

“American Higher Education in the 21st Century”

Universities Australia Higher Education 2013 Conference Keynote

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1. INTRODUCTION

Thank you very much.

I would like to thank Professor Ian Young and Universities Australia for inviting me to speak today.

I am delighted to be back in Canberra, where I arrived in January of 1975 to begin a PhD at the Australian National University after completing a degree at the University of Queensland.

Little did I dream that I would be here 38 years later—as a representative of American higher education—to share with Australia’s higher education leaders some observations on the current state of higher education in the United States and some of the challenges we currently face.

2. AMERICAN HIGHER EDUCATION: RESPONDING TO CHANGING NEEDS AND CRITICISMS

Let me start by spending a few moments describing the external environment in which higher education in the United States finds itself today.

The rise of the great modern American research universities began during Reconstruction following the Civil War, and in the late 19th and early 20th centuries it persevered through waves of resistance against the changing backdrops of World War I and the Great Depression. Periods of great growth were balanced by periods of stasis and even contraction.

The years following World War II though were a period of tremendous growth for American higher education. In 1945, Vannevar Bush, a legendary American engineer, inventor and science administrator, issued a landmark report on U.S. science policy. This visionary report, *Science, the Endless Frontier*, linked the research capacity of America's colleges and universities with long-term national interests, and argued that instead of carrying our basic research in isolated elite academies on the European model, the federal government should instead make major investments in basic research at the nation's universities determined by peer review and with a special mission to fund graduate studies.

This report also called for the creation of the National Science Foundation. Thus began a period of federal government investment in research that catapulted the quality and standing of the American system of higher education to the best in the world. According to one well-respected ranking, of the top 20 universities in the world, 17 are American, the other three being British.

3. RECENT CRITICISMS OF AMERICAN HIGHER EDUCATION

In recent years, however, American higher education has been faced with sustained and powerful criticisms of its quality, its costs, and its relevance.

These questions strike at the very heart of our enterprise—our teaching and research mission. And these questions are leveled from an increasingly diverse array of critics.

2012 was, of course, a Presidential election year in the United States. Candidates for office at virtually every level—and from both political parties—asked serious questions about college costs and student debt. Employers are asking serious questions about the added value of a traditional college degree in the face of cheaper alternatives. For-profit companies are using online education as a means to question the necessity and value of traditional pedagogy and the physical campus.

Now, while extreme viewpoints rarely accurately reflect the underlying complexity involved in these critical issues, they are dominating the media and influencing public perceptions about higher education, frankly not always in the best interests of the U.S.

In what follows, I will discuss how American higher education is attempting to respond to some of these challenges in the context of the funding model in American higher education.

4. BACKGROUND ON INDIANA UNIVERSITY

My comments will reflect the experience of major American public research universities—institutions like Indiana University. And these are the institutions that have the most in common with Australian universities given that these are also predominantly public. The experience of private universities and other sectors of the higher education

system is, in some ways, different. Let me first—not as an exercise in institutional triumphalism—but merely of context, say just a little about Indiana University.

Indiana University is a major, multi-campus public research institution, and a national leader in professional, medical, and technological education with an extensive history of research and scholarship of the highest order. This history includes eight Nobel Prizes and over 50 programs ranked in the top 20 of their disciplines nationally. We are one of the 62 members of the prestigious Association of American Universities, the rough equivalent of the Australian Group of Eight.

IU is one of the largest public university systems in the United States with a budget of around \$3 billion, eight campuses around the state of Indiana (which has about the population of New South Wales), eight medical education centers (which are extensions centers of our School of Medicine—the second largest in the nation) as well as a number of smaller facilities. Last fall we enrolled over 110,000 students (of whom about 8,000 are international students) and employed over 6,000 faculty and 11,000 staff.

