of conducting very distinguished academic programs, are nevertheless unable to provide the rich array of opportunities and diverse experiences of “multiversities” such as Michigan. At the other end of the spectrum, the University can also set itself apart from many other large, comprehensive public universities by the degree to which it chooses to focus its resources on academic quality.

Here we must stress once again the importance of understanding the history of the University, the nature of our past achievements of academic quality and leadership, and our unique institutional culture. The University’s unusual combination of quality, breadth, scale, and spirit not only allow it, but actually *compel* it

to provide leadership for higher education through risk taking, path finding, and trail blazing. To this leadership character, one must add the importance of recognizing that the true source of Michigan’s excellence and leadership rests with the quality, spirit, and innovation of its people—its faculty, students, and staff—and decidedly not with its administrative leadership or governance. It thrives as a loosely coupled, adaptive organization, drawing its strength, innovation, and vision from the grass roots, from the faculty, students, and staff who embrace deep commitments to academic priorities.

While ingrained in the culture of the institution and shaping the perspective and achievements of its people, such a high degree of decentralization of authority can be a threatening characteristic to those new to the University—particularly to those recruited into leadership positions as deans or executive officers or elected to serve on the University’s Board of Regents. Hence the challenge is both to make certain that the selection of University leadership at all levels is balanced among insiders both knowledgeable and committed to the unique history and culture of the University and those recruited from outside into leadership positions adequately informed and committed to sustaining this culture and its academic priorities.

Students

It is important to achieve the proper balance among undergraduate, graduate, and professional student enrollments that characterizes the world’s leading research universities. Over the past 15 years enrollments have grown 30% to 46,000. However most of this growth has been at the undergraduate level, while graduate and professional enrollment has stayed relatively constant. This major shift in student composition deserves serious strategic attention, since it has strained the faculty and facilities resources that support our graduate, professional, and research programs.

The development of leadership among students demands challenging intellectual experiences, both in formal instruction and in the extracurricular environment. Key in these endeavors is the importance of a liberal education. Today’s students will enter



Respecting student activism and protest against injustice

an increasingly complex, changing, and fragmented world. Too many undergraduates channel their energies into pre-professional and more narrowly vocational directions. The challenge is to cultivate among undergraduates a greater willingness to explore and to discover—to assist undergraduates to develop critical, disciplined, and inquiring minds.

The emphasis on attracting more out-of-state students capable of paying \$60,000 for tuition, room and board has generated very substantial new resources. However it has also shifted somewhat the student culture, away from the historic mission of “providing an uncommon education for the common man” and, instead, attracting more students from wealthy backgrounds, many of whom selected Michigan as a “safety school” backup to Ivy League applications or have chosen Michigan for its extracurricular life (i.e., have come “paying for the party”).

It is important to emphasize here the concern about the low enrollments of students from low-income backgrounds. Much of Michigan’s impact in the past came from students from working class families from the state’s farms and factories who saw attending the University as a great opportunity to do something important with their lives, provided they worked hard enough. To serve more of these students, once the backbone of its student body, the University must restructure its admissions policies, financial aid, and outreach.

Recent efforts to repackage financial aid for in-state students, such as the Michigan Tuition Pledge, are

helpful in addressing student economic diversity, However this must be coupled with a more strategic approach to the admission process that accounts for the more limited access of these students to quality K-12 education and less family emphasis on college enrollment. Perhaps the most important longer term action is to build statewide support for a strong state-sponsored need-based financial aid program similar to the CalGrant program that has achieved enormous success in California. The University should also consider variants on other popular approaches such as the Kalamazoo Promise, the Learn Grant proposals of the Spellings Commission, and income-dependent loan repayment. Finally, although politically difficult, perhaps there will come a time when it would be appropriate to challenge and reverse the state ban on affirmative action and align state policies more directly with Supreme Court rulings.

Addressing the disappointing decline in campus diversity over the past two decades also requires a more strategic approach. Clearly the effort must be comprehensive, not only encompassing the entire university population (students, faculty, and staff) but also addressing broad criteria such as race, gender, economic background, and national origin. So, too, the approach must be both strategic and aggressive, making a strong case for diversity, results oriented and honestly reported, led by broad and experienced leadership, and compatible with the decentralized nature of the University.

While today’s environment for diversity is much

different than that faced in the 1990s, with both the 2003 Supreme Court decision and Michigan's Proposition 2 as new elements, it is also important to remember that it is difficult to select a path ahead if one does not pay attention to the path traveled in the past. To this end, it would be useful to consider once again each of the highly successfully programs implemented by the Michigan Mandate and Michigan Agenda for Women during the 1990s to see if they might be appropriate for including in today's strategies (e.g., the Target of Opportunity program for faculty recruiting, articulation agreements with key community colleges, and, of course, pressures on deans and directors.)

Finally, on a more positive note, Michigan's long history of student activism is an activity of great importance because of its social impact. Michigan must not only tolerate such student activities, including occasional disruption of University activities, but actually encourage it and remain attentive and responsive to student issues. Here, particular concern should be given to maintaining the University's long tradition of *lux et veritas* by throttling back efforts to manage information flow throughout the institution so that bad news is disguised and good news is marketed heavily. Students deserve the truth, the whole truth, and nothing but the truth from the institution responsible for their education. And freedom of speech must be not only tolerated but demanded on this campus.

The role and experiences of graduate and professional students deserves equal attention. In particular, the various concerns of graduate teaching assistants and postdoctoral scholars, raised both by oncampus organizations and national studies such as those conducted by the National Academies, requires attention both at Michigan and at the national level. The fundamental principle is that these members of the University community must be regarded as students and future scholars first, and not just simply as a cost-effective way to conduct instruction and research. Similarly, the nature of professional education is changing rapidly in many fields such as the health sciences, law, education, and business, and once again, Michigan must continue to not only provide leadership as these instructional paradigms shift, but also be attentive to the demands they place among students.

Faculty

Department chairs and deans spend much of their time recruiting new faculty (and persuading their best faculty not to leave). However the success of this faculty retention and recruiting effort is difficult to assess at the University level. To be sure, a provost is usually sensitive to the "wins" and "losses" of a school or college when evaluating deans, but the broader University and its faculty are usually not aware of how successful the institution is in this competition for faculty. To this end, it might be useful to generate each spring an "Ebb and Flows" chart identifying new faculty hires and losses at the department level, including where the gains came from and where the losses went. This would be analogous to a "business dashboard" exercise in the corporate world.

While the overall strength of the faculty in departments and schools is of great importance to the University, determining the strength of its teaching and research, the visibility of the institution is frequently determined by a few truly exceptional individuals. The University should think more strategically about how to provide a supportive environment for their unusual brilliance (not the easiest challenge in a community of outstanding scholars) and move them rapidly through the ranks in an effort to hold them to Michigan. At the highest level, the University might consider the creation of professorial chairs with institution-wide appointments), funded centrally by the institution, so that they have maximum flexibility for their research and teaching interests.

The disappearance of mandatory retirement age and the vulnerability of defined contribution retirement plans in a fluctuating economy have had a major impact on faculty retirement planning. While financial security certainly influences the retirement plans of faculty members, surveys have indicated many senior faculty also seek some level of continued engagement with their University following retirement, since their intellectual, cultural, and social lives have been shaped by these institutions. Today faculty retirement considerations require more flexibility through options such as phased retirement or part-time appointments.

While the desire to recapture faculty positions for new younger faculty from retiring faculty members

within the current environment of limited funding remains a priority for most deans, it is important to recognize that many emeritus faculty members remain among the University's most distinguished, dedicated, and capable teachers and scholars. After all, it is their reputation that determines both the quality and ranking of their departments. Hence the emeritus faculty cadre should be viewed as an important asset of the University from a strategic viewpoint. In particular, they should be supported in their efforts to continue their teaching, research, and service activities when appropriate with appointments of *active emeritus*.

Staff

Throughout the university, whether at the level of secretaries, custodians, or groundskeepers or the rarified heights of senior administrators for finance, hospital operations, or facilities construction and management, the quality of the university's staff, coupled with their commitment and dedication, has been actually just as important as the faculty in making Michigan the remarkable institution it has become. In some ways, it has been even more so, since unlike many faculty members, who view their first responsibilities as to their discipline or perhaps their careers, most staff members are true professionals, deeply committed to the welfare of the university as their highest priority, many dedicating their entire careers to the institution. Most staff members serve the university far longer than the faculty lured away by the marketplace.

Financials

In today's resource constrained environment for most colleges and universities, a more strategic approach to both cost containment and resource generation becomes essential. Bold goals for controlling the costs of their ongoing activities should be set. And new approaches to revenue generation must be explored, albeit with caution in mind. For example, on the revenue side of the ledger, many public universities are increasing enrollments with a strong bias toward out-of-state students paying high tuition levels has greatly increased tuition revenue. But excessive dependence on such students can not only overload instructional

resources but also create political problems.

