

Science appointments in the USA

Slow appointments and vacant positions in federal agencies challenge the stability of research in the USA. Susan Jaffe, *The Lancet's* Washington correspondent, reports.

As President Donald Trump rolls out his domestic agenda, his proposed budget cuts and lingering vacancies in key federal agencies have rattled some people in the biomedical research and science community.

"This has been the most anxious time in science that I have seen in this country", said Rush Holt, chief operating officer at the American Association for the Advancement of Science (AAAS), which represents 250 scientific societies and academies serving 10 million members. Holt cited a litany of reasons: "fake news" that distorts science, "policy making based on wishful thinking rather than evidence, funding proposals that are nonsensical, and unfilled positions in government agencies".

Earlier this month, the president alleviated some doubts about the tenure of the director of the National Institutes of Health (NIH), the largest public funder of biomedical research in the world. Francis Collins, who was first appointed in 2009 by former President Barack Obama, is to continue heading the NIH. Like other Trump appointees, Collins serves at the discretion of the president.

"We are thrilled," said Mary Woolley, president of Research!America, an advocacy organisation that represents research institutes, medical centres, scientific societies, patients' groups, and health-care companies.

Trump also earned praise following a White House announcement 2 weeks ago stating that he intends to appoint oncologist Norman Sharpless to lead the National Cancer Institute. Sharpless currently directs the University of North Carolina's Lineberger Comprehensive Cancer Center.

However, as this article went to press, Trump had not named a director of the White House Office of Science and Technology Policy (OSTP), which is

required by federal law, or a science adviser. Every president since Franklin Delano Roosevelt (with the exception of Richard Nixon) has had a science adviser. Congress created OSTP in 1976 to advise the president and other administration officials on the science and technology implications of nearly all government functions, from foreign relations to preserving natural resources. It also synthesises and analyses the views of various government agencies, and leads interagency science and technology initiatives.

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OSTP's staff has dwindled from 135 people last year to about 35, said John Holdren, a professor of environmental science and policy at Harvard University's Kennedy School of Government who served as Obama's science adviser and director of the White House OSPT for 8 years. Additionally, he said, some key science agencies also lack permanent leadership and instead have acting directors, including the National Aeronautics and Space Administration and the US Geological Survey. Holdren said in many cases there are also "no assistant or under secretaries who carry the science and technology responsibilities across the departments and agencies".

As this article went to press, the Centers for Disease Control and Prevention was headed by an acting director, and only last week did a Senate committee approve Trump's nominee to head the US Agency for International Development (USAID), who still needs the approval from the full Senate.

These vacancies exacerbate the president's problem of an absent science adviser, according to Holdren. "He can't get advice [elsewhere] because there's nobody home", he said.

But the situation is far less dire than some critics claim, said Mark Mills, a senior fellow at the Manhattan Institute for Policy Research and a technology entrepreneur. Early in his career, he worked for the OSTP under President Ronald Reagan.

"There is a thesis in circulation that because we are such a technologically complex society, no president of any party could possibly manage to come up with budgets and make administrative decisions without a science adviser at their right or left elbow", he said. "That is a form of technocratic hubris."

The Trump administration does intend to hire a science adviser although there is no specific timeframe for a decision, said an official who is familiar with the discussions on the matter. The list of candidates is narrowing, and includes people from the private sector as well as others with research ties, he said. In the recent past, the science adviser has also served as OSTP director but the official said whether a combined position will occur in this administration depends on the candidates. Once the science adviser is in place, the administration expects to appoint members to the President's Council on Science and Technology (PCAST), he said. PCAST was established in 2009 by Obama and its members have included some of the nation's leading scientists and engineers.

Just 2 days after Scott Gottlieb took lead as the Food and Drug Administration's (FDA) new commissioner last month, he lifted the hiring freeze that had been in place



Francis Collins

since late January. In December, the agency reportedly had an estimated 700 vacancies. "One of my highest priorities is to ensure that the FDA is well staffed in order to meet the challenges posed by scientific innovation, globalization, and the increasing breadth and complexity of the products that we regulate", Gottlieb wrote in an agency-wide email.

"Unsteady ground"

A delay in filling key positions is not unusual for a new administration. However, for Jennifer Kates, director of global health and HIV policy at the Kaiser Family Foundation, "the number of open positions combined with the fundamental shift in focus and emphasis mostly evidenced by the budget request create unsteady ground".

Although Trump is willing to keep Collins on at the NIH, he wants to reduce NIH spending for the 2018 fiscal year beginning Oct 1 by nearly US\$6 billion or about 20%, including a \$1 billion cut for the cancer institute. Trump's request comes even after Congress soundly rejected the administration's proposed cuts for this year's NIH budget and instead gave the agency a \$2 billion raise.

Congressional leaders "have been quite outspoken in support of NIH", said Woolley, and have shown they are "willing to ignore the president's budget when it comes to NIH".

Collins has long advocated for additional NIH funding, particularly to support researchers early in their careers and that is not likely to change. "[Collins] will continue to make the best case for biomedical research", an NIH spokeswoman said.

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"I know Francis Collins well enough to know that if he did give input [on the 2018 budget], it was not to assent to a \$6 billion cut", said Holdren.

Trump's USAID nominee, the former ambassador to Tanzania Mark Green, won bipartisan support from the Senate Foreign Relations Committee and from global health advocates. He now awaits approval from the full Senate. However, Trump's proposed 23% budget cut for the agency—reducing it below 2008 levels—has many questioning the administration's commitment to addressing the health needs in low-income and middle-income countries.

"It would be a fundamental shift in the role of the US Government as a global health donor and leader...that creates a real challenge for those who are trying to run these programmes" said Kates. Global health programmes depend on the leadership of US ambassadors in-country, but Kates said some ambassadors have not yet been named.

As of June 16, out of six agencies focused on domestic public health and headed by people who must first be approved by the Senate, the Trump administration had not proposed anyone to lead the Veterans Health Administration or the Indian Health Service, according to Partnership for Public Service, a non-profit research organisation. The administration's candidate to head the Substance Abuse and Mental Health Services Administration, a third federal agency, is waiting for confirmation by the Senate.

A similar scenario might be underway at the Environmental Protection Agency (EPA), where the Trump administration wants to cut spending by 31% and reduce the workforce by 3200 positions.

In the past month, EPA's acting deputy administrator Mike Flynn revealed a plan to offer certain employees buy-outs to encourage them to leave by September. Reducing the workforce and "streamlining" programmes will allow the agency to focus "on core business functions", Flynn wrote in a memo to all staffers.

Additionally, EPA administrator Scott Pruitt announced last month that he would replace half of the 18 members of the EPA's Board of Scientific Counselors, which evaluates some of the agency's scientific research. Although the members were at the end of their first term, they usually serve another one.

"Reform of our scientific advisory bodies is long past due", Lamar Smith, Texas Republican and chairman of the House of Representatives Committee on Science, Space and Technology, said in a written statement. "Administrator Pruitt's proactive review of the Board of Scientific Counselors will move that entity away from being an echo chamber for rubber stamping costly regulations and on to being a transparent board that will provide meaningful and unbiased advice. This recent progress puts us on a track to more open, transparent science."

Holt, at the AAAS, has asked Pruitt to reconsider his decision and strongly disagrees with Smith. "The trouble we see from the House Science Committee and Chairman Smith is that he thinks that politicians can do a better job of defining the scientific process than scientists", he said. "There is no one who has a greater antipathy to bias than practicing scientists—they will drive the bias out of the process."

Susan Jaffe