

Investigating Plagiarism: Observations and Prevention

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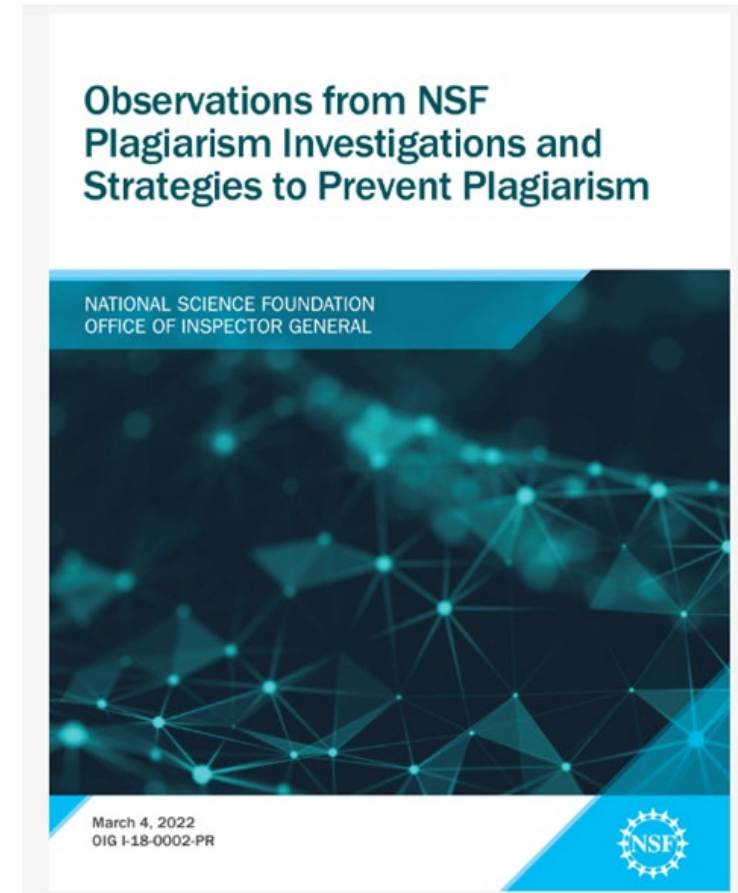


National Science Foundation
Office of Inspector General



Project Objective

To provide insight into plagiarism as it relates to NSF-funded research and offer plagiarism prevention strategies to educational institutions based on our investigative experience.



https://oig.nsf.gov/sites/default/files/reports/2022-03/Strategies%20to%20Prevent%20Plagiarism_I-18-002-PR.pdf

Definition of Plagiarism

Plagiarism: appropriation of another person's ideas, processes, results or words without giving appropriate credit

- Verbatim, paraphrase, structural, conceptual, intellectual theft
- QCR: Quotation, Citation, Reference
LINK

- Quotation (Q): We look for authors to distinguish the work of others from their own by using quotation marks, block indentation, or some other customary and accepted manner of offsetting text.
- Citation (C): The citation is the key element that directs the reader to the author who wrote the source document. A citation can be indicated with parenthetical notation, footnotes, or endnotes, all with the purpose of linking the copied material to an entry in the reference bibliography.
- Reference (R): We look for the inclusion of the source document in the bibliography, with sufficient information to lead the reader to the original source.

The combination of all three factors—Quotation, Citation, and Reference: QCR—clearly and unequivocally provides appropriate credit to the original author(s) of the words, and effectively dispels an allegation of plagiarism.

