



## UCS Federal Climate Scientists Survey 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), seeking information about the state of climate research at federal agencies. The 40-question survey included one essay question that allowed scientists to suggest how the integrity of U.S. federal government climate science could best be improved. Extra space was provided for scientists to leave additional comments on any topic.

The following are excerpts from the essay responses divided by agency or department. These text responses have not been edited for grammar or spelling errors. They are displayed exactly how the scientists wrote them, except for some statements that were removed to protect anonymity. Three question marks (“???”) signifies that the handwriting was illegible. Questions labeled in brackets (i.e. [Q29]) means that the statement refers to a specific question in the survey. Additional comments left besides essay responses can be found at the end of this document.

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

### **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?”

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

“1. Improved congressional oversight. 2. Full-time, Senate-confirmed Director of GLSP/USGCRP. 3. Allow direct and open communication between scientists and the public without prior permission, clearance, chaperones, handlers, etc. 4. Decentralize communications (away from Agency headquarters). 5. Limit involvement of political appointees, including Schedule C’s, in development of science documents. 6. Change of Administration and Congress.”

“Explicitly recognizing it as one of the agency’s highest priorities (it was recently removed as a priority from my agency’s mission statement) and funding it as if it were – proposal writing opportunities in climate areas have diminished, and those that go forward sometimes sit in limbo for over a year before funding decisions are made.”

“Mutual trust. Recognition that politics does not have to play a role in crafting public policy even when science is compelling. Trust in science on the part of politician.”

“Changing the administration. The past 6 years have been marked by progressive less of integrity throughout the US government activities. Attacks on scientific objectivity and integrity are just one sample.”

“1. Reduced public affairs interference, review, delay, oversight. 2. Formation of a US climate agency – no US agency has climate as #1 priority so no agency fails if climate science fails. MPOESS failure on climate is classic. 3. Funding for climate research is a factor of 5-10 below critical mass to develop a designed climate observing system. And to improve climate modeling rapidly – independently long term observations and independent modeling are key to success and rigor.”

“Recently a Bush appointee to position of Public Information Officer attempted to muzzle Jim Hansen, Director of GISS. This PIO was sacked and 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 who may not otherwise have been this strong. Michael Griffin is a great improvement over his recent precedents.”

“Except for a few high profiles cases (e.g. Jim Hansen @ GISS), I have never personally directly felt any attempt to control scientific findings within NASA. However, the massive movement of funding away from Earth Science is having a very negative effect on progress in Earth Science and development of the next generation of senior scientists and junior scientists.”

“Asking scientists to perform studies to validate the use of their models for the study being performed. Most climate models cannot predict climate well; how can anyone trust them? In short, ask modelers to prove that their models have skills for predicting climate change!”

“A fundamental re-alignment of private industry interests away from an adversarial perspective. The European economy has done a much better job of taking a proactive positive stance toward climate science.”

“Including solutions to global warming, instead of just more “bad news.””

“Use of federal science labs as unbiased arbiters and “keepers of the institutional/heritage memory” by providing objective rationale documentation and reviews of work done by those at (usually academic) institutions subject to the intense publication and funding pressures which can sometimes provoke “rushed” findings (i.e. shoddy work).”

“Keep politics out of science.”

“1. Not having White House liaisons in science related PR offices. 2. No interference from elected officials in selecting members of Review Committee etc. that deal with science.”

“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 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.”

“Stop dangling carrot and stick.”

“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 to public/policy.”

“Having less of the herd of sheep mentality. Alarmism has become the paradigm at NASA and anyone who disagrees is swept aside. EPA is just the opposite. Extremism rules.”

“More objective research; too much pre-bias based on politics.”

“Making the Administration’s science advisory position more independent; making NSF the primary distributor of climate change information from the government.”

“Eliminating use of political appointees in Public Affairs offices.”

“1. Dropping the idea of agencies having “positions” on climate change issues (particularly NOAA). 2. Allowing completely free access to media for scientists and vice versa. 3. Using the new NASA policy on openness as a model for all agencies.”

“Politicizing it less. Too many of our scientists have made climate a political rather than scientific issue. There is probably more fear of peer retaliation for not being a lemming on climate issues than there is for a government official intervening in a scientific study.”

“Creating a separate climate science agency or, at least, assign climate science research to an existing agency. No agency is presently responsible for successfully investigating this critical area of research.”

