



## America's muddled industrial policy

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When a government sets out to “pick winners” and support designated industries, products, or firms through subsidies, tariff protections, tax breaks, and other measures, it is pursuing an industrial policy. For advocates of this approach, the idea is that the state should step in to boost “particular industries that are considered strategically important” when it is expected that markets and the private sector will not do so on their own.

Despite its long history of failures, industrial policy is back on the agenda in the United States. In early June, the US Senate passed the US Innovation and Competition Act (USICA) of 2021, which envisions a more active role for government in the economy. According to Senate Majority Leader Chuck Schumer, the legislation will “jumpstart American competitiveness and make one of the most significant government investments in American innovation and manufacturing in generations”. The bill will now go to the House of Representatives, where it is expected to pass.

Most people agree that the government has an important and appropriate role to play in providing infrastructure, education, health care, social services, and other public goods such as basic research. But the USICA is full of provisions that are geared toward other objectives.

As analysts from the American Action Forum explain, the bill incorporates several provisions that are meant to counter “Chinese influence domestically and abroad”. These include increased funding for applied research through the National Science Foundation (NSF), the creation of more domestic research hubs, and stronger measures to increase diversity in STEM (science, technology, engineering, and mathematics) educational and research activities.

Although these provisions may well achieve their objectives for regional development and diversity, they are unlikely to strengthen America's manufacturing and defense capabilities. The NSF is being directed to support applied research that could be pursued more productively by the private sector; and a new NSF directorate would be tasked with ensuring an equitable distribution of research funds to create domestic jobs. Yet as The Wall Street Journal's editorial board points out, “effective research is about ideas, not jobs”.

The bill also allocates resources for pairing weaker research universities with top ones (defined as those that received more than \$100 million of federal research funding within the past three years); for improving STEM education in rural communities; and for funding domestic technology hubs that can emulate the successes of Silicon Valley. Yet, while the American education system has weaknesses, its research universities aren't one of them. America's top research universities are a source of national strength on the world stage. To shift resources away from them deliberately in an effort to assist weaker institutions makes little sense from either an investment or a strategic perspective.

Moreover, there are far better ways to pursue the USICA's various social and economic goals. Chief among these is to strengthen technical training. There is ample evidence that the US has a shortage of workers with the technical qualifications needed for today's labour market. Other countries have closed this gap by developing more effective training and apprenticeship programmes. Improving curricula and school performance at the elementary and secondary levels would equip more young people for further technical training and for science education in universities.

While strengthening the US education system would yield large returns over the longer run, reforming immigration rules to admit more foreign STEM workers would strengthen America's research capabilities immediately. These measures to improve the quality of the US labour force would do far more for innovation and competitiveness than many of the USICA's provisions.

Elsewhere in the text of the bill, the authors have presumed, dubiously, that the government is good at identifying and funding specific applications of basic research. For example, they focus heavily on semiconductors, allocating \$52 billion for a new "Creating Helpful Incentives to Produce Semiconductors for America Fund" at the Department of the Treasury (\$24 billion of which would be appropriated for 2022 alone).

These funds are to be used to encourage the construction of domestic facilities "for the fabrication, testing, or advanced packaging of semiconductors at mature technology nodes". But as Scott Lincicome of the Cato Institute has documented, the US semiconductor industry is already healthy and profitable, accounting for nearly 50 per cent of global semiconductor sales. Recounting the history of failed efforts in the 1980s and 1990s to support domestic semiconductor production, he points out that most of America's imported semiconductors come from its allies, further reducing the need for a strategic intervention in the sector.

Governments have a poor track record of identifying "winners," be it a company or a category of technology, whereas private companies have proved better at transforming new discoveries into new products or cost savings. That is why the US state traditionally has stuck to funding basic research.

The USICA's aim of strengthening America's research capabilities is uncontroversial and praiseworthy, in principle. But while the NSF's funding certainly should be increased, that doesn't mean it needs a new directorate. And while American education and training certainly should be improved and made more accessible, that doesn't mean the government should oversee applied research, or that funding should be redirected away from world-leading universities.