Our allied health system, Indiana University Health, is the largest hospital system in Indiana, with hospitals or other medical facilities in nearly every part of the state, and it is one of the largest hospital systems in the country. It was last year ranked as one of the top hospital systems in America in such company as the Mayo Clinic and the Cleveland Clinic. It has gross patient revenues of over \$7 billion and employs around 22,000 people. In fact IU, and IU Health are collectively the largest employer in the state of Indiana.

5. FUNDING AMERICAN HIGHER EDUCATION

A public research university with a medical school like Indiana University obtains its revenue from five primary sources:

- the state government, through funds appropriated by the state legislature;
- tuition paid by students;
- private philanthropy;
- the federal government, through grants from agencies like the National Science Foundation and the National Institutes of Health;

and

- clinical revenue from physician practice plans.

I will say a little in what follows about how each of the first four sources of revenue are under stress. As to clinical revenue, suffice it to say that as the Affordable Care Act—what is known as Obama Care—is implemented, reimbursement rates for medical services are expected to fall, putting this very important source of revenue under considerable pressure.

6. STATE GOVERNMENT FUNDING

State government funding for public universities has been severely affected by the Great Recession (called here the Global Financial Crisis), which began in December 2007. It has resulted in billions of dollars in funding cuts to state universities and has had the effect of being a major national disinvestment in public higher education. Many great public universities in the U.S. have suffered damage from which it may take many years to recover. My own university suffered cuts of over \$100 million during this period. In 2011, per-student funding reached a 30-year low.

Universities across the nation felt the effects of the recession almost immediately. Many institutions, including many in states that border Indiana, ran out of scholarship money and were forced to turn down thousands of qualified applicants. Decreased state funding forced some public universities to cancel classes and dismiss faculty. University

endowments declined—and collapsed in some cases—and research funding became increasingly scarce. Massive building projects on many campuses stopped entirely.

At Indiana University, we were able to weather the recession better than many of our peers. We responded, in part, by making major and difficult cuts in non-academic areas and extensive efforts to improve operational efficiency. At the outset of the recession I announced we would have just two priorities—to continue to hire faculty in a climate when hiring had declined markedly elsewhere, and to continue to build in an environment where building costs had fallen by 25 percent or more.

During this period, then, we made numerous outstanding faculty hires that our deans rank among the best we have ever made, and constructed over a billion dollars of new facilities. And as tends to be the case in the U.S. in a recession, we also enrolled record numbers of students of record quality as people sought refuge from the economic storm by going back to school.

7. TUITION

But as state support has declined, many institutions have also balanced the funding equation by raising tuition. Between 1990-1991 and 2009-2010, published prices for tuition and fees at public four-year universities more than doubled, from an average annual tuition at public four-year universities of \$3,150, after adjusting for inflation, to an average twenty years later of \$6,695—an increase of 112.5 percent.¹

In many states, legislatures have imposed tuition caps that specify the maximum amount a university may raise tuition and fees. Discussions involving tuition-setting authority, tuition caps, and other tuition-related policies have been major issues for state policymakers and university leaders in recent years, and will likely continue to be so in

¹ John Quinterno, “The Great Cost Shift: How Higher Education Cuts Undermine the Future of the Middle Class,” (Dēmos, March 2012), 21-22

the coming years. It has been a constant issue we have had to monitor and address even in an environment of low tuition increases.

There are calls for increased affordability from the federal government, as well. Earlier this month, in his State of the Union address, President Barack Obama called on Congress to make changes to the Higher Education Act as it comes up for re-authorization “so that affordability and value are included in determining which colleges receive certain types of federal aid.”²

Most American universities understand, however, that major increases in tuition in the foreseeable future are out of the question: the market and public will no longer bear them. A growing number of students are saddled with unmanageable debt on graduation. The Project on Student Debt, an initiative of the Institute for College Access and Success, estimates that two-thirds of college seniors who graduated in 2011 had student loan debt.³ And the size of student debt has reached alarming proportions nationally. The federal government’s Consumer Financial Protection Bureau reported that student debt nationwide now exceeds \$1 trillion.

