# The Educated Citizenry: An Endangered Species?

#### MARY SUE COLEMAN

President, The Association of American Universities

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## The Educated Citizenry: An Endangered Species?

MARY SUE COLEMAN

President, The Association of American Universities

Thank you, Chancellor Folt, for your kind words and introduction.

As president of the Association of American Universities, I have the privilege of representing the best research universities in the nation. That, of course, includes the University of North Carolina. And as AAU president, I work every day with the presidents and chancellors of these exceptional institutions, helping to promote their value to our society.

I have tremendous affection for UNC and Carolina blue, and it's wonderful to be back on campus. My return was delayed a bit because of Hurricane Florence, and I'm thankful that UNC was spared any serious damage. But I also know that many people throughout the region suffered terrible losses. I'm proud of the many ways the UNC community has stepped up to help others rebuild.

I want to thank Doug Dibbert and all members of the Lambeth Lecture Committee, as well as Chairman Daniel Gitterman of the Department of Public Policy, for their invitation to deliver this lecture at my graduate alma mater.

It is an enormous honor for me to participate in recognizing, through this talk, Thomas Lambeth as an important voice in American politics and in philanthropy who touched so many aspects of social justice and poverty in North Carolina.

It is also a pleasure to reflect on my and my husband's time here as graduate students in the late 1960s and then later as faculty members and administrators in the early 1990s.

Ken and I first came to Chapel Hill in 1965 after graduating from Grinnell College in Iowa. We were newlyweds and brand-new graduate students. Ken was pursuing a Ph.D. in political science and I was beginning my doctorate in biochemistry.

The time we spent as UNC graduate students encompassed some of the most remarkable five years in American history. We saw the Vietnam War unfold and the civil rights movement explode. There were urban uprisings and campus protests, year after year. We lived through the tragic deaths of Martin Luther King Jr. and Robert Kennedy.

We also witnessed one of the seminal achievements of American science and research with the landing of men on the moon in 1969. As a young person who felt compelled to explore science in the era of the space race, this was an unforgettable moment.

When we left Chapel Hill in 1970, Ken and I had grown intellectually and personally. We not only had our Ph.D.s and post-doctoral fellowships, but we were expecting a child – our now-grown son, Jonathan.

Sometimes unbelievably to me, 50 years have passed and I remain fully engaged in the mission of higher education. We are once again living in what I believe is one of the most remarkable times, culturally and politically, in our nation's history. Our child, that baby conceived here in Chapel Hill, is a grown man with a wife and two children. Those young people – our grandchildren – are on the brink of their lives as young adults thinking about college and careers. And I am deeply concerned about what the future holds for them and for all of us as Americans.

I am going to spend some time this afternoon speaking about these concerns as a grandparent, as a UNC alum, and as president of the AAU. I have devoted my career to research universities, and many of today's cultural lightning rods – science and research, immigration and diversity – are grounded in the life of American higher education.

The attacks on the integrity of science, the truth of facts, or the contributions of immigrants – they make me cringe. These are attacks on the American research university, on higher education in general, and on the values we hold as an educated society, all of which are integral to the excellence of our universities and, more broadly, to our strength as a democracy.

We have leaders who hold up the lack of education as a good thing, and who themselves have trouble articulating the value of public education. They are dismissive of science and the value of research in addressing global problems. Some denigrate immigrants and dangle red herrings about caravans of terrorists threatening our borders.

It's not just in Washington.

When a 2017 Pew study found that a majority of Republicans and Republicanleaning independents believe colleges and universities have a negative effect on our country, I was deeply troubled.

There is skepticism about the value of a college degree, the purpose of a liberal arts education, and the validity of scientific research that is both troubling and disheartening. It is a skepticism that does not speak to our values as a democratic society which was the first in the world to offer free, public K-12 education.

I am not alone in being worried.

Earlier this year, *Inside Higher Ed* and Gallup surveyed college and university chancellors and presidents about today's challenges and opportunities. Nearly 8 out of 10 presidents believe that anti-intellectual sentiment is growing in the country. This finding was up from 7 out of 10 one year earlier.

The American higher education system is the best in the world. American universities have long been a global beacon, signaling our openness to talent from anywhere and everywhere; our willingness to generate new knowledge and new ideas; and our station of being the marketplace for ideas.

The linchpin to advancing our country has always been education. Thomas Jefferson is known for saying, "An educated citizenry is a vital requisite for our survival as a free people." I fear we are turning our backs on this in numerous ways.

