

HELP THE WHITE HOUSE STRENGTHEN FEDERAL SCIENTIFIC INTEGRITY

A Guide to Help You Submit a Comment to the White House Office of Science and Technology Policy

Union of Concerned Scientists | July 2021

THE WHITE HOUSE SEEKS YOUR INPUT

The White House Office of Science and Technology Policy (OSTP) is [seeking ideas from the public](#) on how to improve federal scientific integrity policies. **Comments must be submitted before 5pm ET on July 28, 2021.** This guide is intended to help you identify the questions you are best positioned to address and provide suggestions on how you can focus your comments.

In Part I of our guide, we introduce the “how-to” basics of writing and submitting a comment. In Part II, we outline specific policy recommendations, which you are welcome to use.

PART I: HOW TO WRITE YOUR COMMENT

OVERVIEW OF THE ISSUES

Robust government science, conducted for the public good, cannot be taken for granted. Without policy protections, the science-based decisions we rely on—for clean water, breathable air, a livable climate, and safe communities—can fall victim to political attack. While many presidential administrations have politicized science-based decisionmaking, the activities of the previous administration have laid bare the inherent weaknesses in existing protections for federal scientists and their work.

Many federal agencies have developed policies to promote *scientific integrity*—that is, the proper use of transparent, independent science in decisionmaking, free from inappropriate political, ideological, or financial influence.

However, because scientific integrity policies are managed and enforced by individual agencies, they can vary enormously. Even when policies are strong in writing, their implementation and enforcement in practice may not be. For example, The Fish and Wildlife Service has an easy-to-find scientific integrity official, a career staffer in charge of investigating complaints—but the Census Bureau does not. NASA has made sure its employees know their whistleblower rights—but the Department of Agriculture has not. The National Oceanic and Atmospheric Administration has a suite of excellent scientific integrity policies and resources, but its parent agency, the Department of Commerce, hardly has a policy at all.

Across agencies, weak policies leave cracks in the foundations that hold up government science. When these foundations, battered by political interference, break, science for the public good is imperiled.

Fortunately, the new administration is working to change this. In January, the Biden-Harris administration released a [“Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking.”](#) The memo outlines the administration’s vision for strengthening protections for federal science, scientific integrity, and evidence-based decisionmaking across all government agencies that use or rely on science.

As part of this vision, the White House Office of Science and Technology Policy (OSTP), working with a newly formed Taskforce on Scientific Integrity, is reviewing the effectiveness of federal agency scientific integrity policies, identifying gaps in the policies, and thinking through solutions.

That's where you come in. OSTP is seeking input from anyone and everyone who cares about keeping federal science robust and independent, and it has invited the public to submit comments on federal scientific integrity—what's working, what isn't, what's at stake, and how to protect science for the future. In other words, the White House needs your help.

HOW TO SUBMIT YOUR COMMENT

1. **Plan it.** If you still have questions after reviewing this comment guide, take a look at OSTP's [Request for Information](#) (RFI). It'll give you an idea about what OSTP is looking for and how to prepare your comment.
2. **Write it.** You can respond to as many of the RFI's prompts as you want. Feel free to draw from this guide, other reliable sources, and your own experience. You're welcome to add links or sources, but don't include personal, proprietary, or copyrighted information. You can also attach peer-reviewed publications that you reference, so that the agency can read and consider them.
3. **Format it.** Don't exceed 7 pages in 12-point font (single-spaced is fine, but not required). Add page numbers. Include your name, your general role (e.g., federal employee, member of the public), and—if you'd like—your profession (e.g., researcher, student, organizer, etc.).
4. **Submit it.** Email your comment to ScientificIntegrityRFI@ostp.eop.gov. Include "SI-FTAC RFI" in the subject line of the email. Though OSTP is not requesting a specific format, we suggest you attach your comment as a PDF, if possible.
5. **Keep us in the loop.** Let us know if you're submitting a comment by filling out our [sign-up form](#) (if you haven't already) or contacting Shea Kinser at skinser@ucsusa.org. We'll follow up with hands-on resources or support.

GENERAL SUGGESTIONS FOR WRITING YOUR COMMENT

Be specific. Mention your unique experiences, and how those experiences have informed the ideas you have. If you work with or alongside federal scientists, what impressions have you had about the independence of their work, their ability to communicate with the public, or their morale? If you're an expert outside government, how did a loss of scientific integrity affect your perception of public service?

Identify impacts. To establish why protections for federal science are important, the government needs to know what's at stake. Be direct about the harms to our health and environment that can occur when political or private interests undermine evidence-based policymaking. Discuss, too, the positive impacts that federal science has had on your life or work.

