Scientific Integrity Losses and Lessons for the 116th Congress

Improving Scientific Integrity at Federal Agencies

The Trump administration has been carrying out actions that clearly violate the scientific integrity policies at federal agencies. This harmful and pervasive pattern of hostility to science prevents the development and communication of vital scientific evidence to the public, changes the rules by which science informs policy-making, and is eroding public health, safety, and environmental safeguards.

Examples

In its first two years, the Trump administration has repeatedly violated scientific integrity:

**PREVENTED SCIENTISTS FROM SPEAKING FREELY ABOUT SCIENCE**

- The United States Geological Survey (USGS) had required scientists to obtain advance permission before speaking to reporters.
- Former Department of Interior (DOI) Secretary Zinke summoned the superintendent of Joshua Tree National Park, David Smith, for an in-person reprimand of a science-based climate change Twitter thread on the park's official Twitter account.

**POLITICAL INTERFERENCE WITH THE SCIENTIFIC PROCESS**

- The White House attempted to strongarm the Agency for Toxic Substances and Disease Registry (ATSDR) into censoring a report on per- and polyfluoroalkyl substances (PFAS).
- Department of Energy (DOE) officials influenced both the language and study design of a National Energy Technology Laboratory report.
- Fish and Wildlife Service (FWS) officials rushed and pushed independent scientific experts to conduct a faulty study for a scientific assessment on the endangered American burying beetle.
- Political appointees at the Department of Labor (DOL) buried an analysis as it was not supportive of a provision in a proposed rule on tip-pooling.

**RESTRICTING SCIENTIFIC FUNDING DUE TO POLITICAL CONSIDERATIONS**

- The DOE illegally withheld $91 million of congressionally-appropriated funds from the Advanced Research Projects Agency-Energy (ARPA-E).
- Political appointees at the DOI started reviewing scientific grants above $50,000 to ensure that they align with former DOI Secretary Zinke's “top ten priorities.”
- Political appointee John Konkus at the Environmental Protection Agency (EPA) started reviewing grant proposals—a review system historically conducted by career employees—often not funding those mentioning “climate change.”
Recommendations

These actions diminish the role of science in the policymaking process. Congress should use the range of oversight tactics at its disposal to hold the administration accountable for its attempts to sideline science. To push back against scientific integrity violations, Congress should take the following actions:

• Bolster the use of science advice by reestablishing its Office of Technology Assessment, as in the Anti-Corruption and Public Integrity Act proposed by Senator Elizabeth Warren, and as advocated for by Representatives Mark Takano and Bill Foster in previous appropriations legislation.

• In response to Trump administration efforts to defund and shift resources away from politically contentious topics, demonstrate the public value of science-based programs and policies, and support robust scientific integrity policies across agencies.

• To curb attacks on scientific integrity, use confirmation hearings for agencies’ political leaders and budget hearings as opportunities to obtain commitments to strong standards of scientific integrity and transparency from nominees and political appointees to federal agencies.

• To address political interference in science-based decisionmaking under the Trump administration and to promote a culture that deters future interference, Congress should strengthen scientific integrity at federal agencies, such as through the Scientific Integrity Act proposed in 2017. Legislation should include the following provisions:
  - Declare scientists’ right to publicly express personal views without seeking permission, provided they make clear they are speaking in a personal capacity and inform their public affairs offices as soon as possible about interactions with the media.
  - Prohibit political appointees and communications staff from editing the scientific content of official documents.
  - Prohibit retaliation against those who raise scientific integrity concerns or hold differing scientific opinions.
  - Develop clear, detailed policies and procedures for addressing differing scientific opinions within agencies.
  - Develop clear, detailed policies and procedures for addressing alleged scientific integrity violations, including the following:
    - Provide protections for scientists who allege a scientific integrity violation, such as the right to a hearing and an explicit right to appeal to a federal court.
    - Publicly report allegations and their resolutions, while protecting confidentiality of those involved. Publication would include an explanation of how this resolution fulfills the letter and the spirit of the scientific integrity policy, including citing applicable provisions and any other relevant sources (which may involve references to previous scientific integrity violations and official determinations regarding other scientific integrity complaints).
    - Develop more specific enforcement procedures
  - Declare that employees who leave federal service do not have to sign nondisclosure agreements regarding government information, provided the information is not classified, proprietary, or a confidential personal matter.

Policy must be informed by science in order to protect public health and safety, and the environment.
- Declare that scientific work that employees do on their personal time and without using nonpublic government data does not require agency internal review. This policy should hold even if employees identify their employers for professional purposes, provided the work includes a disclaimer that it represents personal views.

- Develop clear, consistent, transparent, and predictable clearance procedures that establish reasonable time limits for review and clearance of scientific publications, presentations, and participation in scientific conferences. Supervisors and other reviewing officials should provide authors with written clearance and make specified changes no later than 30 days after submission. If reviewers do not meet this deadline, authors can submit articles for publication or presentation with an appropriate disclaimer stating that they do not represent agency views or policies.

- Set clear expertise requirements for heads of science agencies, such as the language in the 2014 farm bill that articulates the expertise needed for the US Department of Agriculture (USDA) chief scientist role.

- Request a Government Accountability Office (GAO) report on the effectiveness of agency scientific integrity policies, along with the GAO’s recommendations for enhancing or strengthening policies and practices.

- Request that the National Academies of Science, Engineering, and Medicine (NASEM) conduct a study of scientific integrity in government decisionmaking, with agency-specific recommendations for its advancement.