# Preserving Scientific Integrity in Federal Policymaking

Lessons from the Past Two Administrations and What's at Stake under the Trump Administration www.ucsusa.org/preservingscientificintegrity

Appendix B: Federal Agency Scientific Integrityrelated Policy Reference

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# **DEPARTMENT OF COMMERCE (DOC):**

- Scientific Integrity Policy: Yellow
  - <u>DOC SI policy</u> cedes important details to its bureaus with an interest in science and provides little detail here (<u>Grifo 2013</u>).
- Peer Review Policy: Red
  - DOC <u>does not appear</u> to have a peer review policy of its own nor does it post an easily accessible link to OMB's 2004 Final Information Quality Bulletin for Peer Review.
- Media Policy: Yellow
  - Grade: B+. DOC's 2011 SI policy improved on some confusing language in the <u>department's media policy</u> regarding scientists' right to review drafts and their need for preapproval of communications (<u>Goldman et al. 2015a</u>).
- Social Media Policy: Yellow
  - Grade: B. <u>DOC social media policy</u> provides some guidance to agency scientists on the use of social media tools but does not grant them the right to identify their job title, even if a personal-views statement is made (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Red
  - DOC SI policy does not address procedure for SI violation allegations.
- Public Reporting of Allegations: Yellow
  - DOC does not appear to publicly report SI violation allegations separately from investigations reported by the Inspector General.
- Differing Scientific Opinions Policy: Red
  - SI policy does not address procedure for handling scientific disagreements.
- Scientific Integrity Official: Red
  - Unclear on DOC website who, if anyone, is in charge of SI.
- Whistleblower Certification: Yellow
  - Only DOC Office of Inspector General has been <u>2302(c) certified</u>. DOC more broadly is registered for <u>2302(c) certification</u> but has not yet completed the process.

# **DEPARTMENT OF ENERGY (DOE):**

- Scientific Integrity Policy: Green
  - DOE updated its <u>scientific integrity policy</u> in January 2017. This new policy <u>dramatically</u> <u>improves</u> from DOE's previous secretarial order by forbidding employees from censoring or altering scientific findings, explicitly protecting the ability of scientists to share personal opinions, and giving scientists the right to review and correct public materials that rely on their work.
- Peer Review Policy: Yellow
  - The DOE website posts a <u>few links</u> to OMB's 2004 Final Information Quality Bulletin for Peer Review, but those links are not centralized. Additionally, the DOE website does not have a clear link to any DOE-specific peer review policies.
- Media Policy: Yellow
  - Grade: [N/A]. In 2015, DOE received a grade of "Inc" for its media policy, as UCS was unable to find an official DOE media policy. The <u>new DOE SI policy</u> released in January 2017 provides a substantial improvement to DOE's media instructions by providing a personal-views exception and right of review.
- Social Media Policy: Yellow
  - Grade: [N/A]. DOE has <u>a policy in place</u> that provides some basic guidance to its staff, and UCS rated this policy with a grade of C in 2015 (<u>Goldman et al. 2015a</u>). However, the new DOE SI policy builds on these social media instructions by adding a personal-views exception for covered personnel.
- Procedure for Allegations: Red
  - DOE SI policy does not address procedure on allegations.
- Public Reporting of Allegations: Yellow
  - DOE does not appear to publicly report SI violation allegations separately from its investigative outcomes reported in its <u>semiannual reports to Congress</u>.
- Differing Scientific Opinions Policy: Red
  - DOE SI policy does not address procedure for handling scientific disagreements.
- Scientific Integrity Official: Green
  - DOE SI policy explicitly calls for the Secretary of Energy to designate a Scientific Integrity Official, although in the days immediately following the release of DOE's new policy it was not immediately clear who that official would be.
- Whistleblower Certification: Yellow
  - DOE is <u>2302(c) certified</u>. DOE Office of Inspector General is <u>registered for 2302(c)</u> <u>certification</u> but has not yet completed the process.