Look ahead. OSTP is not seeking allegations of scientific integrity violations. While you can and should refer to examples of scientific integrity violations, try to link them to your suggestions for improving scientific integrity policies. In other words, be forward-looking.

Now, put it all together. With these suggestions in mind, we've compiled a few prompts to get you thinking. Follow the steps below to help you formulate a comment.

1. Reflect on recent challenges, like the pandemic, climate change, or threats to democracy. Think of a personal experience or specific government decision that caused you to lose trust in the policymaking process. Perhaps you worried that the government was misusing science or prioritizing private interests over the public good. Or perhaps you are a current or former federal employee and experienced losses of scientific integrity personally. What happened? Why were you concerned?

2. Think about how this event or experience impacted you and the people and places you care about. Did the decision stand to impact your work and life? How so? How did you and your community feel the impacts? If you are or were a federal employee, what impacts were felt by you or your colleagues? How was their research or careers affected? How did it change your perception of federal science and evidence-based decisionmaking?
3. With the event or experience in mind, think through concrete suggestions. Which policies or procedures might prevent similar incidents in the future? We include recommendations in this comment guide, so that's a good place to start. You can focus on one suggestion or on many; write what you are comfortable with.

PART II: TALKING POINTS AND RECOMMENDATIONS

The White House OSTP seeks information on five topic areas, which we've numbered below. For each, we provide background information and specific recommendations. You can pick and choose any of them, but remember to add in your experiences, observations, and ideas. White House officials want to hear from *you*.

The sections that follow include many, but not all, of our recommendations for scientific integrity policy; you can find the rest in the reports listed in the "references" section of this guide.

1) The effectiveness of federal scientific integrity policies in promoting trust in federal science.

Background

The use of science to inform agency decisionmaking must be as unbiased as possible, and the science itself should be independent—in other words, free of political, ideological, or financial influence. Independent science helps our government make informed decisions to protect public health and safety, and it enhances public trust when decisions are based on valid, credible processes.

However, political interference in evidence-based policymaking can erode public trust in the federal government. For example:

- [Research](#) has found that, while people in the US generally trust scientists more than many other experts, they have less trust for scientists who study issues that have been politicized (e.g., climate change).
- [Research](#) also shows that conflicts of interest can undermine public trust, weaken civic participation, erode the credibility of individuals or entire fields of expertise, and ultimately harm people and the environment.

Recommendations

- *The Biden-Harris memo establishes scientific integrity officials at all federal agencies to protect science from undue political interference. These officials should be empowered to effectively implement their agency's policy.*
 - In the past, scientific integrity officials have generally lacked power to investigate political interference coming from an agency's leadership or outside an agency.

- Scientific integrity officials should report to an agency's highest-ranking civil servant and work with OSTP on cross-government issues such as open-data initiatives, the implementation of scientific integrity policies, and strategies to investigate and resolve alleged scientific integrity violations.
- When a violation of scientific integrity allegedly is committed by agency leadership or outside of the agency, scientific integrity officials should be able to inform and work with the inspector general in the investigation of such interference.
- Empowering scientific integrity officials will give the public and federal employees a trustworthy avenue for reporting scientific integrity allegations.

2) Effective policies and practices federal agencies could adopt to improve the communication of scientific and technological information.

Background

The public has a right to access scientific information made or funded by the government. Accordingly, government scientists should have the right and obligation to make their findings public. These scientists should be free to express their personal views on science and science-based policies, provided they make clear when they are or are not speaking on behalf of their agency. And because effective decisionmaking depends on the best available science, no political official should be able to suppress scientific research, analysis, and reports.

Federal agencies have not always upheld these principles. For example:

- In 2018, political appointees at the Department of the Interior (DOI) pressured federal scientists to [cherry-pick data](#) on the 2018 California wildfires to downplay climate change.
- In 2020, the White House installed two political operatives at the Centers for Disease Control and Prevention (CDC) to [control the release](#) of information on the COVID-19 pandemic.

Recommendations.

- *Agencies should adopt a public communications policy that ensures federal science can reach decisionmakers and the public accurately and promptly. These policies should:*
 - Be easily accessible to members of the public on the agency website.
 - Contain significant, explicit language calling for open communications between agency employees and the public, including through social media.
 - Clarify that only scientists and subject-matter experts may edit the scientific content of agency communications.
 - Declare the right of scientists to publicly express their personal views without seeking prior permission, provided it is clear that they are not speaking on behalf of the agency and that they are not using agency time to express these views.
 - Declare the right of scientists to maintain accuracy as the final reviewers of content—e.g., press releases, blogs, and social media postings—that will be released publicly in their names or that significantly relies on their work.
 - Ensure that scientists may speak with media without prior approval and may receive and respond to media requests directly, without being routed through a public affairs office.

