

# Education and America in the 21<sup>st</sup> Century

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When I was asked to speak about democracy, I went right to a familiar source: Benjamin Franklin, who famously said, “Genius without education is like silver in the mine.” For the word *genius* he could have substituted the word *democracy*. Democracy hinges upon an enlightened public in which every member of the polity has equal access to education so everyone can make informed choices. Education is not only a route to social and economic advancement, it is crucial to an informed and thoughtful citizenry. An untapped resource, though, whether the ore in the mine or unrealized human potential, is of little value.

If, as I will argue today, our democracy is in trouble because we are falling perilously behind in the cultivation of human capital, it’s not because we lack the talent or the genius. Instead, what we lack is the collective national will to invest our nation’s resources in our most precious resource of all, the minds of our people.

A 20<sup>th</sup> century champion of democracy, John F. Kennedy, said, “Our progress as a nation can be no swifter than our progress in education. The human mind is our fundamental resource.” During the Cold War, when our chief competitor was the other “super-power,” the Soviet Union, our goal as a nation was to beat the USSR in the space race (and, more ominously, the arms race). President Kennedy knew that education was *the* key to U.S. economic and political supremacy. But it wasn’t all about power and one-upmanship. He believed that education was critical to the *collective advancement* of human societies. And he believed in education as a means of achieving *common understanding* for a better world, and for peaceful coexistence among nations.

How alarmed Kennedy would be to see the dramatic erosion of this nation’s commitment to public education in the sciences and in the arts and humanities. How alarming to see a nation in peril of losing its economic leadership in the world, not to mention its moral and political leadership—

- a nation that, as the economy has become global and the world’s nations more and more interdependent, is becoming increasingly isolated;
- a nation that is turning its back on what was once the world’s preeminent system of education; and
- a nation, whose educational system is leaving many of its people behind.

Our democracy and its educational institutions were once a beacon to the people of the world. Well, put away your sunglasses. That beacon has been growing dim.

I know that I am speaking today to people whose commitment to education is longstanding and unequivocal. But what I say here today must be viewed as a call to action not just to people like you, the true believers, but my call to action is aimed at the skeptics—

- those who see no relationship between our investment in public education and the strength of our nation;

- those who believe in meritocracy but who turn their backs on disadvantaged people of merit;
- those who believe that education is a means to a better life for certain individuals, but not a force for the common good;
- those who believe that our nation's security is better advanced by closing ourselves off from cultural, scientific, and educational exchange;
- those who believe that there really is a level playing field even though the starting points are uneven and different obstacles lie in the path of some players.

I know you understand that education in this country is in serious trouble. Even so, I think you will be surprised and even shocked by some of the facts that I will share with you today. In this season of glad tidings and thanksgiving, I'm afraid that the tidings I bring are mostly pretty grim. But stay with me, and you'll find room for optimism as well as a project for us to take up together.

### **A Flatter World**

In *The World Is Flat*, Tom Friedman argues that the *international* economic playing field is now "flatter" than it has ever been. The causes of this "flattening" include: Broadband connectivity that makes global communication and access to information faster and easier; rising intellectual capital and technical competencies around the world that make it possible for U.S. *companies* to compete internationally for knowledge as never before, and to capitalize as never before on the expertise and labor of people who live far beyond U.S. borders. Production, assembly, delivery, and distribution systems have completely altered the way we do business. Everything from call centers to "back office" service functions, complex supply chains, and manufacturing work flows can now operate anywhere on the globe, around the clock. The international economic integration known as *globalization* means you and I can work anywhere, anytime. (For many of us, that's not such good news!) It is no longer uncommon for: radiologists in Beijing or Oslo to read x-rays of patients in U.S. hospitals; for architects in the United States to have their drawings produced in Rio de Janeiro or Cape Town; for software to be written for U.S. firms in Bangalore or Moscow.