“All items in 19 to 33 were prior to March 2006 (and after January 2001). 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.”

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

“High level support for rigorous climate research, which would include increased levels of funding and a commitment to accurately represent and respond to the findings.”

“Eliminating political pressure from influencing science findings.”

“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.”

“1) Federal government supporting the highest quality research. This means providing adequate funding and encouraging excellent science. 2) Policy of zero interference in the scientific process.”

“Congress should avoid meddling in the science, such as Rep. Barton has done. 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.”

“Implementing a pro-active approach toward educating society about climate change.”

“Having the scientist present findings and not by an administrator/manager.”

“- Clearly stating assumptions, caveats, uncertainties.

- Ensuring dissenting views are sufficiently represented on panels and in final reports.”

“- Further independent expert scientific review (e.g. NRC) including independent bodies with administrative roles.

- Change in administration moving away from ideological guidance of climate science to win-win solutions using science as a guide for action.”

“No opinion, not sure if this is an issue.”

“Higher level of funding, more detailed understanding of science by decision making government officials.”

“Adequate funding. Books are cooked by administration to make it look like new resources are going into climate. Not the case! Effectively funding is being cut.”

“Free and open research spirited dialogues, uninhibited publication, respect for distinguished and peer-reviewed papers and state-of-the-art assessments of climate change.”

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

“1) Increased funding of Climate Science at NOAA, NASA and NSF. 2) Explicit mission directive to study Earth system at NASA. I view the removal of this mission directive as retaliation. Because of the importance of the “mission statement” in justifying individual research, the removal of this from the NASA mission statement will be very effective at reducing NASA climate research.”

“Enforcing higher scientific standards through reviews by scientists outside of climate science! Better educated program managers! Less bureaucratic overhead. More entrepreneurial culture.”

“Emphasize more by cooperation with engineering, technology and policy to implement science ascertained climate change impact, and to enforce mitigation measures to reduce causing factors from anthropogenic activities.”

“Knowing that the President and other administrators are open to the findings published about climate science.”

“Separating meteorology and climatology organizationally. Moving NOAA out of Dept. of Commerce. Standardizing all climate obs to WMO standards.”

“Fund and support more scientists to use various measured data to understand climate changes.”

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

“Better management (let scientists be scientists not managers), less political influence, much better funding, allow science to actually happen by lessening the restrictions on published findings and general funding, a new environmentally friendly administration, 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).”

“New leadership. A vision. A change of administration. Getting the US back on track as a leader in this science.”

“Ombudsmen to serve as a buffer between career employees and political appointees.”

“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.”

“1. Remove/dis-allow earmarks from budgets. 2. Make the House-Senate conference committee public. 3. Let agencies decide how to spend budget not Congress.”

“Keeping politics out of it.”

“International cooperation.”

“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. Different agencies include NOAA, NASA, NIST need to work together to build a satellite instrument for long-term climate observations.”

“More study of paleo data. Unlike weather forecasting models which get tested against data every day, climate models have much less data to test forecasts against. And they have not done

well in predicting past climates. Why? Are climate models too tightly tuned to present climate? We don't know!"

"Replacing the current Republican administration and Congress with a new, sane, Democratic administration and Congress. Educating the public about the scientific method and climate science will help public perception of federal government climate science, which will improve its integrity."

"Not censoring scientific results."

"Allowing the peer-review process to be the sole criterion that work is judged by – not management. Corporate management techniques are not appropriate for basic research endeavors."

"Eliminating needless bureaucratic oversight, implementing a government wide policy that forces scientists to present their findings without fear of retaliation and intimidation. This freedom could be limited to the science, precluding policy."

"Senior management and administration officials letting science speak. Also, we lose credibility as a country by putting non-scientists in senior positions making decisions that need scientific knowledge (should we really have to educate our senior managers on science 101 for every issue?)"

"Public talks should not be reviewed or edited. We should not be required to post a disclaimer on posters and talks. How is our findings to be trusted if we are not representing our work findings as opposed to "personal" statements."

"Providing sufficient resources for research."

"Doing both of the following: (1) removing the current administration from office and firing their appointed senior executive service obstructionists (who will otherwise remain deeply embedded in the government); and (2) adopting the precautionary principle as US policy, in place of the fantasy of quantitative climate predictions as a basis for mitigation measures."