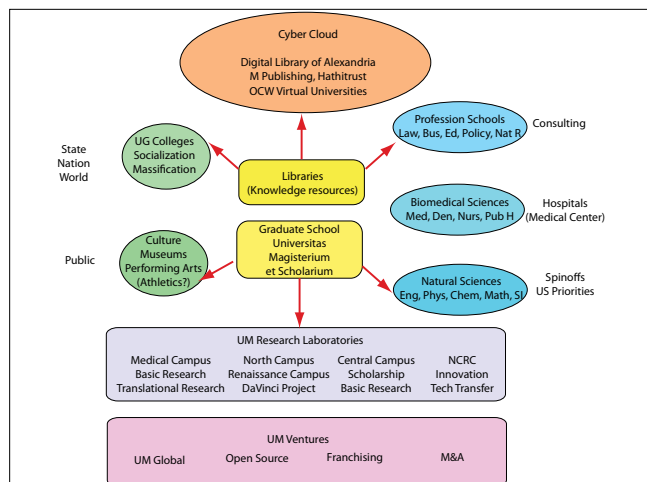
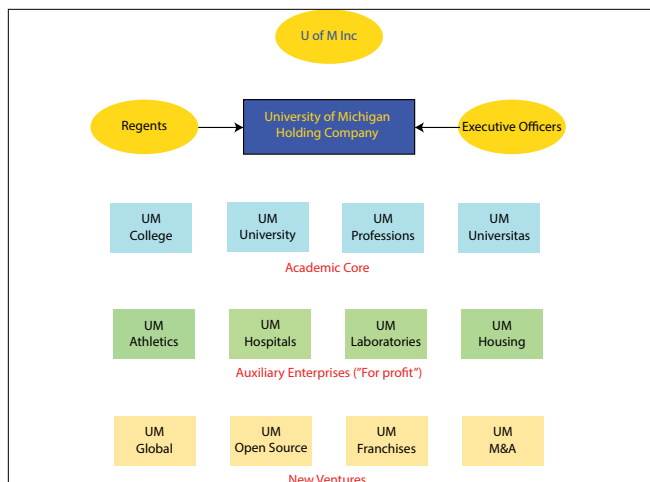
Most public research universities have also been engaged in intense cost-cutting efforts, particularly in non-academic areas such as financial management, procurement, energy conservation, competitive bidding of services, and eliminating unnecessary regulation and duplication. But many have also chosen to limit employee compensation and throttle back staff benefits as a tempting target, although this has put at risk their capacity to attract and retain outstanding faculty and staff.

Furthermore, many universities have chosen to implement actions recommended by consultants and adopted from the corporate world without due regard to the unique character of the university environment, thereby disrupting the academic mission and damaging faculty and staff morale.

It is important that the University of Michigan explore bolder financial models capable of sustaining the quality of the University in a future with little state support. Among the issues and questions that must be considered are:

1. What levels of resources (per student and per faculty member) are needed to sustain the University's quality at world-class levels? State support per student has already declined to a level more characteristic of community colleges than a world-class research university. Private giving and endowment earnings, are growing rapidly, but are still an order of magnitude less on a per student basis than the levels characterizing elite private universities. And other revenue streams such as student fees may be approaching ceilings.

2. In the current business model, the revenue generating activities of the University are undergraduate education for non-state-resident students, some programs of professional education (law, business), clinical care, philanthropy, and investments. Auxiliary activities such as hospitals, housing, and athletics are currently operated as revenue-neutral. Essentially all other activities currently require subsidies including undergraduate education for Michigan students (since the state appropriation is no longer sufficient to cover the tuition discount provided to instate students), graduate education, most professional education, sponsored



Any new organizations and management must respect UM's highly decentralized culture

research (where costs are 30% above external support), arts and culture, and probably intercollegiate athletics (particularly in terms of indirect costs and impact on gift revenues available to academic units).

3. Furthermore, several of the key revenue streams are under serious threat. State support, while already seriously inadequate, is likely to decline still further. The availability of clinical revenues to subsidize academic activities could also decline with the effort to replace the Affordable Care Act; federal research support continues to fall roughly 30% short of covering full costs and may decline still further with federal budget cuts. Private support tends to be highly targeted to donor interests rather than university priorities. Hence one must seriously question the current growth trajectory of the University (e.g., enrollments, research, facilities, and auxiliary activities).

Below we suggest several tactical initiatives as examples of this approach.

Streamlining, Cost Control, Productivity Enhancement: Clearly, in the face of the impact of aging populations and the global financial crisis on state and federal budgets and hence on support for higher education, public research universities must intensify their efforts to increase efficiency and productivity in all of their activities. In particular, they should set bold goals for reducing the costs of their ongoing activities. Many companies have found that cost reductions

and productivity enhancement of 25% or greater are possible with modern business practices such as lean production and total quality management. While universities have many differences from business corporations—for example, cost reductions do not drop to the bottom line of profits—there is likely a very considerable opportunity for process restructuring in both administrative and academic activities.

Of course, in the face of deep cuts in state appropriations, most public research universities have already been engaged in intense cost-cutting efforts, particularly in non-academic areas such as financial management, procurement, energy conservation, competitive bidding of services, and eliminating unnecessary regulation and duplication. They have also reduced benefits costs and held the increase in faculty and staff salaries at the inflation rate (or less), albeit while allowing administrative salaries to soar. In the process institutions have cut hundreds of millions of dollars of recurring costs from their budgets. But it is now time to consider bolder actions that require restructuring of academic activities as well. Some obvious examples include:

Exploring new business model paradigms: For most flagship public universities, and particularly for the University of Michigan at this point in its history, developing a sustainable resource base, that is, a business plan, capable of accommodating further erosion of state support has become critical. Clearly the University will require a radically new business

paradigm to maintain quality with declining state support. While tuition adjustment and internal cost reductions may suffice in the near term, the UM needs to focus on either increasing the top line (revenue) or “right-sizing” the institution to better align it with available resources.

However, in addition to reacting to current challenges and opportunities, it is important to adopt a more strategic perspective by considering new paradigms for financing higher education, e.g., first determining the appropriate mix of public support (i.e., higher education as a “public good”) and private support (higher education as a personal benefit). This should include a full accounting of both direct public support (e.g., appropriations, research grants, and student financial aid) and indirect public subsidy (e.g., “tax expenditures” currently represented by favorable tax treatment of charitable gifts and endowment earnings and distributions). Furthermore, one should consider key policy issues such as: i) the appropriate burdens borne by each generation in the support of higher education as determined, for example, by the mix of grants versus loans in federal financial aid programs (the classic questions of “Who benefits?” and “Who should pay?”), ii) the degree to which public investment should be used to help shape powerful emerging market forces to protect the public purpose of higher education, and iii) new methods for internal resource allocation and management that enhance productivity.

Year-Round Operation: Today, the vision of moving the University to year-round operation, first explored with the trimester term system of the 1960s, should be reconsidered, since the majority of University instructional activity is now supported by student fees rather than state appropriations. The recent massive investments to renovate both academic and student resident facilities with modern HVAC systems not only enable year-round operation, but essentially demand it for efficient use of the University’s capital facilities. By focusing spring-summer enrollments on non-state-resident (and perhaps international) students, and achieving cost-effective instructional staffing through the use of those tenure-track faculty desiring year-long appointments, part-time faculty, and emeritus faculty, a

spring-summer term could yield a very strong revenue stream adequate to support a year-round calendar. It could also provide additional capacity to both diversify our student base while also facilitating experimentation in innovative approaches to learning and discovery.

But there is one more compelling reason to consider this major step: the affordability of higher education. It is likely that efforts would be made to preserve student choice in moving to year-round operation. Some students would likely prefer to pursue their studies within the current four-year curriculum we offer today. But others, recognizing the savings from room and board expenses, might choose to accelerate their students through year-round enrollment, completing their degrees in two-and-one-half years—or even two-years flat with sufficient advanced credits from secondary school. In fact when one realizes that these accelerated programs provide students with up to two additional years in the workplace at baccalaureate degree levels of compensation, the financial benefits of year-round operations to students become a powerful way to address the affordability of a college education.

Develop Flexible Resources (“Venture Capital”): Moving the University forward requires more flexibility to support new initiatives and change. While the responsibility center management system provides some of this capacity, it would also be important to attract or reallocate sufficient “venture capital” to support the array of initiatives associated with University transformation over the next several years. Establishing endowments to support such innovative initiatives might be very attractive to donors in the high-tech fields that have come to depend on such funds.

Break down the Financial Firewalls between Academic and Auxiliary Units: As state support has declined while instate tuition has been constrained by political considerations, the academic core of the University has been faced with serious financial pressures for the past several decades. Yet during this same period the relative inelastic markets characterizing auxiliary activities such as the University hospitals, residence halls, and the Athletics Department have allowed them to increase prices and hence revenues very substantially.

This, together with low interest rates, has ignited a massive capital expansion program. The University should seriously reconsider the constraints imposed by its current fund accounting model to explore ways to redeploy some fraction of the revenue growth of auxiliary units to the support of academic units, at least until a more long-term solution can be found for disappearing state support. Since the success of these auxiliary activities depends heavily on the academic reputation of the University, one could make a strong case for a tax on auxiliary expenditures to benefit its academic core (similar to the reallocation of assets to highest priorities practiced by most other ventures in the private and public sector, including state and federal government.)

A caution about methods used in business enterprises: Such efforts in cost containment should not only consider best practices from peer institutions but also those aspects of corporate management that might be appropriate for the University. However here there is a strong caution to make certain that such initiatives are compatible with and support the ongoing culture and processes that characterize both the academic enterprise and key Michigan characteristics.