I believe deeply in the power of AAU universities to make a difference, as evidenced by their presence in any and all serious rankings of the world's leading universities. From Harvard and Michigan to Duke and UNC, our research universities foster innovation, attract and advance talent, underpin economic and national security, and improve the quality of our lives.

Research universities do this work with the support of American taxpayers and of a social compact that has been in place for decades. One of every three Nobel Prize winners comes from an AAU institution. Seven of every 10 National Medal of Science recipients are at AAU institutions.

We represent the nation's best universities. And while AAU institutions benefit the most from the university-government research partnership, hundreds of universities – Wake Forest, NC State, East Carolina University and more – universities here and across the country also participate in the partnership that underpins our society, economy and security.

This partnership stretches back to the 1930s, when the federal government assisted students and universities crippled by the Great Depression. It was amplified tremendously in the years immediately following the Second World War.

Fortunately for us, during World War II, an engineer named Vannevar Bush was president of the Carnegie Institute of Washington and became a close ally of President Roosevelt. Bush understood that scientific resources in U.S. universities could be mobilized to help win the war.

And win it they did, with the development of vaccines and blood substitutes to keep troops healthy, and of technologies like radar, aeronautical innovations and the atomic bomb.

During this period, universities became very accustomed to dealing with a new patron: the federal government.

The results of this 75-year partnership, especially growth in Defense Department research spending, the expansion of NIH, and the establishment of the National Science Foundation and NASA, have been nothing short of astounding.

America's research universities, and by extension our higher education system, are the best in the world. People in Europe and Asia and everywhere know it's the best and are willing to pay for it, because they know they can't get anything like it anywhere else.

Why do our scientists win more Nobel Prizes? Because as a nation we've invested in research.

Why have nearly all corporations shed their basic research and rely on universities? Because they know high-quality basic research can be done more cheaply on campuses than in the corporation.

Make no mistake, this partnership created the internet, put a man on the moon, ended polio and countless other diseases, blunted the scourge of AIDS, and put the world in the palm of our hands with the smartphone.

Or to paraphrase a former CEO of Twitter, it put the internet in our pants and our purse.

By supporting basic research conducted at universities, the federal government has not only been able to foster amazing advances which have greatly improved our health, economy and quality of life.

We also have trained the next generation of scientists and engineers. Where else in the world could you come and work alongside Nobel Prize-winning researchers as a student whose education was being supported by a federal research award?

There is no other partnership like this on the planet.

And we are at risk of undermining it with shortsighted thinking and speech meant to divide, not unite us.

There was a moment during World War II when President Roosevelt called Vannevar Bush into the Oval Office. It was 1944 and becoming increasingly clear that the Allies would achieve victory in Europe.

"What's going to happen to science after the war?" FDR asked Bush.

"It's going to fall flat on its face," Bush said.

"Well," said Roosevelt, "what are we going to do about it?"

Bush was characteristically blunt: "We better do something damn quick."

Some 75 years later, that message is just as urgent. As a nation, we had better do something, and do it quickly, about a monumental partnership that is threatened.

I began my career at a time when the American public demanded science and innovation. Absolutely demanded it. The Russians were beating us in the pursuit of space exploration. Today, our nation's research enterprise is threatened by slash-and-burn budget proposals and a discounting of science and technology that I firmly believe are nothing less than a dismantling of seven decades of resounding success.

Its overall impact amounts to a surrender of our global dominance in innovation.

This comes as China has increased its R&D investments by 17 percent and Russia has increased its by 8 percent, while the U.S. investment has deteriorated to a mere 2 percent of GDP. Other countries are modeling our success, and unless the U.S. government renews the partnership with research universities, it is simply a matter of time before we will no longer lead.

A major threat to this historic partnership is the growing federal deficit. It is looming, and it is looming large. A second threat, one that is just as serious, is one of values.

The Congressional Budget Office projects the deficit will top \$1 trillion in 2020. That is 13 months away. This growing deficit likely means higher interest rates and lower stock prices, and it certainly will mean a greater share of federal interest payments on the debt.

It threatens the overall pace of the economy and the vibrancy of the private sector. At some point there's going to be a day of reckoning, unless we have extraordinary economic growth. While growth is picking up, we have not yet reached a goal that is sustainable for the required federal investment in fundamental research.

So as we contemplate how the U.S. can maintain its global leadership, we also should be realistic about difficult choices our political leaders must confront in the not-too-distant future.

