



Proposed Funding Cuts Threaten Americans' Prosperity, Security, and Well-Being

The non-partisan [Science and Technology Action Committee \(STAC\)](#) includes individuals from non-profit, academic, foundation and corporate institutions committed to dramatically increasing U.S. investment in science and technology.

Every American will feel the effects of current and proposed cuts to our research enterprise. Loss of funding for the National Science Foundation (NSF) and National Institutes of Health (NIH) threatens American global leadership, national security, and economic stability, including our vibrant workforce.

CUTS TO RESEARCH FUNDING UNDERMINE U.S. COMPETITION WITH CHINA + NATIONAL SECURITY

In a [letter](#) to Michael Kratsios, Director of the White House Office of Science and Technology Policy, President Trump warned that global competitors “seek to usurp America’s position as the world’s greatest maker of marvels and producer of knowledge.” He posed three questions:

1. How can the U.S. secure its position as the unrivaled world leader in critical and emerging technologies, maintaining our advantage over potential adversaries?
2. How can we revitalize America’s science and technology enterprise – pursuing truth, reducing administrative burdens, and empowering researchers to achieve groundbreaking discoveries?
3. How can we ensure that scientific progress and technological innovation fuel economic growth and better the lives of all Americans?

Strong research is the crucial first step in answering all three questions. Cutting funding to research and development (R&D) and the basic research that enables major scientific discoveries abandons the most urgent race of the 21st century. It will set us back in a competition we can’t afford to lose.

OUR RESEARCH ENTERPRISE UNDERPINS OUR NATIONAL DEFENSE

NSF-funded research has led to the development of groundbreaking encryption algorithms, power grids, communications networks, and more that defend against cyberattacks, protect our data, and ensure secure communications. NIH-funded research secures our ability protect against and respond to infectious diseases and bolsters U.S. military preparedness and security infrastructure. Cuts to NSF and NIH put our national security at risk.

OUR SCIENTIFIC EDGE AND GLOBAL LEADERSHIP ARE AT RISK

Proposed cuts to NSF and NIH make it impossible to meet today’s challenges. **As China aggressively doubles down on their R&D investments, we must not undermine our own S&T enterprise.** This threat isn’t theoretical – it is happening now. Over the past decade:

- China gained a [larger share](#) than the U.S. of articles published in the leading 82 scientific journals that the Nature Index tracks.
- China [surpassed the U.S.](#) in the number of international patents filed, particularly in the fields of AI and electrical engineering, and is now [awarding more doctoral degrees](#) in science and engineering than the U.S.
- From 2000-2021, China’s share of global R&D spending [increased from 4.3% to 23.5%](#), while the U.S. share declined from 35.3% of global R&D to 28.4%. During this period, China’s gross R&D expenditures rose from \$32.9 billion to \$667.6 billion.

FUNDING CUTS TO OUR RESEARCH ENTERPRISE DAMAGE AMERICA'S ECONOMY + WORKFORCE

"The single most impactful qualitative change Congress could make to improve U.S. biotechnology competitiveness going forward ... would be to prioritize spending public funds on foundational discovery science and biotechnology tool development."

Dr. Drew Endy, Hoover Institution Science and Senior Fellow [testimony](#) to House Committee on Science, Space, & Technology

America faces a science and technology brain drain that will only worsen with cuts to our research enterprise. Loss of funding to research institutions will drive top talent away, decimating America's workforce and playing right into our competitors' hands, enabling them to get ahead in the innovation race while we fall behind. Our competitors are already taking advantage:

- European countries are planning on increasing their science funding and France, Belgium, the Netherlands, and other countries have launched programs to attract American scientists to move to their country to conduct research.
- China is also launching generous incentives to recruit the best and brightest scientists, only intensifying the threat of losing the S&T workforce that makes America great.

The return on investment (ROI) for all non-defense public R&D spending is 171% – exceeding nearly every other form of public or private investment. NIH alone has an even more impressive ROI: every \$1 of NIH funding generates approximately \$2.46 of economic activity. Every state in America receives NSF and NIH funding that supports jobs and builds revenue for the community. Each year, NSF awards more than 10,000 grants to nearly 2,000 institutions. NIH awards over 60,000 grants that directly support more than 300,000 researchers at more than 2,500 different institutions.



"Such a budget would thwart scientific progress, decimate the research workforce, and take a decade or more to recover."

Former NSB and NSF Chairs in a [letter](#) to House and Senate Appropriators

Cutting federal support for the U.S. research enterprise could cause long-term economic damage equivalent to a major economic recession and undermine American competitiveness in key economic sectors including artificial intelligence, quantum computing, medical innovations and more. The government support of fundamental research fuels the applied research necessary for private sector progress. The stagnation of federal funding stifles this process. Cuts to the research infrastructure threaten to permanently constrict long-term income growth and productivity, drop economic output, and reduce government revenue.

The Vision for American Science and Technology (VAST), a project of STAC, offers recommendations to advance global competitiveness, address societal challenges, and strengthen our national security with commitments to federally-funded research including:

- Establish a recurring national priority-setting process to confirm areas of research that are foundational to national competitiveness and security.
- Sustain and grow the federal government's vital role in supporting fundamental discovery research.
- Invest government resources to ensure that America's national science and technology infrastructure is equipped to support fundamental discovery and applied research.

Learn more and get involved:



www.sciencetechaction.org
www.vastfuture.org



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