



INNOVATION: AN AMERICAN IMPERATIVE

April 2017 Progress Report

On June 23, 2015, the heads of nine large U.S. corporations issued a call to action – Innovation: An American Imperative – urging Congress to enact policies and make investments to ensure that the United States remains the global innovation leader. Over 500 leading industry, higher education, science, and engineering organizations from the 50 states have endorsed the statement. Responding to this call, members of Congress have already taken several bipartisan steps to bolster American innovation.

While much work remains to be done, the organizers of [Innovation: An American Imperative](#) are pleased to provide the following update:



Renew the federal commitment to scientific discovery

Status: IN PROGRESS. Congress and the Administration have not completed FY17 appropriations. The current continuing resolution includes \$352 million in additional funding for the National Institutes of Health (NIH) as called for in the 21st Century Cures Act. Several FY17 appropriations bills include some modest increases for federal research agencies, as well as a \$2 billion increase for the NIH. The FY16 federal budget included a six-percent increase for the NIH, which began to reverse more than a decade of decline in federal research investment and represents a step forward for America to regain its global innovation leadership.

Congress has an opportunity in FY17 and beyond to provide similar increases for basic research sponsored by other federal agencies such as the National Science Foundation, the Department of Energy's Office of Science, the Department of Defense, NASA, the National Institute of Standards and Technology, USDA, and NOAA. Unfortunately, the Administration has proposed significant cuts to several federal science programs and agencies in its FY18 budget blueprint. Were Congress to follow the Administration's proposal it would impose devastating consequences on our nation's research enterprise.



Make permanent a strengthened federal R&D tax credit

Status: ENACTED. The Protecting Americans from Tax Hikes Act of 2015 made the R&D tax credit permanent and extended its benefits to start-ups and small businesses.



Improve student achievement in science, technology, engineering, and mathematics (STEM)

Status: IN PROGRESS. Congress passed legislation to expand STEM teacher recruitment and training programs and to strengthen standards and accountability in K-12 education. Yet the President's Council of Advisors on Science and Technology has stated that funding for such programs continues to lag far behind what is needed to truly make a difference in student

achievement. Meanwhile, U.S. students have slipped to 31st in math and 19th in science among the 35 OECD nations. Congress and the Administration can make significant progress in improving STEM education during the next decade by increasing investments in key STEM programs supported by federal science agencies.



Reform U.S. visa policy

Status: INCREASING CONCERN. America must reshape its policies to attract and retain the best and brightest students and researchers in an increasingly competitive global market (*e.g.* increasing the number of green cards to allow high-skilled talent from U.S. universities to remain in the U.S.). More than half of the graduates in STEM fields at American universities are foreign nationals. In the field of computer science alone, the U.S. graduates just 50,000 new students each year while the information technology industry has 550,000 open positions. Until this gap can be filled through increased STEM education and training efforts for American students, U.S. colleges, universities, and companies need a robust high-skilled visa program and additional green cards to access the top talent graduating from our higher education institutions. The temporary six-month suspension of expedited processing for H-1B highly-skilled visas is an unfortunate impediment for American efforts to attract top talent from around the world. Clear messages and policies that demonstrate the United States welcomes the best and brightest international scientists and engineers is vital to future innovation and American competitiveness and security.



Take steps to streamline or eliminate costly and inefficient regulations

Status: PROGRESS MADE – MORE NEEDED. Before adjourning, the 115th Congress passed three pieces of legislation – the 21st Century Cures Act, the American Innovation and Competitiveness Act, and the National Defense Authorization Act – all of which included provisions to help eliminate, reduce, and streamline research-related regulations. These provisions reflect specific recommendations made in reports that The National Academies’ Committee on Federal Research Regulations and Reporting Requirements, Government Accountability Office, and National Science Board issued. Perhaps the most significant of these provisions is a requirement that OMB establish a Research Policy Board charged with coordinating, streamlining, and reducing research related regulations and that the agency conduct an ongoing review of regulations to improve efficiency and optimize the federal investment in research. In January, the new Administration issued an Executive Order entitled Reducing Regulation and Controlling Regulatory Costs, which could further help scientists and engineers spend more time conducting research and less time complying with regulations.



Reaffirm merit-based peer review

Status: ENACTED. The American system of independent, merit-based peer review is the global gold standard for ensuring scientific excellence and integrity as well as the most effective use of taxpayer dollars. This standard is increasingly being adopted by competitor nations. This well-respected system for reviewing grant proposals was recently reaffirmed through the passage of the American Innovation and Competitiveness Act, which was signed into law on January 6, 2017.



Stimulate further improvements in advanced manufacturing

Status: PROGRESS MADE – MORE NEEDED. Congress established Manufacturing USA, a national network of Institutes each with a unique technological concentration. Fourteen Institutes have been established and each is set to receive federal funding for five years. While these Institutes have received initial funding, Congress must appropriate funds for them annually. And to reach the goal of establishing 45 Institutes, Congress must provide additional funding beyond what is needed for the initial 14 Institutes.

The “Manufacturing Engineering Education Grant Program,” adapted from the Manufacturing Universities Act, was included in the National Defense Authorization Act (NDAA) for FY17, creating a program that will allow universities, nonprofit institutions, and industry to develop manufacturing-focused curriculum, workshops, trainings, and job placement activities. While the program has been authorized, no funds have yet been appropriated.

Despite the Administration’s proposal to eliminate the program, Congress must sustain funding for the Hollings Manufacturing Extension Partnership program at NIST, a public-private partnership with Centers in all 50 states and Puerto Rico dedicated to serving small and medium-sized manufacturers.