At the AAU, we believe that a vital part of fostering economic growth and jobs is federal investment in scientific research at our universities, which leads to new knowledge, continuous innovation, reliable national security, and more.

But this is about more than dollars and appropriations and budgets. This is about who we are as a democratic nation and a global leader.

Higher education is a public good. We all embrace this and promote this, and it cannot be said enough. Higher education is a public good.

We know that university graduates will see greater financial success in their lifetime than a typical high school graduate – to the point that their earnings

difference will far outpace the original cost. That is an impressive return on investment.

And there are other benefits. People with a college degree are more likely to exercise, less likely to smoke, more likely to vote, and are the first to volunteer and give back to their communities.

I realize I am saying this on the campus of one of our country's great public universities, a place that every day embodies the promise of new discoveries and enlightened students.

One of your most impressive alumni is Dr. Francis Collins, a graduate of the UNC School of Medicine. He also holds degrees from Yale and the University of Virginia, and spent many years at the University of Michigan as a professor and researcher. All these universities are AAU institutions with strong federal research portfolios.

The American people have invested in Francis Collins and millions of other college students and researchers. The return is extraordinary.

At Michigan, Dr. Collins and his team discovered the gene for cystic fibrosis. They then identified the gene for neurofibromatosis, or Elephant Man's disease, and then the gene for Huntington's disease.

Dr. Collins did all of this before he was 45 years old. Any one of these discoveries would more than affirm him as an exceptional scientist whose work has helped change lives for the better. But Francis Collins is an extremely committed scientist.

In 1993, President Clinton asked him to lead the Human Genome Project. Within 10 years, Dr. Collins and his team successfully sequenced the human genome. This amounts to creating a blueprint of human life. For this work, Dr. Collins was awarded the Presidential Medal of Freedom, our nation's highest civilian honor.

I mentioned that Dr. Collins earned his Ph.D. at Yale. He left New Haven after he finished his coursework. But he wrote his dissertation here, in Chapel Hill, while he was in med school.

His mind is always at work, so not even the Presidential Medal of Freedom was cause for a break.

For the past 10 years, Francis has led the National Institutes of Health. I had the privilege of serving on his advisory board for several years, and I think he's one of our country's most remarkable scientists. He embodies what scientists do so exceptionally well, which is to advance an understanding of human life. And he has done so while at the same time exploring the ethical and legal implications of genetic research and medical discoveries.

This is the story we need to tell, about our students, our graduates, our discoveries and our universities. Our collective work changes lives. We cannot stand idle while some of our leaders devalue education and educated people.

In 2016, the American Association for the Advancement of Science surveyed scientists about their objectives in communicating with the public. Scientists said their No. 1 priority was "defending science." This was followed by "informing others" and "exciting others" about science.

The lowest priorities of scientists were "building trust" and "tailoring messages to the audience."

I found that sad and a little troubling.

Maybe our thinking should be reversed. Our highest priorities should be exciting people about science – and by extension all research – and working to gain, or regain, their trust. If we approached our work that way, would "defending science" then become less of a priority? Maybe.

We must challenge ourselves – really challenge ourselves – to explain the impact and importance of university research.

As our public opinion poll numbers fluctuate, it has become more and more apparent that the AAU has to take a leadership role in defending and promoting research universities and higher education in general.

Now, this notion of tackling issues of broad, national perception has not always been in our wheelhouse. The AAU has always excelled at representing the interests of our members, particularly in the realm of federal policy and research funding.

But we must act. We must explain the benefits of our work, not only to students and their parents, but to patients and families of patients. When a woman is fighting breast cancer or a father is facing Alzheimer's disease, their families seek out the best treatment. That treatment and exceptional care is more than likely at the closest research university.

We need to share our impact with business leaders. When they look to build safer cars and fuel-efficient airplanes, new manufacturing processes, or unique approaches to agriculture, they are turning to research universities and our programs in business, engineering, computing, and beyond.

We must continually reiterate why our universities matter, and why scientific consensus has profound consequences for our collective wellbeing.

To be silent, particularly in our current political climate, is to acquiesce.

I feel just as strongly about speaking in support of diversity on our campuses and the contributions of students, faculty and staff of different backgrounds, experiences and nations. The current tenor of conversations about race and immigration has made it challenging and, frankly, frightening.

Universities are not about walls. We are places of open laboratories, of cross-pollinating ideas and experiences, of building upon others' discoveries. Walls are anothema to the pursuit of truth and the creation of new knowledge.