A good example here is the implementation of intrusive processes such as “shared services” and “rationalization”, aimed at identifying common activities at the unit level that might be centralized. While this approach may be logical enough for business enterprises, the great diversity and loosely coupled nature of the university makes this an awkward approach that can quickly stifle innovation and creativity at the unit level, causing great damage to academic quality. Wise university leaders quickly learn to tolerate some level of inefficiency and redundancy at the unit level as necessary for the academic enterprise to function appropriately.

Furthermore it is important to avoid any sense of uncertainty among units that might paralyze ongoing activities, while taking advantage of the aggressive “strategic” processes already underway in many of our units.

Facilities

While capital facilities (or bricks and mortar) are necessary and important assets for the teaching, research, and service activities of a university, they also have other characteristics that can pose risks. For example, they sometimes have a monumental character, symbolizing the history and tradition of an institution. Hence they provide an important objective for university leaders, from deans to presidents to trustees, to build something designed by a “big name architect” to symbolize the impact of their leadership. In a similar way, many donors seek an edifice complex, determined to mark the campus with a major facility bearing their name. It is perhaps not surprising that these other objectives sometimes conflict with the actual need for the building or the serious consideration of its construction and long-term operating costs.

Here the recommendation is that the University should think very carefully about the financial burden it is assuming by building an edifice for a donor. It should at least demand a gift in excess of 50% of the actual construction costs in constant dollars. It might even consider seeking an additional endowment to provide further support for the operations of the facility.

Name-brand architects are another problem, since they are interested in making a statement just as a dean or president or governing board is. And the result can be an expensive facility that will haunt further leadership and governance of the institution for years to come. Such commissions should be seriously considered and balanced against the costs of using local architect-engineering services.

Technology

The University of Michigan has been able to respond to rapid technological change in the past—and, indeed, achieved leadership—because it has functioned as a loosely coupled adaptive system with many of our academic units given not only the freedom, but also the encouragement, to experiment and to try new things. We have intentionally avoided the dangers of centralizing these activities.

It is important not to attempt to standardize the campus cyberinfrastructure environment. The



Take care to avoid the “edifice complex” and demand full funding of donor-initiated facilities

university in general—and Michigan in particular—is one of the most intellectual diverse organizations in the world. In fact, its great strength and contribution to society arises from this very unusual diversity in ideas, experiences, and people. Again, this argues for a much more organic plan, essentially a diverse ecosystem that will continue to mutate and evolve in ways that we cannot anticipate. While dependence on commodity services, particularly those provided through the cloud, can be cost-effective, it can also become highly constraining for the creative enterprise characterizing research universities. Overdependence on commodity products can become debilitating to the academic process, particularly to the degree we constrain the cyber environments of academic units through policies such as purchasing and shared services, that can harm the loosely coupled adaptive culture of the university that is one of our greatest strengths.

To be sure, the University requires mission critical computing in key areas. But it is at the level of academic units rather than the enterprise level where innovation and leadership must occur. Why? Because they are driven by learning and discovery, by experimentation, by tolerance for failure, and by extraordinarily talented faculty, students, and particularly, staff. Usually, when attempts are made to centralize computing, it pulls both staff and creativity away from academic units.

While providing strong support of state-of-the-art technology for campus-based activities, the University must keep in mind that much of its activities is conducted by faculty and staff at home. Hence equally important

is the quality of the computing throughout Ann Arbor and the surrounding communities. The University should play a major leadership role in working with city government to achieve such an environment (e.g., fiber networks, network neutrality, etc.)

Leadership

The role of leaders in a major public research university such as Michigan is complicated by its scale and diversity, comparable to that of global corporations or government agencies. Few university leaders are wise or powerful enough to change the culture of their institution, much less its historical saga, since both have evolved over generations of students, faculty, staff, and leaders. Indeed, institutions such as Michigan tend to shape its leadership rather than vice versa, and if leaders fail to adjust to its culture, they are usually repelled or at least sequestered so they can do little harm.

It is important in these days of increasing public concerns about the costs of higher education, that the role of the university president be clearly defined as one of public service rather than corporate leadership and compensated accordingly. Leading an academic institution should be characterized as a duty similar to those of other public leadership roles such as mayors, governors, and, indeed, United States presidents. Such roles should be regarded as a high calling to public service. To allow aggressive search consultants, ambitious candidates, or inexperienced boards to suggest otherwise in determining excessive

compensation puts American higher education at considerable risk from public concern and political intervention. Instead presidential and executive compensation should be closely linked to faculty salaries. (And, of course, the same can be recommended for coaches and athletic directors...)

It is very important to view leadership development as a strategic issue for the University. Every effort should be made to encourage and support such activities, providing opportunities for further leadership experiences for both faculty and staff, albeit with strong evaluation of leadership ability. Interestingly enough, since such leadership usually requires not only time and effort, but also sacrificing one's scholarly activity, such willingness to participate in faculty service activities should be recognized as a sign of possible leadership interest.

Governance

The contemporary university has many activities, many responsibilities, many constituencies, and many overlapping lines of authority, and from this perspective, shared governance models still have much to recommend them: a tradition of public oversight and trusteeship, shared collegial internal governance of academic matters, and, experienced administrative leadership. But it also seems clear that the university of the twenty-first century will require new forms of governance and leadership capable of responding to the changing needs and emerging challenges of our society and its educational institutions. Governing board members should be selected for their expertise and commitment and then held accountable for their performance and the welfare of their institutions. Faculty governance should focus on those issues of most direct concern to academic programs, and faculty members should be held accountable for their decisions. Our institutions must not only develop a tolerance for strong presidential leadership; they should demand it.

To this end, some consideration should be given to developing a strategy for broadening and strengthening the Board of Regents to both enhance its experience and to reflect the reality that the "publics" served by the University are no longer defined by state boundaries (and certainly should not be confined to state taxpayers

who now provide less than 4% of the University's financial support).

The key to effective faculty governance is to provide faculty bodies with true executive powers rather than merely advisory authority, thereby earning the active participation of the university's leading faculty members. Advisory bodies rarely attract the attention or the participation of those faculty most actively engaged in scholarship and teaching. The faculty should become a true participant in the academic decision process rather than simply a watchdog on the administration or defenders of the status quo. Faculty governance should focus on those issues of most direct concern to academic programs, and faculty members should be held accountable for their decisions. Faculties also need to accept and acknowledge that strong leadership, whether from chairs, deans, or presidents, is important if their institution is to flourish, particularly during a time of rapid social change.

Because of the unusual nature of faculty governance at Michigan, vested in both university-wide structures such as the Senate Assembly and school and department level committees, some specific suggestions are appropriate for our University. First it is essential that the voice of the faculty on both academic and institutional matters be strengthened by restoring the executive powers of school and college executive committees. To this end, it is important that newly appointed deans understand both the bylaws and past practices that have granted and recognized the executive powers characterizing these bodies.

Consideration should also be given to strengthening the Senate Assembly and the Senate Advisory Committee on University Affairs, both by providing some degree of executive authority and perhaps a new structure capable of attracting the engagement of the University's most distinguished faculty members into service on these bodies. One possibility would be to move to a bicameral organization comprised of both elected faculty members from general ranks ("the house") and a "senate" of appointed senior faculty with endowed or honorific chairs.

Organization and Management

The strong decentralization of authority and



The importance of building a close relationship between Deans and Regents

accountability throughout the University was radical when introduced in the 1980s and 1990s in response to the decline in state support. However, in retrospect, it is clear that such decentralization aligned well with the increasing complexity and scale of the University that evolved beyond centralized control. It also reinforced the entrepreneurial nature of the faculty, since with resources widely distributed, faculty with good ideas rarely have to accept “no” as an answer but instead can simply turn to another potential source of support.

Hence, the message that today should be provided to all new leadership recruited from outside is that “Michigan exists today and must remain highly decentralized in authority, and its evolution must be driven by the talent, achievements, and goals of faculty, students, and staff at the grass-roots level. Don’t attempt to challenge this. Learn how to live with it!”.

Finally, since most academic leaders (e.g., department chairs, deans, and key executive officers) have modest experience in financial and business practices, whenever possible they should be supported by experienced business managers, perhaps augmented by consulting services, provided by the chief financial officer.

Missions

Education

Today the university is caught between the contradictory forces of responding to more pragmatic

goals of students and employers while providing the liberal education that provides a student with the broader skills important for good citizenship and a meaningful life. Furthermore, in a world of ever-changing needs, one objective of an undergraduate education certainly must be to prepare a student for a lifetime of learning. The old saying that the purpose of a college education is not to prepare a student for their first job but rather their last job still has a ring of truth.

Today’s college graduates will face a future in which perpetual education will become a lifetime necessity since they are likely to change jobs, even careers, many times during their lives. To prepare for such a future, students need to acquire the ability and the desire to continue to learn, to become comfortable with change and diversity, and to appreciate both the values and wisdom of the past while creating and adapting to the new ideas and forms of the future. These objectives are, of course, those that one generally associates with a liberal education.

There is a certain irony here. The contemporary university provides one of the most remarkable learning environments in our society—an extraordinary array of diverse people with diverse ideas supported by an exceptionally rich array of intellectual and cultural resources. Yet we tend to focus most of our efforts to improve undergraduate education on traditional academic programs, on the classroom and the curriculum. In the process, we may have overlooked the most important learning experiences in the university.

