

Office of Science and Technology Policy

This memo outlines key ways in which the Office of Science and Technology Policy (OSTP) can establish and restore the principles of scientific integrity, as well as repair and rebuild federal scientific capacity, during the next presidential term. It identifies specific priorities and steps the agency can take to effectively act on these issues in 2021.

The pursuit and communication of scientific knowledge free from political interference is necessary for a coherent and effective response to any major challenge. Decisionmakers and the public need timely and accurate scientific information and advice to be able to improve health, spur innovation, and advance the economy. Since its founding in 1976, OSTP, part of the Executive Office of the President, has played an important role in advising the US president on a wide variety of science- and technology-related issues. Yet over the past several years, **scientists have left federal service in droves**, science advice has been sidelined, statistical infrastructure has been undermined, and scientific integrity has been violated, leaving the nation more vulnerable to all kinds of attacks on its health, security, and environment.

The COVID-19 pandemic demonstrates the need for federal policymakers to prioritize and act on science. Reductions in scientific capacity combine with chaos and confusion to impair our nation's ability to adequately protect the population. Fortunately, our nation is still home to a wealth of scientific expertise. Protecting public health during a time of pandemic disease, while addressing long-term challenges such as climate change, requires strengthening the federal infrastructure that governs how agencies use, produce, and communicate science. This is not the time to pause our nation's quest for discovery, solutions, and action. OSTP can play an important role in setting expectations for how information can be shared and how science should inform decisions made by executive branch agencies, leading to more effective policymaking.

Top Priorities

- **Advance scientific integrity in government.** With requests, resources, and assistance, OSTP should help all

scientific agencies within the executive branch adopt policies and practices that safeguard and strengthen scientific integrity.

- **Create robust scientific capacity within executive branch agencies.** OSTP should develop a task force on rebuilding scientific capacity, assist with strengthening of federal advisory committees, and contribute to improvements in awarding of scientific grants and standardization of international scientific collaborative practices.

Key Appointment Positions

- Director, OSTP
- Associate Director, Science
- Assistant Director, Scientific Integrity (new proposed position)
- Associate Director, Environment
- Associate Director, National Security and International Affairs
- Associate Director, Technology
- Assistant Director, Social, Behavioral, and Economic Sciences
- Chief Technology Officer

Day-One Actions

- Announce the formation of a task force for rebuilding scientific capacity in the federal government.

Actions for the First 30 Days

- Appoint an associate director for science and assistant director for scientific integrity.
- Issue a memorandum recommending that every agency have an official in charge of scientific integrity.

- Provide advice to the president on a memorandum supporting the policy that scientific grants should be awarded based on scientific merit.
- Assign OSTP staff to work with agencies and provide them sufficient guidance to ensure that cost-benefit analyses are in line with best scientific practices and are not manipulated or used to avoid indicating a need for public protections.
- Assign staff to work with agencies on best practices regarding federal advisory committees.
- Reinstate the National Science and Technology Council Human Subjects Research Subcommittee.

Actions for the First 100 Days

- Create a subcommittee within the National Science and Technology Council (NSTC) Committee on Science that includes a working group and workplan for improving scientific integrity policies and practices across agencies.
- Assist agencies in the development of media policies that allow scientists to share their expertise publicly without political vetting or approval.
- In conjunction with the relevant agencies and with the Office of Management and Budget (OMB), identify rules and guidance that restrict the use of science in policymaking.
- Create an NSTC working group to improve management of public data.
- Create an NSTC working group to standardize international scientific collaborative practices throughout the federal government.

Priority 1: Advance Scientific Integrity in Government

Federal scientists are looking for concrete signals that they will be able to do their jobs free from political interference or retribution and that their work will be appropriately considered during the policymaking process. *Recent surveys* show marked increases in political control over the work and communication of science across many environmental and public health agencies and departments. This has tangible consequences on our ability to mitigate and adapt to climate change, keep pollution levels sufficiently low, protect people from

public health threats, support biodiversity, and ensure that consumer products are safe.