When Ken and I arrived at UNC in 1965, Chapel Hill, Carrboro and this entire region had just experienced an exhausting few years of civil rights conflicts and struggles. Some of the protests were quite violent, as they were elsewhere in the country. UNC was opening up, but slowly. There were virtually no women or people of color on the faculty, and precious few in graduate programs. As a woman studying biochemistry, I had no female instructors. None.

Certainly the intellectual environment was exciting, as was the political. Ken and I took part in our share of protests and rallies.

But here is what we observed. We returned to UNC in 1990, when I was named associate provost and dean of research. Ken was a faculty member in political science

and Latin American Studies. This was a different place from the campus we left in 1970. It was far more diverse and the intellectual ferment and excitement was palpable. That was thrilling because we had experienced the earlier time. We also saw enormous power in the development of the Research Triangle and in the opportunity for collaborations among UNC, Duke and NC State.

Universities are stronger when they hold open their doors to all.

Despite the progress we have made, we are living in an era of intolerance and prejudice, when bonds with people and nations different from ours are pilloried by some of the leaders of this country. It is an era when visitors of different backgrounds and histories are wrongly viewed as suspicious or dangerous. It is a time that gives us pause about the true nature of pluralism and our heritage as a nation of immigrants.

Universities are magnets for talented scholars from around the world. Here at UNC, we need look no farther than Professor Aziz Sancar. He is a scholar. He is a Nobel laureate. He is an immigrant. And he is Muslim.

He is the first Turkish-born scientist to win the Nobel Prize. He was recognized in 2015 along with two other chemists for their collective work on how cells repair their DNA. Shortly after learning he had been awarded the honor, Dr. Sancar said that friends and colleagues in Turkey had been pestering him for years about when he was going to win the Nobel. And he said he was happy for his country – his native country and his adopted one.

All of us prosper with the achievements of immigrants like Dr. Sancar. Our success – nationally and globally – is due in no small part to our ability to attract the very best students and faculty from both the United States and the nations of the world.

The AAU has consistently opposed the travel bans proposed by the current administration, and we were profoundly disappointed in the Supreme Court's decision to uphold the Administration's limits. Our universities have worked closely with the federal government to protect the country from those who would harm us. We will continue to do so and want to help the Administration ensure national security in ways that do not undermine our nation's status as the top destination for global talent.

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We feel just as strongly about sustaining international talent that has contributed so much to our nation.

In that same spirit, we have been a vocal proponent of a permanent solution for DACA students and Dreamers. Many of these bright young people are students, scholars, and scientists at our universities, who are contributing to our institutions and the national economy.

Bans that limit talent coming into our country, and calls to expel others who are here through no fault of their own – these actions convey a damaging message to educated people. It is a message that says: You are no longer welcome here. It is one especially clear in the absence of a statement by the president that America needs to remain the destination of choice for the world's brightest students, scientists, engineers, and scholars.

Talent flow will become ever more important across the globe as it becomes ever more apparent that innovation and creativity are the new bedrock of economic success. In the past decade, we have seen a tectonic shift in international undergraduates seeking education in the United States.

Our country's economic competitiveness and global leadership would not be possible without the extraordinary contributions of international scholars drawn here for many decades by academic opportunity and American values. Actions that place our values and our status in doubt are likely to cause serious and lasting harm.

Diverse skills and perspectives will always make for stronger bridges connecting us as people and as nations.

The differences between us – differences of perspectives and cultures – should never be a source of derision or nativism. Rather, these differences give us our strength as educators, researchers and contributing citizens of the world. We should all support this diversity, and hold it up as an antidote to the poisonous thinking that threatens good will and good learning.

We are living in interesting times. I find myself saying this more and more. These are interesting, challenging and, sometimes, discouraging times.

For all the noise and bombast of the day, Americans believe in higher education. I was so encouraged by a study shared this summer by Columbia University, whose researchers found that more than 75 percent of Americans believe higher education is an excellent or good use of public funds. The survey also found that Americans believe the benefits of higher education to society are just as strong as the personal benefits of a college education. Said again, higher education is a public good.

Thomas Jefferson would be pleased. As we know, he said, "An educated citizenry is a vital requisite for our survival as a free people."

But I must share something with you. Thomas Jefferson never really said that. The researchers at Monticello have pored over Jefferson's writings, and the phrase so widely attributed to him never came from his pen. It is a paraphrase of sorts. What he did say was, "If a nation expects to be ignorant & free, in a state of civilization, it expects what never was and never will be." Freedom and liberty, he said, come only through a free press and citizens who are able to read and digest information.