There seems little doubt that the undergraduate



The University's primary activities must remain learning and scholarship, e.g., *lux et veritas*

experience needs to be reconsidered from a far broader perspective. Better alignment with the multiple missions of the university—providing undergraduates with education through teaching, research, and service—would seem an appropriate goal for most universities. All too frequently each of the missions of the university is associated with a different component—a liberal education and teaching with the undergraduate program, research with the graduate school, and practical service with professional schools. However, in reality, all components of the university should be involved in all of its missions—particularly undergraduate education.

Research

A decade into the 21st century, a resurgent America must stimulate its economy, address new threats, and position itself in a competitive world transformed by technology, global competitiveness, and geopolitical change. Educated people, the knowledge they produce, and the innovation and entrepreneurial skills they possess, particularly in the fields of science and engineering, have become key to America's future.

Protecting and supporting the nation's research capacity will require a balanced set of commitments by each of the partners—federal government, state governments, research universities, and business and industry—to provide leadership for the nation in a knowledge-intensive world and to develop and implement enlightened policies, efficient operating

practices, and necessary investments.

Over the past two decades, in the face of shifting public priorities and weak economies, states have decimated the support of their public research universities, cutting appropriations per enrolled student by an average of 35 percent, totaling more than \$15 billion each year nationally. As the leader of one prominent private university put it, "The states are methodically dismantling their public universities where the majority of the nation's campus research is conducted and two-thirds of its scientists, engineers, physicians, teachers, and other knowledge professionals are produced."

Hence, the nation must challenge the states to recognize that the devastating cuts and meddlesome regulations imposed on their public research universities is not only harming their own future, but also putting at great risk the nation's prosperity, health, and security. While strongly encouraging the states to begin to restore adequate support of these institutions as the economy improves, they should also be urged to move rapidly to provide their public research universities with sufficient autonomy and agility to navigate an extended period with limited state support.

It is important that the relationship between business and higher education should shift from that of a customer-supplier—of graduates and intellectual property—to a peer-to-peer partnership nature, stressing collaboration in areas of joint interest and requiring joint commitment of resources.

Service

Our institutions need a continually refreshed vision of their role that responds to the ever-changing needs of the society we serve. As we evolve along with broader society, the linkages between us become more varied, complex, and interrelated. Within this context of change, it is clear that public service must continue to be an important responsibility of the American university. Yet it is important to always remember that education and scholarship are the primary functions of a university, its primary contributions to society, and hence the most significant roles of the faculty. When universities become overly distracted by other activities, they not only compromise this core mission but they also erode their priorities within our society.

Communities

University leaders should attempt to develop a strategic approach to creating, building, and sustaining communities that link together their students, faculty, and staff with the broader University and city.

So, how might the University begin to rebuild some of the communities and resources that have disappeared over the past several decades? Put another way, how might they glue back together broken communities?

- First, it is important to counter those practices that tend to compete with academic communities, such as:
- Allowing wealthy donors to distort both the priorities and traditions of the University.
- Stressing once again that the primary role of chairs and deans is not fund-raising but rather academic leadership, and the constituencies they serve are students and faculty, not wealthy donors.
- Seeking a better balance between external and internal appointments for key leadership positions (e.g., chairs, deans, executive officers, and president), perhaps by countering the external bias of search consultants.
- It is also critical to recommit the University to both the maintenance and community use of key facilities such as the President's House, the Michigan Union, and the Michigan League.

- The importance of long-standing organizations such as the Faculty Women's Club and the Economics Dinner Group should be both recognized and supported through University policies and resources.
- Finally new communities should be considered. For example, there is a need for new faculty clubs for senior faculty similar to those longstanding historical groups such as the Scientific Club and the Azazels. The possibility of clubs for faculty couples should be considered, perhaps modeled after several of the Interest Sections of the Faculty Women's Club.
- Strong consideration should be given about the possibility of a faculty club for emeritus faculty members. Since faculty retirement is increasingly accompanied by a strong desire to retain some level of intellectual, cultural, and social interaction with the University community, Michigan should join many other institutions in providing resources to support this continued engagement. Without such communities, the University may soon lose the interest and loyalty of its people.

Politics

Many of the most powerful forces driving change in higher education come from the marketplace, driven by new societal needs, the limited availability of resources, rapidly evolving technologies, the emergence of new competitors such as for-profit ventures, and, unfortunately, hostile political paradigms such as "alt-truth". Clearly, in such a rapidly changing environment, agility and adaptability become important attributes of successful institutions.

The University of Michigan needs to develop and then provide strong leadership for a full-court press effort aimed at public education that will likely take years to have the desired effect. While the president of the University will play the key role as public spokesperson for this effort, it is important to leverage leadership with a carefully designed and highly strategic communications effort. Put most simply, the University's communications operation must become much more of the type of an externally

focused marketing effort one would find in a political campaign, complete with sophisticated polling, market segmentation, and a highly strategic media plan. Our state relations operation should operate more like a development campaign, identifying and cultivating key alumni in each legislative district focused on political influence—akin to the NRA. The similarity to a development campaign suggests that our own development staff might be a member of this team.

Public Purpose

We must always keep in mind that the University of Michigan is a public university, created as the first such institution in a young nation, evolving in size, breadth, and quality, but always committed to a truly public purpose of “providing an uncommon education for the common man”. Today there is an even more urgent reason why the University must once again elevate diversity to a higher priority if it is to serve the rapidly changing demographics of America.

Here one should view the increasing diversity of the American population with respect to culture, race, ethnicity, and nationality as both one of our greatest strengths and most serious challenges as a nation. Indeed, if we do not create a nation that mobilizes the talents of all of our citizens, we are destined for a diminished role in the global community and increased social turbulence. Higher education plays an important role both in identifying and developing this talent. And the University of Michigan faces once again a major challenge in reclaiming its leadership in building a diverse campus.

The most immediate challenge is to restore a significant need-based financial aid program at the state level capable of augmenting the modest Pell Grants received by low income students. Next, there needs to be serious effort to better define the mission of the state’s community colleges in preparing students for further university education and developing appropriate articulation agreements to support this transition. Finally, it is absolutely essential to the future of the State of Michigan and the welfare of its people that it begin to restore adequate support for higher education. Michigan’s ranking in the bottom 10% in its ranking of state support for higher education is not

only embarrassing but also indicative of why the state’s economic performance today and in the future is likely to lag behind the rest of the nation without reinvestment in education.

Restoring the University’s diversity will require not only a serious restructuring of Michigan’s financial strategies, but even more important, a renewed commitment to the fundamental public purpose that has guided the University for almost two centuries. While the University of Michigan’s concerted effort to generate support from other patrons, particularly through private giving and sponsored research, it simply must realize that these will never be sufficient to support a world-class public university of this size, breadth, or impact. Without substantial public support, it is unrealistic to expect that public universities can fulfill their public purpose.

Hence the highest priority should be to re-engage with the people of Michigan to convince them of the importance of investing in public higher education and unleashing the constraints that prevent higher education from serving all of the people of this state. This must become a high priority of not only the leadership of the University, but also its Regents, faculty, students, staff, alumni, and those Michigan citizens who depend so heavily on the services provided by one of the great universities of the world. In fact

Concluding Remarks

The capacity for intellectual change and renewal has become increasingly important to us as individuals and to our institutions. Our challenge, as an institution, and as a community committed to *veritas et lux*, i.e., truth and enlightenment, is to work together to provide an environment in which such change is regarded, not as threatening but rather as an exhilarating opportunity to conduct teaching and scholarship of even higher quality and impact on our society.

To succeed, we strive for a more flexible culture, one more accepting of occasional failure as the unavoidable corollary to any ambitious effort. We must learn to adapt quickly while retaining the values and goals that give us a sense of mission and community. Many view the current rigid and hierarchical structure of the university as obsolete. To advance, we must discover

ways to draw upon the unique and vibrant creativity of every member of our community.

It is often scary and difficult to let go of old and comfortable roles, to open ourselves to new possibilities and ways of being. Yet change brings with it the possibility of deeper connections to our students and the potential for serving a much broader range of our society. Growth, both for an institution and for the individuals that comprise it, can come only with a step into the unknown.

Our challenge is to tap the great source of creativity and energy of outstanding faculty, students, and staff, working at the grassroots level of the academic enterprise of the University in a way that preserves our fundamental mission and values.

Duderstadt Book References

James J. Duderstadt, *The View from the Helm: Leading the JAmerican University During an Era of Change* (University of Michigan Press: Ann Arbor, 2007)

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. and Anne M. Duderstadt, *Charting the Course of the University of Michigan's Activities over the Past 50 Years* (Ann Arbor, MI: Millennium Project, 2016)

James J. Duderstadt, *The Michigan Strategy Book: 1986 – 1996* (Ann Arbor, MI: Millennium Project, University of Michigan, 2000)

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. Duderstadt, *Adventures in Higher Education Policy* (Ann Arbor, MI: Millennium Project, 2017)

James Duderstadt, *Case Studies in Strategic Roadmapping for University Planning* (Ann Arbor, MI: Millennium Project, 2017)

Chapter 15: Summary

1. *Scale and Growth*: It is critical that the University develop a more strategic approach to growth. One of the problems with a loosely coupled adaptive ecosystem is how to control growth, e.g., to prevent explosive growth in some components at the expense of others or even the entire organism. A key is communication among components and across the institution. When such communication is artificially limited or distorted (whether intentional or not), instabilities can set in. Hence it is important to use a multiplicity of networks both to monitor growth and subject it to assessments of its relationship to University priorities such as quality, financial sustainability, and impact. Bigger is not always better!