Consider the story of a chocolate bar I recently bought at the Wedge. The chocolate bar spans 6 countries and three continents through a kind of "grassroots globalization": the sourcing is coordinated by a worker cooperative in Ottawa, Canada. Ingredients are shipped to a gourmet chocolate factory in Switzerland: the cocoa, from three farm cooperatives in the Dominican Republic and Peru; the sugar, from three cooperatives in Paraguay and Costa Rica; the milk, from a farm co-op in the United States. The delicious product is shipped from Switzerland to a worker co-op in Boston. It's distributed nationwide by United International Foods, one of the largest U.S. food distributors. And you can buy it at your local food co-op, wherever you live. Bon appetite!

For the U.S. workforce, the transition to a *knowledge* economy has been disruptive to say the least. The knowledge economy requires a *new set of skills*:

- The U.S workforce needs a higher level of education than ever and more "knowledge workers," including a larger number of scientists and engineers.
- Our nation needs, more than ever, research universities, like the University of Minnesota, to be incubators for the basic research that will keep the U.S. on the leading edge of knowledge creation and that will expand the base of knowledge workers.

- Our nation needs people who can think globally and creatively, and who can work across geographic, cultural, language, and religious boundaries.

Friedman asks whether America is ready for this century, whether we are “investing in our future and preparing our children the way we need to for the race ahead.” His answer is emphatically *no*. Friedman is not alone in this assessment.

Richard Florida, Professor of Economic Development at Carnegie Mellon, reaches a similar conclusion in his book, *The Flight of the Creative Class, the New Global Competition for Talent*. America, Florida writes, is now facing the greatest challenge since the dawn of the Industrial Revolution. The core of the challenge is the new global competition for talent. The terms of competition revolve around a nation’s ability to mobilize, attract, and retain human capital. As Florida observes, “The global talent pool and the high-end margin creative industries that used to be the sole province of the U.S., and a crucial source of its prosperity, have begun to disperse around the globe.” It is this new global competition for creative talent that is creating a serious threat to the United States’ long-standing economic dominance.

Here is a third point of view, beyond Friedman and Florida. In proposing the creation of an agency devoted to Homeland Security, the bipartisan Hart–Rudman Commission on National Security noted in 2001, before 9/11: The inadequacies of our system of research and education pose a greater threat to U.S. national security over the next quarter century than any potential conventional war that we might imagine.” The Hart-Rudman conclusion sounds remarkably like what Harvard president, Edward Everett, said 150 years ago: “Education is a better safeguard of liberty than a standing army.”

But in recent years, we have seen a softening of our nation’s commitment, and a serious decline in our nation’s competitiveness. Sputnik spurred this country nearly one-half century ago to unprecedented levels of investment in education, not just in science and technology, but in languages, the social sciences, and international studies.

In marked contrast, the national response to this century’s defining event, 9/11, has not been to enhance investments in education about diplomacy or in education that builds our capacity to understand and bridge religious, cultural, or national boundaries. Instead, there has not only been a lack of long-term investment in education, but a kind of all-out assault on education, in the form of

- cuts in public investment in basic research, in scholarships, in our schools;
- cuts in access to college; and
- increased barriers to international exchange and to the movement of intellectual capital.

These forces, coupled with the growing political isolation of the United States, have weakened America’s competitive position in the world. And we are losing the most important race of all—the brain race. I want to examine with you some of the details about what’s been happening and then offer some suggestions about what we should do about it.

### **The Decline in Basic Research**

As you know, *basic* research is a core mission of our research universities. Its purpose is to advance understanding of our social, cultural, political, physical, and natural worlds. *Basic* research provides the *well-spring* of scientific capital from which *applied* research draws to meet immediate, practical needs. The genius of the basic research enterprise at U.S. universities has been its ability to turn the

silver in the mine into sterling discoveries, if you will. It affords the best minds the opportunity to address *fundamental questions* in ways that down the road yield solutions to some of our most pressing problems.

