Advancing the Scientific Integrity Act

Recommendations for Congress

Cosponsor a strengthened Scientific Integrity Act that safeguards federal science and scientists from interference, ensuring independent and equitable decisionmaking.

Throughout US history, the threat of political interference in government science has loomed large

Every day, the US government uses science to shape decisions affecting people across the nation. The best of these science-informed policies rely on a basic principle—that science is independent and impartial. However, actors on both sides of the aisle have long attempted to politicize science (Berman and Carter 2018). Such actions threaten the nation's health, safety, and environment, with the most detrimental impacts often being felt by the people in our nation who are most marginalized and most vulnerable to these effects (Desikan et al. 2019).

The Union of Concerned Scientists (UCS) has monitored the frequency of attacks on science by the past three administrations: Donald Trump (206), Barack Obama (19), and George W. Bush (98) (UCS 2022). The tactics used to undermine science have been similar across administrations and have included selectively editing public documents or data, restricting staff communication, appointing unqualified or conflicted individuals to science advisory committees, reducing scientific staff capacity, and restricting funding for and inappropriately weakening or rescinding science-based policy decisions. Since 2010, federal agencies that conduct or use science to inform decisions have worked to establish scientific integrity (SI) policies, which vary in their contents and strength. Most recently, the Biden administration, through its Office of Science and Technology Policy (OSTP), has established an interagency Scientific Integrity Task Force, which issued a report and framework aimed at creating a strengthened and standardized set of SI policies across the government (White House 2023).

A 2018 UCS survey of federal scientists across 16 agencies found that the majority of respondents agreed that their agencies adhere to their scientific integrity policies (64 percent) and that they had been adequately trained on both those policies (60 percent) and their whistleblower rights and protections (68 percent). Only 42 percent, however, said they would be willing to report a scientific integrity violation and trust they would be treated fairly (Carter et al. 2019).

Despite ongoing progress on improving scientific integrity at agencies, attacks on science occurring during the past three administrations at agencies with established SI policies and UCS survey results have shown that existing policies and processes are not sufficient to protect federal scientists and their invaluable work. Even when agencies have strong written policies, implementation and enforcement are often deficient. In addition, protections vary widely across federal agencies, which manage and enforce their own SI policies. Lastly, agency policies and presidential memoranda can easily be undone with the stroke of a pen.

For example, despite having one of the strongest SI policies, the National Oceanic and Atmospheric Administration (NOAA) experienced one of the most serious and potentially disastrous scientific integrity violations in recent history. In September 2019, as a Category 5 hurricane neared the US coast, then-president Donald Trump made false claims about its path. NOAA scientists rightly provided the correct information to the public—and were censored by political officials and threatened with losing their jobs for contradicting the president. Now known as "Sharpiegate," the actions of those political officials were not only unlawful but also shifted resources away from hurricane efforts and caused public confusion and panic. Preventing federal scientists from providing critical information to the public can endanger people's lives, especially during national emergencies. Thus, it is crucial that the US Congress codify SI policies in law and require all agencies to implement and enforce those laws.

Scientific integrity is an antidote to political and financial interests meddling in decisionmaking

While some details may vary from agency to agency, a bedrock set of principles should underpin all SI policies. Principles of scientific integrity begin with a commitment to independent science. This commitment must encompass processes such as peer review and conflict-of-interest disclosure; transparent decisionmaking, including public access to government science and its use in policymaking; and scientific free speech, especially the right of government scientists to share research, express personal views, and report abuses without fear of retaliation. These tenets must be made explicit in policies, promoted by agency leaders, and valued in agency culture:

- Establish and empower officials to oversee scientific integrity
- Educate federal workers on their rights and responsibilities
- Ensure open communication with the press and the public
- Prevent interference in data collection and research funding
- Promote equitable decisionmaking
- Minimize conflicts of interest in government science
- Provide safe and meaningful procedures to report and investigate SI violations

Safeguarding scientific integrity means advancing more equitable decisions

When government science is sidelined, the resulting decisions are less likely to meaningfully address and benefit the public, especially underserved communities already facing the cumulative effects from a wide range of environmental, health, and socioeconomic factors that are likely to worsen outcomes and diminish resilience. Codifying SI principles would not only result in an improved culture and morale for federal scientists but also help build trust in their institutions. Decisions about the safety of the air we breathe and the quality of the food we eat, for example, should be based on evidence using the best available science and be aimed at serving no other agenda but the best interests of the public.

References

Berman, Emily, and Jacob Carter. 2018. "Policy Analysis: Scientific Integrity in Federal Policymaking Under Past and Present Administrations." *Journal of Science Policy and Governance* 13 (1). https://www.sciencepolicyjournal.org/uploads/5/4/3/4/5434385/berman_emily__carter_jacob.pdf

Carter, Jacob, Emily Berman, Anita Desikan, Charise Johnson, and Gretchen Goldman. 2019. *The State of Science in the Trump Era: Damage Done, Lessons Learned, and a Path to Progress.* Cambridge, MA: Union of Concerned Scientists. https://www.ucsusa.org/sites/default/files/attach/2019/01/ucs-trump-2yrs-report.pdf

Desikan, Anita, Jacob Carter, Shea Kinser, and Gretchen Goldman. 2019. *Abandoned Science, Broken Promises: How the Trump Administration's Neglect of Science Is Leaving Marginalized Communities Further Behind.* Cambridge, MA: Union of Concerned Scientists. https://www.ucsusa.org/sites/default/files/2019-10/abandoned-science-broken-promises-web-final.pdf

UCS (Union of Concerned Scientists). 2022. "Attacks on Science". Cambridge, MA. https://www.ucsusa.org/resources/attacks-on-science

The White House. 2023. "Scientific Integrity Task Force." https://www.whitehouse.gov/ostp/nstc/scientific-integrity-task-force

Cosponsor the Scientific Integrity Act this session

Be a champion for

- **safeguarding the federal scientific enterprise from future political attacks**
- **creating a standardized set of protections for the scientists whose work improves our lives every day**

Union of Concerned Scientists

www.ucsusa.org/science-democracy

The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with people across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.

@unionofconcernedscientists @ucsusa @unionofconcernedscientists