Address: University of Missouri Centennial of AAU Membership

“Research Universities Addressing the Issues of the 21st Century”

Robert M. Berdahl
President, the Association of American Universities
October 27, 2008

Thank you, Chancellor Deaton.

It is a great pleasure for me to be here today to join in this moment observing the centenary of the University of Missouri’s election to membership in the Association of American Universities. I have never before visited this campus, although I have learned something of its storied history – the first university west of the Mississippi – from dear friends I have known for over forty years, Tom Brady and Kathy Gingrich Brady, both of whom grew up in Columbia as their fathers spent their careers on the faculty here at the University of Missouri. Tom’s father, like Tom, was a historian and Brady Commons bears his name; Kathy Gingrich’s father, whom I also knew, was a physicist. Tom and I joined the faculty at the University of Oregon on the same day in 1967, and we both retired from the faculty at the University of California, Berkeley, within a year of each other. And I noticed in a book I received from Chancellor Deaton last evening, “Mizzou Today,” that an old friend from graduate school, Arvarh Strickland, is now a distinguished professor emeritus and that the general classroom building has been named in his honor. I am delighted to know that Missouri recognized how distinguished he is, as did his fellow graduate students a half century ago. In addition, a good friend from my undergraduate days, Wes Pippert, directs Missouri’s journalism program in Washington. So, I feel a connection and finally visiting this campus is a special treat.

I love to walk across the campuses of these great Midwestern universities in the fall, with the leaves turning, the weather crisp, and the excitement of new classes or Saturday football in the air. It reminds me of my own roots in the Midwest and my time spent at the Universities of Minnesota and Illinois. Whenever I’m on a campus like this, I am awed by the kind of commitment and vision it required to build it. When the 900 citizens of Boone County put up $118,000 to win the location of the university here in Columbia, they made an incredible commitment to the notion that a public university is important. I suspect that few of them had ever attended a college or university; they were farmers, shopkeepers, blacksmiths, bankers, preachers, and teachers. But they had a vision of the public good that could come from building a great university. Some, undoubtedly, were not terribly literate, but they understood the importance of books. They probably didn’t know a great deal about classical Greece, but they understood that it was a glorious moment in the history of thought and so they built Academic Hall representing that ideal, the Ionic columns of which still stand as a reminder of their vision.

When the University of Missouri was elected to membership in the Association of American Universities, or AAU, in 1908, it joined a very small group of American universities which at that time were committed to excellence in research and graduate
education. The AAU was established in 1900 by fourteen American universities – three publics (the universities of California, Wisconsin and Michigan), and eleven privates (six of the Ivys, plus Chicago, Hopkins, Stanford, Clark and Catholic, the latter two of which were at that time engaged in doctoral education). The AAU was established as a means of asserting the quality of American graduate education, which was regarded with disdain by European universities at that time, and it sought to establish common standards for doctoral education. The initial imbalance between public and private universities was corrected with the addition of the University of Virginia in 1904, Missouri, Illinois, and Minnesota in 1908, and Nebraska, Kansas, and Iowa, and Indiana in 1909.

Eleven additional universities joined AAU prior to World War II, bringing the total to 33; with the growth of higher education from the 1950s onward, AAU continued to grow until today it comprises 60 of the leading U.S. and 2 Canadian research universities. Throughout its early years it functioned as something of an accreditation association, certifying not only its own institutions, but others throughout the nation. Developed by the graduate deans, the “AAU Accepted List” indicated the institutions whose graduates had received an education preparing them for graduate work. American universities played a vital role in winning World War II, and as the federal government began to invest in university-based research through NSF and NIH, the departments of energy and defense, and later NASA, and as AAU grew in its size and importance, the presidents began to play a more important role in national research and education policy discussions. In 1977, AAU established a permanent office in Washington; today we have a staff of 21 and work with all the federal agencies funding research as well as with Congress on measures affecting higher education generally.

So we have come along way since 1900 or 1908. There was no world-wide ranking of universities at the beginning of the twentieth century, but if there had been, the top twenty on the list would have been dominated by European universities, primarily in Germany and Britain. Today, American universities lead the world. Of the top twenty listed in the international survey produced by Jiao Tong University in Shanghai, 17 are American; 2 are British, and one is Japanese. Forty of the top fifty are American. Surveying America’s capacity to compete in a globalized world, political commentator Fareed Zakaria has declared: “Indeed, higher education is the United States’ best industry. In no other field is the United States’ advantage so overwhelming….And although China and India are opening new institutions, it is not that easy to create a world-class university out whole cloth in a few decades.”