But, America is seriously underfunding basic research. Federal investment in research and development as a percentage of GDP has declined steadily over the past four decades. And while U.S. investment in research and development has been declining, other nations around the globe are *increasing* their public R&D investments. Japan and Korea now spend a larger portion of their GDP on R&D than does the United States. From 1995 through 2001, R&D spending in China, Korea, and Taiwan increased about 4 times more than in the U.S. China is on a path to *double* its investment in basic research over the next 10 years. In America, the federal government has not stepped in.

So why doesn't the private sector step in? Corporations fund comparatively little basic research, for obvious reasons. Basic research is a public good: it offers public benefits to society that cannot be sequestered as private gains to its sponsor. Basic research is, almost by definition, risky. Researchers often do not—indeed, cannot—foresee the outcomes of basic research, let alone the economic implications. Wall Street's pressure for short-term financial results discourages long-term, speculative investment by industry.

This last point is worth dwelling on for a moment. Basic research is a *long-term* investment. It takes time to transform basic research into products and services: there can be long lags between discoveries and their commercial applications; and the outcomes of basic research might even be totally unintended or unexpected.

Some cases in point: Research into quantum mechanics by physicists in the 1920s laid the foundation for a microelectronics industry that did not begin to appear until the 1950s. Basic research on DNA has led to new health therapies and the enormous growth of the biotechnology industry. The potential of those developments for human health is only beginning to be realized. Skeptics greeted research on lasers in the 1960s as “a solution in search of a problem,” but 20 years later, it had revolutionized telecommunications, manufacturing and health care. Uses for lasers now range from surgery to sewer alignment, and CD and DVD players.

The uncertainty that characterizes basic research is also fundamentally at odds with a mentality that is looking for quick fixes and immediately quantifiable outcomes. Americans want to know *now* where research is going; and they want to see cures *now*; new energy sources *now*; faster computers *now*; and increased profits *now*. Such impatience does not create a favorable environment for basic research or its funding. And, this myopic strategy will be catastrophic down the road. The need for protections in the decades ahead against antibiotic-resistant “superbugs” for example, will need to draw upon basic scientific research that is not being conducted. If and when catastrophe strikes—say, an epidemic—it will take time for new investment to occur and years for the scientific work to be completed and the benefits to be realized.

### **The Pipeline for Scientists: Graduate Education**

To play a leadership role, the United States needs the highest quality human capital in the world. University graduate research programs are *the* source of a highly trained and innovative workforce of scholars, researchers, and scientists. But declining investment in research has made graduate study in key fields less attractive, especially when lucrative private-sector salaries await graduates of undergraduate science and engineering programs. Enrollments in graduate programs in some

areas, like physics, mathematics, aerospace engineering, have declined between 10% and 20% over the past decade.

As fewer Americans pursue degrees in the sciences, our nation's competitive edge has depended increasingly on the ability of our universities to serve as the *international* magnet for the world's most talented students and researchers. But our magnet has been rapidly losing its attractive power.

For most of the past half century, American universities have been the envy of the world, affording opportunities unparalleled in other countries. In 2002, about one-fourth of all Ph.D.s granted by American universities went to temporary residents, including nearly 40% of the Ph.D.s in the physical sciences and 55% of those in engineering. And many of these graduates stayed in America to teach and lead research efforts in our universities and in industry. Walk through any university campus, and you will see and hear a rich international community, like the one we have created at the University of Minnesota.

Much has changed, though, in the wake of 9/11. International students and researchers say it's not worth queuing up for two days outside the U.S. consulate in whatever country they are in to get a visa when it's much easier to go elsewhere. Stories abound about foreign graduate students and faculty traveling home for the holidays or abroad for scholarly conferences and not being able to get back in the country. Prominent scholars and scientists not being able to secure visas to attend scholarly meetings or lecture in the United States. New immigration procedures have discouraged international students from applying to U.S. programs, have prevented the world's leading international researchers from attending scientific conferences in America, and have dampened international collaboration.

As a result, over the past three years, international applications to U.S. graduate programs fell 28%; international applications for engineering programs fell 36%; and international enrollments in U.S. graduate programs are down for the second year in a row—the first declines in three decades.

