



US plan to shield science from “inappropriate influence”

The Biden administration is launching a new initiative on scientific integrity in federal agencies following multiple lapses. Susan Jaffe reports from Washington, DC.

For *A Framework for Federal Scientific Integrity and Practice* see <https://www.whitehouse.gov/wp-content/uploads/2023/01/01-2023-Framework-for-Federal-Scientific-Integrity-Policy-and-Practice.pdf>

For the *NSF Antarctica report* see https://nsf.gov/news/news_summ.jsp?cntn_id=305782&org=OPP

For *UCS's Attacks on Science tracker* see <https://www.ucsusa.org/resources/attacks-on-science>

For more on **political interference at the CDC** see *World Report Lancet* 2020; **396: 875**

For more on **modernisation at the CDC** see *World Report Lancet* 2022; **400: 1754-55**

Just a week after Joe Biden was sworn in as president in January, 2021, he created a multi-agency Task Force on Scientific Integrity to restore “trust in government through scientific integrity and evidence-based policy making”. The COVID-19 pandemic was entering its second year, and bizarre theories flourished on social media about how the virus spread and how to treat it.

Last month, the White House Office of Science and Technology Policy (OSTP) released *A Framework for Federal Scientific Integrity and Practice*, a follow-up to the task force’s 2022 recommendations that provides a blueprint for implementation. “This first-of-its-kind framework will strengthen the ability of agencies and federal scientists to produce critical scientific information for evidence-based policy making that can help make our nation healthier, safer, more prosperous, and more secure”, said a senior Biden administration official in a written statement.

The report establishes a federal definition of scientific integrity (panel) and explains why that matters. “Government science and scientific activities must be held to the highest standards of scientific integrity, free from inappropriate influence at all stages from development to dissemination”, according to the document’s introduction. A top priority must be “measures to prevent and address political interference in the conduct, management, communication or use of science”.

Many in the scientific community have welcomed the initiative. “It’s exceptionally comprehensive in terms of trying to weave together all the different policies and practices that contribute to strengthening scientific integrity,” said Joanne Padrón Carney, Chief Government Relations Officer

for the American Association for the Advancement of Science.

The framework also recognises the need for a safe working environment for research that is free of harassment and discrimination, Carney said. As an example, she cited problems at the McMurdo Station operated by the National Science Foundation (NSF) in Antarctica. An independent investigation requested by NSF and released last year found that NSF’s reporting and response system cannot adequately address sexual assault, sexual harassment, and stalking incidents cited by many members of the US Antarctic Program community.

Carney said that another important feature of the framework is its creation of a multi-agency subcommittee on scientific integrity that will identify best practices and update agencies’ individual scientific integrity policies, “whether it’s dealing with something like human research or communicating science”.

The Union of Concerned Scientists (UCS) advocates for evidence-based strategies to protect public health and the environment and reduce the threat of nuclear war. It has documented 206 lapses in scientific integrity across the federal government during the Trump administration and one since Biden entered the White House, said Jacob Carter, Research Director at UCS’s Center for Science and Democracy, who was also previously a postdoctoral fellow at the Environmental Protection Agency. The group’s Attacks on Science tracker provides examples of lapses including censorship, politicisation of grants and funding, and the suppression of studies.

OSTP’s 2022 recommendations highlighted a few cases of attempts to undermine scientific integrity. In 2020, former President Donald

Trump’s administration fought unsuccessfully to add a question about citizenship status to the US Census. Census officials argued that it would decrease the response rate and diminish the value of the results. In 2019, Trump provided incorrect information to the public about areas that would be affected by Hurricane Dorian. To support Trump’s assertion, the National Oceanic and Atmospheric Administration (NOAA) was compelled to issue a false statement claiming its forecasters were mistaken.

Another well publicised 2020 case involved demands by Trump administration officials to revise the *Morbidity and Mortality Weekly Report* issued by the Centers for Disease Control and Prevention (CDC), along with threats to overrule its scientists. News reports of the political meddling prompted the departure of two CDC officials involved in the matter. When Biden named Rochelle Walensky as CDC Director she ordered an investigation into what happened and has begun a reorganisation of the agency.

The OSTP framework provides “guardrails related to the rights of scientists, for example, to communicate freely and transparently with the public and the media”, said Carter. It also standardises “the metrics and facets of scientific integrity across all of the federal government”.