# **DEPARTMENT OF THE INTERIOR (DOI):**

- Scientific Integrity Policy: Green
  - DOI updated its <u>SI policy</u> in 2014, <u>improving an already strong policy</u> with new measures and a new handbook that describes how the policy will be implemented, although areas such as whistleblower protection and communications could still be bettered.
- Peer Review Policy: Yellow
  - DOI does not appear to have a peer review guide of its own but posts <u>an easily</u> <u>accessible link</u> to OMB's 2004 Final Information Quality Bulletin for Peer Review.
- Media Policy: Yellow
  - Grade: B. 2014 update to DOI SI policy provides a few important protections for scientists that were lacking 2008 and further clarifies whistleblower protections. Notably, this policy includes extensive instructions for handling allegations of scientists misconduct and for dispute resolution (Goldman et al. 2015a). DOI manual on public communications from 2012 additionally fleshes out the overall DOI media policy.
- Social Media Policy: Green
  - Grade: A. DOI's <u>strong social media policy</u> received 90 out of 100 possible points during UCS grading of social media policies, <u>only losing points</u> for not mentioning processes for correction of errors in technical information.
- Procedure for Allegations: Green
  - In 2014, DOI created <u>an entire handbook</u> detailing the procedure for handling scientific integrity violation allegations.
- Public Reporting of Allegations: Green
  - DOI maintains a <u>closed case database</u> for scientific integrity violation cases. This database should be a model for other departments.
- Differing Scientific Opinions Policy: Yellow
  - In DOI SI policy, sections B(5) ("I will welcome constructive criticism of my scientific activities and will be responsive to peer review") and B(6) ("I will provide constructive, objective, and professionally valid peer review of the work of others, free of any personal or professional jealousy, disputes, competition, non-scientific disagreement, or conflict of interest resulting from financial interests or personal or business relationships") do not address the question, but do provide department acknowledgement of the importance of measured dialogue.
- Scientific Integrity Official: Green
  - SI section of DOI website contains <u>a page</u> listing DOI's SI Official as well as the SI Officials at each DOI agency.

# • Whistleblower Certification: Yellow

• Both DOI and DOI Office of Inspector General are <u>registered for 2302(c) certification</u> but have not yet completed the process.

# **DEPARTMENT OF LABOR (DOL):**

- Scientific Integrity Policy: Red
  - <u>Final DOL SI policy</u> is exactly the same as the <u>draft policy</u> in spite of a large response to a public comment period. Although the principles from the December 9, 2010 memorandum are repeated, there are many flaws, weaknesses, and gaps (<u>Grifo 2013</u>).
- Peer Review Policy: Yellow
  - DOL does not appear to have a peer review policy of its own but <u>posts an easily</u> <u>accessible link</u> to OMB's 2004 Final Information Quality Bulletin for Peer Review.
- Media Policy: Red
  - Grade: D. DOL's media policy is deficient. The 2012 DOL scientific integrity policy, for example, emphasizes controlling agency message rather than promoting transparency. There is some rhetoric suggesting that more openness be part of the policy, thereby raising the agency's score; however, the policy does not yet ensure than any specific measures would reinforce this transparency in practice (Goldman et al. 2015a).
- Social Media Policy: Red
  - Grade: D. The <u>DOL social media policy</u> is an important first step in providing guidance to agency scientists on social media tools, but this policy is missing some important provisions, such as a distinction between official and personal use and a personal-views exception (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Yellow
  - While DOL's SI policy includes a section entitled "Procedures for addressing scientific misconduct and dishonesty," its recommendations are so vague as to be unhelpful.
- Public Reporting of Allegations: Yellow
  - DOL does not appear to publicly report SI violation allegations separately from its investigations reported by the Inspector General.
- Differing Scientific Opinions Policy: Yellow
  - DOL's SI policy codifies that agency heads should ensure that their agency "encourages an open and honest debate for the advancement of scientific activities" but provides no information as to how to deal with scientific disagreements.
- Scientific Integrity Official: Yellow
  - While the DOL SI policy is explicit about the presence of an SI Officer and the office to which this officer would belong, it is impossible to identify who the current SI Officer is based on the DOL website.
- Whistleblower Certification: Green
  - Both DOL and DOL Office of Inspector General are <u>2302(c) certified.</u>

# **DEPARTMENT OF TRANSPORTATION (DOT):**

- Scientific Integrity Policy: Red
  - DOT SI policy fails to address most of the guidelines put forth in the December 9, 2010 memorandum (Grifo 2013). Additionally, DOT posts as its SI policy a memorandum implementing the Administration's policy on SI and notes that the memo "will serve as the framework for any model scientific integrity policies and for a DOT Scientific Integrity Policy Implementation Manual that will provide further direction on the issue." However, while the memo dates from 2012—more than four years ago as of the compiling of this chart—it is not possible to find any published Implementation Manual.
- Peer Review Policy: Yellow
  - DOT does not appear to have a peer review policy of its own but <u>posts an easily</u> <u>accessible link</u> to OMB's 2004 Final Information Quality Bulletin for Peer Review.
- Media Policy: Red
  - Grade: [N/A]. DOT SI policy directs supervisors and public affairs officers not to direct federal scientists to alter or suppress findings, but otherwise offers little guidance or protection for its scientists.
- Social Media Policy: Red
  - Grade: [N/A]. DOT does not appear to have a social media policy.
- Procedure for Allegations: Red
  - DOT SI policy does not discuss how the department would handle SI violations.
- Public Reporting of Allegations: Yellow
  - DOT does not appear to report scientific integrity violation allegations separately from investigations handled by the Inspector General.
- Differing Scientific Opinions Policy: Red
  - DOT SI policy does not discuss how the department would handle scientific disagreements.
- Scientific Integrity Official: Yellow
  - DOT's SI policy explicitly names Dr. Kevin Womack as the Department's Scientific Integrity Officer (DSIO). While Dr. Womack still works at DOT, he is only <u>listed as</u> the Director of the Officer of Research, Development and Technology and the Director of the Transportation Safety Institute on DOT's website. It is unclear if Dr. Womack is still in charge of SI and if not, who has taken over.
- Whistleblower Certification: Green
  - While some parts of DOT are <u>2302(c) certified</u> and others are only <u>registered</u>, both DOT Office of Inspector General and DOT Office of the Secretary are certified.

