

Knowledge Made in America:

A private-public funding model for leading public research universities

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“America’s research universities ... have become the engine of the nation’s national prosperity. They are key to the fate of the global economy in the twenty-first century.”

--Jonathan Cole, The Economist, September 9, 2010

“State universities need a new model for paying the bills. A commitment of ideas and resources are needed if America is to continue its grand tradition of its citizens bettering themselves — and itself — through education.”

--Washington Post Editorial Board, Jan. 20, 2012

Vision

Maintain Global Leadership at America’s Great Public Universities through a New Private-Public Partnership

Universities lie at the heart of successful, leading economies around the world, more so in today’s knowledge economy than ever before. The role of America’s leading universities in yielding new knowledge, discovering breakthrough ideas, fostering innovations, seeding new companies and creating jobs has been the envy of the world for six decades. Sadly, this legacy of excellence is threatened, as economically struggling states are disinvesting in public higher education at the same time national governments from many other countries are embarking upon major new investments in their public universities.

According to a recent report by the U.S. Department of Commerce, “Federal funding of research cannot drive innovation by itself. A healthy private sector must act in partnership with university and research labs to fund the transfer of new technologies to the market, creating new businesses built on innovation. It is also crucial for institutions to encourage research through a strong education system.However, the innovative performance of the United States has slipped during the past decade compared to other countries.”¹

The National Academies press finds that “U.S. leadership in technological innovation seems certain to be seriously eroded unless current trends are reversed. The accelerating pace of discovery and application of new technologies, investments by other nations in research and development (R&D) and the education of a technical workforce, and an increasingly competitive global economy are challenging U.S. technological leadership and with it future U.S. prosperity and security.”²

To maintain America’s economic competitiveness we must strengthen our efforts in the science, technology,

¹ U.S. Department of Commerce, “The Competitiveness and Innovative Capacity of the United States.” January 6, 2012.

² The National Academies Press, [Engineering Research and America's Future: Meeting the Challenges of a Global Economy \(2005\)](#)

engineering and math fields as well as provide a strong infrastructure for the humanities and social sciences, which are also critical to America's global leadership success in the 21st century.

In the 1970's, U.S. government contributions to public universities' total revenue was nearly 60 percent, on average. As of 2009, that number fell to 25 percent and is rapidly declining. At UC Berkeley, state funding historically comprised 30-40 percent of the campus budget over the last 20 years. Since 2008, state funding has continually declined, and now comprises approximately 10 percent of the university's budget (2011-12).

Meanwhile, many of our global competitors in the world are making major investments in their higher education systems.

During the last 15 years, the Korean government has invested significant resources into its universities and even shifted its national priorities to spend more on higher education. "In 2009 alone, according to the Korean Ministry of Education, Science and Technology (MEST), Korea allocated approximately \$4.1 billion (U.S.) for higher education funding — an increase of 14.2% over the previous year. In 2008, Korea launched an Educational Capacity Enhancement Project, which provides grants to campuses so that they can meet industrial demands for a high quality workforce. The Brain Korea 21 Project, instituted in the late 1990s, continues to pursue improvements in research infrastructure and graduate-level training."³

The French government announced in October 2011 that they were investing more than \$10 billion in endowment funding for universities to partner together to create a high-level "elite" university system that could compete on a global scale. One of the requirements of receiving the government money for endowments will be a closer working relationship with business to commercialize research and form spin-off companies.

The Indian government is seeking to build more than 1,000 new universities and 50,000 new colleges in order to meet the demand of doubling its higher education enrollment in the next 10 years.⁴

Proposal

American Challenge Grants--A New Private-Public Funding Model for Public Universities

It is clear that America's Research Universities need a bold new funding model to continue to grow the nation's economy and lead the world in innovation and discovery.

"Innovation in the US has thrived as a result of a research 'ecosystem' comprised of three main sectors: the Federal government, the college and university system, and the private sector....they are all interconnected."⁵

Building on this interconnectedness, the *American Challenge Grant Program* seeks to bring all of these partners together in order to a) to leverage the U.S.'s unparalleled culture of philanthropy to sustainably fund public research universities well into the future, b) to staunch the increasing shortfall in state support, c) to preserve an active public sphere by maintaining access to excellent higher education for America's middle class and continuing to offer a path to prosperity through educational opportunity for low-income families, and d) to fill the gap in available human capital to build America's future.