We have come a long way in the last century.

But America’s lead may be less secure than Zakaria suggests. Neither the University of California, San Diego (ranked 14th by Jiao Tong) nor the University of California, Santa Barbara (ranked 35th) existed fifty years ago. And China, at least, is pouring substantial resources into building a number of world-class universities, while oil-rich Saudi Arabia is intent upon building a research university in the next few years to equal the best universities anywhere. King Abdullah University of Science and Technology, or KAUST, is recruiting the best faculty it can find anywhere in the world and it is being
launched with an endowment that will, from the outset, be larger than any university endowment in the world except for Harvard and Yale. The competitive advantage the United States currently enjoys is obvious, but retaining it should not be taken for granted; the support from state governments for their “flagship” public universities and the partnership between research universities and the federal government must be renewed and enhanced if America’s lead is to be sustained.

It is this theme – sustaining our major public research universities – that I want to talk about with you today, for I believe they are essential to the future of the nation. Unlike the sense of crisis that brought about a consensus for public investment in research and university expansion in the decade of the 1960s after the Soviet Union launched Sputnik, I believe today we confront a competitive threat significantly more challenging than Sputnik, but the slower, less dramatic, the incremental nature of the threat makes it difficult to build a consensus for a response. This is true for many reasons.

First, a bit of data.

The greatest single period of higher education growth in the U.S. took place in the 1960s. In that decade, the number of students roughly doubled, but state expenditures for operating budgets increased fourfold. In addition there were extraordinary capital expenditures and substantial increases in federal funding of university-based research. Growth was stimulated by demand as the baby-boomers reached college age; it was also stimulated by Sputnik and a call for more research and a better educated workforce and populace. Lyndon Johnson’s Great Society embraced an ethic of public investment that had extended from the New Deal through World War II and the Eisenhower era. A period of low inflation and increasing real income, it was also a period with a favorable demographic ratio of workers to retirees. Politically and demographically, a consensus for investment in the public good of education was possible.

In the subsequent decades, public higher education continued to grow, but the rate of public investment slowed. From 1970 to 2005, state support, adjusted for inflation and enrollment, fell 11%. Tuition, as a source of revenue, also adjusted for inflation and enrollment, increased by 100%, so that the total resources available to public institutions for educational purposes – state support and tuition – increased over all by 10%. During these three and a half decades, several things changed.

First, whether it was a cause or an effect, the fact is that as state support declined and tuition made up the shortfall, a fundamental shift of attitude occurred; higher education came to be seen more as a private good, less as a public good. Rather than viewing public investment in education to ensure an educated citizenry – the spirit that motivated those 900 Boone County residents in 1839 – education came to be seen as benefiting primarily those individuals who received it. Hence, they should pay a larger portion of the cost.

Second, as enrollments grew and state colleges expanded into state universities, the competition among state institutions for state dollars increased. As regional institutions
in their states laid claim to more state resources, employing the collective power of regionally elected legislators, the support for the flagship campuses declined. Moreover, flagship campuses, which grew more slowly because they generally had reached something approaching optimal size earlier, had difficulty competing for state dollars with the institutions that were still in a growth phase.

Third, the growth of services universities were called upon to provide consumed a significant portion of new revenues being generated. Student services – counselors, learning assistance centers, career centers, mental health support, to name a few – came to be expected as part of the package universities provided. It was how campuses made themselves more attractive to students in an increasingly competitive market. Add to this the plethora of new federal and state regulations, reporting, and compliance requirements that were imposed on universities. The latest of these is the federal Higher Education Authorization act, passed and signed in August, which adds literally dozens of new, costly requirements on universities. In addition, as public universities scrambled for resources, they began to resemble private universities in searching for donations and gifts from private sources. This effort has generated support, but it has added to university expenditures.