# **DEPARTMENT OF AGRICULTURE (USDA):**

- Scientific Integrity Policy: Green
  - USDA updated its <u>scientific integrity policy</u> in November 2016, fixing some <u>previously</u> <u>concerning language</u> and greatly expanding <u>its instructions</u> for handling allegations of violations of scientific integrity.
- Peer Review Policy: Green
  - USDA issues a <u>highly detailed supplemental guide</u> to help agencies better implement OMB's 2004 Final Information Quality Bulletin for Peer Review in addition to providing an easily accessible link to the OMB guidelines within its SI policy.
- Media Policy: Yellow
  - Grade: [N/A]. In 2013, UCS gave the USDA a grade of C- for its media policy (<u>Goldman</u> et al. 2015a). The SI policy updated in 2016, however, includes several important new additions that improve USDA's overall media policy, including a new personal-views exception and clarifications on the role of public affairs officers.
- Social Media Policy: Yellow
  - Grade: [N/A]. In 2013, UCS gave the USDA a grade of D for its <u>social media policy</u>, citing problems including a lack of personal-views exception (<u>Goldman et al. 2015a</u>). The new USDA SI policy builds on USDA's new media policy by including a personal-views exception.
- Procedure for Allegations: Green
  - USDA's <u>SI handbook</u>, which was updated and improved in November 2016, clarifies the procedure for handling SI violation allegations and includes a useful flow chart.
- Public Reporting of Allegations: Yellow
  - While USDA does produce <u>an annual report</u> of scientific integrity allegations separate from Inspector General reports, this report contains almost no detail as to the substance of the allegations.
- Differing Scientific Opinions Policy: Red
  - USDA's SI policy does not address how to handle scientific disagreements, except to note that such disagreements are not part of research misconduct.
- Scientific Integrity Official: Green
  - USDA website has <u>a helpful page</u> listing the Department Scientific Integrity Officer (DSIO) and the Agency Scientific Integrity Officers (ASIOs).
- Whistleblower Certification: Yellow
  - While USDA Officer of Inspector General is <u>2302(c) certified</u>, the overall department has only completed the <u>registration part</u> of the process.

# **CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC):**

- Scientific Integrity Policy: Green
  - CDC slightly updated its <u>strong SI policy</u> in 2016. This policy contains great direction for releasing and sharing data and has many useful aspects to its media and communications policies (<u>Grifo 2013</u>).

#### • Peer Review Policy: Green

- CDC posts its <u>own public peer review policy</u> and appears to have a peer review manual available internally to CDC employees. CDC <u>also posts</u> an easily accessible link to OMB's 2004 Final Information Quality Bulletin for Peer Review.
- Media Policy: Green
  - Grade: A. In the past, journalists and scientists alike noted that despite the CDC's <u>excellent media policy</u>, agency scientists' interactions with the media were still sometimes curtailed by unnecessary influence from media-relations employees. Nonetheless, with the 2012 adoption of a scientific integrity policy, the CDC improved its existing policies for communication in general and outlined whistleblower provisions in particular, thereby anticipating the November 2012 passage of the Whistleblower Protection Enhancement Act (<u>Goldman et al. 2015a</u>).
- Social Media Policy: Yellow
  - Grade: C. CDC's social media policy makes distinctions between personal and official use of social media. Though it does recommend use of a disclaimer when expressing personal views, the policy also disallows employees from naming their employer when using social media in a personal capacity (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Yellow
  - While the procedure for responding to research misconduct allegations is quite detailed, CDC's SI policy provides little detail as to a situation in which "the observed conduct does not fall under the definition of research misconduct but may lead to loss of integrity."
- Public Reporting of Allegations: Yellow
  - CDC does not appear to publicly report SI violation allegations outside of <u>HHS</u> <u>Inspector General investigation reporting for CDC.</u>
- Differing Scientific Opinions Policy: Yellow
  - CDC SI policy states that "CDC accepts scientific debate and respects the peer-review process" but does not provide any procedures as to how to handle these types of disagreements. Additionally, while the OADS overview page lists an Agency Research Integrity Liaison Officer, there is no public information as to who serves in this role.
- Scientific Integrity Official: Green

 CDC posts information regarding the <u>Director of its Office of Scientific Integrity</u>, who is a senior member of the Office of the Associate Director for Science management team. It would help, however, for CDC to post this information <u>on its main SI page</u>.