This specter of major debt hangs over more and more students and threatens their ability to establish themselves independently, productively, and successfully in society. It is particularly of concern for students from low-income or minority backgrounds and threatens to make a university education almost unobtainable for them. And it is of increasing concern for the middle class.

This has been an area of intense focus for us over the past year. IU is recognized as being at the forefront of initiatives to help students manage the debt they take on for college. We have, for example, established a new Office of Student Financial Literacy designed to help students understand the implications of student debt and how to

² President Barack Obama, 2013 State of the Union Address, delivered February 12, 2013, U.S. Capitol, Washington, D.C.

³ “Student Debt and the Class of 2011,” The Project on Student Debt, October, 2011.

manage and control it. And we require all students to take an on-line financial literacy course.

Student debt can be reduced significantly through the provision of financial aid. At Indiana University, we have more than quadrupled our institutional aid to students in less than 10 years—and this is not loan aid, these are grants and scholarships that do not need to be paid back. IU offers more than \$500 million in financial aid each year and about 64 percent of our students receive some form of financial aid. These unprecedented increases in institutional aid have had a major impact. For example, more than half of the undergraduates at IU Bloomington have no student loan debt—and almost half graduate with no student loan debt—in part because of the financial aid provided there.

8. THE CRITICAL ROLE OF PRIVATE PHILANTHROPY

Private philanthropy is one of the great glories of the American system of higher education. I confess I was amazed as I learned how it had almost been elevated to a science when I first moved to the U.S. over 16 years ago. I hope people here will forgive me for saying this, but experience on four continents convinces me that there is nothing anywhere else in the world to compare with the affection in which alumni and supporters of American universities hold their alma maters, and how they demonstrate this repeatedly with their commitments of their time and their personal philanthropy. It is a uniquely American phenomenon.

In the United States, private philanthropy provides highly flexible funding for major enhancements to student financial aid, endowed faculty positions, specialized buildings and infrastructure, and support for path-breaking academic initiatives. In short, it allows American universities to do things no other universities in the world can do.

Indiana University is no exception. We are the beneficiary of extraordinarily generous alumni and friends—generosity that has made many of our gains possible. In fact,

during the last fiscal year, IU received nearly \$348 million in total voluntary support—the second highest total in the university’s history. To put this in perspective, as I understand it, the entire Australian university system received \$366 million in voluntary support. Our endowment has bounced back from the depths of the recession and now stands at around \$1.7 billion, 16th in the nation among public universities. We are about to complete and exceed a major \$1.25 billion campaign for our Indianapolis campus, on top of a completed \$1.14 billion campaign for our Bloomington campus, and are on target to complete an overall \$5 billion campaign by IU’s bicentenary in 2020.

But this pillar of university funding is under threat as well. There were some spectacular falls in the value of university endowments during the recession, especially among some of the Ivy League schools. The value of IU’s endowment fell as well to as low as \$1.1 billion, though it has recovered strongly. But, in spite of careful management, our endowment—like the endowments of universities across the nation—remains vulnerable to the state of the national and the global economy.

Of course, not only are endowments vulnerable to the state of the economy, but research shows that charitable giving is closely tied to the economy and to consumer confidence. After reaching a record \$31.6 billion during the 2007-08 academic year, giving to colleges and universities hit a steep decline with the advent of the Great Recession. Giving declined to \$27.85 billion in 2009, a drop of nearly 12 percent from the previous year.

There is one other aspect of private philanthropy in the United States that I know is a mystery to many in Australia and that is intercollegiate athletics. The scale of American intercollegiate athletics is immense. It involves multi-billion dollar media contracts, many university football stadiums with capacities over 100,000, and huge basketball stadiums like ours—one of the largest in the U.S., with a capacity of 17,500 and sold out every game. But it has its share of scandals with distressing institutional consequences.

But one should never underestimate the enormous strength that intercollegiate athletics brings to private philanthropy. It is the glue that binds hundreds of thousands of alumni—we have over 580,000 for example—to the university long after they have moved far away and pursued a wide range of other careers.