Richard Florida reminds us that during the 1980s and 1990s, “talented, educated immigrants and smart, ambitious young Americans congregated in and around a dozen U.S. urban regions .... Now the rest of the world has taken notice of our success and is working hard to reproduce it.” Countries such as Belgium, Canada, Finland, India, Ireland, the Netherlands, and Sweden have begun to lure scientists, students, researchers, entrepreneurs, artists, and the like from around the globe (including from the United States), building creative industries that used to be the province of the United States. Florida notes an alarming 55% drop since 2002 in the number of U.S. government-issued visas for immigrants to work in science and technology. “For the first time in modern memory,” he says, “top scientists and intellectuals from elsewhere are choosing not to come here.” To stem the hemorrhage of talent, we must do a better job of balancing the nation's security concerns against the proven benefits of attracting international talent to our shores.

While the United States has erected new barriers to international students and faculty, other countries have moved into the breach and are quickly becoming the new hubs for international students and researchers. For example, Canada recently announced changes in its immigration policy to help Canadian universities recruit international students. Britain, Australia and New Zealand are aggressively recruiting international students, as are Taiwan and Hong Kong. China has made transforming 100 universities into world-class research institutions a national priority and applications to American graduate programs from Chinese students have fallen by nearly 50%.

The result is that America's production of Ph.D.s, particularly in science and engineering is decreasing and the production of doctorates in the European Union and Asia is rising: in 1975, the United States conferred 59% of the world's total doctoral degrees; by the end of 2001, our share had fallen to just 41% percent—and the decline continues.

James Langer, vice president of the National Academy of Sciences, didn't mince words when he told the U.S. Senate Science and Technology Caucus in May 2004 that "American science is being isolated from the rest of the world." Amid fierce international competition for human capital, America is closing its doors to people of enormous talent and creativity. And the long-term implications are dire.

In the end, the United States needs the smartest people *wherever* they come from. As history has emphatically demonstrated, the United States will be far better off if those people live and work in the United States rather than elsewhere. Keep in mind that scientists fleeing Europe in the 1930s, along with artists and intellectuals, strengthened America in countless ways. These scholars, scientists, and artists helped U.S. universities and other institutions become global leaders in research and creativity. They helped secure America's position as the acknowledged leader in education, scientific exchange, creativity, and discovery.

Lest anyone question the value of admitting foreign-born scientists and scholars, consider these startling statistics: one-third of all U.S. Nobel Laureates; 40% of engineering faculty; and 25% of the membership of the National Academy of Sciences were born outside the United States.

If we continue on our current path, all of this intellectual capital could be lost, never to be replaced.

### **How About the College Pipeline?**

So are American students filling the gap? The answer is unequivocally no.

American students are much less likely to pursue science and engineering degrees than are students in other countries, and the trend for American students continues downward.

- The United States now ranks 20<sup>th</sup> among all nations in the proportion of students who earn degrees in natural science or engineering. In 1975, we ranked 3<sup>rd</sup>. We've been topped by Finland, France, Taiwan, South Korea, U.K., Sweden, Australia, Ireland, Spain, Japan, New Zealand, Netherlands, Canada, Switzerland, Georgia, Italy, Iceland, Israel, and Germany.

The proportion of young people who go on to a four-year college or university is a leading indicator of how well a nation is prepared to compete in the global knowledge economy. Access to higher education in America's is *not keeping pace* with the rest of the industrialized world that is working to ensure an educated workforce:

- The U.S. now ranks 21<sup>st</sup> out of the thirty members of the Organization for Economic Cooperation and Development (OECD nations) in the proportion of 20-24 year-olds enrolled in higher education. Fourteen nations—including all the Scandinavian countries, New Zealand, Australia, Hungary, Poland, Korea, Spain, the United Kingdom, and Italy—have high school-to-college continuation rates that are higher than America's.
- Even more alarming is that between 1998 and 2001, the typical OECD country *increased* its high school-to-college continuation rate by an average of seven points, while the rates declined in only two nations—the United States and the United Kingdom.