#### • Whistleblower Certification: Green

• CDC is under the Department of Health and Human Services (HHS). Both HHS overall and HHS Office of Inspector General are <u>2302(c) certified</u>.

# **CONSUMER PRODUCT SAFETY COMMISSION (CPSC):**

- Scientific Integrity Policy: Yellow
  - As an independent agency, the CPSC is not required to follow either President Obama or John Holdren's memoranda on scientific integrity, so it is notable that they chose to publish a <u>scientific integrity policy</u>. However, their policy consists solely of listing freedoms and expectations for CPSC staff, and could be improved by providing procedures for violations of scientific integrity and by providing a media policy that does not require that scientists notify the communications and managerial staff before participating in interviews.
- Peer Review Policy: Red
  - While the CPSC complies with the OMB directive by publishing a peer review agenda, it does <u>not appear to have</u> a peer review policy of its own nor an easily accessible link to OMB's 2004 Final Information Quality Bulletin for Peer Review.
- Media Policy: Yellow
  - Grade: C. The <u>CPSC media policy</u> modestly improved between 2008 and 2013, largely due to the Consumer Product Safety Improvement Act of 2008, which requires the agency to encourage its scientists to seek publishing opportunities in peer-reviewed journals. Although the current policy still has a ways to go, strong agency leadership seems to have made it more effective (<u>Goldman et al. 2015a</u>).

• Social Media Policy: Yellow

- Grade: B+. Over the past few years, the CPSC has developed <u>a strong social media policy</u> that includes several exemplary provisions, such as a personal-views exception and an FAQ document for its employees' personal use of social media a great tool for helping them follow pertinent agency guidance (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Red
  - CPSC SI policy does not address procedures for allegations.
- Public Reporting of Allegations: Yellow
  - CPSC does not appear to publicly report SI violation allegations separately from investigations reported by the Inspector General in the <u>semi-annual reports to Congress</u>.
- Differing Scientific Opinions Policy: Yellow
  - SI policy notes that "airing novel approaches, minority opinions, and concerns about data limitations or interpretations is supported and encouraged" and that "avenues for open, honest discussion and for resolution of scientific or technical conflicts on issues are available" but does not provide further detail on procedures to handle these conflicts.
- Scientific Integrity Official: Red
  - Unclear on CPSC website who, if anyone, is in charge of SI.

# • Whistleblower Certification: Green

• CPSC overall is <u>2302(c) certified</u> and CPSC Office of Inspector General filed jointly with the commission.

# **ENVIRONMENTAL PROTECTION AGENCY (EPA):**

- Scientific Integrity Policy: Green
  - <u>EPA SI policy</u> broke new ground in the areas of personal views exception and giving scientists the right of last review (<u>Grifo 2013</u>).
- Peer Review Policy: Green
  - EPA publishes its own <u>Peer Review Handbook</u>, which provides extensive details as to recommended procedures and approaches to peer review for EPA staff and managers, as well <u>as an easily accessible link</u> to OMB's 2004 Final Information Quality Bulletin for Peer Review.
- Media Policy: Green
  - Grade: A-. Between 2008 and 2013, the EPA's media policy evolved from a disparate, nonpublic, and incomplete set of documents to a publicly available scientific integrity policy that includes substantive positive features. Scientists now have an explicit right of last review, as well as the right to express their views to the media, as long as they indicate these views are their own. However, testimony from agency scientists and journalists indicates that concerns remain over how well this policy is being implemented within the agency (<u>Goldman et al. 2015a</u>).
- Social Media Policy: Yellow
  - Grade: B. The EPA has a solid <u>social media policy</u> in place, though it could be strengthened by allowing scientists to express their personal views through a personal-views exception (<u>Goldman et al. 2015a</u>).

#### • Procedure for Allegations: Yellow

- As EPA's 2014 SI annual report notes, "there are no formal processes for receiving or resolving allegations included in the policy." While the 2014 report contains a summary of the draft procedures being finalized by EPA's Scientific Integrity Committee, the EPA website does not yet contain a final version of these procedures. In 2015, EPA published a document <u>describing coordination procedures</u> between the Scientific Integrity Official and the Office of Inspector General, although these instructions seem to deal only with research misconduct.
- Public Reporting of Allegations: Green
  - EPA publicly reports all SI violation allegations and summarizes the adjudicated allegations. These allegations are listed on <u>their own webpage</u>.
- Differing Scientific Opinions Policy: Yellow
  - While EPA does not appear to have published the "transparent mechanism" for handling differing scientific opinion that its SI policy mandates it would develop, EPA's SI policy still provides a workable outline for how the agency would handle situations in

which employees disagree over scientific data, scientific interpretations, or scientific conclusions.