Fourth, for research universities, the costs of doing research increased. More complex, sophisticated equipment was needed and the start-up costs to enable new faculty to launch careers enabling them to secure competitive grants became increasingly expensive. Typewriters lasted for decades; computers need to be replaced every three to five years. In addition, the indirect costs of federally sponsored research – those costs for the administration of grants and the facilities that universities must provide for faculty to conduct research – are not fully reimbursed by the federal government, thereby increasing the burden on universities themselves. Data shows that for every dollar research universities receive to underwrite the indirect costs of research, universities are spending between $1.10 and $1.20.

Finally, the demographic changes have had political consequences. It is worth noting that in California, the tax revolt of 1979, which had devastating consequences for all state public services, especially education, came at exactly the time that the demographic composition of the schools began to change with the rapid growth of minority populations. A decade later, as this new population reached college age, the state ended affirmative action. At the same time, California passed the “three strikes” anti-crime law, which has driven the state’s budget for housing prisoners beyond that for educating college students. But even in those states in which the ethnic demographic did not change significantly, there was a shift toward an older population, increasingly focused on taxes and retirement. The ratio of working population to retirees changed substantially.

All of these factors helped to undermine the consensus that had made possible significant public investment in higher education in the 1960s.
Now, of course, we face what many believe will be the most serious economic recession since the Great Depression. With state and federal revenues declining and mandatory expenditures increasing, discretionary spending will be extremely constrained; state university budgets will be cut, and tuition will increase at a time when wages have stagnated or declined. Not a happy prospect. And this is happening at a moment when China, Singapore, India, and some of the states in the Middle East are increasing substantially their investment in higher education, while Europe is investing selectively in its best universities.

At a recent conference at the University of Virginia, a number of experts on higher education discussed the manner in which higher education must meet the needs of the nation’s future. Beginning with the challenge presented by a former Virginia governor, that “higher education is essential” and is “at risk in a time of change” – a statement with which I concur – the conference reached the conclusion that the nation should double the number of Americans receiving a meaningful education over the next twenty years. This is a worthy objective. But then the conference called for states to revamp their financial structures to reward institutions like community colleges and less-prestigious four-year public colleges. A number of speakers called for shifting funds away from research universities toward other state institutions. One said, “What we have traditionally done to create world class [research] institutions is to pick winners, but to create good quality education, you have to be equal. When it comes to instruction, we should basically say, we want it to be good across the board, so we are not going to pay more for our highly resourced institutions to do it. That is only going to exacerbate the [existing inequality]. We should use the public purse to equalize instructional support.”

While I agree that we need to provide more educational opportunity to more students, doing so by flattening out the system, reducing investment in a few flagship campuses, I believe, will ultimately destroy the higher education system the very same people claim is “at risk in a time of change.” The genius of the American system of higher education is its remarkable diversity – private research universities, private liberal arts colleges, public research universities, public four-year colleges and universities, community colleges. So diverse a system exists nowhere else in the world. To remove from the mix the differentiation between public research universities and public four-year colleges will, inevitably, reduce the opportunities for gifted students to study at more selective public universities, and it will eviscerate graduate education, and with it research, at public universities. We will end up with a few well-resourced private universities educating students from affluent families along with a few economically disadvantaged students and a few middle class students to whom they will provide generous receive financial aid. The vast majority of students in America, on the other hand, will be enrolled in a less differentiated and less competitive and less excellent set of public institutions. Bear in mind that Berkeley and UCLA, or the University of Washington and the University of Wisconsin, or Illinois and Michigan – pick any two of the larger selective public research universities – graduate each year as many seniors as the entire Ivy League.

Public research universities are already finding it extremely difficult to compete with the well-endowed private research universities. UC Berkeley is the only U.S. public
university listed in the top ten universities in the world by the Jiao Tong rankings; it ranks third, behind Harvard and Stanford. Twenty years ago, Berkeley’s average full professor salaries were roughly equal to those of neighboring Stanford; today, they lag Stanford’s by about 20% and Harvard’s by approximately 30%. How long Berkeley can retain its standing with that level of disparity is a serious question.

