

Presidential Recommendations for 2020

*A Blueprint for Defending Science and
Protecting the Public*

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Appendix

January 2020

The Union of Concerned Scientists report *Presidential Recommendations for 2020: A Blueprint for Defending Science and Protecting the Public* recommends what the next president can do to restore, protect, and advance the role of science in government decisionmaking.

Among those actions are establishing and protecting scientific integrity at government agencies. The table on p. 4 of the full report outlines the steps federal agencies have taken to establish policies and practices intended to safeguard scientific integrity. Some have instituted a clear procedure for scientific integrity matters, put an official in charge of scientific integrity, and implemented a clear procedure for filing a scientific integrity complaint. But there is much work to do.

This appendix comprises a key explaining the metrics behind each of the color designations and a detailed methodology for the designations each agency received.

Scientific Integrity Policy Grading Criteria

	Green	Yellow	Red
Explicit SI policy	Agency has SI policies that: Are easy to access online, and Express in detail agency’s commitment to the principles of SI and science-based decisionmaking, and Have been updated or improved in the last 8 years	Agency has SI policies that have 1-2 of the following traits: Are not easily accessible, or Express the agency’s commitment to the principles of SI and science-based decisionmaking in vague or insufficient terms, or Have not been updated or improved in the last 8 years	Agency appears to lack SI policies, or has SI policies that: Are not easily accessible, and Express the agency’s commitment to the principles of SI and science-based decisionmaking in vague or insufficient terms, and Have not been updated or improved in the last 8 years
Clear procedures for SI allegations	Agency has procedures to report allegations of SI abuses that: Provide clear, detailed instructions on how and when to submit an allegation, and Apply to a broad array of potential scientific integrity abuses, and Clearly outline the investigation process	Agency has procedures to report allegations of SI abuses that have 1-2 of the following traits: Provide vague or inaccessible instructions on how and when to submit an allegation, or Apply to a limited array of potential scientific integrity abuses, e.g., only research misconduct, or Do not clearly outline the investigation process	Agency lacks procedures to report allegations of SI abuses, or has procedures that: Provide vague or inaccessible instructions on how and when to submit an allegation, and Apply to a limited array of potential scientific integrity abuses, e.g., only research misconduct, and Do not clearly outline the investigation process

Public reporting of SI cases	Agency has: Tracks and periodically releases agency-specific cases of scientific integrity violations, and Publishes in these records the details of confirmed cases of SI violations	The agency has 1 of the following traits: Does not track and periodically release agency-specific cases of scientific integrity violations, or Publishes in these records little or no detail of confirmed cases of SI violations	The agency: Does not track and periodically release agency-specific cases of scientific integrity violations, and Publishes in these records little or no detail of confirmed cases of SI violations
Clearly designated SI officer/office	Agency has an SI officer/office policy that: Has a position for a dedicated SI officer or SI office, and Demonstrates that the SI official's position is filled by listing the current officer's name and credentials	Agency has an SI officer policy that: Has a position for an official that oversees misconduct or other violations, but not one dedicated to SI, or Does not demonstrate that the SI official's position is filled	Agency does not have an SI officer policy, or has an SI officer policy that: Has a position for an official that oversees misconduct or other violations, but not one dedicated to SI, and Does not demonstrate that the SI official's position is filled

Many federal agencies have scientific integrity (SI) policies in place, but these policies vary in their strengths. We assessed the strength of four different facets of SI addressed by these policies including: Clear procedures for SI allegations, public reporting of SI cases, clearly designated SI officer/office, and the strength of the SI policy in its entirety. We used the criteria specified in this table to assign a grade of good (green), fine (yellow), or needs improvement (red).

Scientific Integrity Policy Grading – Detailing the Results

Using the above criteria (Table 1), we graded the SI policies of multiple agencies. Here, we provide detail on the grading of each of these policies.

DEPARTMENT OF COMMERCE (DOC)

- **Scientific Integrity Policy: Yellow**
 - DOC SI policy cedes important details to its bureaus with an interest in science and provides little detail here (Grifo 2013). In a March 2019 memo signed by Commerce Sec. Wilbur Ross, DOC agreed with SI policy recommendations for NIST submitted by GOA and said it would clarify its plan for implementation 180 days after GOA's report.
- **Procedure for Allegations: Red**
 - DOC SI policy does not address procedure for SI violation allegations. No relevant information was found in its Human Resources policies.
- **Public Reporting of Allegations: Yellow**
 - DOC does not appear to publicly report SI violation allegations separately from investigations reported by the Inspector General.
- **Scientific Integrity Official: Red**
 - Unclear on DOC's website who, if anyone, oversees scientific integrity.