In short, in industrialized nations around the globe, a larger and larger share of high school graduates are going on to college. But in America, continuation from high school to college has declined. This is an ominous sign.

### **Why the Growing Education Gap Between the U.S. and Other Industrialized Nations?**

The reasons for the growing education gap between the U.S. and other industrialized nations is all too familiar. First, the U.S. has cut its investments in higher education while other nations have increased their investment.

- Nationwide, the share of state budgets going to higher education has shrunk by more than one-third over the past three decades.
- State support for higher education as a share of income is back to levels (in real dollars) last seen in the mid-1960s.

Second, in response to the cuts in state support, the price of a college education in America has risen dramatically, and the increased cost has made college unaffordable for many students.

- Grants-in-aid, scholarships, and education tax benefits have helped offset some of the increased cost, but nationally, student financial aid has not kept pace with the rising cost of college. Federal Pell Grants now cover only 36% of the cost of college at an average public four-year university, compared to 84% in 1975.
- Nationally, more students and families at *all* income levels are borrowing more than ever before to pay for college. In fact, over 70% of all federal financial aid is now in the form of loans rather than grants-in-aid. (And the Bush administration has proposed cutting back on these student loan programs as well.)
- Nationally, students are working more hours to pay for college. Back in 1980, a student needed to work 23 hours per week at minimum wage to pay the cost of attendance at an average public university. In 2002, a student needed to work 55 hours per week to meet these costs.

What this adds up to is a *crisis of access*. But, the story is even worse.

Many states and many colleges and universities across the nation have taken steps that have exacerbated this crisis of access. In an effort to attract more students with “strong academic profiles,” states, colleges, and universities have shifted their emphasis from *need*-based financial aid aimed at students who have financial need to *merit*-based scholarships awarded without regard to whether the student has financial need. Nationally, the average scholarship awarded by public and private colleges and universities to students in the highest income quartile now *exceeds* the average scholarship awarded to students in the lowest income quartile, and this gap in scholarship awards has grown over time. Many states have also shifted their funding from need-based to merit-based grants. Back in 1981, only 9% of undergraduate state grants were awarded on merit (rather than financial need). By 2003, merit-based grants had shot up to 23% of the total.

Nationally, access to higher education at the nation’s 250 most selective 4-year colleges and universities has become increasingly skewed towards students from upper-income families who made up 55% of the freshman classes entering fall 2000, compared to 46% in 1985. And nationally, college participation rates for students from low-income families have declined.

This growing inequality in access to higher education has led, not surprisingly, to growing class disparities.

- Students from families in the top quartile of the income distribution were 6.4 times more likely than those from the bottom income quartile to have completed a baccalaureate degree in 1970.
- By 2003, students from the wealthiest families were 8.3 times more likely than those in the bottom income quartile to have completed a baccalaureate degree.

And what about Minnesota, the Education State? Minnesota used to lead the nation in college participation rates among students from low income families. But college participation rates for Minnesota students from low income families has fallen by 17.9%. Minnesota now ranks 11<sup>th</sup> in the nation in college participation, having fallen faster over the past decade than any other state.

In summary, the net effect of the institutional, state, and federal policy choices made over the last 25 years has been that the expansion of higher education attainment has been enjoyed *almost entirely by students born into the top quartile of the family income distribution*. Education, once America's most powerful vehicle for social mobility, *is being priced out of the reach of ordinary Americans*.

Rising costs, coupled with declining need-based financial aid, not only excludes many of America's most talented students from higher education—keeps the silver *hidden* in the mine—but also discourages countless others from even bothering to prepare themselves for college. To many talented students, college just seems out of the question financially.

I believe that America must draw upon *all the diverse talents* that exist in every part of our society. *We cannot compete in the 21<sup>st</sup> century* with an education system that leaves so many people behind—especially when other nations are *increasing* access to higher education.

