

Atmosphere of Pressure: Political Interference in Federal Climate Science Frequently Asked Questions

What is new about *Atmosphere of Pressure*?

Individual cases of political interference in climate science have been reported before, but a few administration officials have claimed that these are isolated incidents. This is the first major study that breaks this myth. *Atmosphere of Pressure* shows that political interference in climate science is a system-wide epidemic across seven federal agencies. Of the 279 federal scientists who responded to a UCS questionnaire included in the report, 150 scientists reported experiencing at least 435 occurrences of political interference in their work over the past five years.

The report brings together many of the high-profile examples of political interference in climate science over the past several years. Furthermore, the report uncovers several new episodes of interference and gives significant additional information on others:

- NASA scientist Dr. Drew Shindell submitted a press release to announce the publication of a paper on climate change in Antarctica. Press officers significantly watered down language that described his findings to the point that Dr. Shindell's research was no longer newsworthy.
- An anonymous NOAA scientist published a paper on the influence of human activity on ocean warming. The original media plan called for a press conference and press advisory; this was downgraded until the release was eventually cancelled.
- A NASA scientist and public affairs officer submitted a press release on research into impacts of climate-related flooding on agriculture; the release was rejected without explanation from higher review. The release was finally accepted, but only after intervention from superiors.
- Previous reports showed that Dr. Pieter Tans had a "minder" fly across country at taxpayer expense to monitor two separate interviews with the press. The investigation uncovered that at least three other scientists had interview requests approved on the condition that the same "minder" be present.
- Political appointees with the Office of Management and Budget changed scientific documents from NOAA to misrepresent the science of climate change. The documents were being prepared by NOAA in response to requests from Senators Daniel Inouye (D-HI) and Frank Lautenberg (D-NJ) for information about climate change.

In addition to what is in the UCS/GAP report, Dr. Shindell provided written testimony to the House Oversight and Government Reform Committee that he was also aware of "minders" who monitored interviews with NASA scientists and that White House political appointees were reviewing all climate change press releases coming out of the agency.

Why is the survey in the report not a random survey?

To protect federal climate scientists from retribution and allow for fully candid responses, scientists responded to the questionnaire anonymously. We only know the agency a scientist comes from and the demographic information he or she provided on the questionnaire. The response rate (19%) was consistent with response rates for other surveys of this kind.

UCS consulted with leading statisticians to ensure sound survey design and analysis, including:

- Andrew Gelman, Ph.D., Professor in the Departments of Statistics and Political Science, Columbia University
- Jean Opsomer, Ph.D., Director of the Center for Survey Statistics and Methodology and a Professor in the Department of Statistics, Iowa State University

The respondents were by and large agency veterans with extensive training. More than 80 percent hold Ph.D.s. Eighty percent of respondents had worked for their current agency for at least six years, while almost half of them (44 percent) had been at their agency for 15 years or more.

The survey results are not intended to be representative of the more than 1,600 climate scientists. However, we do know from this survey that large numbers of scientists have personally experienced or perceived barriers to communicating about their work. This number should be zero.

NASA has a new media policy. Does that solve the problem at NASA?

It is encouraging that NASA Administrator Griffin has responded to complaints from NASA scientists that they are being muzzled when attempting to speak to the media and the public. The new NASA media policy is a good first step. Perhaps as a result, 61 percent of NASA survey respondents said recent policies affirming scientific openness at their agency have improved the environment for climate research.

Unfortunately, the new NASA media policy needs improvement in a number of significant ways. For example, it should be strengthened to give scientists the right of final review of agency communications about their scientific findings. In addition, the policy should affirmatively educate NASA employees of their rights under the Whistleblower Protection Act and other related laws. A model media policy is included in *Atmosphere of Pressure*.

Has political interference impacted the quality of federal climate science?

Encouragingly, not thus far. Eighty-eight percent of respondents believed that the quality of federal climate science is still quite strong. However, as the National Academies of Science pointed out just this month, the funding of long term climate monitoring has been cut to a point where future climate research will be threatened, and irretrievable gaps will be created in long-term data sets.

In interviews and essay responses, scientists described a chilling effect when it comes to federal climate change research. Furthermore, scientists who are considering careers in federal service may think twice if they know that their work might be stifled. To attract America's best and brightest scientists, federal agency science must be free from interference.

Is this problem unique to climate science?

The problem is by no means confined to any one discipline. Science has been distorted, manipulated, and suppressed on dozens of issues, from childhood lead poisoning to toxic mercury contamination to endangered species. This interference can take many forms – from censorship and suppression of federal science to dissemination of inaccurate science-based

information to the manipulation of scientific advice. The Union of Concerned Scientists has documented scores of examples of such abuses in our online *A to Z* guide to political interference in science, available at www.ucsusa.org/AtoZ.

Previous survey responses from more than 1,800 scientists at the Food and Drug Administration (FDA), the U.S. Fish and Wildlife Service (FWS), and the National Oceanic and Atmospheric Administration's Fisheries (NOAA Fisheries) division show that political interference in science is pervasive and real. For example, 145 FDA scientists reported being asked, for non-scientific reasons, to inappropriately exclude or alter technical information or change their conclusions in an FDA scientific document. At FWS, 9 out of 10 scientist managers knew of cases where political appointees at the Department of Interior injected themselves into endangered species determinations. And at NOAA, only one quarter of scientists said they "trust NOAA Fisheries decision makers to make decisions that will protect marine resources and ecosystems."

How has the scientific community responded?

As the list of examples of political interference in science has grown, so has concern from diverse groups of Americans, from ordinary citizens to members of Congress to the nation's leading newspapers. Particular concern comes from the scientific community, as scientists know first hand that a healthy respect for independent science has been the foundation of American prosperity and contributed greatly to our quality of life.

In 2004, 62 renowned scientists and science advisors signed a scientist statement on scientific integrity, denouncing political interference in science and calling for a restoration of scientific integrity to federal policy making. Since then, more than 11,000 scientists, including 52 Nobel laureates, 62 National Medal of Science winners, 194 members of the National Academies of Science, and science advisors to both Republican and Democratic presidents dating back to Eisenhower, have signed on, representing every state in the union.

Scientific societies are speaking up loudly, and scientists are organizing themselves to defend science from political interference.

What does UCS recommend to restore scientific integrity to federal climate science and federal policy making?

All branches of the government have a need for independent scientific advice. Federal agencies should support the free exchange of scientific information in all venues (including scientific meetings and journals, press releases and media interviews, websites, and other methods of information sharing).

UCS urges the federal government to ensure basic scientific freedoms and support scientists in sharing their research with the public, including respecting scientists' constitutional right to speak about any subject in their private lives and allowing scientists to make ultimate decisions about the communication of their research. Scientists should not be subject to restrictions on contact with the media any more severe than a policy of notification and recap.

Congress should amend current whistleblower protections to specifically protect the rights of federal government scientists. When all else fails, Congress must exercise its oversight responsibility and expose political interference in science.