

# Scientific Integrity Recommendations for the Office of Science and Technology Policy

## The Challenge

Scientific knowledge and its successful applications have played a large role in making the United States of America a powerful nation and its citizens increasingly prosperous and healthy. The challenges that face the United States in the twenty-first century can only be met if this tradition is honored and sustained.

To that end, the U.S. government must adhere to high standards of scientific integrity in forming and implementing its policies. Breaches of this principle have damaged the public good and the international leadership of the United States.

The Office of Science and Technology Policy (OSTP) has a unique and important role in ensuring the government has reliable scientific work and advice at its disposal in order to meet its obligations to serve the public interest. OSTP should provide leadership to make sure federal scientists have the resources and the professional environment necessary to carry out their missions effectively and honestly. OSTP should also oversee how the government draws on the knowledge of federal scientists and of the larger scientific community to formulate public policy in an objective and transparent manner.

We call on OSTP to take concrete steps to play a leadership role in the creation of conditions conducive to a thriving scientific enterprise that will serve our democracy with integrity and bring the full fruits of science to all Americans and to the world.

## Solutions

Scientists employed by government institutions commit themselves to serve the public good free from undisclosed conflicts of interest and to carry out science that is reliable and useful, while respecting statutory limitations such as national security laws. Therefore, OSTP should work to ensure that government scientists should, without fear of reprisal or retaliation, have the freedom:

- to conduct their work without political or private-sector interference;
- to candidly communicate their findings to Congress, the public, and their scientific peers;
- to publish their work and to participate fully in the scientific community;
- to disclose misrepresentation, censorship, and other abuses of science; and
- to have their technical work evaluated by scientific peers.

Political interference in science cannot be solved by a new administration or new political appointees alone. There will always be pressure on elected officials from special interests to weaken public safety, health and environmental laws. Systemic reforms to protect scientists are necessary for effective, lasting change to take place. Federal scientists make a profound commitment to serve their agency's mission and to serve U.S. public, and to meet their responsibilities they need certain rights and protections and a working environment that facilitates productivity.<sup>1</sup>



## Restoring Scientific Integrity and Preventing Abuses of Science

Significant damage has been done to federal government science in recent years, hampering the ability of policymakers to make fully informed decisions about our health, safety, and environment. OSTP has the ability to both restore scientific integrity to federal policy making and create safeguards that defend science from political interference in the future. The science advisor should:

- ✓ **Advocate for an expanded role for OSTP in assessing executive branch scientific integrity.** The science advisor is in the unique position of offering the president an overview of the state of federal science. The science advisor should appoint an OSTP administrator to oversee the integrity of science in the executive branch, be a resource for agencies on restoring scientific integrity, and hold agencies accountable for any abuses of science that might occur. This administrator would be expected to consult regularly with agency Inspectors General and other agency staff to stay abreast of progress in defending science from political interference. Also, the science advisor should request an executive order requiring each agency leader to monitor his or her agency's efforts to improve scientific integrity, submitting his or her observations and actions to the OSTP in the form of a publicly available annual report on the state of scientific integrity within the agency.
  
- ✓ **Improve agency policies on media relations and public affairs.** Both democracy and science are based on the free exchange of ideas. A strong democracy depends on well-informed citizens who have access to comprehensive and reliable information about their government's activities. Because our country's decision makers need access to the best available scientific information, federal agencies must allow scientists to speak freely about their research to the media and the public. The science advisor should build on the guidelines regarding the release of scientific information that OSTP provided in 2008 and require that every science-based agency display a publicly available media policy on its Web site.
  
- ✓ **Improve agency policies on clearing official and non-official publications and presentations.** Science thrives when scientists are free to interact with each other, opening their ideas to wide-ranging scrutiny. Federal scientists and researchers should be free to conduct research and publish findings without fear of retaliation. Agencies should allow scientists to publish in external peer-reviewed journals, promote opportunities for professional development through scientific conferences and training, and stimulate participation in scientific societies. While federal agencies have a legitimate interest in the quality of scientific results published by staff, the appropriate standard for reviewing and approving publications is scientific peer review, not political or policy review. The science advisor should develop minimum guidelines to ensure the free flow of scientific information and the president should encourage agencies to adopt policies (or modify existing policies) consistent with these guidelines.

*“Scientific discourse is strongly discouraged when it may jeopardize an approval...whenever safety or efficacy concerns are raised on scientific grounds...these concerns are not taken seriously.”*

—A scientist from the  
Food and Drug Administration (FDA),  
2006 UCS survey of FDA scientists

- ✓ **Play an active role to ensure agencies effectively inform federal scientists of their rights and engage agency management to build a robust federal scientific enterprise.**

Federal scientists have certain rights and protections that allow them to be effective in their work. Unfortunately, recent surveys have shown that many federal scientists are either unaware of their rights or confused about them, while all have seen their rights eroded. The science advisor should encourage agencies to educate scientists about their rights on a regular basis through briefings, postings at their workplace, and on the Web.