#### • SI Official: Green

• EPA clearly <u>identifies</u> Francesca Grifo as the Scientific Integrity Official (ScIO).

# • Whistleblower Certification: Yellow

• While EPA Office of Inspector General is 2302(c) certified, EPA overall is only <u>registered</u> <u>for 2302(c) certification</u> and has not yet completed the process.

# FISH AND WILDLIFE SERVICE (FWS):

- Scientific Integrity Policy: Green
  - <u>FWS SI policy</u> mainly restates the DOI SI policy but adapts some provisions to make it Service-specific.
- Peer Review Policy: Yellow
  - FWS posts an easily accessible link to the OMB's 2004 Final Information Quality Bulletin for Peer Review as well as a handy checklist detailing the information that will be posted online for FWS peer reviews, but does not appear to have a peer review policy of its own.
- Media Policy: Yellow
  - Grade: B+. Along with the 2014 update to the DOI SI policy, the FWS has its own solid media policy in place that affirms the rights of scientists to express their views as private citizens and that permits them to review and edit scientific content, although an explicit right of last review is still missing. Anecdotal evidence from journalists and FWS scientists, however, suggests that practices may not be consistently following this strong policy. Overall, FWS policies have improved significantly, and feedback from agency scientists has illustrated the importance of having strong policies firmly in place (Goldman et al. 2015a).

#### • Social Media Policy: Green

• Grade: A. FWS has a comprehensive <u>Social Medial Hub</u> that organizes its tool-specific policies and refers to the DOI's strong social media policy (<u>Goldman et al. 2015a</u>).

#### • Procedure for Allegations: Green

- FWS SI policy clearly details the procedures to report an allegation as well as the procedures FWS will take to address the allegation.
- Public Reporting of Allegations: Green
  - Allegations regarding SI violations at FWS are reported through DOI's <u>closed case</u> <u>database</u>.
- Differing Scientific Opinions Policy: Yellow
  - FWS repeats DOI's policy statements, which provide little detail on the procedure for handing differing scientific opinions.
- Scientific Integrity Official: Green
  - Dave Scott was recently selected as FWS's Service Scientific Integrity Officer. <u>News of</u> <u>this announcement</u> is on the FWS website, although the better page to find his contact information is on the <u>DOI site</u>.
- Whistleblower Certification: Yellow

• FWS is under DOI. Both DOI and DOI Office of Inspector General are <u>registered for</u> <u>2302(c) certification</u> but have not yet completed the process.

# FOOD AND DRUG ADMINISTRATION (FDA):

- Scientific Integrity Policy: Yellow
  - <u>FDA SI policy</u> has the principles, but is missing specific provisions and guidance (<u>Grifo</u> 2013).
- Peer Review Policy: Red
  - FDA posts a peer review agenda and mentions OMB's 2004 Final Information Quality Bulletin for Peer Review in its SI policy, but does not post an easily accessible link to the OMB guidelines nor does it appear to have its own peer review policy.
- Media Policy: Yellow
  - Grade: C. FDA did not have a media policy in 2008 but has since made some progress developing one through the agency's scientific integrity policy <u>and other directives</u>. It is particularly noteworthy that, through the HHS media policy, agency scientists now have an explicit right to express their personal views in publications and speeches. However, restrictions on scientific speech continues to be problematic at the agency, both in the written policy and, anecdotally, according to some journalists and agency scientists (Goldman et al. 2015a).
- Social Media Policy: Green
  - Grade: A. The <u>FDA social media policy</u>, released in late 2015, was notable for its clear distinction between official and personal use of social media and the freedom it gave to its employees on the latter. Overall, the FDA social media policy is one of the strongest of all the various federal agency social media policies.
- Procedure for Allegations: Red
  - While FDA provides a comprehensive manual for dealing with scientific disputes, it does not provide detailed procedures relating to allegations of SI violations.
- Public Reporting of Allegations: Yellow
  - FDA does not report allegations of scientific integrity violations separately from investigations reported by the Inspector General.
- Differing Scientific Opinions Policy: Green
  - FDA SI policy provides a summary of the procedures found in the FDA <u>Staff Manual</u> <u>Guide on Scientific Dispute Resolution at FDA</u>.
- Scientific Integrity Official: Green
  - At the bottom of the <u>FDA website page on SI</u>, the FDA lists G. Matthew Warren as its Director for the Office of Scientific Integrity.
- Whistleblower Certification: Green
  - FDA is under HHS. Both HHS overall and HHS Office of Inspector General are <u>2302(c)</u> <u>certified</u>.

# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA):

- Scientific Integrity Policy: Yellow
  - The <u>NASA SI policy</u> describes itself as a collective listing of the current and planned NASA policies related to scientific integrity, and indeed the policy is mainly a collection of links to other NASA documents. Although there are good elements, agency scientists would have to spend hours to find and understand them (<u>Grifo 2013</u>).
- Peer Review Policy: Yellow
  - NASA <u>posts</u> an easily accessible link to OMB's 2004 Final Information Quality Bulletin for Peer Review but does not appear to have a peer review policy of its own.
- Media Policy: Yellow
  - Grade: B. Anecdotal evidence and the addition of a 2011 scientific integrity policy suggest improvements in NASA scientists' freedom to speak. But other evidence suggests that NASA may need to do more to put its policies into practice (<u>Goldman et al.</u> <u>2015a</u>).
- Social Media Policy: Yellow
  - Grade: B+. Despite its exemplary use of social media tools to allow NASA scientists to engage with the public, NASA does not have an official social media policy. However, the agency does provide employees with a comprehensive guidelines document on its intranet (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Yellow
  - NASA SI policy contains a link 14 CFR 1275, their comprehensive <u>research misconduct</u> policy. However, this policy relates to research misconduct, not scientific integrity violations more broadly.
- Public Reporting of Allegations: Yellow
  - NASA does not appear to publicly report scientific integrity violation allegations separately from <u>investigations reported by the Inspector General</u>.
- Different Scientific Opinions Policy: Red
  - NASA does not address procedure for handling scientific disagreements.
- Scientific Integrity Official: Red
  - Unclear on NASA website who, if anyone, is in charge of SI.
- Whistleblower Certification: Yellow
  - Only NASA Office of Inspector General has been <u>2302(c) certified</u>. NASA more broadly is <u>registered for 2302(c) certification</u> but has not completed the process.

# NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST):

- Scientific Integrity Policy: Yellow
  - Although NIST has <u>a scientific integrity summary</u> on its website, NIST's own SI policy is undergoing an update and is currently unavailable. It is therefore judged by the <u>DOC</u> <u>policy</u>.
- Peer Review Policy: Yellow
  - NIST <u>posts</u> an easily accessible link to OMB's 2004 Final Information Quality Bulletin for Peer Review but does not appear to have a policy of its own.
- Media Policy: Yellow
  - Grade: B+. NIST is subject to the policies of the DOC. While the <u>DOC media policy</u> is unchanged since 2008, the 2011 DOC scientific integrity policy clarified some right for agency scientists. Despite these improvements on paper, there is some indication that the agency may face challenges in putting this policy into practice. In the past, some employees have noted that the internal review processes at the DOC "can impede the dissemination of information" from NIST (<u>Goldman et al. 2015a</u>).
- Social Media Policy: Yellow
  - Grade: B. The <u>DOC social media policy</u> provides some guidance to NIST employees on the use of these tools, but it does not grant scientists the right to identify their job title, even with an accompanying personal-views statement. Though not an official policy, NIST does conduct comprehensive training of its employees on the effective use of social media tools (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Red
  - DOC SI policy does not address procedure for SI violation allegations.
- Public Reporting of Allegations: Yellow
  - NIST does not appear to publicly report allegations separately from the <u>investigations</u> reported by the Inspector General.
- Different Scientific Opinions Policy: Red
  - DOC SI policy does not address procedure for handling differing scientific opinion.
- Scientific Integrity Official: Yellow
  - According to a <u>2011 document</u>, the Associate Director for Laboratory Programs "is responsible for ensuring that requirement processes and procedures are developed, implemented and maintained that encourage personal and organizational responsibility in upholding scientific integrity at NIST." However, there is no indication on the <u>current ADLP's page</u> that scientific integrity is under his control.
- Whistleblower Certification: Yellow

NIST is under DOC. Only DOC Office of Inspector General has been <u>2302(c) certified</u>.
 DOC more broadly is <u>registered for 2302(c) certification</u> but has not yet completed the process.

# NATIONAL INSTITUTES OF HEALTH (NIH):

- Scientific Integrity Policy: Red
  - NIH is covered by two policies: its own <u>SI policy</u>, which claims to cover scientific integrity but is only concerned with the subset of research misconduct, and the Department of Health and Human Services <u>SI policy</u>, which is insufficient.

#### • Peer Review Policy: Green

- NIH <u>posts</u> an easily accessible link to OMB's 2004 Final Information Quality Bulletin for Peer Review and <u>appears to have instructions</u> related to peer review of scientific research that build on the OMB guidelines.
- Media Policy: Yellow
  - Grade: C. While NIH has <u>a solid policy</u>, two areas that still need better safeguards against abuse are scientists' right of last review, which should be made explicit, and provisions to ensure that public affairs or other nonscientist personnel do not interfere with scientists' interviews with the media. Although the policy does not require public affairs staff to be present, anecdotal reports indicate scientists are under pressure to content to the monitoring of their interactions with the media (<u>Goldman et al. 2015a</u>).
- Social Media Policy: Green
  - Grade: A. NIH has an exemplary social media policy. In addition, the agency has developed a streamlined and accessible "New Media Checklist" to assist its employees in understanding and implementing the policy (<u>Goldman et al. 2015a</u>).