American philanthropy is widely studied and widely envied elsewhere in the world, and many seek to emulate it. At the risk of being a little controversial, I have to say that I have found it unfortunate and disappointing that in a country as rich and prosperous as Australia, a true culture of extensive private philanthropy has yet to emerge. I was, though, delighted—especially as an ANU alum—to read of the extremely generous donation to ANU of \$50 million, which I understand to be one of the largest in Australia to a university. Nevertheless, it is worth putting this in context. In just over 10 years, IU has received one gift of over \$150 million, five gifts between \$50 and \$100 million, and 15 gifts between \$10 and \$50 million, for a total of over \$800 million out of a total for this period of \$3.8 billion. These gifts have been critical in our remaining nationally competitive.

9. THE RESEARCH ENTERPRISE IN AMERICAN HIGHER EDUCATION

During the latter part of the 20th century and the early 21st century, the relationship between the federal government and America's research universities has been exceptional. This period of investment contributed to an era of national prosperity and national security with discoveries ranging from the laser to the MRI, from the algorithm for Google searches to Global Positioning Systems, from fetal monitoring to advanced surveying techniques, along with thousands and thousands of other inventions and innovations.⁴

⁴ This series is borrowed from Jonathan R. Cole's *The Great American University: Its Rise to Preeminence Its Indispensable National Role Why It Must Be Protected*, Volume 1, (Perseus Books Group, 2009), 4.

In addition to the benefits accrued as the result of such research, university research also translates into economic activity and jobs to the communities and states where universities are located.

By one estimate, approximately 80 percent of leading industries have resulted from research conducted at colleges and universities.

And yet, today we find ourselves in an environment where federal funding for university research has been unstable, at best. In real terms, funding from the U.S. government for university research has actually declined.

In fiscal year 2009, the federal government accounted for 59.3 percent of all research and development funding at American colleges and universities. This is a decrease from the 63.9 percent received in fiscal year 2004 and the 63.1 percent in fiscal year 2006.⁵

The infrastructure for scientific innovation in the United States has historically consisted of a loose public-private partnership. This partnership included such legendary institutions as Bell Labs—whose innovations included the transistor, fax transmission, long-distance television transmission, the UNIX computer operating system, and cellular communications technology—and Xerox’s Palo Alto Research Center, whose innovations included laser printing, Ethernet, and the graphical user interface that helped to bring about the PC revolution. These products of basic research helped to create entirely new sectors of the American economy.

Since the 1990s, however, private sector support for basic research has slowly declined. It is no longer viewed as cost effective, as it entails a tolerance for risk and failure, and for what can sometimes be a lengthy timeline for translating research efforts into tangible results. The private sector now tends to focus its funds primarily on later-

⁵ Christine M. Matthews, “Federal Support for Academic Research,” Congressional Research Service, October 18, 2012, 9.

stage research and development. Industry support accounts for approximately five percent of academic research funding.⁶

During the last few months of 2012, President Obama and the U.S. Congress faced a huge challenge in attempting to find a solution to the so-called “fiscal cliff,” a series of automatic spending cuts that were scheduled for the beginning of this year. A deal was brokered at the last minute, but it merely delayed the potential spending cuts until tomorrow, and so we have been faced with another round of confrontation in an attempt to avoid what is known as budget sequestration.

These draconian across-the-board reductions in most federal programs are little more than a blunt tool that would reduce federal spending, but at the risk of stalling the fragile economic recovery currently under way and damaging America’s long-term economic vitality.

The U.S. government’s rapidly growing level of debt must be a priority, but we need a balanced approach to deficit reduction that eliminates wasteful spending, and which provides meaningful tax and entitlement reforms.

10. GLOBAL ENGAGEMENT

We are, of course, living in a time of far-reaching global, political, social, economic, and technological change. Global literacy and collaboration have never been more important than they are now to higher education in the United States. This, of course, is true in Australia. But the situation for a public university in the United States is different in one important respect.