2. *Quality*: The University's unusual combination of quality, breadth, scale, and spirit not only allow it, but actually *compel* it to provide leadership for higher education through risk taking, path finding, and trail blazing. To this leadership character, one must add the importance of recognizing that the true source of Michigan's excellence and leadership rests with the quality, spirit, and innovation of its people—its faculty, students, and staff—and decidedly not with its administrative leadership or governance. It thrives as a loosely coupled, adaptive organization, drawing its strength, innovation, and vision from the grass roots, from the faculty, students, and staff who embrace deep commitments to academic priorities.

3. *Students*: It is important to emphasize here the concern about the low enrollments of students from low-income backgrounds. Much of Michigan's impact in the past came from students from working class families from the state's farms and factories who saw attending the University as a great opportunity to do something important with their lives, provided they worked hard enough. To serve more of these students, once the backbone of its student body, the University must restructure its admissions policies, financial aid, and outreach.

4. *Faculty*: While the overall strength of the faculty in departments and schools is of great importance to the

University, determining the strength of its teaching and research, the visibility of the institution is frequently determined by truly exceptional individuals. The University should think more strategically about how to provide a supportive environment for their unusual brilliance. Greater attention needs to be given to the role of emeritus faculty who not only have provided the University with its reputation, but still have many talents and commitment to contribute.

5. *Financials*: In today's resource-constrained environment for most colleges and universities, a more strategic approach to both cost containment and resource generation becomes essential. Bold goals for reducing the costs of their ongoing activities. should be set. And new approaches to revenue generation must be explored, albeit with caution in mind. Among the initiatives that should be explored are:

Streamlining, Cost Control, Productivity Enhancement: Clearly, in the face of the impact of aging populations and the global financial crisis on state and federal budgets and hence on support for higher education, public research universities must intensify their efforts to increase efficiency and productivity in all of their activities.

Exploring new business model paradigms: For most flagship public universities, and particularly for the University at this point in its history, developing a sustainable resource base, that is, a business plan, capable of accommodating further erosion of state support has become critical.

Year-Round Operation: Today, the vision of moving the University to year-round operation, first explored with the trimester term system of the 1960s, should be reconsidered, since the majority of University instructional activity is now supported by student fees rather than state appropriations.

Develop Flexible Resources ("Venture Capital"): Moving the University forward requires more flexibility to support new initiatives and change.

Break down the Financial Firewalls between Academic and Auxiliary Units: As state support has declined while in-state tuition has been constrained by political considerations, the academic core of the University has been faced with serious financial pressures for the past several decades. Yet during this same period the relative

inelastic markets characterizing auxiliary activities such as the University hospitals, residence halls, and the Athletics Department have allowed them to increase prices and hence revenues very substantially. Since the success of these auxiliary activities depends heavily on the academic reputation of the University, one could make a strong case for a tax on auxiliary expenditures to benefit its academic core.

A caution about methods used in business enterprises: Such efforts in cost containment should not only consider best practices from peer institutions but also those aspects of corporate management that might be appropriate for the University. However here there is a strong caution to make certain that such initiatives are compatible with and support the ongoing culture and processes that characterize both the academic enterprise and key Michigan characteristics.

6. *Facilities:* While capital facilities (or bricks and mortar) are necessary and important assets for the teaching, research, and service activities of a university, they also have other characteristics that can pose risks. The University should think very carefully about the financial burden of inadequately funded “edifice complex” for donors or “brand-name architect” designed facilities.

7. *Technology:* It is important not to attempt to standardize the campus cyberinfrastructure environment. The University’s great strength and contribution to society from this technology arises from this very unusual diversity in ideas, experiences, and people. Again, this argues for a much more organic plan, essentially a diverse ecosystem that will continue to mutate and evolve in ways that we cannot anticipate.

8. *Leadership:* It is important in these days of increasing public concerns about the costs of higher education, that the role of the university president be clearly defined as one of public service rather than corporate leadership and compensated accordingly by linking it to faculty salaries.

9. *Governance:* Governing board members should be selected for their expertise and commitment and then held accountable for their performance and the

welfare of their institutions. Faculty governance should be strengthened with executive authority in key areas of most direct concern to academic programs, and faculty members should be held accountable for their decisions.

10. *Organization and Management:* The strong decentralization of authority and accountability throughout the University was radical when introduced in the 1980s and 1990s in response to the decline in state support. However, in retrospect, it is clear that such decentralization aligned well with the increasing complexity and scale of the University that evolved beyond centralized control. Hence, the message that today should be provided to all new leadership recruited from outside is that “Michigan exists today and must remain highly decentralized in authority, and its evolution must be driven by the talent, achievements, and goals of faculty, students, and staff at the grass-roots level. Don’t attempt to challenge this. Learn how to live with it!”.

11. *Education:* All too frequently each of the missions of the university is associated with a different component—a liberal education and teaching with the undergraduate program, research with the graduate school, and practical service with professional schools. However, in reality, all components of the university should be involved in all of its missions.

12. *Research:* Protecting and supporting the nation’s research capacity will require a balanced set of commitments by each of the partners—federal government, state governments, research universities, and business and industry—to provide leadership for the nation in a knowledge-intensive world and to develop and implement enlightened policies, efficient operating practices, and necessary investments.

13. *Service:* it is clear that public service must continue to be an important responsibility of the American university. Yet it is important to always remember that education and scholarship are the primary functions of a university, its primary contributions to society, and hence the most significant roles of the faculty.

14. *Communities*: University leaders should attempt to develop a strategic approach to creating, building, and sustaining communities that link together their students, faculty, and staff with the broader University and city.

15. *Public Purpose*: We must always keep in mind that the University of Michigan is a public university, created as the first such institution in a young nation, evolving in size, breadth, and quality, but always committed to a truly public purpose of “providing an uncommon education for the common man”. Today there is an even more urgent reason why the University must once again elevate diversity to a higher priority if it is to serve the rapidly changing demographics of America.

The most immediate challenge is to restore a significant need-based financial aid program at the state level capable of augmenting the modest Pell Grants received by low income students to enable them to attend college.

Restoring the University’s diversity will require not only a serious restructuring of Michigan’s financial strategies, but even more important, a renewed commitment to the fundamental public purpose that has guided the University for almost two centuries.

16. *Accountability*: The highest priority should be to re-engage with the people of Michigan to convince them of the importance of investing in public higher education and unleashing the constraints that prevent higher education from serving all of the people of this state. This must become a primary responsibility of not only the leadership of the University, but its Regents, faculty, students, staff, alumni, and those Michigan citizens who depend so heavily on the services provided by one of the great universities of the world.

Chapter 16

The University of Michigan: Circa 2030

It is hard for those of us who have spent much of our lives as academics to look at the university, with its traditions and obvious social value, and accept the possibility that it soon might change in dramatic ways. Although the university has existed as a social institution for almost a millennium, with each historical epoch it has been transformed in very profound ways.

The scholasticism of early medieval universities, first appearing in Bologna and Paris, slowly gave way to the humanism of the Renaissance. The graduate universities appearing in early 19th century Germany (von Humboldt's University of Berlin) were animated by the freedom of the Enlightenment and the rigor of the scientific method. The Industrial Revolution in 19th America stimulated the commitment to education of the working class and the public engagement of the land-grant universities. The impact of campus research on national security during WWII and the ensuing Cold War created the paradigm of the contemporary research university during the late 20th century.

Although the impact of these changes have been assimilated and now seem natural, at the time they involved a profound reassessment of the mission and structure of the university as an institution. But the pace of change in our world is accelerating, with the impact of rapidly evolving technology, changing demographics, and the impact of humankind on our planet. These will pose great challenges to our universities in the next few decades.

Challenges of Today

Developing a vision for the future of the University of Michigan is a challenging exercise, both because of the unusual size, breadth, and complexity of the institution and because of the important leadership

role it is expected to play as a pathfinder in American higher education. Today we are challenged to adapt the university to a post-industrial, knowledge-based society as our economies are steadily shifting from material- and labor-intensive products and processes to knowledge-intensive products and services. In this knowledge economy, the key assets driving prosperity are intellectual capital, hence education has become a powerful political force, both nationally and on a global scale. The key technologies enabling the global knowledge economy, e.g., information technology, biotechnology, and nanotechnology, all evolve at an exponential pace, and are also reshaping the learning and scholarship on our campuses.

Our universities are also challenged by the rapidly changing nature of our population as our current population ages, similar to other developed nations in Europe and Asia. Yet here the United States stands apart because of a second and equally profound demographic trend: immigration. As it has been so many times in its past, America is once again becoming a highly diverse nation of immigrants, benefiting immensely from their energy, talents, and hope. Yet, while of great value, this increasing diversity of our population is complicated by social and political factors such as prejudice and segregation.