"Allowing us to interact openly with the public."

"More funding. Adequate funding is not available to solve the climate problem."

"Less planning and paperwork for funding and more actual science."

"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."

"1. Consistent funding. 2. More concern with science than security. 3. Letting the science speak for itself. 4. An appreciation for basic research."

“Not requiring the public affairs offices to be involved in scientific information disseminated to the public. The public affairs office should be alerted but should be involved in approving any information being released.”

“Creating clear, long-term goals that are not subject to funding cuts by congressional earmarking. Make climate science funded by public, rather than by executive discretionary funding.”

## **U.S. Environmental Protection Agency (EPA)**

“Acknowledging the science and reality of the problem. Government generally is avoiding mitigation for economic reasons (e.g. the Kyoto protocol). This filters down from the administration to the scientists.”

“The perception that something that we (climate scientists) might find and write 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!”

“We are waiting for the public to make its collective decisions in the 2006 and 2008 elections. My colleagues and I feel that is the only way that the current bad situation is going to improve.”

“#23 is the biggest issue for our program. This is followed by bureaucratic barriers to communication via websites.”

“Removing OMB oversight of research planning; allowing scientists move freedom to determine research direction.”

“I believe integrity of federal climate science is fairly high. In some cases quality may be questionable as (modelers especially) predispose studies to narrow range of outcomes.”

“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.”

“Increased funding; establishing a consistent, comprehensive and transparent QA process; an effective peer review process; and less political pressure from appointees in the business and communication of scientific results.”

“I would suggest transparency, more communication with the public and better publicized cost to benefit analysis. I’m not indicating that this does not occur, but I run across people from time-to-time that do not trust science and are against Federal funding of science and resulting policies.”

“Freedom to examine scientific issues apart from politics. I think federal agencies should act independently as think tanks rather than being so closely tied to the prevailing White House.”

“Leaders at the highest level of Government that listen to Engineers and Scientists as well as pay attention to positions taken by organization such as the US Nat. Academy of Engineering.”

“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.”

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

“Adequate funding to address critical questions.”

“- Stronger, mandatory coordination of science.

- Appointing someone to lead the CCSP who has a high level of integrity, is widely known and recognized as an expert with exceptional communication skills, and is above intimidation.”

“Placing scientists without political agendas in positions of leadership, keeping Congress and the Executive Branch from promoting political agendas by distorting the science, training the media to recognize that scientific findings don’t always have equally valid opposing conclusions, training scientists to better communicate the results of their work (and thus build trust with public, media, legislators).”

“The USGS is currently implementing new policies to further restrict the flow of scientific information through more extensive reviews. A scientific report will now undergo 3 “policy” reviews, and 2 “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 3 “policy” reviews by non-specialists.”

“In my experience at 2 Federal agencies engaged actively in climate science, scientific integrity is not threatened or compromised by management. The 2 key issues of greatest importance are: 1) stagnation/erosion of budgets for climate science and all other science, and 2) ensuring our research is focused on critical climate science issues where we have the expertise to make real, cutting edge contributions.”

“Receiving encouragement that the current administration would act upon results.”

“It is difficult to separate matters dealing with global change research from those regarding research in general within the USGS. For example, we received nearly a decade of GCR operational funds (above hard dollar salaries) provided by the National Park Service which were then transferred with personnel to the USGS with formation of the Biological Resources Division (BRD). During the time with BRD there was little, if any, interest on the part of the USGS in BRD global change research. The administrative lead of the BRD GCR wore at least three hats, and had relatively little time to devote to GCR. Since then about 70% of those BRD



funds have gone to non-research functions. So one suggestion would be to have some understanding of the role USGS BRD GCR can play in the national program. This has not been defined to my knowledge. At present the BRD GCR “priorities” read like a laundry list. With little operational budget, the USGS BRD GCR priorities largely reflect the expertise of the few employees whose salaries, but little more, USGS BRD devotes to GCR. There are some exceptions to this.

With some focused research objectives, and supported by a similar priority within the national GCR program, perhaps USGS could restore the operational budget for GCR. However, throughout the USGS there is very little operational support for any research with more researchers now hunting at least part of their annual salaries from outside funding. As a result of the funding situation for research in general, the USGS research program is now heavily oriented toward applied science since that is one area where some funds are available from outside sources that BRD can compete for. If this is the desired niche for USGS BRD GCR, that is fine. But we have received no indication of what is the BRD niche so the BRD GCR effort is being diminished largely because of lack of interest or support.