#### • Procedure for Allegations: Yellow

- NIH policy has a clear <u>procedure for research misconduct allegations</u>. However, there is no description of how to handle broader scientific integrity allegations. The HHS policy does not cover how to handle scientific integrity allegations.
- Public Reporting of Allegations: Yellow
  - HHS Office of Research Integrity <u>separately reports</u> cases relating to research misconduct. However, there is no reporting of broader scientific integrity violation allegations separately <u>from investigations reported by HHS Inspector General</u>.
- Differing Scientific Opinions Policy: Red
  - Neither the NIH SI policy nor the HHS SI policy address procedure for handling differing scientific opinion, although the NIH policy does note that honest error or differences of opinion are not included in the definition of research misconduct.
- Scientific Integrity Official: Yellow
  - While NIH has an <u>agency intramural research misconduct director</u>, it does not have an officer for broader scientific integrity.
- Whistleblower Certification: Green

• NIH is under HHS. Both HHS overall and HHS Office of Inspector General are <u>2302(c)</u> <u>certified</u>.

# NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA):

- Scientific Integrity Policy: Green
  - <u>NOAA SI policy</u> is both excellent and easily accessibly on the NOAA website; so long as the weaker Department of Commerce policy does not supersede (<u>Grifo 2013</u>).
- Peer Review Policy: Yellow
  - NOAA does not appear to have its own peer review policy but does <u>post</u> an easily accessible link to OMB's 2004 Final Information Quality Bulletin for Peer Review as well as links to other useful information quality policies.
- Media Policy: Green
  - Grade: A. NOAA has an excellent media policy, substantively improved since 2008 through the creation of a strong scientific integrity policy. Notably, the scientific integrity policy bolsters two key areas cited as weakness in 2008; a personal-views exception and access to drafts and revisions, including an explicit right of last review (Goldman et al. 2015a).
- Social Media Policy: Yellow
  - Grade: B. NOAA is subject to the <u>DOC social media policy</u>, which includes many important provisions, such as the encouragement of openness and a distinction between official and personal use of social media. However, the policy does not allow employees to identify their job title when they are using social media in a nonofficial capacity, even if they include a personal-views statement (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Green
  - NOAA created a <u>procedural handbook</u> that clearly details how NOAA will handle scientific integrity violation allegations.
- Public Reporting of Allegations: Green
  - NOAA publicly reports out SI violation allegations in its own <u>annual reports</u>.
- Differing Scientific Opinions Policy: Yellow
  - NOAA SI policy directs research partners and collaborators to be "professional, courteous, and fair in working with others and respectful of the ideas of others" but does not address how to handle any scientific disagreements.
- Scientific Integrity Official: Green
  - The <u>homepage for NOAA's Scientific Integrity Commons</u> lists Cynthia Decker as NOAA Scientific Integrity Officer.
- Whistleblower Certification: Yellow
  - NOAA is under DOC. Only DOC Office of Inspector General has been <u>2302(c) certified</u>.
    DOC more broadly is <u>registered for 2302(c) certification</u> but has not yet completed the process.

# **NATIONAL SCIENCE FOUNDATION (NSF):**

- Scientific Integrity Policy: Green
  - <u>NSF SI policy</u> contains some of the strongest media policies of all the agencies, but it is missing some other key protections (<u>Grifo 2013</u>).

#### • Peer Review Policy: Yellow

 According to the <u>NSF website</u>, "based on the review it has conducted, the National Science Foundation believes that it does not currently produce or sponsor the distribution of influential scientific information (including highly influential scientific assessments) within the definitions promulgated by OMB. As a result, at this time NSF has no agenda of forthcoming influential scientific disseminations to post on its website in accordance with OMB's Information Quality Bulletin for Peer Review." However, NSF does provide extensive information regarding its <u>Merit Review process</u>.

#### • Media Policy: Green

Grade: A. In 2008 the NSF had no written media policy, but the agency now has <u>a very</u> strong one in place. An important highlight of the NSF media policy includes its language granting scientists the explicit right of last review. The NSF's language that details scientists' personal-views exception also is exemplary and should serve as a model for other agencies (<u>Goldman et al. 2015a</u>).

• Social Media Policy: Yellow

- Grade: B+. Though <u>the NSF social media policy</u> is not on the agency website, it provides strong guidance to its employees on social media, including a provision allowing them to identify their employer provided they include a disclaimer stating that they are representing their personal views (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Yellow
  - NSF SI policy cites its research misconduct policy, which has extensive detail <u>on</u> <u>research misconduct procedures</u>. However, this policy relates to research misconduct, not scientific integrity violations more broadly.
- Public Reporting of Allegations: Yellow
  - NSF has <u>a closed case database under the Office of Inspector General</u>, where you can search for cases under various classifications, including "NSF Employee Misconduct," and several cases relate to scientific integrity. However, it does not separately report cases relating to scientific integrity.