Added to these broad changes in our world and nation are specific challenges currently faced by American higher education. Today much of the earlier commitment of public funds that built our great research universities in the 20th century has eroded. Over the past decade, state support of our public universities has dropped by roughly 35%. After a brief surge in federal support of research during the late 1990s, both federal and corporate support of basic and applied research have fallen significantly in recent years, while



The University of Michigan, Circa 2017

fields such as the social sciences have been savaged by conservative political forces. And perhaps most telling of all, the inequities characterizing educational opportunity have become extraordinary. Today most of those responsible for public policy at both the federal level and among the states have ignored the public good character of higher education. Instead, and in sharp contrast to most of the rest of the world, most Americans view a college education primarily as a private benefit for individuals aimed at providing them with good jobs that should be paid for through student fees, and increasingly funded through personal debt, rather than through public investment.

This situation has become significantly more serious recently with the American political situation, as a wave of populism threatens to overwhelm the traditionally strong public support (in spirit if not in funding) of higher education and research. Social media has driven a new phenomenon of “alt-truth” that not only has distorted both the political environment but also the most fundamental roles of the university, establishing truth and conveying it through learning, i.e., *veritas et lux*...truth and enlightenment!

While most nations are facing—or at least coping with—the ongoing challenges of massification, academic competition, and limited public resources, culture, tradition, and local politics shape their particular approach. Because of our origin as a federation of independent colonies (and then states), the United States continues to rely on a highly decentralized market-driven approach to higher education, with little strategic direction from the federal government. In fact, with the recent change in our federal government in 2017, education has not only dropped low on the list of national priorities, but it has come under attack because of its efforts to sustain the important academic values such as truth, evidence, and the scientific method that undergird its learning and scholarship.

The World of 2030

Demographics

Demographers now project that global population will continue to increase for several more decades, rising to 8.5 billion in 2030, then 9.7 billion in 2050,

and 11 billion in 2100. Most growth will be in Africa, however, which will double its population, rather than in developed nations in Europe, Asia, and North America where aging populations and depressed fertility rates are likely to lead to declining populations (with the notable exception of the United States with its unusually high immigration rate).

In sharp contrast, developing nations in Asia, Africa, and Latin America are characterized by young and growing populations in which the average age is less than 20. Here the demand for education is staggering since in a knowledge economy, it is clear to all that this is the key to one's future security. Unless developed nations step forward and help address this crisis, billions of people in coming generations will be denied the education so necessary to compete in, and survive in, the knowledge economy. The resulting despair and hopelessness among the young will feed the terrorism that so threatens our world today.

But there is another important demographic trend: the lengthening of human lifespan driven by the progress of biomedical science, particularly in developed economies. Those in today's Millennial generation (those born between 1980 and 1995) have an expected lifespan into their 90s, while today's young children have a 50% chance to live to 100 or longer. While certainly encouraging, the downside is the fact that even prosperous societies will simply be unable to afford supporting decades of retirement beyond the age of 70. With longer lives come more years of work. Yet it is also clear that an education received in their youth will likely not be sufficient to sustain their employment 50 years later. Hence lifelong education and continually retraining will become essential, and this will pose new challenges to higher education.

Technology

The technologies of today, computers, big data, artificial intelligence, clouds, and soon quantum computing have the disruptive feature that they continue to grow in power at exponential rates, increasing 100 to 1,000 fold a decade. Indeed, we even have to invent new adjectives to characterize them by powers of 10 (e.g., giga (9), terra (12), peta (15), exa (18), yotta (24), bronta (27)). This growth not

only accelerates conventional economic activity, but it creates entirely new ventures such as social media, virtual and augmented reality, intelligent agents (Siri and Alexa), and sophisticated data management and access. Furthermore as the technology continues to evolve, so too do the ambitions of those organizations that exploit it such as Google (to make available all the world's knowledge to all people—or to build the largest AI in the world, depending on whom you ask), Facebook (to connect all the people of the world), and Amazon (an everything, everywhere store).

While such technologies have had great positive impact on our lives, they also threaten our current activities. For example, increasing power of AI clouds, the Internet of Things, and other automation technologies are transforming our economy (what Schwab calls the Fourth Industrial Revolution), eliminating more routine jobs in fields such as construction, manufacturing, and services. More generally there is a strong concentration of wealth driven by the new technologies. The return on capital and technology is greater than for labor, leading to not only jobless economic growth but also increasing income disparities. In fact, some suggest that in a future that may have only 20% of today's jobs (here the lost of agricultural jobs with mechanization in the late 19th Century should be kept in mind), questions such as how do we create meaningful lives in a world with rapidly increasing machine intelligence. With our current education system, most citizens will not have the skills for the new jobs. Of course, we might argue that there will always likely to be some jobs that can be performed better by humans than AI systems, particularly those involving empathy or social interaction. In fact, one might suggest that such "human traits" should be given a much higher priority in learning organizations such as universities.

Today, a rapidly changing world demands a new level of knowledge, skills, and abilities on the part of our citizens. Just as in earlier critical moments in history when our prosperity and security was achieved through broadening and enhancing educational opportunity, it is time once again to seek a bold expansion of educational opportunity. But this time we should set as our goal that of providing all citizens with universal access to lifelong learning opportunities, thereby enabling participation in a world both illuminated and driven

by knowledge and learning.

Creativity, Communication, and Convergence

The professions that have dominated the late 20th Century—and to some degree, the contemporary university—have been those which manipulate and rearrange knowledge and wealth rather than create it, professions such as law, business, accounting, and politics. Yet, it is becoming increasingly clear that the driving intellectual activity of the 21st Century will be the act of creation itself.

We now have the capacity to create new objects literally atom by atom. With new methods in molecular biology such as CRISPR/cas9 and gene drive, we can not only precisely modify the DNA code for a living organism, but we can actually cause it to propagate through a species to change future generations (a frightening thought when human gene editing is considered). The dramatic pace of evolution of information technology shows no sign of slowing, continuing to advance in power from 100 to 1000 fold a decade, enabling not only new forms of analysis such as augmenting the traditional tools of experiment and theory with the sophisticated tools of data analysis (big data). Indeed, the tools of artificial intelligence not only are rapidly progressing, but they have stimulated fears of eventual sentient behavior of machines.

Already we are seeing the spontaneous emergence of new forms of creative activities, e.g., the “maker” fairs providing opportunities to showcase forms of artistic, recreational, and commercial activity; the use of “additive manufacturing” to build new products and processes atomic layer by atomic layer; and the growing use of the “app” culture to empower an immense marketplace of small software development companies. In fact, some suggest that our civilization may experience a renaissance-like awakening of creative activities in the 21st century similar to that occurring in 16th century Europe.

The determining characteristic of the university of the 21st Century may be a shift in intellectual focus, from the preservation or transmission of knowledge, to the process of creativity itself. If so, then the vision for the university of 2030 should stress characteristics such as creativity, innovation, ingenuity and invention,



Most policy issues are shaped by their global character.

and entrepreneurial zeal. But here lies a great challenge. While universities are experienced in teaching the skills of analysis, we have far less understanding of the intellectual activities associated with creativity. In fact, the current disciplinary culture of our campuses sometimes discriminates against those who are truly creative and do not fit well into our stereotypes of students and faculty.

Yet another feature of our information rich society is our capacity for communication. The internet and related technologies such as smartphones and cloud computing make it cheap and easy not only to communicate but also to collect, store, and analyze immense quantities of information. But while facilitating communication and communities, such technology also has its downside. Always on, always used communication consumes the attention of individuals. Indeed, this attention is the valuable commodity needed by advertisers that actually funds these communications networks.

Finally, the very structure of knowledge is continuing to shift as fields such as biology, physics, mathematics, and the social sciences are converging. Today physics and engineers have as much impact on the evolution of biological science as biologists do on chemistry and computer technology (e.g., the deep learning algorithms derived from neural networks). The emergence of convergence (or consilience, as E.O.



Summit supercomputer (Oak Ridge)

Wilson would term it) is challenging the disciplinary fragmentation of the University into departments, schools, and colleges.

Any vision proposed for the University's third century must consider the extraordinary changes and uncertainties of a future driven by exponentially evolving information and communications technology. The extraordinary connectivity provided by the Internet already links together the majority of the world's population. To this, one can add the emerging capacity to capture and distribute the accumulated knowledge of our civilization in digital form and provide opportunities for learning through new paradigms such as MOOCs and AI cognitive tutors. This suggests the possible emergence of a new global society no longer constrained by space, time, monopoly, or archaic laws and instead even more dependent upon the generation of new knowledge and the education of world citizens. In such an era of rapid change, it has become the responsibility of democratic societies to provide their citizens with the learning opportunities they need throughout their lives, at costs they can afford, as a right rather than a privilege.

Social and Political Change

Even as our world becomes increasingly dependent upon knowledge, the very technology that is key to creating, archiving, and making available knowledge is ironically being used to attack and undermine it. In the Trump era, social media not only has become a powerful tool of American politics, but it provides the capacity to distort knowledge and truth, the "alt-truth"

phenomenon that allow a tidal wave of anger built on the social media Twitter to not only win a presidential election but to build a powerful, almost mythological force capable of challenging the evidence-based truth critical to a democracy. While counterforces such as Wikipedia and digital libraries were thought of as power technologies capable of distributing facts and truth, the worry today is that the alt-truth deluge from social media may in fact be eroding American democracy.