- *Agencies should create well-defined, consistent, and transparent clearance procedures for scientific publications, presentations, and conference participation.*
 - For official work, agencies should specify reasonable time limits for reviewing and clearing scientific publications, presentations, and participation in scientific conferences, after which time scientists are free to move forward regardless of whether a review has occurred.
 - For non-official work (peer-reviewed publications or conference presentations that do not rely on non-public agency data, for example), scientists should be able to assume written clearance from supervisors and other reviewing officials (i.e., a scientist may move forward with their non-official work) on the condition that scientists make specified changes no later than 30 days after submission.
 - Agencies should declare that no internal review is required for scientific work done on employees' personal time and that does not use nonpublic government data or resources.
 - Agencies should declare the right of scientists to review official agency content that will be released publicly in their names or that significantly relies on their work.
- *Agencies should establish policies that aim to increase the transparency of rulemaking processes. Agencies should:*
 - Require that, during the notice-and-comment phase of rulemaking, public commenters who include scientific or technical research disclose their funding sources and sponsoring organizations.
 - Preemptively publish records of all research, sources, and correspondences—including meetings and phone calls—used to inform rule-drafting.
 - Ensure that redlined versions of rules, which document edits and changes that OIRA makes during the rulemaking process, are accessible to the public when a rule is published on regulations.gov, as required by Executive Order 12866, Section 6(a)(3)(E)(iii).
- *Agencies should enhance digital accessibility in the federal rulemaking process.*
 - Agencies should ensure that the following are available in clear, plain language: proposed rules in all stages of the rulemaking process; instructions and explanations of the public's various venues of participation; and suggestions for commenters to effectively share experiences, offer value statements, and learn more about an issue.
 - The homepage of each agency website should provide a one-stop point of access for all proposed rules open for comment, including links to other important websites such as the Federal Register and regulations.gov.
 - Processes and requirements for utilizing regulations.gov must be standardized across all agencies, while accommodating agencies' varying needs.

3) Effective policies and practices federal agencies could adopt to address scientific issues and the scientific workforce.

Background

By many metrics, federal science has seen declines for many years UCS recorded more than [200 attacks on science](#) during the prior administration, and stories abound of scientists being ignored, defunded, and pushed out. This has had a serious impact on federal scientific staff. For example:

- In 2018, [survey results](#) found that 79% scientists across agencies reported seeing workforce reductions; of these, 87% reported that these reductions made it more difficult for agencies to fulfill their missions.
- [Survey data](#) also reveal the morale and effectiveness of federal scientists has declined since 2016, and thousands of scientific experts left the federal government between 2016 and 2020.

Recommendations

- *Invest in a robust federal workforce that is diverse in expertise, experience, race, ethnicity, gender identity, and sexual orientation. Agencies should:*
 - Bolster scientific career opportunities, including on scientific advisory committees, so that these positions are accessible to experts from diverse backgrounds—particularly those that have historically been underrepresented in federal science.
 - Revamp recruiting strategies to attract strong candidates by establishing relationships with universities, community-based organizations, and the private sector.
 - Expand relationships with Historically Black Colleges and Universities; Latino-serving institutions; Tribal colleges and universities; Asian American, Native Hawaiian, and other Pacific Islander institutions; and other schools and groups that graduate or support underrepresented candidates.
- *Enhance accountability regarding interactions between scientists and political officials. Agencies should:*
 - Publish a policy outlining measures to ensure that political officials do not inappropriately influence the work of scientists and other experts at agencies, and that agencies will hold official accountable to these policies.
 - Identify individuals who are permitted to communicate with scientists and experts during the technical and scientific stages of regulatory development.
 - Formalize a process to log all phone calls and meetings (both in-person or virtual contacts) between political officials (both at the agency and White House) and agency scientists and experts.
- *Ensure that science-based rulemaking is transparent and protected from interference. Agencies should:*
 - Make redlined versions of agency rules, documenting edits during the rulemaking process, accessible to the public at the time rules are published on regulations.gov.
 - Preemptively publish records of all research, sources, and correspondences by the agency to inform the rule-drafting phase for any science-based regulatory proposals.
 - Avoid applying deliberative process protections in the rule-drafting stages.
- *Prevent conflicts of interests in science-informed decisionmaking. Agencies should:*
 - Explicitly define conflicts of interest and establish guidelines about which conflicts would disqualify individuals from participating in committees, panels, and other activities.
 - Require that scientific leadership positions be filled by individuals with specialized training or experience relevant to the positions for which they are nominated.