Republicans’ approach

The new Republican leaders in the US House of Representatives are also concerned about lapses in scientific integrity but have a different, more targeted solution. Oklahoma Republican Frank Lucas, who became chairman of the House Committee on Science, Space, and Technology

last month, has said one of his top priorities for the current congressional session will be to make NOAA an independent agency that can issue legally binding rules and regulations. He is developing legislation that would move NOAA out of the Department of Commerce, one of the many federal agencies under the purview of the president's executive branch of government. NOAA monitors climate changes, issues weather forecasts, including severe storm warnings, and also manages fisheries and coastal restoration. Lucas' legislation would also protect NOAA's scientific integrity and research work under a strategic plan updated every 5 years by its scientific advisory board.

Washington state Republican Cathy McMorris Rodgers, who now chairs the House Committee on Energy and Commerce, has taken aim at a research review board in the Department of Health and Human Services. The panel oversees high-risk research, including the study of highly transmissible potential pandemic pathogens, such as SARS-CoV-2. On Jan 18, the Government Accountability Office released a report on the board that she and other House Republicans requested. The investigation found gaps in the board's oversight, including a lack of clear instructions describing when the risks of such research require more extensive review before proceeding.

McMorris Rodgers has said the report is part of the committee's effort to address what she has called "the public health question of our lifetime"—the origins of the COVID-19 pandemic. "As the committee begins to consider legislation to prevent future pandemics and biological outbreaks, it's crucial that we understand what technologies and capacities we need to quickly determine an outbreak's origins", she said in a written statement. Many Democrats view the investigation as an attack on the Biden administration's pandemic response.

Panel: Key provisions in A Framework for Federal Scientific Integrity Policy and Practice

- Establish the first comprehensive federal definition of scientific integrity, which applies throughout the federal government: "Scientific integrity is the adherence to professional practices, ethical behavior, and the principles of honesty and objectivity when conducting, managing, using the results of, and communicating about science and scientific activities. Inclusivity, transparency, and protection from inappropriate influence are hallmarks of scientific integrity."
- Create a process for regular evaluation and upgrading of agency scientific integrity policies and practices, including metrics to assess implementation of these policies and practices across agencies.
- Provide a multifaceted detailed model policy for scientific integrity that agencies should adapt and update, which includes guidance on roles and responsibilities, workforce education, confidential reporting of violations, and protection of scientists and their work, defines inappropriate influence, and promotes unencumbered timely and accurate scientific communication.
- Describe examples of inappropriate influence, including (1) preventing the use of best available science; (2) requiring preclearance of a scientific product for purposes other than reviewing for technical merit; (3) suppressing, altering, or delaying the release of a scientific product for any reason other than technical merit or providing advance notification; (4) removing or reassigning scientific personnel for the purposes of undermining the science; (5) using scientific products that are not representative of the current state of scientific knowledge and research; and (6) misrepresenting the underlying assumptions, uncertainties, or probabilities of scientific products.
- Establish a Subcommittee on Scientific Integrity, under the auspices of the National Science and Technology Council, composed of scientific integrity officers from at least 27 federal agencies and executive offices to assess scientific integrity policies, and share public allegations of scientific integrity violations not addressed by the affected agency, among other responsibilities.

Next steps

The framework applies to more than two dozen federal agencies, from the Department of Agriculture to the Department of Veterans Affairs, as well as those more focused on scientific and biomedical research, including the National Aeronautics and Space Administration, National Institutes for Health, National Science Foundation, and the Environmental Protection Agency.

"The work now shifts to those federal agencies", to develop or update their scientific integrity policies and make sure they are implemented properly, said Heather Pierce, Senior Director for Science Policy, Regulatory Counsel at the Association of American Medical Colleges, which represents all accredited US and Canadian medical schools, over 400 teaching hospitals,

and more than 70 faculty and academic societies.

Carter, at UCS, will be looking at how agencies hold those accountable for violations of scientific integrity policies. He hopes enforcement penalties will be similar to those of ethics violations, which can include individuals being placed on administrative leave or even dismissed. But the future of the Biden administration's effort to protect scientific integrity is uncertain. A different occupant of the White House could reverse course.

"This is great policy, but it will definitely be guidance to agencies," and is not legally binding, said Carter. "It could easily be undone by a new administration with a stroke of a pen."

Susan Jaffe