Regarding objectivity of USGS BRD GCR, to date we have had little scrutiny of our research I suspect largely out of lack of interest. However, as has been covered in the journal *Science* and others, biologists working especially with endangered species have not been so fortunate. But the review of all USGS research results including even mundane annual progress reports is now subject to “policy” review at two levels within USGS centers, and it is proposed for the same at the regional USGS level. This is in addition to an internal “peer” review requirement along with filing copies of all review comments, both internal and external, and our response to those comments. This process is, of course, cumbersome, does little if anything to help the quality of science, and is easily subject to increased checks on content. If I were staying within USGS research, this would be much concern to me. It, along with little or no research support within USGS, is the major source of poor morale. I am fortunate in being able to leave the Federal Government, and return to the university which I will be doing shortly.

Regarding visibility of science, USGS does support this. However, it appears more for visibility than for the quality of research. It appears driven mainly to help USGS funding through this has not increased or even maintained research funding for at least the last 15 years or so. Thank you.”

“Insulating climate science from political pressure. My experience is that throughout my agencies science management structure from strategic planning decisions over what areas of science to support financially, which scientists to hire in which disciplines, to policy review of reports, political considerations are given substantial weight because of an inherent fear that the decisions could ultimately result in reductions in funding/staffing etc. In my answers to questions 19-31 I have erred on the side of noting perceived or experienced influences on climate science. Many of these instances or situations are subtle, unspoken and not easily documented. There is also a great deal of variability among those charged with decision making over “style of presentation” or what might be thought of as what are appropriate avenues for research.”

“Public awareness.”

“Electing a new President.”

“Continue to emphasize peer review of all results funded by Federal agencies and minimize policy review by department political appointees.”

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

“1. President’s science advisor should be selected from slate of candidates provided by the National Academy of Sciences.

2. Reestablishment of Office of Technology Assessment in Congress.

3. Reorganize Federal agencies into an Earth System Science-based agency, including NOAA, USGS, and NASA Earth Science Enterprise.

4. Restrict Joshua Botton’s OMB letter (245 p.) to science agencies.

5. Repeal Information Quality Act.

6. Reorient NASA to a science-based agency only (Earth and Planetary science) and transfer “man-in-space” programs to DOD where they originated (e.g. Manned Orbiting Laboratory) and have DOD fund them.”

“Lack of political oversight and increased support for best available science as defined by global scientific community.”

“I am a researcher at USGS. Generally, research within our research group and choice to pursue to publish new climate related issues is driven at the scientist level. Recent restrictions on agency approval of abstracts, public statements and report review have been implemented. As scientists, we do not believe that this was initiated by agency managers, but rather implemented by the Dept. of Interior and the Bush administration. The new rules are somewhat restrictive, and more importantly, serve to delay dissemination of new information.”

“Re: #31, incredible bureaucratization of USGS during Bush era, seem intent on crippling our scientific productivity by wasting more of our time and energy on ridiculous and counter-productive “accountability” procedures, and damage to morale. All bureaucratic and budget trends within USGS have been negative since Bush came into office.”

## **U.S. Department Of Agriculture (USDA)**

“In general, climate change science is continuing at government agencies, and I believe we continue our world-recognized pre-eminence that we had in the 1990’s. However, much of all work continues more clandestinely as we’ve had to amend our project titles and descriptions to get rid of key buzzwords that are not focused by the current Bush administration. For example, our new project plans no longer mention our terrestrial carbon budget studies in project plan tasks, even though individual scientists and labs are continuing their work in this area.”

“I know that “data” is not “sexy” for politicians, but government support for land based monitoring networks is really suffering, the continuation of a trend since the 1980’s.”

“Funding data collection and data integration efforts. Applied climate science is essential to manage climate impacts with increased climate variability.”

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

“More open conversation about climate change by high-ranking officials.”

“Not contacting the media before a study is peer-reviewed for publication. Not have Committee members review their own Committee research. Not tie Federal Grants to specific climate research topics. Not have the Executive Branch dictate scientific policy. Have non-government entity function as independent body.”