If you want to see truly dramatic investments in higher education, look again at China. China has more than doubled its higher education funding in the past five years; increased nearly 5-fold the number of undergraduates over the past decade; and increased nearly 6-fold the number of graduate students. And China is spending *billions* of dollars to woo such big-name scholars as Andrew Yao of Princeton University, one of our nation's top computer scientists. The model is simple: recruit top foreign-trained Chinese and Chinese-American specialists, set them up in well-equipped labs, surround them with the brightest students, and give tremendous leeway. I think we can learn more than a few lessons from our friends in China. This is one thing Governor Pawlenty and I agree on. As he said, "To see it, the pace, the energy [in China], you get a very acute sense of urgency for our country to *get its rear in gear*."

## **K-12 Education**

Let's go back even farther in the pipeline to look at what's been happening in grammar schools and high schools across America. How about high school graduation rates?

- The United States now ranks 17<sup>th</sup> in the world in high school graduation rates (74%) compared to over 90% in Hungary, Japan, Germany, Poland, Slovak Republic. Nations such as Finland, France, Sweden, and Italy also have higher graduation rates than in the U.S.

Even in Minnesota, only 82% of 9<sup>th</sup> graders will graduate with a high school diploma, and only 49% of the high school graduates will go on to *any* form of post-secondary education.

For Minnesota's minority populations, the statistics are especially grim: their 4-year high school graduation rates are about one-half that of non-Hispanic whites. The statistical odds of Minnesota ninth graders finishing college in Minnesota by their mid-20s are alarmingly low: Only 19% of white, non-Hispanic ninth graders will complete college compared to 5% of American Indians; 17% of Asians; 8% of Hispanics; and 5% of African Americans. And keep in mind that by 2015, white, non-Hispanic Minnesotans age 15-19 will *decrease* 18%, while minority populations in this age group will *increase* by 22%.

I'm not a gambling man, but I'd say that unless we make some dramatic changes here, the odds are not good for the state of Minnesota. If we want our state to continue earning its reputation as the education state and to sustain its strong economic base by educating a work force for this century, we must dramatically change how we prepare students for a global, knowledge economy.

Let's go even farther back in the pipeline to see how well our primary and secondary schools are doing.

- Only 29% of elementary grade students who took the 2003 National Assessment of Educational Progress performed at or above the "proficient" level in mathematics. Eighth graders in eleven countries (Singapore, Hong Kong, Japan, the Netherlands, Latvia, England, Hungary, Korea, Belgium, Russia, and Australia) score higher on math than eighth graders in the U.S.
- American twelfth graders in 1999 were *last* among students in twenty nations who participated in the Trends in International Mathematics and Science Study (TIMMS).
- In the 2003 Programme in International Student Assessment (PISA) battery of tests to assess the basic knowledge and skills of fifteen-year-olds, U.S. students ranked
  - 24<sup>th</sup> in mathematics out of twenty-nine nations;
  - 24<sup>th</sup> in problem solving skills;
  - 15<sup>th</sup> in reading proficiency; and
  - 19<sup>th</sup> in science proficiency.

So why this discouraging report? The reasons should come as no surprise:

- Across America, we have slashed funding for K-12 education, at a time when the need for investment has never been greater.
- Fully 34% of the K-12 public school student population (17 million children) is being educated in economically-depressed school districts.
- We have not adequately invested in K-12 teachers: We do not adequately recruit, educate, reward, and retain excellent K-12 teachers. And an alarming number of students in U.S. Public Schools are taught by teachers who did not major or get advanced certification in the subject they teach.

To be sure, even the very best teachers in the very best schools cannot by themselves solve all of the problems of our society. But, if we *don't* invest in K-12 education, we've lost the battle. And we've lost perhaps irretrievably the contributions of those children whose talents will never be tapped.

## **What Does All This Add up to? And, What Should we do About It?**

The word “crisis” may be overused, but I think it is entirely appropriate here. The crisis in education is not a single catastrophic event. It is the result of a confluence of cultural, political, and economic forces that threaten the very underpinnings of our nation and its democracy.