I am reminded of a photograph that covered two pages of *The New Yorker* magazine in 1998. It was a photograph of 22 of the 32 Nobel Prize winners from California, gathered on a beach north of San Francisco. *The New Yorker* noted some interesting characteristics of this gathering of Nobel laureates. “Of the total [California Nobelists], a huge number – 32 – taught at the public university system. California in its heyday managed to make genius public property. Students at Berkeley, the crown jewel of the university system once could take courses from as many as fifteen Nobel laureates. By contrast, Massachusetts, the other great American academic enclave, always kept genius locked away in expensive Ivy League schools. The result is that the Massachusetts Miracle faded, while California was able to turn out the engineers and scientists necessary to fuel its high-tech industries. In the wake of recent budget cuts, and with more and more resources directed to private institutions like Stanford, the question remains whether these achievements will continue” and genius remain public property. (As you can imagine, I usually took this piece with me when I went to the State Legislature.) Since that time, several of the UC campuses, including Berkeley, have managed to garner some additional Nobel prizes, but we know those are based on past work so the question remains whether these public campuses will be able to recruit the talent in the future that they have in the past.

You may ask, “Does it matter?” Why not try to broaden access to more students by taking resources away from the flagship universities and distributing them to other state institutions? Why should the state care about graduate education when there are so many who need undergraduate education and when most graduate students take jobs elsewhere when they complete their work? Isn’t it simply snobbish and elitist to pretend that public research universities have anything different to offer than other institutions? Does it really matter if we try to equalize public institutions?

I believe it matters a great deal.

It matters because the handful of private research universities, excellent as they are, cannot produce the research and innovative talent required by a competitive knowledge-based economy like that we are dealing with in the 21st century. It matters because, with a few exceptions like Washington University in St. Louis and Northwestern and the University of Chicago, most of the private research universities are located on the two coasts; the flagship public research universities have been the sources of scientific and technological innovation in the Midwest. If we are to sustain the economic vitality of this important heartland, we must sustain the quality of these great public institutions.

Sustaining flagship public research universities matters because they help define the nature of scholarly excellence that informs the nature of scholarship at all of the other
colleges and universities in the region. It is not that excellence does not exist elsewhere; it does. But quality scholarship is largely defined by the research universities, public and private, and it is important for public institutions to aspire to the highest levels, too. Moreover, the largest percentage of faculty at all public colleges and universities received their graduate training at public flagships; without that investment in graduate education and research, the quality of faculty elsewhere will suffer.

The enormous problems that confront the world today require solutions that involve broad-based interdisciplinary research. Pick any of the large issues – climate change, renewable energy sources, food and fresh water shortages in many parts of the world, the migration of peoples that will increase due to global warming, terrorism linked to religious extremism, economic forecasting in a global economy, the threat of infectious disease pandemics in a global environment – all of these challenges will require the efforts of researchers with different disciplinary expertise. Some of them will require the expertise found almost exclusively in the land-grant research universities built over the last century and a half in the United States.

Maintaining public research universities is important because strong public institutions provide the competition that makes the private universities better. Berkeley is better because it compares itself with Stanford and Stanford is better because it competes as well as collaborates with Berkeley.

Other countries, whose ministries of education have generally provided essentially equal resources to all their universities, are changing direction because they realize they cannot develop competitive excellence without selective support for excellence. China has identified a dozen institutions into which it is pouring a disproportionate percentage of resources. Australia is about to initiate a program for investment in five or six of its universities in the hope of advancing them to world-class competitive status. Germany has launched an “excellence initiative,” a competition among its universities for the infusion of differential funding into a few institutions in order to enhance their quality and international position. In this context, it would be utterly foolhardy to move in the opposite direction and allow the excellence we have built in our public research universities to decline. While it may take several decades to build a world-class university, it takes much less time to destroy one by neglect.

The structure of American public higher education makes it somewhat more difficult to develop a coordinated national strategy because public education is largely in the jurisdiction of the states. As we have noted, the politics of state legislatures often works to the disadvantage of flagships; indeed, I was chastised at both Illinois and Berkeley for referring to my campus as a “flagship.” So I was pleased to note that Mizzou unabashedly refers to itself as “Missouri’s Flagship University.” Without disparaging the substantial contributions of other state colleges and universities, I believe we must recapture the identity of the flagship metaphor – the ship in the fleet that bears the admiral’s flag, where fleet strategy and direction is developed; it is the ship which sails in collaboration with the rest of the fleet, with its fire power enhanced and protected by the rest of the fleet.
How will we do this?