“A better President.”

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

2) Put their money where their mouth is – more funding of global change related research (less for military type of monitoring and observations).

3) Make data available and accessible to all scientists. Remote sensing, especially satellite systems are getting old and new systems have climate change related observations as last among the priorities. The US Climate Change Science Program has not received sufficient funding for needed observations, monitoring, research, data systems.”

“Increased funding across the board.”

“Scientific Peer Review.”

## **U.S. Department Of Energy (DOE) and National Laboratories**

“Responding to the scientific findings about the global warming by actions to prevent the causes.”

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

“Joining the international community in actively working to solutions for climate change. By increasing funding commensurate with the magnitude of this very serious threat. By election of a President with respect for and an understanding of science and with the integrity not to politicize the scientific process.”

“Using science rather than influence of money/power/friends to determine results. Science/fact/research has little/no place in the US Government’s climate science.”

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

“Regime change – electing an administration that valued both science and honesty.”

“More attention to good data analysis – Earth Scientist should be required to consult data analysis experts (statisticians) in their work. Much controversy could be avoided if better data analysis were done. Mann and the Hockey Stick for example. Improperly applied method cast doubt on what is, at bottom, probably a correct conclusion.”

“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. To be in denial on climate change is a issues crime against the Nation.”

“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. 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 on NPOESS. Shocking tracking record!”

“Hands off policy for scientific publication strictly enforced!!!”

“- Transparency

- No ITAR embargos on scientific research

- More funding for Earth Sciences

- Tell the truth to the public about the view of this administration on climate change”

“Encouraging both draft and final research results to be posted for public information and new—enables documentation of subsequent modifications, if any.”

“Dropping the NASA mission to Mars.”

“1) Establishing a funding agency for interdisciplinary research;

2) Assuring that researchers who are internationally recognized as the world’s best are continuously funded,

3) Discouraging funding for science in university departments that are practically fully funded by “externally funded” research. Professors need to spend more time teaching the introductory science courses so that the general public will have some idea what the #%%^&\* is going on and will appreciate the importance of specific areas of research.

4) Refraining from handing out money to well-connected fat cats who should be getting more of their funding from the corporate interests they are defending.”

“Attracting young or seasoned scientists from other fields to participate in cross-disciplinary work on critical problems (e.g. role of ??? and radiation in cirrus clouds, precipitation and turbulence, etc.)”

“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.”

“I work at a National Laboratory. The only place I hear about issues of censorship or bias is in the newspaper articles about NOAA, etc. I feel I have complete freedom in publishing my research.”

“Increased funding.”

“Encouragement to publish in peer reviewed literature without agency/management review.”

“Admitting the seriousness of potential climate change, but also tempering certain scientists who are extremists in one direction (global warming) or the other (complete denial despite the evidence of increasing levels of some greenhouse gases).”

“Paying scientists to actually do research rather than spending most of their time going from meeting/workshop to meeting/workshop, and by focusing on the pressing science needs rather than the perpetual IPCC report writing.”

“Removing all funding.”

“Scientists need relief in administrative demand and responsibilities. We need better service from our administrative ??? and more flexibility to pursue funding to support fundamental research. We need access to students and attract young talents who are interested in growing with environmental research in federal government agencies.”

“Stopping the destruction of government research capability. The FY07 Bush administration request for DOE Office of Science funding terminated all research using combination of the words “ocean”, “carbon”, and “observing/understanding” funds to NASA and NOAA have been cut. My feeling is that the current policy for climate science is “don’t look/don’t tell”. Starve research capability is a way that disables government science.”

“An expanded and improved observational base (biased opinion). Also, new and enthusiastic emphasis on risk and mitigation. We know what’s happening, now let’s see how to improve on the horrific scenarios.”

“I work at the Jet Propulsion Laboratory which is not a Federal Agency but is a part of California Institute of Technology. The main issue we have to deal with now are new ITAR regulations which make it more difficult to get necessary clearances and approvals for disseminating research findings. I believe the process is apolitical that is it doesn’t act to modify or influences results to fit a political agenda; rather the concern is whether such material could endanger homeland security. One bizarre impact is that we are being discouraged from using too many significant figures when presenting numbers.”

“-lessening the political influences on agenda-setting and reporting of scientific research  
-listening to scientists  
-using a risk management approach re climate change.”

