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 the scientists working for the federal government experience the state of science in their own agencies?

A 2018 survey on the state of science inside the National Park Service (NPS) highlights issues regarding science-based decisionmaking processes at the agency, including evidence of inappropriate political and business influence on science-based decisions, censorship of scientific work, and restrictions on scientists' ability to communicate their work to the public.

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 National Park Service (NPS) in the Department of Interior. 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 the NPS, 1,276 scientists and scientific experts were sent a survey; 231 responded, yielding an overall response rate of 18 percent. Across survey items, the total number of respondents varied.

The results shed light on the level of politicization of science at the NPS, as well as its impact on agency effectiveness and the federal workforce. While respondents generally feel that the NPS adheres to the agency's scientific integrity policy, they report the distribution of resources away from work viewed as politically contentious. Along similar lines, they report self-censoring scientific language, particularly on climate change.

The survey 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 the National Park Service

The NPS is essential to personal and societal decisions around keeping Americans safe. Instilling a culture of scientific integrity at the NPS is vital for scientists to fulfill the agency’s mission to “preserve unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations.” The scientific integrity policy at the NPS echoes the strong policy of the Department of Interior, which establishes protections for scientists to speak to the media and clear procedures for reporting and investigating allegations of inappropriate interference in science.

NPS scientists identified concerns such as communicating their work to the news media and the public. Further, NPS respondents also reported actions that compromise science but are outside the scientific integrity policy. These actions include the inappropriate influence of business interests, a lack of qualified leadership, and self-censorship. “The dramatic shift in approach to environmental policy and protection has hindered the ability of the agency [to] function in a way that meets its mission,” one NPS scientist said. “Projects and processes have been ‘sanitized,’ funding sources eliminated, and oversight increased which has reduced efficiency and quality of current and future science.”

NPS scientists report that inappropriate outside influences negatively impact decisions:

- 76 percent (168 respondents) felt that consideration of political interests is a burden to science-based decision-making (Figure 1).
- 57 percent (125 respondents) felt that consideration of business interests is a burden to science-based decisionmaking.

NPS scientists feel the agency lacks qualified leadership:

- 15 percent (92 respondents) cited an absence of leadership with scientific expertise in a multiple-response question asking what barriers most hinder science-based decisionmaking at the agency.
- 9 percent (54 respondents) cited delays by leadership as a barrier to making timely decisions.

NPS scientists report censorship—including self-censorship—of their work, especially on climate change:

- 26 percent (55 respondents) reported avoided working on climate change or using the phrase “climate change” even when not explicitly told to do so (Figure 1).

“There has definitely been a chill on climate research and climate change awareness,” said an NPS scientist. “Although there have been few published prohibitions to point to, there is uncertainty about what forms of retaliation might take place if the powers-that-be are unhappy with you.”

NPS scientists report restrictions on their ability to communicate about their work:

- 61 percent (134 respondents) said that they have to obtain agency preapproval to communicate with journalists.
- 41 percent (88 respondents) reported deterioration in their ability to communicate scientific work to the public and the media (Figure 3, p. 3).
- 37 percent (82 respondents) disagreed or strongly disagreed when asked if they could speak to the public or the news media about their scientific findings, including at conferences and professional meetings.

Many NPS respondents felt that political interests hinders science-based decisionmaking at the agency.
Many NPS respondents said that they self-censor work and language related to climate change.

Scientists Speak Out

Anonymous survey respondents from the NPS cited censorship among their concerns. Here are some examples of what they had to say:

- “Consistent removal of references to climate change have hindered our ability to have honest discussions about the potential threats associated with climate change to the National Park System.”

- “Management refused permission to publish a (successfully) peer-reviewed report for fear of political repercussions.”

- “The constant attacks on science and facts by the current administration has negatively impacted scientists in the agency. Effects range from anger and frustration to depression and even opting to retire early. Twenty-five years of experience with 3 federal agencies and I’ve never seen anything like this—it is appalling.”

- “We are no longer authorized to share scientific findings with the public if they center on climate change. Materials are marked as only for internal use.”

NPS scientists noted deterioration in their ability to communicate scientific work to the public and the media.
Over the past year, I have noticed that resource allocations (e.g., funding, staff time) have been distributed away from programs and offices whose work is viewed as politically contentious.

Many NPS scientists reported a shift of resources away from programs and offices doing work viewed as politically contentious.

NPS scientists report a shifting of resources, particularly away from offices doing work viewed as politically contentious:

- 56 percent (128 respondents) noticed the distribution of resources (e.g., funding, staff time) away from programs and offices doing work viewed as politically contentious (Figure 4).
- 26 percent (58 respondents) reported being asked or told to avoid working on specific topics deemed politically contentious; 67 percent (39 respondents) believed this negatively affects their job effectiveness.

**Recommendations**

With respondents noting some political and business interference in their work, agency leaders could best improve scientific integrity at the NPS by reaffirming scientists’ freedom to pursue and communicate openly about their scientific work without asking for permission, regardless of whether it is politically contentious. Moreover, managers at all levels should discourage self-censorship by clearly informing scientists about guidelines for communicating about their work internally and externally. In addition, removing unnecessarily burdensome clearance or approval processes could improve the timeliness and content of external communication of scientific information to the public and the media.