



## UCS Federal Climate Scientists Survey Selected Excerpts from Essay Responses

In the summer of 2006, the Union of Concerned Scientists surveyed climate scientists working at seven federal agencies and the independent National Center for Atmospheric Research (NCAR), asking for information about the state of climate research at federal agencies. The 40-question survey featured one essay question that allowed scientists to provide a written narrative, and extra space for scientists to leave additional comments.

The following are excerpts from the essays provided, divided into five topic areas: political interference in climate science, scientific findings misrepresented, barriers to communication, inadequate funding, and climate scientists are disheartened.

**“The integrity of the U.S. federal government climate science could best be improved by...”**

### **I. Political Interference with Climate Science**

Large numbers of federal climate scientists reported various types of interference, both subtle and explicit:

#### **National Aeronautics and Space Administration (NASA)**

“Remembering that the civil service scientists and engineers can and should be an unbiased reservoir of insights into different questions with impacts across international economic and cultural dividing lines. Politicizing and degrading the integrity for which we are internationally known and respected is a disservice to our country and a danger to the world. If we can’t be trusted, to give insights on global change and funded to do so, who in the world will do it?”

“Keep politics out of science.”

“Administration needs to act on the best information, not try to force the information to fit their desired action.”

#### **National Oceanic and Atmospheric Administration (NOAA)**

“Removing the current atmosphere where scientists who report findings truthfully may face consequences if they contradict administration policies.”

“I have never seen or expected this degree of political interference in scientific research. It’s appalling and unbelievable that it happens in the US.”

“Eliminating political pressure from influencing science findings.”

“De-politicizing the science, especially at the highest administrative levels of agencies. Protect the integrity of scientists by letting them speak, and by respecting that.”

“Remove political pressures that try to make agencies support the administration’s agenda. Allow scientific agencies to remain nonpolitical. Allow scientific results to be used as scientific facts instead of political or policy statements.”

“Policy of zero interference in the scientific process.”

### **Environmental Protection Agency (EPA)**

“The perception that . . . we (climate scientists) might find and write [something that] might be considered controversial is a strong one that comes down from management. It’s not clear that there’s a real reason for it or what the consequences would be. This perception should be actively discouraged from the highest levels!”

“Keeping politics out of the scientific process. I believe the line has been crossed between science informing public policy and policy manipulating the science (and trying to influence its outcome). I have personally experienced this manipulation in the area of communicating the science many times.”

### **Department of Energy**

“Allowing scientists to work completely independently of current administrative views on the subject.”

“No oversight of scientific quality by politicians. It should be left to peer review and presentations of results in scientific meetings.”

### **U.S. Geological Survey (USGS)**

“A scientific report will now undergo three ‘policy’ reviews and two ‘peer’ reviews prior to further peer-review journal reviews. This will not only slow the reporting of results, but the chances are that significant watering-down of results will occur during the three ‘policy’ reviews by non-specialists.”

### **National Center for Atmospheric Research (NCAR)**

“Keeping political employee appointments completely independent of the scientific research, scientific publication, and scientific communications processes.”

## **II. Scientific Findings Misrepresented**

Federal climate scientists reported that their research findings have been changed by non-scientists in ways that compromise accuracy:

### **National Oceanic and Atmospheric Administration (NOAA)**

“Not censoring scientific results.”

“US Federal government climate science does not lack integrity. Science assessments, summaries, policy papers sometimes do lack integrity. The best way to improve them would be to ensure they are written by qualified scientists, not by political hacks.”

### **Department of Agriculture (USDA)**

“It’s not the climate science per se, but how it is spun and censored by officials.”

“Hands off by policy/communications and non-scientific staff on scientific reports. These reports should be subject to scientific and independent peer review.”

### **Department of Energy**

“Not having political appointees who have no formal training in climate science looking over our shoulders. There should be some minimum bar before they are appointed. Policy should be based on sound science; results of science should not be diluted or suited/adjusted to justify policy. This particular Administration has gone beyond reasonable boundaries, on this issue.”

### **National Center for Atmospheric Research**

“The unedited presentation of findings to government panels and to the public. It appears that funding organizations are shifting priorities away from climate studies to other programs deemed more important by the current administration.”

## **III. Barriers to Communication**

Agency scientists are not free to communicate their research findings to the media or the public:

### **National Aeronautics and Space Administration (NASA)**

“As of March 2006, there was a marked change in NASA, and I have spoken out freely on climate change, including a NASA-approved press release. I believe scientists at other agencies (e.g. NOAA) still have restrictions.”

“Allow direct and open communication between scientists and the public without prior permission, clearance, chaperones, handlers, etc.”