“My perception is that science within the federal government is high quality work done by sincere and honest scientists. I know these people. The program managers are managing programs and limited funds the best they can. My perception is that our current Administration ignores the results and is now directing funds away from Earth Sciences to programmatic efforts like going to Mars.”

## **U.S. Department of Defense**

“Encouraging the National Science Foundation to support Federal Government worker’s salaries as part of grant awards. NSF should seek to fund the best possible work even if it is not related to University workers only!”

“Accepting the recent changes in our climate and creating an environmental for Federal research dollars to address impending infrastructure needs that are beginning to hinder our national infrastructure, economy, and security.”

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

“Keeping political employee appointments completely independent of the scientific research, scientific publication, and scientific communications processes. Major damage has been inflicted upon NOAA and NASA. Fortunately, the “scientists” backlash forced a return to scientific integrity in NOAA and NASA.”

“Continued reliable funding of several agencies for university scientists.”

“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.”

“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.

“Change of administration; a few more educated people in Congress.”

“1) Increased funding for studying climate and climate change. 2) Participation in international science and policy related to climate change science.”

“An appropriate level of funding sufficiently focuses so that US science can continue to be a major player on the international scene. That means appropriate super computers and human resources to develop next generation tools.”

“This is now switching from NCAR to “US Federal Government” – a very different topic. Scientists at NOAA and NASA are routinely discouraged from discussing climate change results with the media. It’s exactly the opposite at NCAR. We are encouraged to get our results out there to the public by whatever means available.”

“Let science in federal labs communicate scientific findings. Get support from political arena for explanations and interpretation of scientific results to individuals in the public.”

“Retaining and strengthening the separation between science and public education of climate science issues. There is too much emphasis on media interactions. Let scientists debate science and leave dissemination to professionals with input from science.”

“- Uniform standards across agencies, modeled on NASA/new policies.  
- An ombudsman to whom Federal scientists could report overzealous officials or poor implementation.”

“The issue is not the science but what policy makers – in particular those in the current administration are doing (or not doing) with it.”

*Additional comments:*

**National Aeronautics and Space Administration**

“The main issue, as we often discuss, is that climate is not the primary mission of any agency, and is done piecemeal as resources permit, by a large collection of US agencies.”

“The move to full-cost accounting has put us at a competitive disadvantage relative to the university community and indirectly reduced the amount of climate science that can be done at federal labs – who would want to take what is in effect a soft-money position if you had another option?”

“I don’t think Greenland or W. Antarctica will melt and neither do the people who say that. A lot of “white lies” are told to “counter the lies of the skeptics”.”

“Nobody will trust you (your model) if it has not done anything trustworthy in the past. This needs to change. Climate research is half-hazard research!”

“I work at NASA Goddard and I am well aware of the Jim Hansen situation from earlier this year. I can honestly say that most issues emanated from a few misguided political appointees in PAO at NASA HQ.”

“The key problem is not whether the scientific inquiry into climate issues is being suppressed by the management, but that it is ignored.”

“Problems with communicating climate science to public/policy makers have been cleared up.”

“The primary perceptions took place before the 2004 election, when very little climate-related research was released by NASA. There was a clear restriction on information flow.”

“Q31. Another issue: PA offices discouraging access to certain scientists and promoting contact with more “convenient” scientists (again this happens at NOAA and EPA); PA officers making decisions on scientist availability for media requests without consulting scientists and indeed in one instance that happened to me, canceling an interview on CNN that had already been agreed with the statement “the agency has no one available to discuss X at this time!!”

“You should send out another survey to see how much scientific criticism of recent research is stifled by the mob attitude of the profession. But I doubt that will happen.”

**National Oceanic and Atmospheric Administration**

“Taking no-regret GHG mitigation measure!”

“Keep publishing and talking. People are definitely listening.”



“Removal of the hiring freeze, bring in younger scientists to freshen the policy, data, and research output. Remove restrictions on the number of federal positions so loyal (10+ year scientific contractors) may purchase, research, travel etc. like the Federal scientists do.”

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

“At NOAA, after laboratory consolidation, there was a shift in funding allocation from climate to air quality and study of the chemistry of the remote atmosphere. Climate change related research funding was reduced by 15-30%.”

“I have found it necessary to change my scientific focus several times in my career because of funding changes.”

