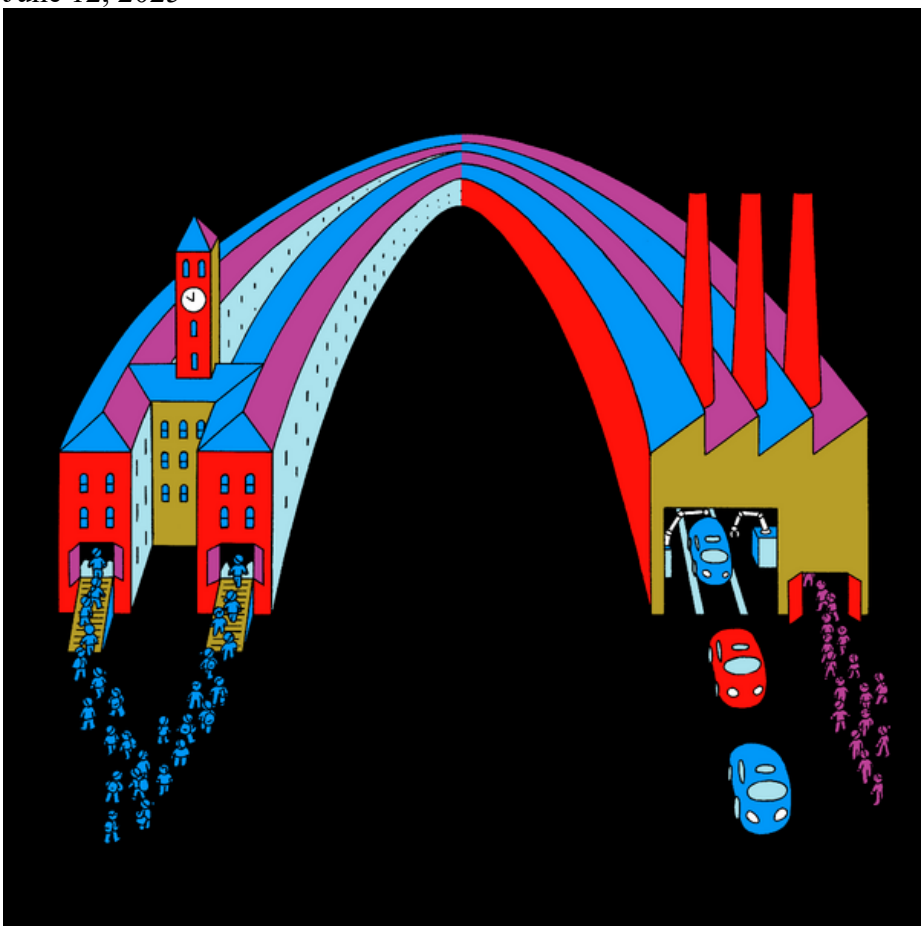
The New York Times

Opinion

Guest Essay

Red-State Universities Will Get Hit by Trump's Cuts, Too

June 12, 2025



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By Richard Florida

Mr. Florida is a visiting professor at Vanderbilt University, a professor at the University of Toronto and a fellow of the Kresge Foundation.

A few weeks ago, on social media, President Trump wrote, "I am considering taking Three Billion Dollars of Grant Money away from a very antisemitic Harvard, and giving it to TRADE SCHOOLS all across our land. What a great investment that would be for the USA."

The message was, presumably, that by going to war with Harvard, he's getting a twofer: sticking it to "woke" blue-state elites while also making blue-collar workers in red states a priority. He's not wrong that we should invest more in vocational education and do more to improve the economic conditions for working-class Americans.

But his joust with Harvard — his moves, in particular, to freeze more than $2 billion in federal research funding and cancel federal contracts with the university — is just the most visible part of a wider assault on institutions of higher learning. Last month, Nature reported that the administration has proposed cutting over $20 billion from the budget for the National Institutes of Health; The Times reported that grants funded by the National Science Foundation were down more than 50 percent compared with the average from 2015 to 2024. Their research funding in large part is distributed to universities in the form of grants.

Rather than striking a blow for red-state America, these cuts would actually take a heavy toll on many of the communities in states that went for Mr. Trump in the last election — whose research universities serve as crucial anchors for industry and innovation.

If Mr. Trump wants to make all of America great again, he shouldn't cut funding for scientific research. He should increase it.

According to a recent report, over the past decade, N.I.H. research funding has helped generate $787 billion for the American economy and an average of more than 370,000 jobs each year. Every dollar of N.I.H.-funded research generates a total of $2.56 in economic activity.

In the fiscal year 2023, nearly $30 billion, roughly half of the federal funding for higher education research and development, flowed to states Mr. Trump carried in 2024. Texas received about $3.6 billion in federally funded academic research and development. Pennsylvania received about $3.4 billion. North Carolina received about $2.5 billion, Georgia got around $2.2 billion, and Ohio got nearly $2 billion. Florida, Missouri, Tennessee, Wisconsin and Indiana each received more than $1 billion.

The administration's seeming inclination to discount the importance of university research and development and to emphasize, instead, the loss of traditional manufacturing jobs is understandable given the long-running separation of innovation and production in America. Industries such as steel, automobiles and consumer electronics have declined in the face of global competition and automation. Our economy has shifted away from these industries and toward semiconductors, software, biotechnology and internet commerce, including social media.