“Recently a Bush appointee to the position of Public Information Officer attempted to muzzle Jim Hansen, Director of GISS . . . the NASA Administrator made it clear that such political meddling would not be tolerated. This was excellent leadership at the top and set the tone for any lower echelons that may not otherwise have been this strong. Michael Griffin is a great improvement over his recent precedents.”

“Reduced public affairs interference, review, delay, oversight.”

“Not having White House liaisons in science related PR offices.”

### **National Oceanic and Atmospheric Administration (NOAA)**

“Scientists should be free to communicate with the media, rather than having media contacts filtered by “Public Affairs” officers. This should be official policy, not a “wink and nod” policy.”

“Removing all apparatchiks monitoring the controlling how scientists communicate to the public.”

“Allowing us to interact openly with the public.”

“Less restrictions on publications and data output, more universal support, less restrictive travel/visitor policies (our honored guests are treated like criminals to even get in the building).”

### **Department of Energy**

“Not having political appointees tinker with science that is best left to the experts. Particularly at NOAA where the Administration has gagged free exchange of results.

“More open discussion of issues, honest assessment of data and results. The public does not know who to believe. Separate the “grey” results/literature from solid peer reviewed results and provide “what is known and not known”, not opinions.”

### **Environmental Protection Agency (EPA)**

“Allowing scientists to communicate directly to the public and other scientists about critical significance of climate change. In fact, informing the public regarding the truth of this issue must be encouraged and rewarded.”

### **National Center for Atmospheric Research**

“From what I’ve heard, NCAR is rare among research institutes in that we are free to communicate our findings. This policy needs to apply to all research institutes and all scientists should be encouraged to communicate their results to the public.”

“At one point, I specifically asked my division director if there were any censorship policies at NCAR. He emphatically stated that there were none and that if we were ever pressured that we should contact him immediately and he would raise hell to eliminate the pressure.”

#### **IV. Inadequate Funding**

Scientists reported that inadequate funding affects their ability to do the research that is necessary and pertinent.

##### **National Aeronautics and Space Administration (NASA)**

“I believe that climate research at NASA is being undermined by the current administration. This is accomplished not through direct threats of intimidation, but through lack of funding. Several years ago the funding focus [at NASA] was switched from Earth Science to solar system exploration (Moon and Mars). I believe this was done not for solar system exploration, but rather to curtail climate research. The emphasis needs to be switched back to Earth Science.”

“Problems with climate research in the federal government mainly have to do with funding. Future funding at my agency is uncertain. Future climate observational programs (crucial ones) are threatened because of lack of funds. New accounting rules at my agency require climate scientists to spend unreasonable amounts of time writing proposals, which has reduced productivity.”

“Funding for climate research is a factor of 5-10 below critical mass to develop a designed climate observing system.”

##### **National Oceanic and Atmospheric Administration (NOAA)**

“Include a dedicated long-term observing program with stable funding support for about 30 more years. The current satellite program does not meet climate research needs.”

##### **Environmental Protection Agency (EPA)**

“I have not worked directly on climate change since funding was eliminated in my area. Other areas of much less importance have been emphasized as a result. Which is a tragedy.”

##### **Department of Agriculture (USDA)**

“The US Climate Change Science Program has not received sufficient funding for needed observations, monitoring, research, [and] data systems.”

##### **U.S. Geological Survey (USGS)**

“US satellite programs are in severe jeopardy. The loss of continuity in observational satellite data will impair progress in climate science.”

## **V. Climate Scientists are Disheartened**

While a large majority of respondents (88 percent) agreed with the statement, “U.S. federal government climate research is of generally excellent quality,” respondents reported decreasing job satisfaction and a worsening environment for climate science in federal agencies:

### **National Oceanic and Atmospheric Administration (NOAA)**

“The intrusion of politics into the field is making some (me and others) consider change of field or career.”

### **Environmental Protection Agency (EPA)**

“I am [close to] retirement and feel that I will no longer be able to use my abilities to produce scientific information of relevance to the American public. The last years of my career are being squandered for political reasons. I do not think I will be able to do any more new climate science before I retire. My goal is to get out the results from past research.”

### **Department of Energy**

To watch this from another agency is so demoralizing. They have virtually derailed the mission of providing environmental services to the public and burnt billions.... Shocking tracking record!”

“I know people in federal agencies who have been pushed into very difficult decisions on whether to leave or stay and do bad/insignificant work. Many cases they left.”

### **U.S. Geological Survey (USGS)**

“Incredible bureaucratization of USGS during Bush era seems intent on crippling our scientific productivity by wasting more of our time and energy on ridiculous and counter-productive ‘accountability’ procedures, damag[ing] to morale.”