DEPARTMENT OF ENERGY (DOE)

- **Scientific Integrity Policy: Green**
 - DOE updated its scientific integrity policy in January 2017. This new policy dramatically improves 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.
- **Procedure for Allegations: Red**
 - DOE SI policy does not address procedure on allegations. It discusses research misconduct, a subset of SI violations, but both DOE's SI policy and its regulation on research misconduct lacks any reference to broader allegations of SI.
- **Public Reporting of Allegations: Yellow**
 - DOE does not appear to publicly report SI violation allegations separately from its investigative outcomes reported in its semiannual reports to Congress.
- **Scientific Integrity Official: Yellow**
 - DOE SI policy explicitly calls for the Secretary of Energy to designate a Scientific Integrity Official, although in the days following the release of DOE's new policy it was not immediately clear who that official would be. As of this report's publication, no official has been named.

DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS)

- **Scientific Integrity Policy: Red**
 - The only accessible SI policy at HHS is a document, published in 2011, that claims to describe "the overall principles" of scientific integrity. However, the document is vague and defers heavily to sub-agencies, which have policies of varying strength.
- **Procedure for Allegations: Yellow**
 - The HHS Office of Research Integrity has a comprehensive site on policies and procedures for investigations, but it deals only with research misconduct. The HHS SI policy does not cover how to handle scientific integrity allegations.
- **Public Reporting of Allegations: Yellow**
 - HHS Office of Research Integrity separately reports cases relating to research misconduct. However, there is no reporting of broader SI violation allegations separate from investigations reported by HHS Inspector General.
- **Scientific Integrity Official:**
 - Unclear on HHS's website who, if anyone, oversees scientific integrity.

DEPARTMENT OF THE INTERIOR (DOI)

- **Scientific Integrity Policy: Green**
 - DOI updated its SI policy in 2014, improving an already strong policy with a new handbook describing how the policies will be implemented, although areas including whistleblower protection and public communications should be strengthened.
- **Procedure for Allegations: Green**
 - In 2014, DOI created an extremely comprehensive, stand-alone handbook detailing procedures for handling scientific integrity violation allegations.

- **Public Reporting of Allegations: Green**
 - DOI maintains a closed case database for scientific integrity violation cases. This database should be a model for other departments.
- **Scientific Integrity Official: Green**
 - The scientific integrity section of DOI's website contains a page listing the department SI official's name and contact information, as well as the SI officials at each DOI agency.

DEPARTMENT OF LABOR (DOL)

- **Scientific Integrity Policy: Red**
 - DOL's final SI policy is exactly the same as its early draft policy, despite 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 (Grifo 2013).
- **Procedure for Allegations: Yellow**
 - While DOL's SI policy includes a section entitled "Procedures for addressing scientific misconduct and dishonesty," its recommendations are vague, esoteric, and unhelpful. The policy refers also to a 'research misconduct' rule, which is more detailed, but difficult to find and narrow in scope.
- **Public Reporting of Allegations: Yellow**
 - DOL does not appear to publicly report SI violation allegations separately from its investigations reported by the Inspector General.
- **Scientific Integrity Official: Yellow**
 - While the DOL SI policy is explicit about the presence of an SI Officer, the office to which this officer would belong, and expectations for this officer's credentials, it is impossible to identify who, if anyone, the current SI Officer is based on the DOL website. The name currently referenced as a contact for more information left the department in 2012.

DEPARTMENT OF TRANSPORTATION (DOT)

- **Scientific Integrity Policy: Red**
 - DOT posts as its SI policy a memorandum that claims to implement the Administration's policy on SI, but the memo fails to address most of the guidelines put forth in the December 9, 2010 memorandum (Grifo 2013). Additionally, DOT 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." While the memo dates from 2012, it is not possible to find a published Implementation Manual.
- **Procedure for Allegations: Red**
 - DOT's SI policy does not discuss how the department would handle allegations of 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.
- **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

listed only as 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.

DEPARTMENT OF AGRICULTURE (USDA)

- **Scientific Integrity Policy: Green**
 - USDA updated its scientific integrity policy in November 2016, fixing some previously concerning language and greatly expanding its instructions for handling allegations of violations of scientific integrity.
- **Procedure for Allegations: Green**
 - USDA's SI handbook, which was updated and improved in November 2016, clarifies the procedure for handling SI violation allegations. Its policy is detailed and instructive, and it includes a useful flowchart.
- **Public Reporting of Allegations: Yellow**
 - While USDA does produce an annual report of scientific integrity allegations separate from Inspector General reports, this report contains very little detail regarding the substance of the allegations. Moreover, the Office of Inspector General directs readers to submit FOIA requests to view full investigations.
- **Scientific Integrity Official: Green**
 - USDA website has a dedicated web page listing names and contact information for the Department Scientific Integrity Officer (DSIO) and the Agency Scientific Integrity Officers (ASIOs).

CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)

- **Scientific Integrity Policy: Green**
 - CDC updated its already strong SI policy in 2016. This policy contains detailed directions for releasing and sharing data and its communications policies are clear, accessible, and committed to free and open exchange (Grifo 2013).
- **Procedure for Allegations: Yellow**
 - While the procedure for responding to research misconduct allegations is thorough, CDC's SI policy provides little detail regarding allegations 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 the HHS Inspector General investigation reporting for CDC.
- **Scientific Integrity Official: Green**
 - CDC posts information regarding the Director of its Office of Scientific Integrity, 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 on its main SI page.

CONSUMER PRODUCT SAFETY COMMISSION (CPSC)

- **Scientific Integrity Policy: Yellow**
 - As an independent agency, the CPSC is not required to follow President Obama's or John Holdren's memoranda on scientific integrity, so its publication

of a scientific integrity policy is laudable. However, CPSC could strengthen its policy – which largely lists freedoms and expectations for CPSC staff – by providing procedures for violations of scientific integrity and a media policy that does not require scientists to notify communications and managerial staff before participating in interviews.

- **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 its semi-annual reports to Congress.
- **Scientific Integrity Official: Red**
 - Unclear on CPSC website who, if anyone, oversees scientific integrity.

ENVIRONMENTAL PROTECTION AGENCY (EPA)

- **Scientific Integrity Policy: Green**
 - EPA's SI policy is accessible, detailed, and strong in its commitment to SI principles. Additionally, EPA broke new ground in its policy by permitting personal views exceptions and giving scientists the right of last review (Grifo 2013).
- **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 report contains a summary of the draft procedures being finalized by EPA's Scientific Integrity Committee, the EPA website does not yet display a final version. In 2015, EPA published a document describing coordination procedures between the Scientific Integrity Official and the Office of Inspector General, although these appear 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 their own webpage.
- **SI Official: Green**
 - EPA clearly identifies and provides contact information for Francesca Grifo, PhD, the agency's Scientific Integrity Official (ScIO).

FISH AND WILDLIFE SERVICE (FWS)

- **Scientific Integrity Policy: Green**
 - FWS SI policy relies on, and largely restates, the DOI's comprehensive SI policy but adapts some provisions to cater to FWS specifically. While the DOI's SI policies have been updated in the last eight years (2014), FWS – which published its policy in 2011 – has not.
- **Procedure for Allegations: Green**
 - FWS SI policy clearly details the procedures to report an allegation and the procedures FWS will take to address allegations; however, FWS's SI policy has not been thoroughly updated since 2011 and would benefit from a more user-friendly, accessible interface.

- **Public Reporting of Allegations: Green**
 - Allegations regarding SI violations at FWS are reported through DOI's closed case database.
- **Scientific Integrity Official: Green**
 - Dave Scott was recently selected as FWS's Service Scientific Integrity Officer. News of this announcement is on the FWS website, and his contact information is available on the DOI site.

FOOD AND DRUG ADMINISTRATION (FDA)

- **Scientific Integrity Policy: Yellow**
 - FDA SI policy outlines principles of scientific integrity, but it is missing specific provisions and guidance (Grifo 2013).
- **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. It appears that allegations should be filed through the office of the ombudsman, but the exact procedure is unclear, and SI violations go unmentioned.
- **Public Reporting of Allegations: Yellow**
 - FDA does not report allegations of scientific integrity violations separately from investigations reported by the Inspector General.
- **Scientific Integrity Official: Yellow**
 - The FDA's website references an Office of Scientific Integrity. In previous versions of its webpage, a director of this office was listed (G. Matthew Warren), as was contact information. This appears to have been removed.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

- **Scientific Integrity Policy: Green**
 - In June 2018, NASA released a new SI policy handbook that outlines in detail the agency's commitments to SI, and is excellent improvement from its previous SI policy. It is organized, accessible, and enhanced throughout with links to further reading (Grifo 2013).
- **Procedure for Allegations: Yellow**
 - NASA's June 2018 SI policy handbook contains a link to 14 CFR 1275, the agency's comprehensive research misconduct policy. However, the policy is old and focuses on 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 investigations reported by the Inspector General.
- **Scientific Integrity Official: Red**
 - A NASA webpage notes that the NASA Chief Scientist (currently James Green) is "responsible for scientific integrity" at the agency, which does not constitute a dedicated scientific integrity position. Beyond this, the NASA website is unclear about who, if anyone, has a dedicated role overseeing scientific integrity.