- Publicly disclose conflicts of interests and recusal statements of all political officials in a timely manner, with clear, specific timelines and deadlines for these disclosures.
- *Create policies that ensure political officials cannot impede the collection or access to federally funded data. Agency policies should:*
 - Ensure that agency scientists who request data for official work receive these data in a timely manner, as long as the requests do not violate existing regulations.
 - Require that the agency gives notice before removing datasets from public websites, and that the agency makes the best effort to keep the data publicly available.
 - Ensure that the public has access to unclassified, federally funded data in a timely manner and with appropriate context to enhance public understanding.
 - Create enforcement mechanisms, including meaningful penalties for noncompliance, to ensure that agency personnel comply with the aforementioned policies.
- *Prevent the politicization of research funding, to ensure that grant processes are independent and based on scientific merit. Agencies should:*
 - Commit to rigorous, independent reviews by in-field experts of scientific proposals for federal grants and funding.
 - Require peer-reviewers to recuse themselves from review if they have a direct conflict of interest, per the conflicts-of-interest guidelines laid out in these recommendations.
 - Declare that political appointees may express opinions on grant solicitations, but only qualified career staff may review and decide on the scientific merit of grant proposals.
 - Establish mechanisms to ensure that, once grant funding has been awarded and distributed, political officials cannot rescind, reallocate, or limit use of that funding, nor can political officials at any agency move to delay use of funding for political reasons.
- *Create rigorous peer-review policies that protect federal science from political interference. These policies should:*
 - Detail the agency's commitment to, and processes to ensure, transparent and independent peer review beyond the Office of Management and Budget's (OMB) 2004 "Final Information Quality Bulletin for Peer Review."
 - Clarifies that, when feasible and appropriate, an agency's official scientific research should undergo independent peer review, with at least one reviewer external to the agency and all peer reviewers technically qualified and selected based on expertise.
 - Ensure that scientific research that has already been appropriately peer-reviewed is not subject to politically motivated delays in the publication process.
 - Requires that all personnel involved in a peer review— including reviewers, agency contractors, and administrative staff—disclose financial ties to institutions potentially affected by the review.
 - Requires that peer reviewers' comments on documents that rely on science and agencies' responses to those comments be publicly available, while protecting the anonymity of reviewers.

4) Effective practices federal agencies could adopt to improve training of scientific staff about scientific integrity and the transparency into their scientific integrity practices.

Background

Scientists at federal agencies deserve support for their careers and professional development, protection from political interference, and knowledge about both their rights as federal employees and options for recourse should those rights be violated. Trainings and activities around scientific integrity should include non-scientist federal workers who manage, supervise, and communicate scientific work.

Without these protections, federal scientists can be, and have been, professionally undermined and scientific integrity can be lost. For example:

- In 2018, a Department of Interior scientist, who studied the impacts of climate change on Indigenous communities, [was reassigned](#) from a senior scientific role to an unrelated role in an accounting office.
- In early 2020, a top HHS vaccine expert tried to warn the White House that the US was unprepared for the pandemic. But in April 2020, he was [abruptly reassigned](#) and demoted, a clear example of political retaliation for his resistance to the administration's messaging.

Recommendations

- *Train federal employees regularly on their rights and responsibilities.* Mandate periodic, comprehensive training on scientific integrity for all federal employees—especially, but not limited to, those who use science to a significant degree in their work. The training should include information about protections against censorship and retaliation under federal laws, as well as information about employee rights under agency-specific policies (e.g., an agency's specific peer review processes or specific procedure to report an SI violation).
- *Commit to supporting scientists' work and careers.* Explicitly declare each agency's commitment to fostering an environment of trust among agency scientists. The agency should provide appropriate resources and time for federal scientists to pursue professional development opportunities.
- *Provide clear, detailed policies/procedures for addressing differing scientific opinions.* These policies should encourage individuals to voice their professional opinions on agency issues, decisions, or policies relevant to their work, even when those opinions differ from the views of other staff, disagree with management, or diverge from proposed or established practices and positions. The application of a formal differing-opinions policy should be reserved for an individual who is or has been substantively engaged in the scientific or technical work that informs the specific agency decision, action, or policy with which the employee disagrees.
- *Establish procedures for federal employees—and non-federal scientists who contract or are funded by the government—for reporting violations of scientific integrity, without fear of retaliation. Agency policies should:*
 - Outline clear, detailed guidelines on how and when to submit allegations, ensuring that the guidelines define, describe, and apply to a broad array of potential SI violations.
 - Provide clear, detailed policies and procedures for investigating allegations of violations, publicly reporting their resolution, and taking corrective actions for wrongdoing employees.
 - Clearly outline and detail specific timelines and milestones for investigative processes such that they move quickly and are not slowed by politically motivated delays.