⁶ Ibid.

Students from outside of Indiana and many other states pay the same tuition no matter whether they come from Illinois or India. This tuition is considerably higher than tuition paid by in-state students, but there is no economic reason to recruit overseas rather than elsewhere in the U.S. Of course, the renown of U.S. universities means we are highly attractive to international students and they are a vital part of the diversity of a campus. For example, our Bloomington campus is ranked 11th in the U.S. for the number of international students we have at about 6,000 out of a total student body of about 42,000—low in terms of Australian universities. Of course, all the arguments about “soft power” apply to us and some of our most loyal and dedicated alumni are foreign.

Our major focus and that of many other American universities, has been instead to increase the number of our students who study abroad. We regard it as essential that all our students have some international component in their education and this is best fulfilled by studying abroad. On our Bloomington campus for example, around 25 percent of the graduating class of approximately 8,000 have studied abroad which ranks us 7th among U.S. universities. We are presently raising funds to endow 400 new \$5000 scholarships to increase this number especially directed at minority and low income students. Ultimately we want to increase the percentage studying abroad to 50 percent—no mean feat for a university as large as ours.

11. NEW EDUCATIONAL INITIATIVES IN AMERICAN HIGHER EDUCATION

Across the United States, there is an extensive debate as to whether higher education is providing what students and society need for the 21st century. The rising cost of higher education, combined with the prolonged recession, has rekindled the perennial debate about the value and relevance of a liberal arts education.

Students and their parents are increasingly interested in majors that are most likely to result in jobs. And, increasingly, universities are asking whether they are educating

students for the right jobs. The U.S. Labor Department reports that despite a national unemployment rate of around eight percent, three million job vacancies have remained unfilled. A recent survey by ManpowerGroup, a leading American human resources consulting firm, found that 49 percent of employers in the U.S. are frustrated at not finding employees with the required skills.

Like so many other universities in the U.S. and, no doubt, here, we are carrying out an extensive overhaul of our academic programs in the light of these sobering statistics. In the last two years we have closed, merged, transformed or established seven schools out of about 20, including a new school of philanthropy—the first in the U.S., public health, informatics and computing, and a major new school of global and international studies. This is more change than we have seen at Indiana University since the early 20th century.

12. ON-LINE EDUCATION

Without question, however, the most prevalent new educational initiatives have been in the area of online education. As it has around the world, online education has grown rapidly in the United States in the past decade, and there has been an energetic national debate surrounding the role that online education should play in the coming years.

At the center of this debate, of course, are massive online open courses—so called MOOCs.

A number of online delivery platforms for MOOCs have been launched, including Coursera, Udacity, and edX, a joint venture of Harvard University and the MIT. Dozens of major research universities in the U.S. and around the world are eager to be involved in these ventures, recognizing the great potential of MOOCs to broadly expand educational access.

As Tim Dodd recently wrote in the *Australian Financial Review*, “MOOC providers such as Coursera are conducting the largest experiments in educational pedagogy ever undertaken. And the result is likely to be that MOOCs will quickly become a highly refined way of learning, optimized to give students of varied abilities and backgrounds the best chance of mastering course material.”⁷

At IU, we are taking a strategic and very targeted approach as we explore the use of MOOCs. Our approach is to be cautiously innovative because we are mindful of the many concerns that have been expressed by others and the lessons they have shared. These include issues of the verification of student identity—how do we ensure that the students who have signed up for the course and the same ones taking the course? And there is a deeper problem—who should “own” student identity? There are also additional related concerns about cheating on an industrial scale, and about drop out and retention rates. While most MOOCs enroll thousands of students, only a very small percentage actually completes these courses.

Of course, financial sustainability is a paramount concern. As Sir John Daniel from the United Kingdom’s Open University notes, initially offering a MOOC for free is easy, but keeping it free poses challenges, and the eventual, inevitable changes that will be made to generate income will undoubtedly affect the user experience.