This proposal advances a new *Private-Public Funding Model* for public universities that leverages annual federal matching grants to universities to attract private philanthropic investments in permanent endowments and to preserve levels of state support for higher education. Approximately one hundred of the nation's premier public research universities would be eligible to leverage this new federal matching program to raise major philanthropic contributions in support of public higher education. Eligibility for federal matching funds would be conditional on state governments' "maintenance of effort" in sustaining current levels of financial support.

³ Yudof, Mark G., President, University of California. "Exploring A New Role For Federal Government In Higher Education. 2008.

⁴ Kaustua Basu, "U.S., India and Higher Ed", Inside Higher Education, October 14, 2011.

⁵ U.S. Department of Commerce, "The Competitiveness and Innovative Capacity of the United States." January 6, 2012.

Program Highlights:

- Federal government provides challenge grants to match new philanthropic investments 1:1 in university endowments, for research and teaching.
- State governments must match Federal contributions, and maintain existing funding level
- Federal government appropriates \$1 billion annually for ten years for the program
- Federal funds are available to all states and distributed according to objective criteria
- The nation's top 100 great public research universities would be eligible for the program

Why Public Research Universities Matter

Public universities are the leading institutions of higher education in the U.S. in terms of both research and teaching.

Beyond the important role of educating our future leaders in both the public and private sectors of our economy, universities are a major economic engine for the country. They generate income from every taxpayer dollar received. As an example, the University of California generates more than \$46 billion in economic activity in the state of California even as direct state support has fallen to approximately 5% of this figure. The university is the 2nd largest employer in the entire state with more than 190,000 employees, and brings nearly \$9 billion of federal and other non-state funding into California each year.

It is important to acknowledge the very high return on investment that the nation's public universities provide to taxpayers. For example, for every dollar in state funding received, the University of California generates \$13 in economic output, and UC operations support 430,000 jobs--1 out of every 46 jobs in the state. This same situation obtains in virtually every other state in our nation.

Public research universities also directly drive innovation through critical discoveries in fields vital to the nation's economic future such as agriculture, health care, information technology, telecommunications, nanotechnology, biosciences, environmental management, homeland security, and energy systems, to name a few. Their excellence in the liberal arts has also been vital to preparing Americans to compete effectively in a global economy and remains critical to achieving long-term national goals for our economic well-being.

Without a new sustainable funding model, the U.S. is in jeopardy of losing its competitive edge in the global economy. Without an excellent workforce, and cutting edge innovation, America's future growth is in peril.

PROGRAM DETAILS

The **American Opportunity Challenge Grants** would constitute a major new partnership between the private and public sectors, which would significantly augment the resources available to the country's most successful public research universities.

Details of the public-private partnership include:

- a) For a period of ten years, 100 of our nation's best public research universities will work with private philanthropists and corporations to raise significant new permanent endowed capital at each university.
- b) At the outset of this effort Congress will commit \$1 billion annually for 10 years;
- c) Funding will be distributed based on population with a minimum grant for states with less than 1.5 million people of \$5 million; and
- d) In order to make eligible a participating university, each state will agree to both maintain benchmarked contribution levels and, with new funds, match the new annual federal contributions to universities in their state for

the same 10 year period as the federal match.

This new model is a unique Federal investment that leverages capital with private matching to ensure strength of America's "research ecosystem":

- **Private Donors:** Agree to contribute endowment funding to each eligible university's endowment that will be matched by public sources 2:1. Donors as key stakeholders will be instrumental in reversing state disinvestment.
- **Federal Government:** \$1 billion of federal funds will be appropriated annually for matching challenge grant contributions for ten years with funds distributed among states based on population and eligible public research universities.
- **State Government:** As a precondition to receiving federal matching funds, each state would agree to both match the federal endowment contribution to their state and to maintain current levels of state funding for participating public research universities.

Use of Matching Challenge Grant Contributions

Combined private and government contributions would be invested as endowment funds in perpetuity. Only the proceeds from the invested endowment capital would be spent to support research and instruction. Institutions in different geographies face different costs and would have latitude in exactly how to distribute endowment payouts.

For example:

A standard \$3 million dollar endowed faculty chair would generate enough interest to support \$75,000 for a professor's salary, \$25,000 for research expenses of the chairholder, and \$50,000 for graduate student support.