Concentrated in Silicon Valley and other tech hubs, these industries have specialized in research, innovation and design while outsourcing manufacturing; the meaning of the words "Designed by Apple in California" — emphasis on "designed" — is unmistakable. The United States has

maintained global leadership in many breakthrough technologies, but between 1979 and 2019, we lost more than six million factory jobs.

It didn't have to be that way; countries like Germany and Japan have applied advanced technologies to modernize legacy industries such as automobiles and steel. And their commitment to manufacturing allowed them to surpass the United States in various high-tech sectors. For instance, flat-panel display technology — now ubiquitous in televisions, laptops, smartphones and countless other devices — was incubated in American labs, including those at RCA and Westinghouse. Yet American companies trying to mass-produce this technology were eventually overtaken by Japanese corporations like Sharp, whose manufacturing capabilities propelled them to global leadership before they ceded ground to producers in Korea and later China.

If the United States wants to compete with other countries for manufacturing jobs, our best strategy is to leverage our exceptional university research capabilities to rebuild our manufacturing base.

Universities have long played pivotal roles in building world-class high-tech economies: Stanford University helped make Silicon Valley what it is today by fostering technological excellence in electrical engineering, establishing the Stanford Research Park and educating the founders of startups like Hewlett-Packard. Individuals from universities like M.I.T. and Harvard played central roles in transforming Boston from a center of textile and boot and shoe manufacturing to a health-sciences hub by starting the world's first modern venture capital fund to commercialize academic research.

Carnegie Mellon University helped revitalize Pittsburgh through targeted investments in computer science, artificial intelligence and robotics, coupled with strategic initiatives to bolster local entrepreneurship. The University of Texas at Austin mobilized local business and political leaders to transform Austin into a leading high-tech region. In all of these cases, universities led efforts to reposition their regional economies toward high-tech sectors such as computers, software, biotechnology and robotics.

But we can't turn back the clock. Our solutions must address today's reality, not yesterday's economy. Addressing this gap by fusing academic innovation with industrial production is even more important today, as new technologies transform old industries. Cars, for example, are evolving from internal combustion engines toward hybrid and electric, along with self-driving technologies and connected computing.

I have been personally involved in the creation of a new innovation corridor linking Detroit and Ann Arbor, which aims to integrate the research strengths of the University of Michigan, Wayne State University and Michigan State University with the manufacturing capabilities of Detroit's auto industry. In Pittsburgh, Carnegie Mellon's cutting-edge robotics and artificial intelligence research has attracted companies such as Honeywell and Aurora Innovation (in which Uber has a stake) to the region.

Today, the economic role of universities is more critical than ever. As globalization and corporate consolidation stripped older industrial cities of their homegrown corporate headquarters, universities were often left as the primary engines of innovation and economic growth. To capitalize on their rising importance as economic anchors, the Biden administration made substantial investments in place-based industrial policy — aimed at revitalizing struggling regions.

These efforts now face an uncertain future under the Trump administration, even though cuts would clearly hurt red states. According to a recent Brookings analysis, a significant portion of these investments have flowed to states that voted for Mr. Trump. The administration recently announced it would pause and recompete the next round of the Biden-era tech hubs initiative, putting projects at risk — including two in states Mr. Trump carried in 2024: a biotech hub affiliated with the University of Alabama at Birmingham using artificial intelligence and genomic data for new medicines and a Missouri University of Science and Technology-led center focused on increasing American production of critical minerals for advanced batteries.

Universities in red states are major contributors to local innovation: Based on data from a report on the 50 American universities that generate the most patented innovations, the University of Missouri at Columbia generates more than 30 percent of the patents in its metro area, and the University of Alabama system accounts for more than 20 percent of the patents in Birmingham, Ala. Compare that with the less than 1 percent from Stanford in the San Jose economic area and just 1.4 percent from Harvard and 3.3 percent from M.I.T. in another famous tech hub, the Boston-Cambridge area.

Investing in university research and bolstering its connection with industrial manufacturing is especially urgent as America faces increasingly fierce global competition, particularly from China. To build on its strength as the world's factory, China is now investing billions to upgrade its university research capabilities in key fields like A.I., quantum computing, advanced mobility, battery technology and pharmaceuticals. This is a pivotal element of China's strategy to dominate the critical industrial sectors of the 21st century.

The Chinese auto company BYD, for example, leveraged state-backed university research to overtake Tesla as the world's leading electric vehicle maker. Similarly, the Chinese manufacturer CATL has capitalized on extensive collaborations with Chinese universities and research institutes to become the leading supplier of batteries for electric vehicles to global automakers including Tesla and General Motors. As the Trump administration seeks to ban foreign students from Harvard, China and other countries are considering programs to recruit top U.S. and global talent. If the administration genuinely aims to compete, it must expand — not cut — investments in university-based research and talent.

If enacted, any substantial cuts to university research funding or bans on foreign talent will inflict collateral damage on the United States, including states that backed Mr. Trump. By undermining America's vital engines of innovation, the president risks jeopardizing the industrial renaissance he rightly sees as central to making America great.

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