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

- **Scientific Integrity Policy: Yellow**
 - Although NIST has a scientific integrity summary on its website, it states that its SI policy is undergoing updates and revisions. No additional information is available; it is therefore judged by the DOC policy.
- **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 of SI violations separately from the investigations reported by the Inspector General.
- **Scientific Integrity Official: Yellow**
 - According to a 2011 document, 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 current ADLP’s page that scientific integrity is under his control.

NATIONAL INSTITUTES OF HEALTH (NIH)

- **Scientific Integrity Policy: Red**
 - NIH is covered by two policies: its own SI policy, which claims to cover scientific integrity but is only concerned with the subset of research misconduct, and the Department of Health and Human Services SI policy, which is insufficient.
- **Procedure for Allegations: Yellow**
 - NIH policy has a clear procedure for research misconduct allegations. However, there is no mention of procedures for handling 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 separately reports cases relating to research misconduct. However, there is no reporting of broader SI violation allegations separate from investigations reported by HHS Inspector General.
- **Scientific Integrity Official: Yellow**
 - While NIH has an agency intramural research misconduct director, Kathy Partin, it does not have an officer for scientific integrity.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

- **Scientific Integrity Policy: Green**
 - NOAA SI policy is detailed, broad in scope, and easily accessible on the NOAA website – so long as the weaker Department of Commerce policy does not supersede (Grifo 2013). Its SI policy has been longstanding, since 2011, but was supplemented with additional internal guidance – albeit uncodified – on research communications in 2016.

- **Procedure for Allegations: Green**
 - NOAA created a procedural handbook that clearly details the agency’s processes for submitting, investigating and resolving scientific integrity violation allegations.
- **Public Reporting of Allegations: Green**
 - NOAA publicly reports out SI violation allegations in its own annual reports, separate from those of its parent department, DOC.
- **Scientific Integrity Official: Green**
 - The homepage for NOAA’s Scientific Integrity Commons lists Cynthia Decker as NOAA Scientific Integrity Officer. NOAA also created a Scientific Integrity Committee in 2015.

NATIONAL SCIENCE FOUNDATION (NSF)

- **Scientific Integrity Policy: Green**
 - NSF SI policy contains some of the strongest media policies of all the agencies, but it is missing some other key protections (Grifo 2013).
- **Procedure for Allegations: Yellow**
 - NSF SI policy cites its research misconduct policy, which has extensive detail on research misconduct procedures. However, this policy applies narrowly to research misconduct – “fabrication, falsification, or plagiarism” in research contexts – and not scientific integrity violations more broadly.
- **Public Reporting of Allegations: Yellow**
 - NSF has a closed case database under the Office of Inspector General, 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.
- **Scientific Integrity Official: Red**
 - The NSF website names a Director of Research Integrity and Administrative Investigations, but does not explicitly indicate that it has a scientific integrity officer.

NUCLEAR REGULATORY COMMISSION (NRC)

- **Scientific Integrity Policy: Red**
 - NRC has an Information Quality Program, and it issued a memo in 2010 emphasizing the importance of scientific integrity, but neither of these represent an SI policy.
- **Procedure for Allegations: Red**
 - Within NRC’s Information Quality Program, NRC describes allegations of research misconduct. NRC also has an “allegations” page and several documents on reporting wrongdoing; one of these documents lists a few possible SI violations, including supervisory retaliation. Nevertheless, these lists are vague, procedures for reporting and investigating allegations are unclear, and scientific integrity goes unmentioned.
- **Public Reporting of Allegations: Yellow**
 - NRC puts out impressively comprehensive annual reports on allegation trends, but does not report specifics on individual cases related to scientific integrity.
- **Scientific Integrity Official: Red**
 - Unclear who on NRC website who, if anyone, is in charge of SI.

UNITED STATES GEOLOGICAL SURVEY (USGS)

- **Scientific Integrity Policy: Green**
 - USGS SI policy relies on, and largely restates, the DOI's comprehensive SI policy but adapts some provisions to cater to USGS specifically.
- **Procedure for Allegations: Green**
 - USGS includes in its SI policy detailed information about procedures to handle allegations. For further information, it directs readers to the highly comprehensive DOI Scientific Integrity Procedures Handbook.
- **Public Reporting of Allegations: Green**
 - USGS SI cases are publicly reported through the DOI closed case database.
- **Scientific Integrity Official: Green**
 - The USGS SI official's name and contact information is available on the DOI page for Scientific Integrity Officers.