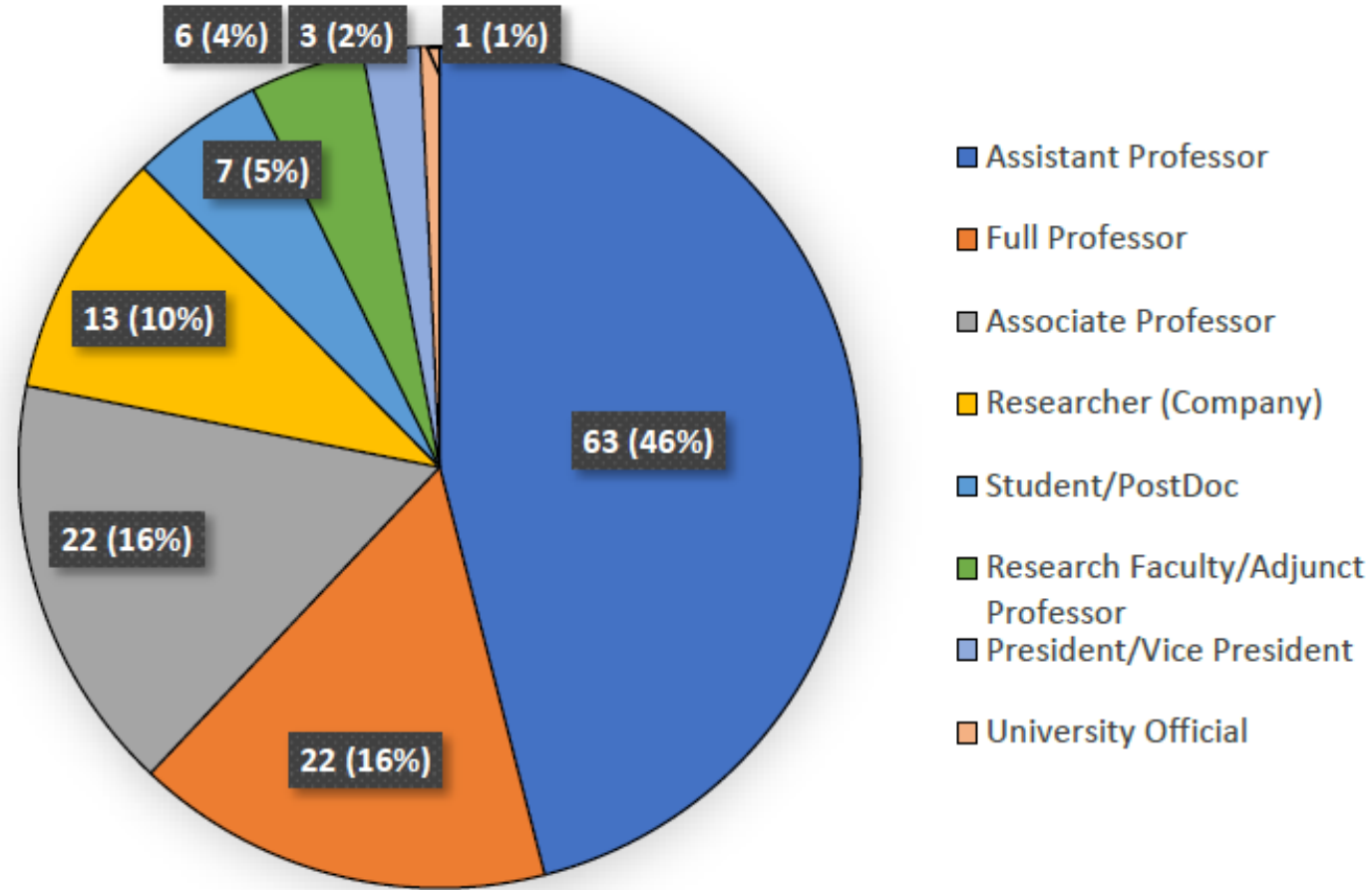


Methodology

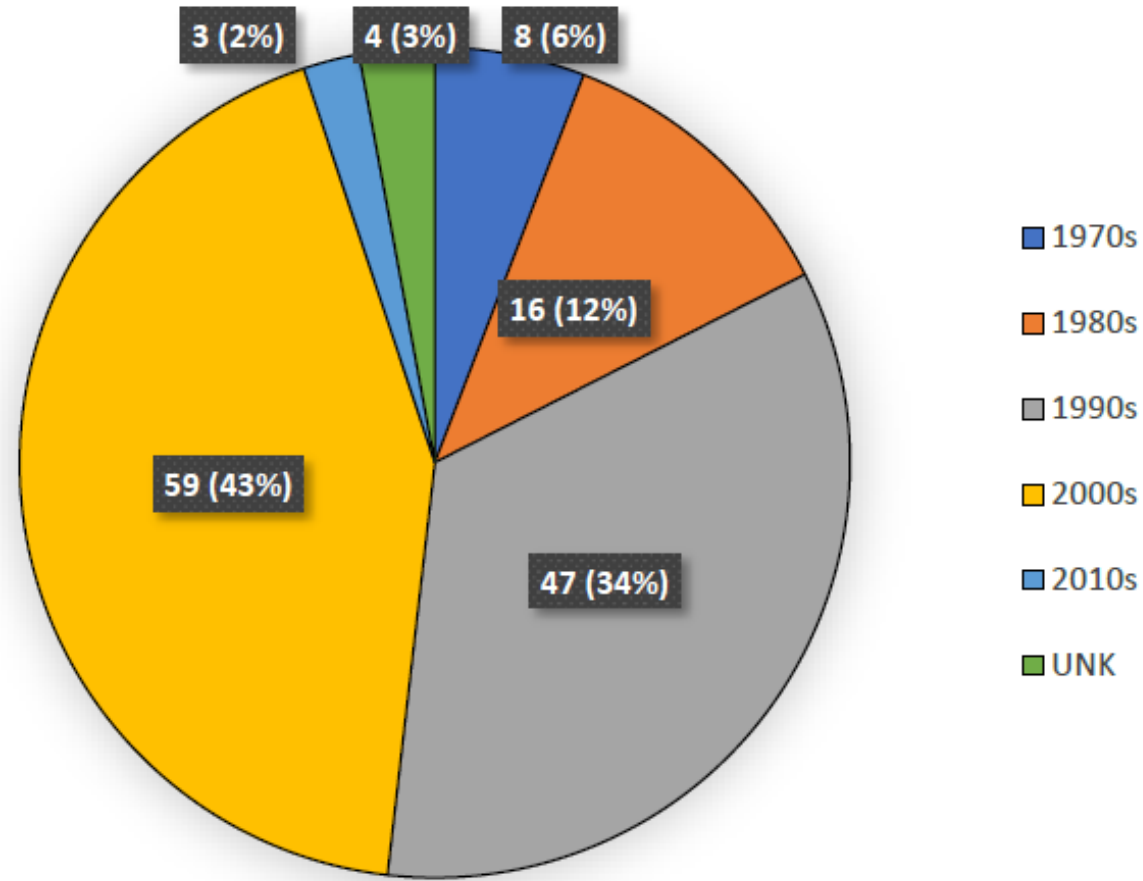
- 134 plagiarism cases closed during FYs 2007-2017, with RM findings
 - 137 researchers
 - 106 unique institutions
 - 320 NSF proposals
- OIG reports of investigation