- Require agencies to document and publicly release (annually, biannually, or more frequently) agency-specific cases of SI violation.
- Declare a commitment to supporting scientific integrity and protecting whistleblowers, encouraging employees to report losses of scientific integrity, and providing information about anti-censorship and anti-retaliation rights under federal law.
- Certify the agency and its office of inspector general under the Office of Special Counsel 2302(c) Certification Program to ensure baseline compliance with the Whistleblower Protection Enhancement Act.

5) Other important aspects of scientific integrity and effective approaches to improving trust in federal science.

Background

Weak protections for evidence-based decisionmaking [do not impact everyone equally](#). Long-standing inequities have saddled Indigenous, Black, and other people of color, as well as low-income communities, with disproportionately high exposure to pollution, less access to health care, less representation in government, and other adverse outcomes. For example:

- In 2017, after Hurricane Harvey caused chemical facilities to release pollution into nearby underserved communities, NASA scientists offered to measure this pollution—but the EPA and Texas authorities [blocked the effort](#).
- In 2020, the EPA eliminated an air pollution policy that required petrochemical manufacturers to abide by tight emission standards for hazardous air pollutants, despite the fact that these facilities [are more likely](#) to be clustered near—and thus emit more toxins into—underserved communities.

[Agencies must commit to data and research practices](#) that highlight these disparities and use these data to create evidence-based policies that address inequities.

Recommendations

- *Prioritize robust, community-focused research and data collection on health disparities. Agencies should:*
 - Consider cumulative impacts. Agencies should carry out cumulative impact analyses to provide a holistic look at the health and safety risks faced by communities and adequately account for all sources of pollution, such as impacts from fugitive releases during startups, shutdowns, and malfunctions.
 - Prioritize research on health disparities. Prioritize grant solicitations for, and otherwise encourage research on, efforts that can highlight health disparities in underserved communities.
 - Disaggregate data. Agencies should disaggregate, and make publicly available, environmental data on human health risks and exposures by race, ethnicity, gender, age, income, and geographic location to the greatest extent possible.
 - Assess ways that agencies can support community science programs that provide underserved communities with opportunities to engage in research. OSTP, in conjunction with the Office of Management and Budget, should issue clear guidance on how to encourage innovative community science projects, provide standards and tools for communities to best inform the

process, and help agencies determine how and when to use and prioritize community science to support regulatory decisionmaking.

- *Involve communities in decisionmaking earlier and more effectively, especially marginalized communities and those most likely to be affected by new or revised rules. Agencies should:*
 - Work to ensure that the public can comment early in the rulemaking process, thereby encouraging a two-way dialogue between agencies and the public.
 - Research better strategies for public engagement, including newer technological avenues like social media, and deploy those shown to be most effective.
 - Plan and execute proactive, targeted outreach efforts. Agencies should amend existing practices on public participation to require outreach efforts to identify and meaningfully engage with communities, including by actively working to address barriers to participation (e.g., language barriers or Internet inaccessibility).
 - Hold informational webinars, public information meetings, and town hall–style sessions outside regular working hours, especially for rules that have the potential to significantly affect communities of concern. They should plan these outreach efforts carefully and tailor them to the circumstances of each community.
 - Investigate strategies for evaluating and responding to public comments to ensure that they hear stakeholder concerns equitably.

MORE RESOURCES

For more resources on scientific integrity and how to improve it, please see the following:

- For more advice on writing public comments, see our [“Participating in Federal Rulemaking”](#) guidance.
- For more than 200 case studies of assaults on federal science and scientific integrity from the last four years, see our [“Attacks on Science”](#) tracker.
- For an account of federal scientific integrity violations dating back to the 1950s, see [our 2018 paper](#).
- For our 2018 survey of thousands of federal scientists on their experiences and morale since 2016, see our [“Science Under Trump”](#) report.
- For our comprehensive recommendations to strengthen scientific integrity, see our [“Roadmap for Science in Decisionmaking”](#) report, fact sheets, and appendix.
- For our 2021 investigation into the loss of thousands of scientists from federal agencies since 2016, see our [“Federal Brain Drain”](#) report and corresponding blogs, [here](#) and [here](#).
- For our report card on the Biden-Harris administration’s progress on strengthening federal science, see our [“Biden Science Tracker”](#) and [corresponding blog](#).