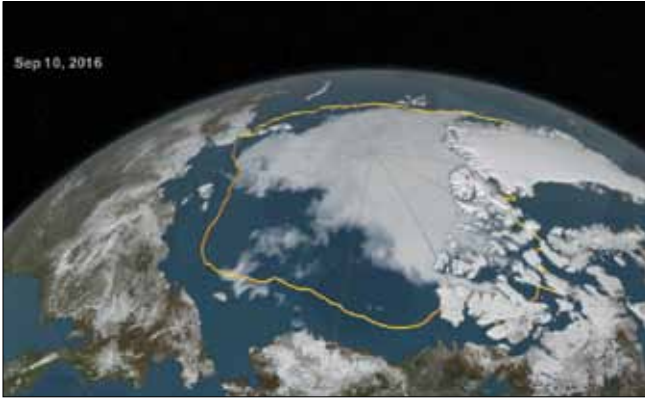
Xenophobic and racist energy creates a hostile electorate that is not only unwilling to accept truth established by evidence, but has largely abandoned the scientific method (with only 25% of Americans now expressing confidence in scientific discovery). The impacts of such attacks on "truth and light" are rapidly threatening our nation.

Both parents and young people are beginning to question the value of higher education. Indeed, one wealthy billionaire is even trying to bribe students not to go to college.

Policy makers, proposed to serve their "populist" constituency, are erecting barriers to higher education based on race and class. Nearly two decades into our new century, there are unmistakable signs that America's fabled social mobility is in trouble—perhaps even in serious trouble. "We are faced with a challenge to liberalism by populists who are challenging the ideas of freedom, equality, human rights, representative democracy and globalization...and most fascism starts with populism... with our current post-truth age in which expertise on matters of climate change is rubbished and institutions are deemed untrustworthy."(Gitlin, 2017)

Broader Challenges

Over the longer term there is compelling evidence that the growing population and invasive activities of humankind are now altering the fragile balance of our planet. The concerns are multiplying in number and intensifying in severity: the destruction of forests, wetlands and other natural habitats by human activities, the extinction of millions of species and the loss of biodiversity; the buildup of greenhouse gases and their impact on global climates; the pollution of our air, water and land. We must find new ways to provide



Disappearance of Arctic summer ice

for a human society that presently has outstripped the limits of global sustainability.

Of comparable concern are the widening gaps in prosperity, health and quality of life characterizing developed, developing and underdeveloped regions. To be sure, there are some signs of optimism: a slowing population growth that may stabilize during the 21st century, technological advances such as the “green revolution” that have fed much of the world, and the rapid growth of developing economies in Asia and Latin America. Yet it is estimated that one-sixth of the world’s population still live in extreme poverty, suffering from diseases such as malaria, tuberculosis, AIDS, diarrhea and others that prey on bodies weakened by chronic hunger, claiming more than 20,000 lives daily. These global needs can only be addressed by the commitment of developed nations and the implementation of technology to alleviate poverty and disease.

There are other possibilities that might be considered for the longer-term future. Balancing population growth in some parts of the world might be new pandemics, such as AIDS or an avian flu virus, that appear out of nowhere to ravage our species. The growing divide between rich and poor, the developed nations and the third world, the North and South hemispheres, could drive even more serious social unrest and terrorism, perhaps armed with even more terrifying weapons.

Technology could present new challenges that seem almost taken from the pages of science fiction. Clearly if digital technology continues to evolve at its current pace for the next decade, creating machines a thousand, a million, a billion times more powerful than those which are so dominating our world today, then phenomena



Or perhaps we will encounter a technological singularity such as artificial intelligence

such as the emergence of machine consciousness and intelligence become very real possibilities during this century. In fact some even suggest that we could encounter a “technological singularity,” a point at which technology begins to accelerate so rapidly (for example, as intelligent machines develop even more intelligent machines) that we lose not only the ability to control but even to predict the future.

Clearly phenomena such as machine consciousness, contact by extraterrestrial intelligence, or cosmic extinction from a wandering asteroid are possibilities for our civilization, but just as clearly they should neither dominate our attention nor our near-term actions. We can’t predict these things...but we can make sure that our descendants are equipped with the education and skills to handle them!

So, How Does One Lead Michigan to 2030?

As many leaders in higher education have come to realize, our changing environment requires a far more strategic approach to the evolution of our institutions at all levels. It is critical for higher education to give thoughtful attention to the design of institutional processes for planning, management, and governance. Key is the recognition that in a rapidly changing environment, it is important to develop a planning process that is not only capable of adapting to changing conditions, but to some degree capable of modifying the environment in which the university will find itself in the decades ahead. We must seek a progressive, flexible, and adaptive process, capable of responding to a dynamic environment and an uncertain—indeed,

unknowable—future.

There are always opportunities to control constraints—and the future—if one takes a proactive approach. Universities are rarely playing in a zero-sum game. Instead, they may have the opportunity to increase (or decrease) resources with appropriate (or inappropriate) strategies. The university is never a closed system. Put in more engineering terms, any complex system can be designed in such a way as to be less sensitive to initial and/or boundary conditions. A successful strategic planning process is highly iterative in nature. While the vision remains fixed, the goals, objectives, actions, and tactics evolve with progress and experience. During a period of rapid, unpredictable change, the specific plan chosen at a given instant is of far less importance than the planning process itself. Put another way, one seeks an “adaptive” planning process appropriate for a rapidly changing environment and a loosely coupled adaptive system such as a university.

In an institution characterized by the size and complexity of the contemporary research university, it is usually not appropriate (or possible) to manage centrally many processes or activities. One can, however, establish institutional priorities and goals and institute a process that encourages local management toward these objectives.

Institutions all too frequently chose a timid course of incremental, reactive change because they view a more strategically-driven transformation process as too risky. They are worried about making a mistake, about heading in the wrong direction or failing. While they are aware that this incremental approach can occasionally miss an opportunity, many mature organizations such as universities would prefer the risk of missed opportunity to the danger of heading into the unknown.

But, today, incremental change based on traditional, well-understood paradigms may be the most dangerous course of all, because those paradigms may simply not be adequate to adapt to a future of change. If the status quo is no longer an option, if the existing paradigms are no longer viable, then transformation becomes the wisest course.

Our challenge is to tap the great source of creativity and energy of outstanding faculty, students, and staff, working at the grassroots level of the academic

enterprise of the University in a way that preserves our fundamental mission and values. We need to continue to encourage our tradition of natural evolution, which has been so successful in responding to a changing world, but do so with greater strategic intent. We must also develop a greater capacity to redirect our resources toward our highest priorities. Rather than allowing the university to continue to evolve as an unconstrained, transactional, entrepreneurial culture, we need to guide this process in such a way as to preserve core missions, characteristics, and values.

Perhaps because of its early founding as an “Enlightenment” institution or the almost total autonomy it was given when founded by the state’s first constitution (quite unique among American universities), the University of Michigan is structured as a biological ecosystem, evolving as a loosely coupled adaptive system in response to external challenges and opportunities much like a tropical rain forest. While leadership is important to identify areas of opportunity and to direct resources to those parts of the University capable of responding, the initiatives, energy, and excellence of the institution always comes from the grass roots, from the abilities and commitment of its students, faculty, and staff and the integrity of its academic programs.

The University of Michigan, Circa 2030...and Beyond

So what might we anticipate over the longer term as possible future forms of an institution such as the University of Michigan? The monastic character of the ivory tower is certainly lost forever. Although there are many important features of the campus environment that suggest that most universities will continue to exist as a place, at least for the near term, as digital technology makes it increasingly possible to emulate human interaction in all the senses with arbitrarily high fidelity, perhaps we should not bind teaching and scholarship too tightly to buildings and grounds. Certainly, both learning and scholarship will continue to depend heavily upon the existence of communities, since they are, after all, high social enterprises. Yet as these communities are increasingly global in extent, detached from the constraints of space and time, we

should not assume that the scholarly communities of our times would necessarily dictate the future of our universities. For the longer term, who can predict the impact of exponentiating technologies on social institutions such as universities, corporations, or governments, as they continue to multiply in power a thousand-, a million-, and a billion-fold?

But there is a possibility even beyond these. Imagine what might be possible if all of these elements are merged, i.e., Internet-based access to all recorded (and then digitized) human knowledge augmented by powerful search engines and AI-based software agents; open source software, open learning resources, and open learning institutions (open universities); new collaboratively developed tools (Wikipedia II, Web 2.0); and ubiquitous information and communications technology. In the near future it could be possible that anyone with even a modest Internet or cellular phone connection will have access to the recorded knowledge of our civilization along with ubiquitous learning opportunities and access to network-based communities throughout the world (perhaps even through immersive environments through virtual or augmented reality).

Imagine still further the linking together of billions of people with limitless access to knowledge and learning tools enabled by a rapidly evolving scaffolding of cyberinfrastructure, which increases in power one-hundred to one thousand-fold every decade. This hive-like culture will not only challenge existing social institutions—corporations, universities, nation states, that have depended upon the constraints of space, time, laws, and monopoly. But it will enable the spontaneous emergence of new social structures as yet unimagined—just think of the early denizens of the Internet such as Google, Facebook, Amazon... In fact, we may be on the threshold of the emergence of a new form of civilization, as billions of world citizens interact together, unconstrained by today's monopolies on knowledge or learning opportunities.

Perhaps this, then, is the most exciting vision for the future of knowledge and learning organizations such as the university, no longer constrained by space, time, monopoly, or archaic laws, but rather responsive to the needs of a global, knowledge society and unleashed by technology to empower and serve all of humankind.