The nation will continue to face extraordinary challenges in the coming years and maintaining a high standard of using science in decisionmaking is critical. Scientific integrity improvements are not only inexpensive to implement, but are likely to have additional positive impacts that extend beyond the federal scientific enterprise. Independent science is integral to making sound, effective policy decisions that withstand court challenges.

Many checks on government have eroded over the past several years, including the safety of whistleblowers, the autonomy of inspectors general, and the effectiveness of agency scientific integrity policies. In the next presidential term, the administration should take steps to restore this kind of accountability to bring back public faith in the competence and effectiveness of government. OSTP should coordinate and oversee these efforts and share best practices across agencies.

Administrative Actions

- Appoint an associate director for science (ADS). The role of the Senate-confirmed ADS has been to support and advocate for basic and translational research at federal agencies and to coordinate across the agencies (often via NSTC) on regulatory matters and emerging issues including behavioral impacts, potential pandemics, open science, and biomedical innovation. The ADS oversees support and attention to broad areas of science, including the social and behavioral sciences, physical sciences, biology and biotech, nanotechnology, research ethics, and space science, as well as broadening participation, education, and training.
- Appoint an assistant director for scientific integrity. The director of OSTP should appoint this new position, which should be vested with sufficient authority to make scientific integrity a priority across agencies. The assistant director will work to build a robust culture of scientific integrity, develop best practices and training modules, work with individual agencies to improve their scientific integrity policies on paper and in practice, develop and implement processes for evaluation of scientific integrity misconduct by agency leaders and White House staff, and charter a scientific integrity subcommittee under the standing NSTC Committee on Science to share resources and to strengthen and unify scientific integrity efforts across the government.

- Request that agencies appoint officials in charge of scientific integrity and direct them to develop and implement agency-specific scientific integrity policies. The president, in consultation with the director of OSTP and in conjunction with OMB, should issue a memorandum that encourages every agency to have an official in charge of scientific integrity at the deputy director level who reports to the highest-ranking civil servant in the agency. These officials should review and improve existing scientific integrity policies at their respective agencies to ensure they are strong and enforceable with clear procedures for training and implementation. The officials should develop agreements with their agencies' inspectors general for addressing misconduct, and work with the OSTP on cross-governmental coordination of scientific integrity practices. These officials should also have the ability to have unfiltered communications with members of Congress.
- Work with agencies to improve scientific integrity policies and practices. OSTP can play an important role in bolstering a culture of scientific integrity by developing best practices and training modules, working with individual agencies to improve their scientific integrity policies on paper and in practice, developing and implementing processes for evaluation of scientific integrity misconduct by agency leaders and White House staff, and convening an interagency scientific integrity committee to share resources and to strengthen and unify scientific integrity efforts across the government.
- Request that federal agencies develop media policies that allow scientists to share their expertise publicly without political vetting or approval. Several federal agencies, including the Department of Energy and National Oceanic and Atmospheric Administration, have media policies that encourage open public communication. OSTP, in conjunction with OMB and the Office of Information and Regulatory Affairs (OIRA), should work with all federal agencies and departments that create or utilize scientific information to develop policies that meet minimum transparency standards.
- Work with agencies to remove any rules that restrict the use of science in policymaking. OSTP should work with the president to instruct agencies to roll back any rules or guidance that exclude public health studies from use in policymaking or agency scientific analysis, including rules and guidance in place or in process at the Department of the Interior and Environmental Protection Agency (EPA).
- Work with agencies to ensure the appropriate use of cost-benefit analysis. To the extent that cost-benefit analyses are required, OSTP should ensure that agencies have sufficient guidance to ensure that these analyses are in line with best scientific practices and are not manipulated or used to avoid indicating a need for public protections.