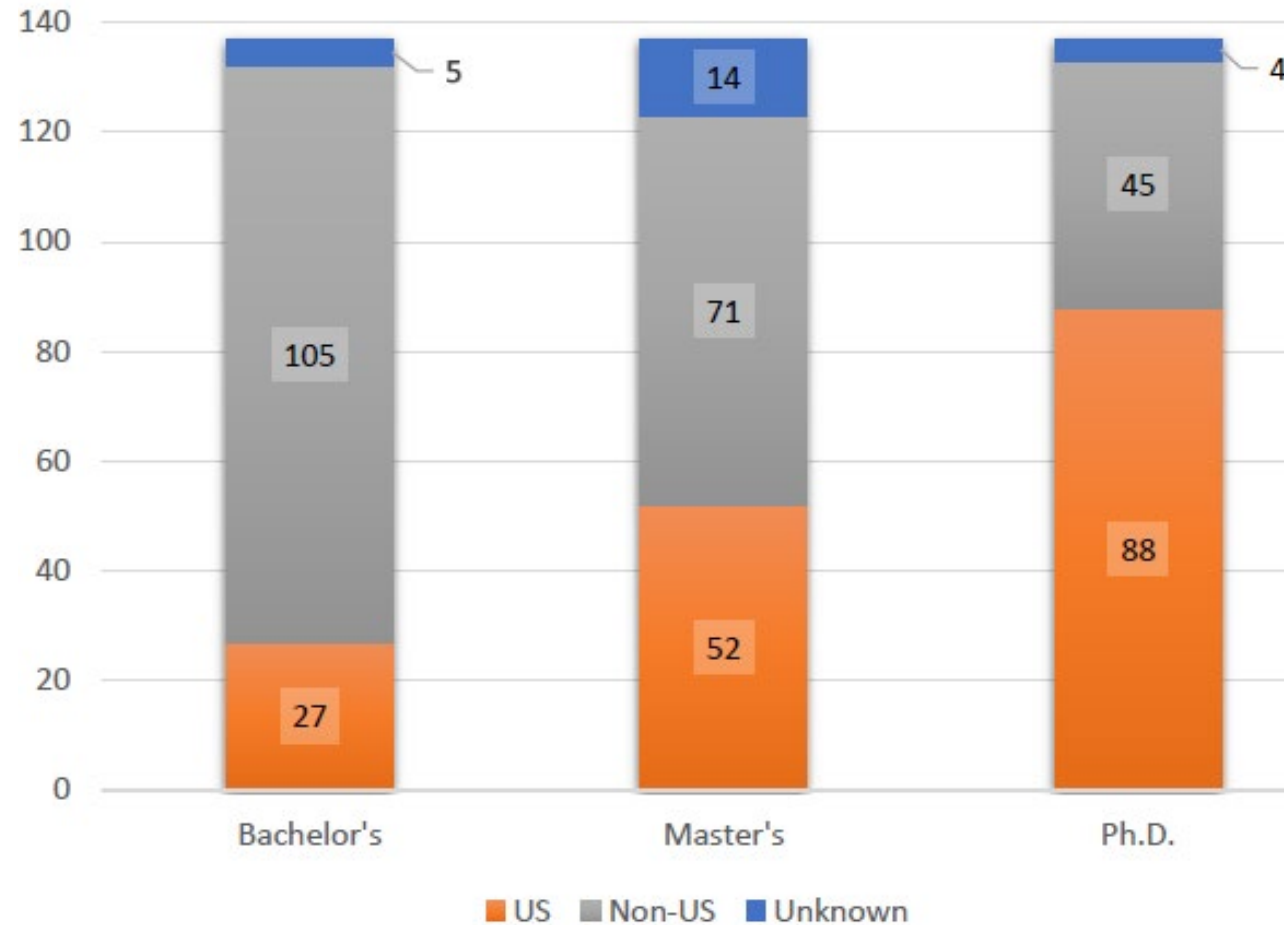
Results: Faculty and Positions



Results: Recent Degree Recipients



Results: Educated Outside of U.S.



Results: Acts of Plagiarism

- Committed plagiarism in multiple NSF proposals
 - 55% (75) plagiarized in more than 1 NSF proposal
 - 62% (85) exhibited a pattern of plagiarism
- Prolific submitters; infrequent grant recipients
 - 41% (56) submitted 16 or more proposals
 - Almost every subject had at least one NSF proposal declined
 - 39% (53) had no awards while 38% (52) had one to five awards