The emergence of a new civilization based on global learning institutions

And all of this is likely to happen during the lives of today's students. These possibilities must inform and shape the manner in which we view, support, and lead higher education. Now is not the time to back into the future.

To quote from the 2010 Glion Declaration:

"For a thousand years the university has benefited our civilization as a learning community where both the young and the experienced could acquire not only knowledge and skills but also the values and discipline of the educated mind. It has defended and propagated our cultural and intellectual heritage, while challenging our norms and beliefs. The university of the twenty-first century may be as different from today's institutions as the research university is from the colonial college. But its form and its continued evolution will be a consequence of transformations necessary to provide its ancient values and contributions to a changing world" (Rhodes, 2010).

Duderstadt Book References

James J. Duderstadt, *A University for the 21st Century...20 Years Later* (Ann Arbor, MI: Millennium Project, 2017)

James J. Duderstadt, *Adventures in Higher Education Policy* (Ann Arbor, MI: Millennium Project, 2017)

James Duderstadt, *Case Studies in Strategic Roadmapping for University Planning* (Ann Arbor, MI: Millennium Project, 2017)

Chapter 16: Summary

1. Developing a vision for the future of the University of Michigan is a challenging exercise, both because of the unusual size, breadth, and complexity of the institution and because of the important leadership role it is expected to play as a pathfinder in American higher education.
2. Today we must adapt the university to a post-industrial, knowledge-based society as our economies are steadily shifting from material- and labor-intensive products and processes to knowledge-intensive products and service dependent upon technologies evolving at an exponential pace. The population we served is becoming increasingly diverse, particularly through immigration. Today much of the earlier commitment of public funds that built our great research universities in the 20th century has eroded as society increasingly regards higher education as a private venture rather than a public good.
3. The university also faces demographic challenges that will compel change. Although immigration will mitigate the impact of an aging population, the longer life expectancy of tomorrow's colleges students will demand lifelong learning opportunities, since they are likely to live and work decades longer than today's adults.
4. The technologies of today, computers, big data, artificial intelligence, clouds, and soon quantum computing, all have the disruptive feature that they continue to grow in power at exponential rates, increasing 100 to 1,000 fold a decade. While such technologies have had great positive impact on our lives, they also threaten our current activities, eliminating more routine jobs in fields such as construction, manufacturing, and services. Today, a rapidly changing world demands a new level of knowledge, skills, and abilities on the part of our citizens. Just as in earlier critical moments in history when our prosperity and security was achieved through broadening and enhancing educational opportunity, it is time once again to seek a bold expansion of educational opportunity. But this time we should set as our goal that of providing all citizens with universal access to lifelong learning opportunities,
5. It is becoming increasingly clear that the driving intellectual activity of the 21st Century will be the act of creation itself, through powerful tools such as additive manufacturing, gene editing, artificial intelligence and virtual and augmented reality. The very structure of knowledge is continuing to shift as fields such as biology, physics, mathematics, and the social sciences are converging. The determining characteristic of the university of the 21st Century may be a shift in intellectual focus, from the preservation or transmission of knowledge, to the process of creativity itself. If so, then the vision for the university of 2030 should stress characteristics such as creativity, innovation, ingenuity and invention, and entrepreneurial zeal.
6. Even as our world becomes increasingly dependent upon knowledge, the very technology that is key to creating, archiving, and making available knowledge is ironically being used to attack and undermine it. Today social media not only has become a powerful tool of American politics, but it provides the capacity to distort knowledge and truth, the "alt-truth" phenomenon.
7. Over the longer term there will be other serious challenges: the impact of humankind on its environment such as extinction of species, global climate change, and perhaps unforeseen events such as pandemics, nuclear warfare, and even the emergence of machine consciousness and intelligence. We cannot predict such events, but we can make sure that our descendants are equipped with the education and skills to handle them.
8. Perhaps because of its early founding as an "Enlightenment" institution and its structure as a loosely coupled adaptive system, the University has unusual capacity not only to respond to such challenges but to provide leadership in addressing them.

References

- Armstrong, Elizabeth and Laura T. Hamilton, *Paying for the Party: How College Maintains Inequality*, Harvard University Press, 2015
- Augustine, Norman R., "Higher Education at a Crossroads?", Lecture at Colorado State University, December 4, 2014
- Atkinson, Richard, Lecture at the University of Michigan, 2008
- Baltimore, David, et. al., "A Prudent Path Forward for Genomic Engineering and Germline Gene Modification", *Science* Vol. 348, April 3, 2015, p. 36
- Benrio, Yoshua, "Machines Who Learn", *Scientific American*, June 2016
- Blumenstyk, Goldie, "What's In and What's Out for Colleges as Trump Takes Office", *Chronicle of Higher Education*, December 21, 2016
- Brooks, David, "The Enlightenment Project", *New York Times*, February 28, 2017
- Carlson, Scott, Scott Carlson, "When College Was a Public Good", *Chronicle of Higher Education*, November 27, 2016
- Clark, Burton R. *The Distinctive College: Antioch, Reed, and Swarthmore*. Chicago: Aldine, 1970.
- Clark, William. *Academic Charisma and the Origins of the Research University*. Chicago: University of Chicago Press, 2006.
- Duderstadt, James J, *A University for the 21st Century* (Ann Arbor, MI: University of Michigan Press, 2000) 342 pp.
- Duderstadt, James and Farris W. Womack, *The Future of the Public University in America: Beyond the Crossroads* (Baltimore: Johns Hopkins University Press, 2002), 236 pp.
- Duderstadt, James J. , *The Third Century: A Roadmap to the University of Michigan's Future* (Ann Arbor, MI: Millennium Project, 2016)
- Duderstadt, James J., *A 50 Year History of Social Diversity at the University of Michigan*, Millennium Project, 2016
- Etchemendy, John, "The Threat From Within: Intellectual intolerance poses an existential danger to the university", *Chronicle of Higher Education*, March 03, 2017
- Garcia, 1997
- Germano, William. "What Are Books Good For?" *The Key Reporter*. New York, NY:Phi Beta Kappa Society, Winter, 2010.
- Gitlin, Todd, "Promoting Knowledge in an Age of Unreason", *Chronicle of Higher Education*, March 09, 2017
- Gratton, Lynda and Andrew Scott, *The 100-Year Life: Living and Working in an Age of Longevity*, Bloomsbury, London, 2016
- Harper's Weekly, 1887
- Holliday, Chad (chair). *Research Universities and the Future of America: Ten Breakthrough Actions Vital to Our Nation's Prosperity and Security*. National Academies Committee on Research Universities. Washington, D.C.: National Academy Press, 2012.
- Kelly, Kevin, *The Inevitable: Understanding the 12 Technological Forces That Will Shape Our Future*, Penguin Publishing Group, 2016
- Kerr, Clark. *The Uses of the University*. Cambridge: Harvard University Press, 1963.
- Lane, Neal, et. al. *Restoring the Foundation: The Vital Role of Research in Preserving the American Dream*. Cambridge, MA: American Academy of Arts and Sciences, 2014.
- Miller, Jon D., "Civil Scientific Literacy in the United States in 2016", Institute for Social Research, The University of Michigan, 2016

Pancake, Cherry, National Science Foundation Remarks, 2003

Peckham, Howard H. *The Making of the University of Michigan 1817–1992*, ed. and updated by Margaret L. Steneck and Nicholas H. Steneck (Ann Arbor: University of Michigan Bentley Historical Library, 1994) Rhodes, Frank, *The First Glion Declaration: The University at the Millennium*, Glion Colloquium, 1999

Rosen, Julia, “Thinking the Unthinkable”, *Science* Vol 253, July 15, 2016

Rudolph, Frederick. *The American College and University: A History* (Athens: University of Georgia Press, 1962)

Ruegg, Walter. *A History of the University in Europe*, Vol. I, II, and III. Cambridge: Cambridge University Press, 1992.

Schwab, Klaus, *The Fourth Industrial Revolution*, The World Economic Forum, 2017

Office of Academic Affairs, *Michigan Almanac*, Office of the Provost University of Michigan 2018

Scott Carlson, “When College Was a Public Good”, *Chronicle of Higher Education*, November 27, 2016

Sharp, Philip A. “Meeting Global Challenges: Discovery and Innovation Through Convergence”, *Science* Vol 346, December 19, 2014

Shapiro, Harold, *A Larger Sense of Purpose: Higher Education and Society*, William G. Bowen Memorial Series in Higher Education, Princeton University Press, 2005

Supiano, Beckie, “What’s the Right Public Message About Going to College”, *Chronicle of Higher Education*, August 30, 2016

Ulaby, Fawwaz, Background Presentation, Meeting with the President, University of Michigan, February 23, 2015

Ulsoy, A. Galip, Revenue and Expenditure Trends at the University of Michigan During 2005-2010, Committee on the Economic Status of the Faculty, University of Michigan, Ann Arbor, 2012

The Economist, “Finding a Voice”, Technology Quarterly, January 7, 2017

The Economist, “March of the Machines: The Return of the Machinery Question”, Special Report on Artificial Intelligence, June 25, 2016

The Economist, “The Signal and the Noise”, Special Report: Technology and Politics, March 26, 2016

The Economist, Lifelong Education, A Special Report, January 14, 2017