Legislative Actions

- Support the Scientific Integrity Act. The Scientific Integrity Act requires agencies to develop effective, enforceable scientific integrity policies that will prevent—and establish consequences for—censorship of scientists and political interference in their work. It has bipartisan support and is endorsed by scores of public-interest organizations. The administration should signal support for any legislation that improves scientific integrity, and act swiftly to implement any enacted law that protects scientists from political interference in their work.
- Support stronger whistleblower protections. Federal employees need better whistleblower protections in order to feel that they can safely reveal abuses of scientific integrity. OSTP should support legislation enabling whistleblowers to oppose retaliation by appealing directly to federal courts when the Merit Systems Protection Board does not act on an appeal within 90 days. Legislation should also ensure protection and functioning of agency inspectors general by increasing their funding and granting inspectors general for-cause removal protections.
- Support legislation that clarifies the role of OMB in interagency coordination. OSTP and the White House should support legislation clarifying that OMB may not direct agencies to change scientific findings.

Budgetary Action

- Request funding for the newly created position of assistant director for scientific integrity. Additional funding may also be necessary for scientific integrity officials at all or some agencies, depending on individual agency budgets.

Priority 2: Create Robust Scientific Capacity within Executive Branch Agencies

Federal scientific agencies are weaker today than several years ago. An aging federal workforce, intentional purges of agency scientists, the politicization of grant funding in certain cases,

and actions that sideline and dilute the role of science have conspired to weaken the ability of government agencies to fulfill their public service missions.

Beyond the workforce, the quality of expert opinion sought by government has also deteriorated. EPA removed several highly qualified scientists from its advisory panels after ruling that receipt of an EPA grant made them ineligible to serve—even though the agency made no such prohibition for scientists who receive industry funding. Under the president’s executive order to cut one-third of federal advisory committees, many science advisory committees have been disbanded or dismissed, while others meet less frequently or not at all.

In the next presidential term, the administration will need to take immediate and sustained action to make the federal government an attractive place to work, rebuild and diversify the workforce, and improve the quality of science advice to federal agencies. OSTP has a critical role to play in creating, coordinating, and overseeing the conditions that will allow this to happen.

Administrative Actions

- Develop a plan for filling open science positions quickly and efficiently. OSTP should develop a Task Force for Rebuilding Scientific Capacity with external stakeholders empowered to make recommendations to agencies and the White House on shoring up scientific capacity within federal agencies, with a specific commitment to diversity, equity, and inclusion. This work can complement broader executive branch actions recommended in *Restoring Science, Protecting the Public: 43 Steps for the Next Presidential Term*.
- Help agencies determine whether and how current, disbanded, and new advisory committees can help fill interagency needs. With guidance from OSTP, NSTC should work with agencies to identify interagency needs that advisory committees can fill and provide advice

about the best mechanisms for meeting those needs. It should also assist agencies with transparency around the composition and member selection of federal advisory committees and safeguards to ensure that scientific advisory committees can operate with the independence they require. For more information, see the “Federal Advisory Committees” section of *Restoring Science, Protecting the Public: 43 Steps for the Next Presidential Term*.

- Support the president in issuing a memorandum to reinforce that scientific grants should be awarded based on scientific merit. To safeguard against the political vetting of research grants, the president should issue a memorandum instructing agencies to allocate funding based on evaluations by experts with relevant qualifications, and based on publicly available criteria.
- Reinstate the NSTC Human Subjects Research Subcommittee (HSRS). While some subcommittees can be time-limited, issues related to the use of human subjects cannot be thought of as a short-term deliverable. Rather, the issue of research ethics needs to be an ongoing effort, as it is complicated by perennial and emerging technological and social issues. In the past, HSRS contributed to transparency and fairness by playing a coordinating role across federal agencies, which allowed agencies to learn from one another, and created opportunities for smaller agencies to have their perspectives represented. Such engagement is especially crucial so that teams working to save lives with COVID-19 prevention and treatment research can uphold the highest ethical standards.
- Standardize international scientific collaborative practices. Introduce policies and practices for a secure and collaborative international scientific environment. While we face legitimate threats to research security, the scientific enterprise—across all federal agencies—benefits tremendously from international collaborations.

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