# • Differing Scientific Opinions Policy: Red

- SI policy does not mention either a procedure for handling scientific disagreements nor guide scientists toward measured dialogue.
- Scientific Integrity Official: Red

• Unclear on NSF website who, if anyone, is in charge of SI.

#### • Whistleblower Certification: Green

• Both NSF and NSF Office of Inspector General are <u>2302(c) certified</u>.

# NUCLEAR REGULATORY COMMISSION (NRC):

- Scientific Integrity Policy: Red
  - NRC has an <u>Information Quality Program</u>, but nothing that would count as an SI policy.
    As an independent agency, NRC is not required to create an SI policy.
- Peer Review Policy: Green
  - NRC does not appear to have its own peer review policy, but <u>posts a guide</u> to implementing OMB's 2004 Final Information Quality Bulletin for Peer Review and <u>posts</u> <u>an easily accessible link</u> to the OMB guidelines.
- Media Policy: Yellow
  - Grade: B+. The NRC has made no changes to its media policy since 2008. While the agency still deserves praise for providing some clarification to its employees on engaging with the media, a B+ no longer puts the NRC at the top of the class (<u>Goldman et al. 2015a</u>). NRC's policies for media are <u>spread over many different documents</u>.

#### • Social Media Policy: Yellow

- Grade: B. Though not publicly available on the agency website, the <u>NRC social media</u> policy provides solid guidance to its employees on social media use, and the agency has greatly expanded its use of social media for science communications in recent years, including webinars and blogs on timely topics. The NRC social media policy could be improved by explicitly allowing its employees to name their employer on personal social media accounts (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Red
  - Within NRC's Information Quality Program, NRC describes allegations of research misconduct. However, NRC simply describes that research institutions within NRC "will self-report allegations" and provides no information as to the process NRC will use to judge these allegations.
- Public Reporting of Allegations: Yellow
  - NRC puts out impressively comprehensive <u>annual reports on allegation trends</u>, but does not report specifics on individual cases related to scientific integrity.
- Differing Scientific Opinions Policy: Red
  - NRC's Information Quality Program does not discuss how to handle scientific disagreements except to note repeat that the definition of research misconduct "does not include honest error or differences of opinion."
- Scientific Integrity Official: Red
  - Unclear who on NRC website who, if anyone, is in charge of SI.
- Whistleblower Certification: Green
  - Both NRC and NRC Office of Inspector General are <u>2302(c) certified</u>.

# **UNITED STATES GEOLOGICAL SURVEY (USGS):**

- Scientific Integrity Policy: Green
  - <u>USGS SI policy</u> largely repeats strong DOI policy but adapts some wording to make the policy USGS-specific.
- Peer Review Policy: Green
  - USGS <u>posts its own peer review policy</u>, which also includes a link to OMB's 2004 Final Information Quality Bulletin for Peer Review.
- Media Policy: Yellow
  - Grade: B+. Reports from journalists and scientists on USGS media practices have been largely positive since 2008, despite a written media policy that could use some improvement. In addition to the need for key features, such as right of last review and a personal-views exception, the policy could be strengthened by explicitly reaffirming scientific transparency. The 2014 update to the DOI SI policy added some important language on whistleblower protection and dispute resolution that helped the USGS improve its grade (Goldman et al. 2015a). USGS's media policies are spread over many different documents in addition to the media policies found in the SI policy and peer review policy.
- Social Media Policy: Green
  - Grade: A+. Following the release of UCS's 2013 report grading agency media and social media policies (<u>the same day, in fact</u>), the USGS heeded UCS's recommendation and enhanced its already strong social media policy by adding a procedure by which USGS employees can obtain corrections of errors in official posts—making the USGS the first federal agency in our study to include this important provision. The USGS social media policy builds on and makes reference to the DOI's strong policy (<u>Goldman et al. 2015a</u>).
- Procedure for Allegations: Green
  - USGS includes a significant amount of information about procedures to handle allegations in its SI policy and otherwise directs readers to the DOI Scientific Integrity Procedures Handbook.
- Public Reporting of Allegations: Green
  - USGS SI cases are publicly reported through the <u>DOI closed case database</u>.
- Differing Scientific Opinions Policy: Yellow
  - USGS repeats DOI's policy statements, which provide little detail on the procedure for handing differing scientific opinions.
- Scientific Integrity Official: Green
  - USGS's SI Official information can be found on the <u>DOI page</u> for Scientific Integrity Officers.

# • Whistleblower Certification: Yellow

• USGS is under DOI. Both DOI and DOI Office of Inspector General are <u>registered for</u> <u>2302(c) certification</u> but have not yet completed the process.