

Scientific Integrity Report Card
National Science Foundation (NSF)

Scientific Integrity Grading Rubric	Total Possible: 100 Points	Total Awarded: 66 Points
Scientific Misconduct	Subsection Total: 40	Subsection Total: 17
A. Political Manipulation of Science	6	3
B. Breadth of Coverage	5	5
C. Whistleblower Protection	12	0
D. Investigations of Complaints	5	3
E. Investigation Independent from Chain of Command	6	2
F. Sanctions for Misconduct	6	4
Public Communications of Science	Subsection Total: 40	Subsection Total: 40
A. Process for scientist to publish or lecture regarding their official work with the general public, in external peer-reviewed journals or at scientific conferences	10	10
B. Absence of policy review or agency screening for the above	10	10
C. Ability of scientists to review press releases regarding their work prior to final publication	10	10
D. Explicit provision for agency scientists to be on governing and editorial boards of scientific societies	10	10
Transparency of Policy Decision-Making	Subsection Total: 20	Subsection Total: 9
A. Requirement that all agency policy decisions must be based on science subjected to external peer review	10	9
B. Original research documents are part of administrative record	10	0

I. Scientific Misconduct – (17/40 pts)

A. Political Manipulation of Science (3/6 pts)

1. *Prohibits alteration of technical/scientific documents for non-technical reasons* (3/3 pts)

“Production of data collections and research results should be objective and not influenced by financial interests or affiliations. Nor should scientific or technological findings be suppressed or altered by political officials.”

2. *Prohibits intimidation or coercion to alter scientific data/analysis/conclusions for non-technical reasons* (0/3 pts)

NSF’s Scientific Integrity Policy does not address intimidation or coercion by managers.

B. Breadth of Coverage (5/5 pts)

1. *Applies to political appointees and senior managers* (3/3 pts)

Yes. “NSF’s policy applies to civil service employees; visiting scientists, engineers, and educators; those working at NSF under the Intergovernmental Personnel Act; and political appointees.”

2. *Applies to contractors, states, and other partners* (2/2 pts)

Yes, as analogously applies to NSF unique agency structure. Recipients of NSF funding are subject to research misconduct regulations and may be suspended or disbarred.

C. Whistleblower Protection (0/12 pts)

1. *Explicitly protects those filing misconduct complaints from retaliation* (0/4 pts)

NSF’s Scientific Integrity Policy only provides “NSF staff who report information on potential violations of rules and regulations are protected from retaliation . . .” and references the Whistleblower Protection Act. It is unclear whether this is sufficient to extend protection to complaints of a violation of the scientific integrity policy.

2. *Protects scientists for retaliation based on content of work* (0/4 pts)

NSF’s Scientific Integrity Policy does not address this.

3. *Provides that agency officials who engage in retaliation will be subject to discipline* (0/4 pts)

NSF’s Scientific Integrity Policy does not address this.

D. Investigations of Complaints (3/5 pts)

1. *Defined process* (1/1 pt)

NSF references its regulations on Research Misconduct, *available at* 45 C.F.R. Part 689, http://law.justia.com/cfr/title45/45cfr689_main_02.html.

2. *Timelines* (0/1 pt)

None specified.

3. *Ability of complainant to respond* (0/1 pt)

“An NSF investigation *may* include . . . opportunity for the subject of the investigation to be heard.” No credit was awarded.

4. *Transparency of findings and rationale* (1/1 pt)

Yes. An investigation report will be made.

5. *Relationship with the IG is clearly defined* (1/1 pt)

“When an awardee institution or another Federal agency has promptly initiated its own investigation, OIG may defer an NSF inquiry or investigation until it receives the results of that external investigation. If it does not receive the results within 180 days, OIG may proceed with its own investigation.”

E. Investigation Independent of Chain of Command (2/6 pts)

An allegation of research misconduct must be made to the Inspector General, who is also responsible for investigating the matter.

F. Sanctions for Misconduct (4/6 pts)

1. *States that misconduct is grounds for disciplinary action or dismissal* (2/2 pts)

Yes. Agency action in response to scientific misconduct may include “[p]rohibiting participation of an individual as an NSF reviewer, advisor, or consultant for a specified period” 45 C.F.R. 689.3(a)(iii)(2).

2. *Explicit procedure for discipline of sustained misconduct complaints* (2/2 pts)

Yes. NSF’s scientific misconduct regulations provide that discipline should include consideration of “[w]hether it was an isolated event or part of a pattern . . .”

3. *Automatic review of court rulings based upon arbitrary and capricious application of scientific information or scientific findings* (2 pts)

NSF's Scientific Integrity Policy does not address this.

II. Public Communications of Science – (40/40 pts)

- A. Process for scientist to publish or lecture regarding their official work with the general public, in external peer-reviewed journals or at scientific conferences (10/10 pts)

Regarding lecturing, “NSF-funded scientists and NSF staff have the fundamental right to express their personal views, provided they specify that they are not speaking on behalf of, or as a representative of, the agency but rather in their private capacity. So long as this disclaimer is made, the employee is permitted to mention his or her institutional affiliation and position if this has helped inform his or her views on the matter.”

Regarding publication, “[d]ocuments or multimedia materials not authored by NSF and not representing official views, including research supported by NSF funding” is exempt from the media policy.

- B. Absence of policy review or agency screening for the above (10/10 pts)

Yes; unofficial communications are exempt from the media policy and “[u]nder no circumstance may public affairs officers ask or direct NSF-funded scientists/engineers and staff to alter their scientific/technical findings.”

- C. Ability of scientists to review press releases regarding their work prior to final publication (10/10 pts)

Yes. “Employees have the right to review, approve, and comment publicly on the final version of any proposed publication that significantly relies on their research, identifies them as an author or contributor, or purports to represent their scientific opinion.”

- D. Explicit provision for agency scientists to be on governing and editorial boards of scientific societies (10/10 pts)

Yes. “NSF also allows its staff to participate in any research or educational institution, scientific society, professional association or editorial board, provided written permission is obtained from the scientist’s or engineer’s supervisor and ethics counselor.”

III. Transparency of Agency Decision-Making – (9/20 pts)

- A. Requirement that all agency policy decisions must be based on science subjected to external peer review (9/10 pts)

Although NSF's Scientific Integrity Policy does not specifically mention this, the unique mission of the agency to support external science with federal funding merited a separate look at its other policies.

NSF's website provides that “[t]o ensure that proposals are evaluated in a fair, competitive, transparent and in-depth manner, [NSF] use[s] a rigorous system of merit review. Nearly every proposal is evaluated by a minimum of three independent reviewers consisting of scientists, engineers and educators who do not work at NSF or for the institution that employs the proposing researchers.” <http://www.nsf.gov/about/how.jsp>.

Accordingly, almost full credit was awarded; one point was docked for not including this discussion in the scientific integrity policy.

B. Original research documents are part of administrative record (0/10 pts)

NSF's Scientific Integrity Policy does not address this.