FACT SHEET

HIGHLIGHTS
Scientists conduct work vital to fulfilling the science-based missions of federal agencies charged with protecting Americans' health and safety, yet some federal officials are sidelining science from the policymaking process, endangering the nation's health, economy, environment, and world leadership.

How do scientists working for the federal government experience the state of science in their own agencies? A 2018 survey on the state of science at three energy agencies within the Department of Interior (DOI) and the Department of Energy (DOE) highlights several issues regarding the agencies' science-based decisionmaking processes, including evidence of improper influence from political leadership, the shifting of resources away from work viewed as politically contentious, and a lack of training on scientific integrity policies.

Our nation relies on government science and scientists to protect public health, public safety, and the environment. However, political, ideological, and financial interests often undermine the use of science in federal decisionmaking, harming the public good in the process. While all modern presidents have politicized science to some extent, the Trump administration has escalated the challenge in many areas in both scope and severity.

In February and March 2018, the Union of Concerned Scientists (UCS) and the Center for Survey Statistics and Methodology at Iowa State University surveyed more than 63,000 federal scientists in 16 government agencies, including the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) within the Department of Interior (DOI), and the Office of Energy Efficiency and Renewable Energy (EERE) within the Department of Energy (DOE). The goal was to gain insight one year into the Trump administration about the state of scientific integrity in the federal government, as well as agency effectiveness and the working environment for its scientists. At these energy agencies, 1,613 scientists and scientific experts were sent a survey; 139 responded, yielding an overall response rate of 9 percent. Across survey items, the total number of respondents varied.

The results shed light on the level of politicization of science at the three energy agencies, as well as the impact on the agencies' effectiveness and the federal workforce. While the DOI and the DOE have strong scientific integrity policies, respondents feel that leadership is a barrier to science-based decisionmaking. In addition, they note a shift of resources away from scientific work viewed as politically contentious.

In early 2018, scientists from energy agencies were surveyed on issues of scientific integrity, funding and resources, censorship, top barriers to science-based decisionmaking, and more.
The study follows and builds on surveys conducted by UCS since 2005 during the administrations of President George W. Bush and President Barack Obama. Detailed methodology and results from all surveys can be found at www.ucsusa.org/surveys.

**Scientific Integrity at Energy Agencies**

The energy agencies in the survey are essential to personal and societal decisions around keeping Americans safe. Instilling a strong culture of scientific integrity at these agencies is critical to fulfilling their science-based missions to protect and manage the nation’s natural resources and cultural heritage, as well as to ensure America’s security and prosperity by addressing its energy, environmental, and nuclear challenges. The DOE’s scientific integrity policy establishes strong protections for scientists to speak to the media and the public, and the DOI’s scientific policy provides clear guidance through a handbook for its employees on how the department implements its policy. However, some respondents noted that they had not received adequate training on these policies.

Moreover, some BOEM, BSEE, and EERE scientists identified concerns that fall outside the scope of the scientific integrity policies. For example, one scientist commented, “Although there are staff that work hard to maintain the core work and mission amidst ever-changing guidance on messaging (what words trigger leadership attention), it has become overly burdensome and it would be understandable for staff to, in essence, give up and limit scientifically sound work to avoid conflicts. In my opinion, it is not the majority that continues to creatively think of how to maintain scientific integrity given the current environment, but rather the path of least resistance and I honestly cannot blame anyone who does.”

Respondents at each of the agencies cited leadership as a top barrier to science-based decisionmaking. Further, responding scientists reported a shifting of resources away from scientific work viewed as politically contentious. While respondents agreed that their agencies provide them with adequate resources and time to maintain advances in their profession, they disagreed when asked if they receive adequate training on their departments’ scientific integrity policies.

**Scientists feel that leadership is a major barrier to science-based decisionmaking:**

- 13 percent (45 respondents) cited absence of leadership with needed scientific expertise and 15 percent (53 respondents) cited delay by leadership in making decisions when answering a multiple-response question about factors that most hinder science-based decisionmaking (Figure 1).
- 11 percent (41 respondents) cited influence of political appointees and 8 percent (29 respondents) cited the White House as major barriers to science-based decisionmaking.

**Scientists report a shift of resources away from offices and programs doing work viewed as politically contentious:**

- 44 percent (60 respondents) reported resources being allocated away from scientific work viewed as politically contentious (Figure 2, p. 3).
- 38 percent (50 respondents) reported being asked or told to omit certain words viewed as politically contentious.
Anonymous survey respondents from energy agencies cited lack of funding among their concerns. Here are some examples of what they had to say:

• “It is clear that political leadership does not have the technical background nor the interest to lead our office or the agency. This has resulted in delays in decision-making, requests that require substantial amounts of work from staff that limit their ability to do technical work, and little direction and no clear guidance on what is expected from the office.”

• “My office has funded research on low and moderate income communities in the past, we would like to continue that research, but the topic was “line-item” removed from upcoming funding opportunities and calls for proposals for national laboratories.”

• “Scientific integrity itself has not been compromised however funding for scientific programs has been reduced to where the proper role of science-based decisionmaking to policy has deteriorated.”

• “I do feel that BOEM has a strong ethic of scientific integrity. The office of environmental programs, which includes assessment and studies divisions, is made up almost entirely of scientists. We use science every day in our assessments and decisionmaking, and we also fund studies to better understand environmental impacts. I’ve been really impressed, honestly.”

Scientists report mixed perceptions on scientific integrity:

• 37 percent (46 respondents) said they had not been adequately trained on the contents and procedures outlined in their departments’ scientific integrity policies (Figure 3, p. 4).

• 54 percent (67 respondents) reported that their agencies adhere to the departmental scientific integrity policies.

Scientists report that they have time and resources for professional development but are also unsure if they can publish peer-reviewed articles:

• 53 percent (72 respondents) agreed that their agencies provide adequate time and resources to keep up with advances in their professions, such as by attending conferences or trainings and participating in scientific societies (Figure 4, p. 4).

• 53 percent (69 respondents) reported not knowing if their agencies would allow them to publish work in peer-reviewed journals regardless of the topic’s level of controversy.

Scientists report mixed perceptions on scientific integrity.
Nearly 50 scientists and scientific experts at energy agencies reported not receiving adequate training on their agencies’ scientific integrity policies.

Recommendations

With respondents noting leadership’s lack of needed scientific expertise as a barrier to scientists’ work, scientific integrity could best be improved if the agencies’, leaders ensure that such work is frequently heeded and incorporated into policymaking decisions.

Moreover, these agencies could reaffirm the availability of scientific integrity training, reinforcing the view among scientific staff that their employers value scientific integrity and have processes for dealing with violations. Lastly, these agencies should provide adequate resources to offices and programs conducting important scientific work that informs policies to protect American’s health and safety, regardless of whether the focus or topic of the science is politically contentious.