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5 on 45:

On budget cuts to science and technology

Friday, April 7, 2017

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PITA: You're listening to 5 on 45 from the Brookings Podcast Network: analysis and commentary from Brookings experts on today's news regarding the Trump administration.

(Music)

SALLET: I'm Jon Sallet, a visiting fellow in Governance Studies. Let's start here: why should American taxpayers spend their money supporting research into science and technology? That's the question put center-stage by the president's budget outline, released last month. As part of a larger shift of spending from civilian to defense, the proposed budgets seeks big decreases in the government's support of science and technology, in other words, elimination of research into climate and global warming, as at the Department of Commerce and the Environmental Protection Agency; elimination of the energy technology research program at the Department of Energy; about an 18% cut at the National Institutes of Health, including elimination of the program focused on global health, which confronts diseases like the Ebola virus.

Reading a budget can be very illuminating. All the words in the world don't hide the policy preferences expressed in numbers—more numbers, more important policy. And the opposite is just as true. Put down a zero, and you've decided that a policy is either unimportant, or just plain bad. So back to the question. Why should Americans believe that support of science and technology deserves bigger numbers? Part of the answer lies in the nature of social goods. It's not exactly a new thought that people and companies tend to invest less in some things than is beneficial for society as a whole, so the government steps. The Post Office is an early example; public schools. And there's a long history of the federal government supporting innovation that's proved to

be important for the nation's economic growth: the telegraph, the Transcontinental Railroad, and of course, the Internet, which came to life as a result of federal support. Moreover, returns aren't just economic. Research at the national Institutes of Health focuses on treatments for cancer, curbing cardiovascular threats, preventing infectious diseases. Medical research has helped increase the average life expectancy of Americans by about 30 years over the last century.

Even so, successful research outcomes are never guaranteed. In a time of economic frustration and income inequality there's a natural tendency to ask, why should I support anything that doesn't directly benefit me right now? And to be sure, a critical national priority is the adoption of economic policies that will promote growth that is widely shared. A nation without economic opportunity for many cannot successfully strive to be a society open to all; and it is generosity of spirit, a generosity that comes from both shared opportunity and shared values, that builds such a society—welcoming to neighbors, looking to the future. There's much more to be done here.

But investing in science and technology is also investing for this kind of common good. According to the latest OECD calculation, the United States ranks below countries like Germany and Japan in R&D spending. Here's a story. When Thomas Jefferson was 79, living at Monticello, he received a gift of seeds from an acquaintance who had discovered a new kind of tree in Kentucky, to which Jefferson responded that although he was "too old to plant trees for my own gratification, I shall do it for posterity." Well, posterity is just people who haven't yet come along. We are the posterity, enjoying the investments in science and technology of past generations. Every time we use the Internet, rely on GPS, take an airplane flight, or turn on a microwave oven, we're

enjoying those fruits. It is, after all, science that brought us the simple concept that any person, regardless of his or her individual characteristics, can seek and find the truth. That's the principle on which innovation, capitalism, and democracy are all built. In other words, science has done a lot for democracy. Now is a good time for democracy to return the favor.

(Music)

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