Indiana University has always delivered and will always deliver primarily on-campus programs. Our campuses and the human resources they hold are our greatest assets. Ultimately, we want to blend these resources with opportunities afforded by new technologies to create the best possible instruction while providing more student-centered experiences and extending our reach to a greater number of students. We recently established an \$8 million online initiative called IU Online, to develop online

⁷ Tim Dodd, “It’s Free and Revolutionizing Learning,” *Financial Review*, 11 February, 2013, 3.

courses and degree programs though ensuring we maintain our high standard of academic rigor, quality, and integrity.

I am mindful, though, of a comment by my colleague Michael Crow at Arizona State University that we must guard against a situation where an on-campus educational experience is available to the wealthy and for the rest there is on-line education. We must also maintain a skeptical and questioning approach—as is appropriate for a university—to some of the wilder claims being made about online education. I am mindful of sage advice given by my colleague Max Nikias, President of the University of Southern California, who recently wrote to his faculty:

“The Internet's first wave in the 1990s resulted in a dot-com bubble that was inflated by a fixation on the total number of users that a company's website could collect, rather than the *true value* that was created through a viable business model. Online education similarly lends itself to a focus on large numbers—yet there is scant evidence that free online classes or viral lectures produce worthy educational or career outcomes. [Our] academic community recognizes, at key inflection points within the development of higher education, that there is a difference between data and wisdom; between mere information and deep insight; and between knowledge disseminated and knowledge absorbed and appreciated. Our goal will always be to produce true academic value, for the fullest benefit of our students.”⁸

⁸ C.L. Max Mikias, “Online Education—Hype and Reality,” memorandum to the USC community, August 27, 2012. URL: https://www.president.usc.edu/files/2012/08/C_L_Max_Nikias_on_Online_Education.pdf Retrieved October 5, 2012.

13. CONCLUSION

Let me conclude with some observations about the future of American higher education and higher education more broadly. American universities have, throughout their histories, faced a wide variety of questions and criticisms, and these have come from a wide spectrum of critics from inside and outside higher education. These universities though have proved amazingly resilient over nearly four centuries and remain the world leaders in education, research and innovation.

But American higher education is no longer any more immune to the pressures of global competition than is any other sector of the world economy. Countries around the globe are striving to build their own world-class universities, either by enhancing existing institutions or by creating new institutions that are modeled on American research universities.

The success of these initiatives has yet to be seen, but, in seeking to imitate the success of the U.S., they are challenging in the first really serious way, the long period of American hegemony in higher education.

But is this “league table” approach to higher education and university quality really how the future looks? Information technology has completely transformed disciplines from anthropology to zoology. They are now global academic communities powered by the Internet where national borders are all but irrelevant. This is driving greater and greater collaboration. Universities in the U.S., Australia, and elsewhere are diversifying internationally with considerable vigor. Just yesterday our Provost opened a major new IU facility in New Dehli. And we are seeing increasingly more assured steps being taken to build true intercontinental institutional partnerships of genuine value based on complementary capabilities.

At IU we teach more foreign languages than any other university in America—nearly 80, and have 11 federal government funded Title VI international area research centers,

again more than any other university in the U.S. We cover nearly every area of the globe except South East Asia which happens to be a great strength of ANU's. Hence in 2010 Ian Chubb and I launched the IU/ANU Pan Asian Institute funded by both institutions. We each use videoconferencing to teach languages not taught at the other institution, as well as pursuing collaboration in a number of other areas. It has been quite successful and certainly suggestive of greater and broader possibilities, so much so that Ian Young and I have agreed to take our partnership to the next level.

Many institutions around the world of course have such partnerships. They represent a breaking down of institutional walls, and as these partnerships get deeper and more complex, a simple "league table" approach to ranking institutions becomes both more difficult and maybe of questionable value.

While this is rather speculative, I believe it does point to an increasingly internationally intertwined and collaborative future rather than one of rising and falling hegemonies. But such a future would enormously strengthen higher education around the world.

Thank you very much.