

POLITICS

US science agencies reap budget windfall

Government spending on research and development rises to a historic high in 2018.

BY LAUREN MORELLO AND
GEORGIA GUGLIELMI

Nearly all US science agencies will see their budgets grow in 2018, under a US\$1.3-trillion spending deal enacted on 23 March. For the second year in a row, lawmakers in Congress ignored the steep cuts sought by President Donald Trump.

The legislation boosts funding for the National Institutes of Health (NIH) to \$37 billion, \$3 billion over the 2017 level. The National Science Foundation receives \$7.8 billion, \$295 million more than it got last year. And NASA's budget rises to \$20.7 billion, an increase of \$1.1 billion.

One notable outlier to the overall trend is the Environmental Protection Agency, whose funding will stay frozen at the 2017 level of \$8.1 billion. But that might be a victory of sorts, given that Trump had proposed slashing the agency's budget by more than 30% in 2018, to \$5.7 billion.

"This is a good deal," says Benjamin Corb, director of public affairs at the American Society for Biochemistry and Molecular Biology in Rockville, Maryland. "We're happy to see these numbers" (see 'Budget bonanza'). The budget legislation lifts overall US government spending on research and development to a historic high in 2018, according to an analysis by the American Association for the Advancement of Science in Washington DC.

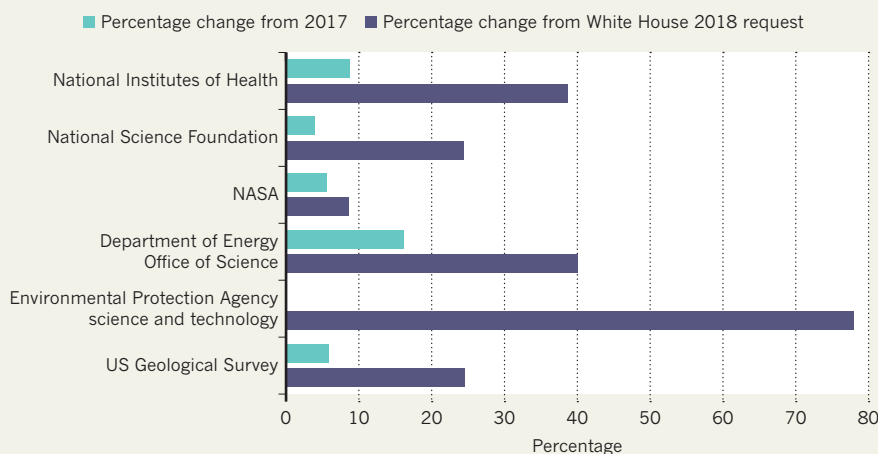
The deal includes increases for several of the NIH's signature programmes. The BRAIN initiative (Brain Research through Application of Innovative Neurotechnologies) receives \$400 million, up \$140 million from 2017. And the All of Us research programme — a 10-year effort to track the health of 1 million Americans, which was formerly known as the Precision Medicine Initiative — gets \$290 million. That is a \$60-million boost over last year.

GUN DEBATE

The Centers for Disease Control and Prevention (CDC) receives \$8.3 billion, an increase of \$1.1 billion over the 2017 level. Lawmakers in Congress reportedly debated whether to abandon a long-standing provision that prohibits the CDC from advocating or promoting gun control, which has been interpreted widely as a ban on gun research funded or conducted

BUDGET BONANZA

The US Congress negotiated a 2018 spending deal that ignores the steep cuts to science funding sought by President Donald Trump.



by the CDC. But the spending bill stops short of repealing the provision, known as the Dickey Amendment.

Instead, an official report accompanying the legislation notes that, although it includes language to prohibit the CDC and other agencies from funding activities to advocate or promote gun control, "the Secretary of Health and Human Services has stated the CDC has the authority to conduct research on the causes of gun violence".

That "does nothing," says David Hemenway, an economist who directs the Harvard Injury

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Control Research Center at Harvard University in Boston, Massachusetts. "Everybody knows that the Dickey Amendment does not prohibit federal funding of gun research." But officials at the CDC also know that if they fund gun research, "they're going to get beaten up".

The budget deal sets aside \$6.2 billion for NASA's science directorate, an increase of \$457 million from the 2017 level. That includes \$595 million to send an orbiter and lander to Jupiter's moon Europa; Trump had sought \$425 million to send a spacecraft flying past that moon. The legislation also includes funding for four Earth-science programmes that Trump

had sought to cut, including the Orbiting Carbon Observatory-3, which would measure atmospheric carbon dioxide from space.

Lawmakers also rejected Trump's plan to cancel the Wide-Field Infrared Survey Telescope (WFIRST), which would hunt exoplanets and dark matter — a project that US astronomers ranked as their top priority in a 2010 survey of science priorities for the next decade.

The funding deal includes \$6.2 billion for the Department of Energy's Office of Science, an \$868-million jump from the 2017 level. Trump had sought to cut its budget to just under \$4.5 billion. Congress also rejected the president's proposal to slash funding for the Advanced Research Projects Agency — Energy (ARPA-E), which pursues risky research that could yield major advances. The spending legislation includes \$353 million for ARPA-E; Trump had proposed \$20 million.

Despite the windfall for science agencies, some budget experts warn that science advocates should not become complacent. "Don't look for a repeat of this next year," says Michael Lubell, a physicist at the City College of New York. The large increases for science agencies came after Congress moved in February to relax mandatory spending caps for 2018 and 2019. That added \$63 billion to the overall funding pot this year, but the number will grow only slightly in 2019, to \$68 billion. ■

SOURCE: AAAS