How do we know this about Jefferson? Because of a research librarian educated at a research university. Because of a commitment to the sharing of knowledge, and an ongoing pursuit of truth. It is what we do so well, and it is what we must uphold as an American strength.

Here is something Thomas Jefferson did write, and it has been documented by experts. "Enlighten the people generally, and tyranny and oppressions of body and mind will vanish like evil spirits at the dawn of day."

What UNC did for both my husband and me was to provide the skills and knowledge to survive, and yes, prosper, in the world of higher education. For that we will forever be grateful. John Wilson was my Ph.D. advisor and Mary Ellen Jones was my postdoctoral advisor and longtime mentor and friend. Both took a leap of faith in taking me on, and I hope that their confidence has been affirmed.

Today's UNC students benefit from the guidance and knowledge of tremendous faculty like Aziz Sancar. They draw inspiration from alumni like Francis Collins. This

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occurs every day at campuses across our country. All of us benefit from the work of scholars and scientists devoted to enlightening the people.

Our collective progress and prosperity hinge on quality higher education. It is the strongest argument for lifting up our universities, for the good of tomorrow and for the good of the world.

Thank you.

### Mary Sue Coleman



Mary Sue Coleman is president of the Association of American Universities, president and professor emerita of the University of Michigan, and former president of the University of Iowa. Prior to becoming a university president, Coleman was vice chancellor for research and graduate education at the University of North Carolina, Chapel Hill and provost at the University of New Mexico. In 2010 President Obama named her to help launch the Advanced Manufacturing

Partnership, and U.S. Commerce Secretary Gary Locke named her as co-chair of the National Advisory Council on Innovation and Entrepreneurship. Throughout her career, she has promoted the educational value of diverse perspectives in the classroom and within the academic community, and she has worked in numerous venues to improve access to higher education for all. Among her many honors, she is an elected member of the National Academy of Medicine and a Fellow of the American Association for the Advancement of Science and the American Academy of Arts and Sciences. Time magazine named her one of the nation's "10 best college presidents," and the American Council on Education honored her with its Lifetime Achievement Award in 2014. She also holds honorary doctorates from Grinnell College, Dartmouth College, Shanghai Jiao Tong University, Notre Dame University, the University of North Carolina, Indiana University and Michigan State University. Dr. Coleman earned her undergraduate degree in chemistry from Grinnell College and a PhD in biochemistry from the University of North Carolina at Chapel Hill.

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#### Thomas Willis Lambeth



The Lambeth Distinguished Lecture honors
Thomas Willis Lambeth, who led the Z. Smith
Reynolds Foundation as its executive director for
more than two decades until his retirement in 2000.
Born in Clayton, North Carolina, Lambeth graduated from the University of North Carolina in 1957
with a bachelor's degree in history, and served
as Administrative Assistant to Governor Terry
Sanford and to U.S. Representative Richardson
Preyer before being named to lead the Foundation

in 1978. Described by one journalist as "the state's do-gooder-in-chief," Lambeth throughout his career has exemplified the qualities of personal integrity, a passionate devotion to education, democracy, and civic engagement, and wholehearted pursuit of the ideals of the public good and of progressive and innovative ways of achieving it.

During his tenure, the Reynolds Foundation awarded grants totaling more than \$260 million to address many of North Carolina's most pressing public policy issues, particularly social justice and equity, governance and civic engagement, community-building and economic development, education, and protection of the state's natural environment. Tom Lambeth also has made a strong personal impact on many key public policy issues in North Carolina and nationally, including leadership of the Public School Forum of North Carolina, Leadership North Carolina, the North Carolina Rural Center, and a task force of the national Institute of Medicine on the problems of people who lack medical insurance. He also has been a national leader in improving the management and effectiveness of family philanthropic foundations themselves.

The Thomas
Willis Lambeth
Distinguished
Lecture in
Public Policy

The Lambeth Distinguished Lecture was established in 2006 at the University of North Carolina at Chapel Hill by the generous gift of an anonymous donor. Presented annually, its purpose is to bring the UNC campus distinguished speakers who are practitioners or scholars of public policy, particularly those who whose work touches on the fields of education, ethics, democratic institutions, and civic engagement. The Lambeth Lectureship Committee, composed of faculty, students and distinguished individuals engaged in public policy, provide overall leadership in collaboration with UNC Public Policy, College of Arts & Sciences.

## The Thomas Willis Lambeth Distinguished Lecture in Public Polici