“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.”

“This year was a huge decrease in funding. I note there is a large amount going to new and opposing start up programs.”

“1) Reports on muzzling federal scientists are exaggerated. 2) To the contrary, Federal scientists with more tempered views of global warming effects to date and of future impacts are being drowned out by the Hansens!”

“In response to 8, 3<sup>rd</sup> bullet – in one year (1996) Congress was very opposed to climate research, other than ’96 the environment for climate research was better in the 90’s.”

“Question 16: Don’t know

Question 25: Fear of not expressing what I know to be correct and currently truthful to people with whom I discuss climate change

Question 3: Not sure, direct vs. indirect?

## **U.S. Environmental Protection Agency (EPA)**

“My agency does not do climate change research and pulled the plug on all such basic research projects that explore effects of elevated CO<sub>2</sub>. CO<sub>2</sub> is not a pollutant.”

“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.”

“Thanks for doing this survey.”

“I believe funding opportunities in climate science have declined, but overall quality and openness have improved over last 10 years.”

“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. It was hard to address 19-33 directly since I am not active in this area. However, I think that as a whole there is an effort to manipulate US government climate research findings.”

“It is a tough time to be an environmental scientist.”

### **U.S. Geological Survey**

“I work for the USGS Biological Resources Division, after being transferred by Congress from USFWS about a decade ago. USGS is a science agency, dedicated to reporting sound and objective scientific results (very different from USFWS).”

### **U.S. Department of Agriculture**

“Back several years ago (5?), the USGS budget got creamed and many people I know outside the agency perceived that it was related to their work on climate change. It served as an example and had a chilling affect on us. I wouldn't say that we've been harassed as much as it's been made clear that we should just keep our heads down and try to avoid attention, otherwise something might happen to us like it do the USGS. Much of my “experience” on page 3 has mostly been related to the internal review of publications before release. These were laws on the books that were largely unenforced before 2001, and now it mostly just seems like the only thing they're looking for us to be sure you say “climate change” instead of “global warming”, for example.”

“I find that the popular “anti-environment”, “denial of climate change” attributed to the current administration by my colleagues (and the UCS) is vastly over-done.”

“My personal research does not indicate climate change. I have not been limited in expressing that conclusion.”

### **U.S. Department of Energy and National Laboratories**

“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.”

“While I have heard of specific instances of scientists being discouraged from presenting results contrary to administration views, I have no first-hand knowledge of this.”

“Good luck!”

“Excellent initiative. I no longer feel alone!”

“Perceived problems have mainly been in connection with White House/CEQ reviews of the CCSP draft strategic plan.”

“We need to reduce high operation overhead and establish stronger training programs to be more competitive.”

“Our laboratory often works with NASA-GISS. In my answers above I have excluded the notorious revelations related to Dr. Hansen.”

### **U.S. Department of Defense**

“Whether climate changes are harsh over the next 3-20 years or hundreds of years, we should be addressing the issues that impact basic societal needs. Katrina Hurricane is an excellent illustration of how costly the current policy of “benign neglect” can be.”

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

“Much of my time over the past year has been spent in fighting the witlessly imposed censorship of NOAA and NASA scientists. Fortunately by the time that Senator Inhofe tried to intervene with NCAR the climate-science community had already won the battle, and quite likely the war.”

“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 every pressured that we should contact him immediately and he would raise hell to eliminate the pressure.”

“My background and work have no direct bearing on climate science. Since I am “out of the loop”, I have no exposure to climate “pressures”, “distortions”, “policies”, “requirements”, and “expectations”, etc.”

“Under climate science work environment the phenomena that I experienced were not associated (in my view) with any sinister attempt to stop research, but are aspects of any large bureaucratic organization.”

“I do not know what you mean by “US Federal Government climate research” in questions 5 and 7.”

“This questionnaire mixes questions specifically about NCAR with general US Federal Government (see above). In particular, the question on page 3 don’t specify which is being referred to, thus invalidating results from those questions in my opinion.”

“NCAR is not a Federal Agency. Most of the problems (19-31) I am aware of (perceived) are in NOAA and NASA, not NCAR.”

“I retired from NCAR 3 years ago. My research related only slightly to climate change. I never experienced any pressure not to report my findings and their implications accurately, although a few instances others, I believe, misunderstood or misinterpreted my work.”