History is the story of people calling upon their individual and collective intellectual and practical talents to meet daunting challenges in times of crisis. World War II saw America and its allies rise up against the threat of fascism. After the launch of Sputnik in 1957, America accepted the challenge of the space race and transformed education across America, increasing access to our colleges and universities, and building a research infrastructure that was second to none. And, when President Kennedy pledged that America would land a man on the moon by the end of the decade, it became a project that engaged the entire nation. And, we got it done.

Today’s challenge is no less threatening than Pearl Harbor; no less threatening than the Cuban Missile Crisis; and no less threatening than 9/11. *But today’s challenge has not yet stirred our nation to action.*

I believe that we can turn things around. I believe that we must turn things around. But, it will take political will, public investment, and an enormous collective effort of the sort that Americans are capable of. It will take the sort of mobilization of energy and commitment that we saw in the immediate aftermath of 9/11.

## **Here Are Three Things We Can Do.**

First, we need a *coordinated national effort* that engages *every sector* of American society, that engages every American’s ingenuity, resourcefulness, and creativity. We need a coordinated national effort that engages our universities, pre-schools, grammar schools, and high schools; our federal, state, and local governments; large corporations and small businesses; churches and synagogues; national organizations and neighborhood groups. We must together invest in our nation’s most precious natural resource—its people.

As Richard Florida has said, education is the greatest generator and wellspring of talent and creativity. “We can no longer prosper and succeed by taking advantage of the creative energies of 30 or even 40% of our workforce, leaving the vast reservoir of the other 70% untapped.”

So that brings us back to the silver in the mine. We must mine the talents of all of our citizens to develop: citizens who can communicate and work effectively across geographic, cultural, and religious boundaries; scientists, mathematicians, engineers, and health professionals who will generate the breakthrough discoveries that will lead to new applications; creative, imaginative, and innovative people in all professions and in all walks of life who will lead America in this century.

Broadened access to education is central to the strength of our democracy; is central to the development of the human capital America needs to compete in the knowledge economy; is central to creating social and economic opportunities for millions of Americans; is central to tapping the creative genius of all of our people; is central to generating new knowledge, innovation, and economic growth.

We need a coordinated national effort that makes education the national priority. This coordinated effort is a national imperative.

Second, *universities must take the lead*. Universities must play a crucial role in the revitalization of our nation's education system. We can put the pieces together. We can bring together diverse people and expertise. We can train the teachers, develop the new knowledge and curriculums, write the books. We can help build the bridges within our own institutions and build bridges across the many sectors of society that need to work together with a sense of national purpose. We can help craft a new social compact for education that recognizes the value of education to the social, economic, cultural advancement of our citizens, our communities, and our nation. We can collaborate with pre-K – 12 educators in our communities and in our states to dramatically reverse the trends of the past three decades. Priority #1 for civic engagement on our campuses should be engagement around pre-K – 12 education. Priority #1 for private fundraising should be need-based scholarships for our students.

Third, *state and federal governments must get back in the game* and must do it big time. We need: increased funding to advance basic research and increased funds to ensure access to undergraduate and graduate education. This funding from the federal and state governments is a critical component of what is needed for America to re-establish its leadership role.

In closing, none of what I have told you today is new—it's an alarming acceleration of a trend that has been building for several decades. Twenty-two years ago, a national commission issued a report that concluded:

Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. This report is concerned with only one of many causes and dimensions of the problem, but it is one that undergirds American prosperity, security, and civility. We report to the American people that while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its people, the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur--others are matching and surpassing our educational attainments.

The unimaginable has come to pass—we are falling farther and farther behind. But, we have the talent, the know-how, and the resources to turn things around.

In Chinese, the word for *crisis* is comprised of two characters: one represents danger, the other, opportunity. I've talked with you about the dangers, and have suggested a few of the opportunities. We must seize the moment and meet the dangers head-on.

What can this chapter of the AAUW do? I leave you with the words of Margaret Mead: "Never doubt that a small group of thoughtful citizens can change the world. Indeed, it is the only thing that ever has."