I believe it will require some changing perceptions both within state legislatures and within the universities themselves. Legislatures will need to recognize the advantages of sustaining flagship research universities and be willing to invest in them differently than in other institutions. At the same time, legislators will need to recognize that for these universities to realize their potential, they will need to liberate them from many of the constraints that currently hobble their freedom of action. This has already happened in a number of places like Virginia, Texas, Oregon, and elsewhere. It may mean things like recruiting excellent non-resident students by offering them resident tuition rates, like the program between the Universities of Minnesota and Wisconsin. It will require rethinking how universities should be accountable to their states, with different measures for different types of institutions.

But universities will have to change as well. Public universities will have to begin to think regionally, not in terms of state boundaries. They will have to be less insular, more willing to collaborate with other institutions, developing concentrations where they have a comparative advantage, shrinking or dropping programs where they do not and encouraging faculty to collaborate elsewhere by arranging flexible teaching schedules. It means, I believe, that universities should develop differentiated workloads for faculty, giving faculty members greater freedom from teaching and service obligations at certain stages of their career or moments in their research activity, while at other times asking them to assume greater teaching responsibilities to free their colleagues for productive research. It requires greater focus on the common good than on the individual good. Universities should explore allowing more graduate students to move more freely between institutions, taking advantage of resources or programs elsewhere when it would enhance a portion of their education. As the boundaries of the world lose their historic significance, we will need to think anew about the boundaries we have allowed to limit our public universities.

It is essential that we cultivate a new public attitude toward universities, one more akin to that attitude that I suspect moved those courageous citizens of Boone County and the State of Missouri 170 years ago. It was an attitude that looked at the long term, an attitude that trusted in the future, recognizing that the founding of university would have some immediate benefit for them, but that the real beneficiaries of their action would be their children, grandchildren, and great-grandchildren. In a society driven by a consumer ethic of instant gratification, we are not inclined to think about the long term. And neither are our political leaders. We tend to look upon higher education as a commodity we purchase and whose utility should be immediate. Thus, we are less inclined to invest in the humanities and the arts, which have the longer term benefit of educating citizens and enhancing the civilized discourse we need as a people, but which don’t necessarily translate into immediate employment or contribute to economic development.

For a variety of obvious reasons, Americans have lost trust in many of our institutions and leadership; although universities still are seen as essential, they, too have been
subject to many criticisms that have eroded public confidence. Universities must be accountable; the public must believe that they use their resources wisely, as I believe they do. The public must believe that our work is important and in the public interest. But to succeed in their mission of open discovery, their effort to explore new vistas of knowledge, to explore new avenues of learning, universities require maximum degrees of freedom – freedom from unnecessary controls or processes that push them toward short term obsessions. Academic freedom is the only framework in which innovation can flourish. The freedom to inquire, debate, criticize, and speak truth to power is essential to the vitality of a university. But the ability to exercise freedom requires trust, trust in people, trust in institutions, and trust in the future. The public needs to understand the long, arduous journey to the acquisition of new knowledge, and trust in the ultimate benefit of the journey and its outcomes. But those of us in universities must also do everything in our power to earn and justify that trust.

In addition to trust, and perhaps dependent on a recovery of trust, if the great public good that our public universities represent is to be fully realized, Americans need restore a commitment to a common good. If my measure of any public policy is solely how it will benefit me, and yours is the same, we will have lost a commitment to the common good, and with it, a common future. If we are not called upon to make sacrifices for each other, especially in a time of crisis, we are less of a people, and those institutions, like universities, which are built for a common future, cannot flourish.

So, as we gather here today to celebrate the centennial of the University of Missouri’s recognition as a major national research and graduate university, let us recall those noble few who launched this institution on its path and those thousands who have carried it and continue to carry it forward, holding it as a public trust, obligated both to the past and to the future. Let us recall their commitment to sustaining the common good and let us continue it.

Let me close with a statement of which I am fond and quote often, made by Hannah Arendt. Defining education, she said:

“Education is the point at which we decide whether we love the world enough to assume responsibility for it and by the same token to save it from the ruin which, except for the coming of the new and young, would be inevitable. And education, too, is where we decide whether we love our children enough not to expel them from our world and leave them to their own devices, nor to strike from their hands their chance of undertaking something new, something unforeseen by us, but to prepare them in advance for the task of renewing the common world.”

It is for the love of our children that we cherish this place and must commit ourselves to renewing the common world.

Thank you.