*“Everyone is afraid to make any decisions or conduct any action that would be viewed as controversial. Biologists on the bottom just try to keep their heads down and stay out of trouble... The process really is broken.”*

—A scientist from the  
U.S. Fish and Wildlife Service (FWS),  
2005 survey of FWS scientists

- ✓ **Work with the chief technology officer and E-government administrator to radically improve the use of technology to share information.** OSTP should have a

leadership role in redesigning science.gov as a comprehensive source for the government’s scientific databases, reports and other information holdings. This redesign should be part of a move towards universal electronic reporting of scientific and other information, so the data can be made quickly available. The public should not have to rely on time-consuming Freedom of Information Act requests or whistleblowers to gain access to federal scientific information and understand how decisions are made.

- ✓ **Review existing legal barriers to the release of scientific information.** The science advisor should have a leadership role in ensuring that scientific information that originates from the private sector but is utilized or consulted by the public sector is widely available. For example, the use of information control markings should be limited, and OSTP should work to shift the burden of proving that scientific information falls under the Confidential Business Information (CBI) exemption onto those requesting the exemption.
- ✓ **Advise the president on the ramifications of whistleblower protections, ethics and conflict of interest rules, and other good government reform measures for federal scientists.** Many reform measures, if constructed well, could have a positive effect on the ability of federal scientists to effectively do their jobs.

## Scientific Advice for Federal Decision Makers

High-quality advice on science and technology issues is crucial to the nation’s health, prosperity, and security. The Obama administration should provide federal decision makers with the clear and objective scientific advice they need to make informed policy decisions and to prevent abuses of science. The science advisor should:

- ✓ **Encourage each agency leader to issue an openness memo to his or her staff and implement such a commitment to open government.**<sup>ii</sup> The memo should commit the agency head to make available his or her appointment calendar to the public; set ambitious transparency standards for agency decision-making processes; set standards for disclosing conflicts of interest; and lay out a set of general openness principles for employees to follow. Agencies should affirm the public’s right to access many types of government information by posting statements in government offices and referring to this right in agency communications.

- ✓ **Reinvigorate and expand other advisory bodies.** Advisory bodies such as the President’s Committee of Advisors on Science and Technology and the National Science and Technology Council should be expanded into full offices and placed under the direction of OSTP.

OSTP should organize an on-call interagency task force with access to experts in a wide range of disciplines from relevant agencies. This task force should operate on an *ad hoc* basis, responding with timely advice as needed. OSTP should serve as the president’s primary source of scientific advice. However, the agency’s staff cannot now encompass the full range of expertise the president may need. The president should improve the agency’s advising capacity by expanding its network of advisory boards as well as its in-house expertise.

*“The decisions that are made should be justified and be transparent as to why a decision was made and the risks and benefits be clearly and honestly presented.”*

-A scientist from the EPA Office of Prevention, Pesticides, and Toxic Substances, 2007 survey of EPA scientists

- ✓ **Support the reinstatement of the Office of Technology Assessment.** OSTP should make the case to the president that Congress should be urged to reinstate the Office of Technology Assessment (OTA). An in-house research staff in the legislative branch that can analyze technical information and distill it down to a concise and useful form is an essential resource. From 1972 until its demise in 1995, OTA filled that role directly for Congress and indirectly for many other stakeholders.
- ✓ **Support Federal Advisory Committee Act (FACA) Reform.** The president, through his science advisor, should work with Congress to reform and strengthen the federal scientific advisory committee system. Congress passed FACA to ensure that the nation has access to the best objective scientific advice. Unfortunately, the integrity of many scientific advisory committees has been compromised in recent years, making it essential for OSTP and the next administration to strengthen the scientific advisory system. In 2008, the House passed HR 5687, the Federal Advisory Committee Act Amendments Act, which includes many of the reforms UCS endorses.
- ✓ **Defining Conflicts of Interest.** The science advisor should work with the Office of Government Ethics to ensure conflicts of interest guidelines for federal advisory committees are appropriate for scientific advisory committees.

**For more recommendations from the Scientific Integrity Program, please see the report, *Federal Science and the Public Good*, available at: [www.ucsus.org/federalscience](http://www.ucsus.org/federalscience)**



<sup>i</sup> Much of the text on this page is taken from *Scientific Freedom and the Public Good*, a February 2008 statement endorsed by senior scientific community leaders including Dr. John Holdren.

<sup>ii</sup> For an example, see the “Fishbowl memo,” Bill Ruckelshaus, available at [www.epa.gov/history/topics/policy/fishbowl.htm](http://www.epa.gov/history/topics/policy/fishbowl.htm)