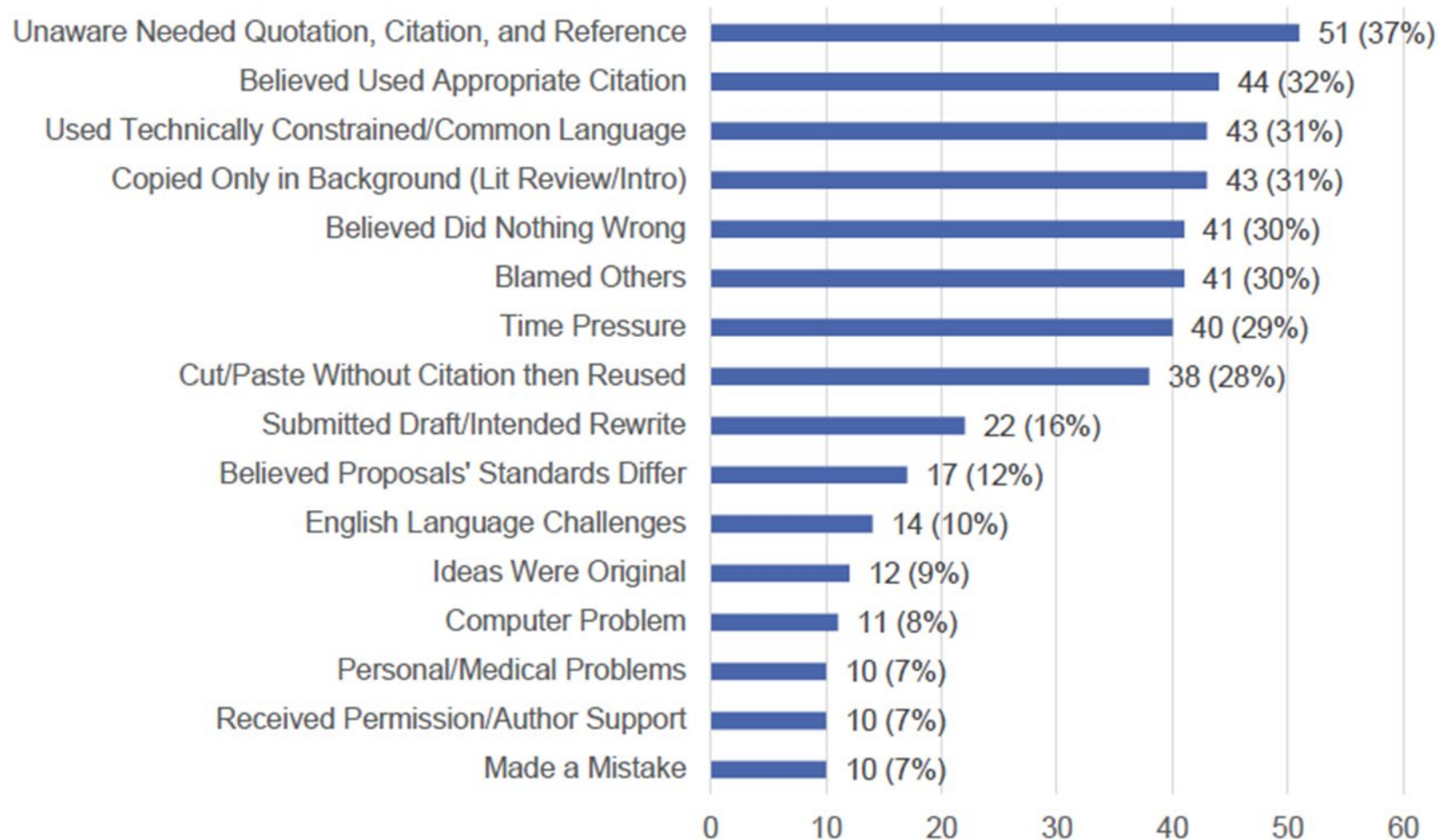


Reasons Given for Plagiarism

- Did not know what constituted appropriate citation
- Thought they used appropriate citations when they did not
- Did not understand when citations were required
- Considered appropriate citation less important in certain sections
- Recklessly incorporated sources into drafts
- Rushed through document preparation



Reasons Given for Plagiarism



Strategies to Consider

Institutional Culture

RECR Training

Support

Document Submission



Institutional Culture

- Foster a culture of research integrity by continually educating all faculty and students about the responsible and ethical conduct of research (RECR) and emphasizing academic integrity in all courses.
- Hold faculty and students to the same standards and treat plagiarism as seriously as other research misconduct.
- Ensure faculty and students can confidentially report research misconduct allegations and are aware of whistleblower protection rights.
- Publicize an institutional research misconduct policy that emphasizes the consequences of research misconduct; require faculty and students to certify they read the policy; and discuss the policy during RECR training.



RECR Training

- Require RECR training during orientation and refresher training for all new faculty and students; identify existing faculty and students who have never taken RECR training and require them to enroll.
- Create ongoing RECR training targeting at-risk individuals, such as inexperienced grant writers and those educated outside the U.S.
- Ensure all RECR training is interactive and conducted at least partially in person; addresses institution- and U.S.-based norms of appropriate citation; includes plagiarism definitions, exercises, and case studies; addresses common reasons for plagiarism; and addresses cultural differences related to research integrity.
- Emphasize potential consequences of plagiarism, such as harm to academic records, institutional and individual reputational harm, and retractions of published work.



Faculty RECR Requirement

Proposal & Award Policies and Procedures Guide (PAPPG)

- **Chapter IX.B.1, PAPPG NSF 23-1 (pp. IX-3-4):**
 - ...each institution that applies for financial assistance from the Foundation for science and engineering research or education [must] describe in its grant proposal a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, postdoctoral researchers, **faculty, and other senior personnel** supported by the proposed research project.
 - Such training must include **mentor training and mentorship**.
 - Effective for new proposals submitted or due on or after July 31, 2023

https://nsf-gov-resources.nsf.gov/2022-10/nsf23_1.pdf



Support

- Require a proposal writing course for inexperienced grant writers that includes proposal writing skills and emphasizes research integrity; establish a grant writing mentorship program.
- Consider the weight placed on successful grant submissions for tenure or promotions and balance the need to win awards with other required teaching and research obligations.
- Offer time and stress management courses for faculty and students to help alleviate academic and professional pressures.



Document Submission

- Make plagiarism detection software available and require faculty and students to use it before submitting internal or external documents.
- Consider a human- or a software-based quality assurance process for important external documents.
- Set review and revision deadlines in advance of proposal submission deadlines and include time to review plagiarism detection software results.



Questions?

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