Important Safeguards

- *Equity:* Federal funding would be an instrument for ensuring that institutions stay focused on key elements of their public mission by requiring certain safeguards for access and equity.
- *State Fiscal Responsibility:* Federal funds would provide an incentive to staunch the divestment by state legislatures from public universities. The policy should include conditions on maintaining state contributions in reference to baselines or regional trends.
- *Academic Freedom:* The policy model proposes three different benefactors all with interests that may differ from the recipient institutions. Thus, the new endowments will be structured and governed to protect institutional autonomy and academic freedoms.

Virtues of Matched Endowments

- *Longevity:* Endowments are in perpetuity and are not subject to the vicissitudes of economic and political cycles.
- *Innovation and Excellence:* Endowments cultivate innovative research and excellence in instruction across the humanities, social sciences, basic and life sciences and professional schools. For example, the Miller Institute for Basic Research in Science, endowed at UC Berkeley with \$5 million in 1945, has supported over 1000 scientists including seven Nobel Prize winners and six Fields Medal winners.⁶
- *Spark for Stimulating Private Fundraising:* Research has demonstrated that people are much more likely to contribute gifts or charity when their contribution is matched.⁷ Furthermore, many private philanthropists are averse to supporting endowed chairs without a match because they believe they can derive higher returns

⁶ Adolph C. and Mary Sprague Miller Institute for Basic Research in Science. University of California, Berkeley. <http://millerinstitute.berkeley.edu/page.php?nav=35#organization>

⁷ Karlan, et al. Small Matches and Charitable Giving: Evidence from a Natural Field Experiment (September 2010) Journal of Public Economics, forthcoming.

through their personal investing than the 5.0% returns targeted by endowments. With a 2:1 match, philanthropists would be achieving the equivalent of a 15% return on their investment.

- *Proven Ability to Raise Private Contributions:* Exemplifying the willingness of private philanthropies to participate, as well as the power of a challenge gift to incentivize donors, the William and Flora Hewlett Foundation made a \$110 million challenge gift to endow 100 new faculty chairs at UC Berkeley. The University recently completed this challenge with 100% success in four years.
- *Lever for Halting State Backsliding:* Through conditionalities in the funding, a Federal match could incentivize states to halt divestment from higher education.

APPENDIX A

GOVERNMENT SUPPORT FOR PUBLIC UNIVERSITY ENDOWMENTS

Historically, the Federal government first endowed public universities through the Morrill Act of 1862, creating the public university system, as we currently know it. This approach of investing in the *operations* of schools remains unparalleled in its impact on the national system of higher education. More recently, almost half the states in the country adopted programs similar to that proposed here to match private investments in the endowments of their respective public universities, though the federal government does not participate in these programs.⁸

a) Federal Matching Endowment Grants: Morrill Act of 1862 and its Legacy

The Morrill Act of 1862 was the first significant federal program to support higher education in the U.S. and created what has become a robust system of land grant colleges, historically black colleges, tribal colleges, and many of the country's premier research universities. The "institutional descendants" of the Morrill Act are members of the Association of Public and Land Grant Universities (APLU). Following the Revolutionary War, states began to organize publically controlled universities with curriculum that largely conformed to the elite private institutions modeled after European institutions. Leveraging federal funds, the Morrill Act initiated a uniquely American form of public higher education, creating access for and disseminating scientific knowledge among more than just elite Americans. The funds provided were intended for operations and instruction, not research or capital projects. Federal assets (land) were transferred to states for the endowment of public colleges. Funds were administered by states with restrictions on use for the sake of motivating state matching.

b) State Matching Endowment Grants

In the context of budget scarcity and state divestment, state matching endowment grants are hardly sufficient to sustainably support public institutions. However, the historic success of state government matches demonstrates the efficacy of the public-private endowment model. According to a 2002 report from the Association of Governing Boards of Universities and Colleges, at least 24 states had established matching fund programs to encourage private support for higher education.⁹ 75% of these programs supported general endowments and endowed chairs or faculty sponsorships with the vast majority supporting universities or four-year colleges. This state matching of private funds has historically proven quite successful. In just three years, Louisiana State University Foundation grew its endowment by \$30 million, establishing 46 new endowed chairs and 340 new endowed professorships worth more than \$80 million.

⁸ "State Matching Funds are Boosting Private Giving to Public Higher Education." Association of Governing Boards of Universities and Colleges. February 6, 2002.

⁹ "State Matching Funds are Boosting Private Giving to Public Higher Education." Association of Governing Boards of Universities and Colleges. February 6, 2002.