



NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL
OFFICE OF INVESTIGATIONS

CLOSEOUT MEMORANDUM

Case Number: A10030018

Page 1 of 1

We received an allegation that an NSF proposal contained plagiarized text and a figure. During our Inquiry, we reviewed that initial proposal as well as three of the PI's other NSF proposals and found additional copied text and figures, all apparently without appropriate attribution. The PI did not provide a satisfactory explanation, so we referred the matter to the grantee. The grantee conducted an Investigation and concluded the PI committed plagiarism intentionally. We concurred with the grantee's conclusion and recommended NSF take appropriate action. NSF made a finding and took several actions in response. Accordingly, this case is *closed* with no further action taken. Our report, NSF's decision, and this Closeout Memorandum constitute the documents for the case closeout.

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



OFFICE OF THE
DIRECTOR

APR 27 2012
1 530Z

CERTIFIED MAIL --RETURN RECEIPT REQUESTED

Re: Notice of Research Misconduct Determination

Dear Dr.

In 2008, you submitted a proposal to the National Science Foundation ("NSF") entitled,

As documented in the attached Investigative Report prepared by NSF's Office of Inspector General ("OIG"), this proposal contained plagiarized material.

Research Misconduct and Proposed Sanctions

Under NSF's regulations, "research misconduct" is defined as "fabrication, falsification, or plagiarism in proposing or performing research funded by NSF ..." 45 CFR § 689.1(a). NSF defines "plagiarism" as "the appropriation of another person's ideas, processes, results or words without giving appropriate credit." 45 CFR § 689.1(a)(3). A finding of research misconduct requires that:

- (1) There be a significant departure from accepted practices of the relevant research community; and
- (2) The research misconduct be committed intentionally, or knowingly, or recklessly; and
- (3) The allegation be proven by a preponderance of evidence.

45 CFR § 689.2(c).

Your proposal contained verbatim and paraphrased text and a figure, copied from several source documents. By submitting a proposal to NSF that copied the ideas or words of another without adequate attribution, as described in the OIG Investigative Report, you misrepresented someone else's work as your own. Your conduct unquestionably constitutes plagiarism. I therefore conclude that your actions meet the definition of "research misconduct" set forth in NSF's regulations.

Pursuant to NSF regulations, the Foundation must also determine whether to make a *finding* of misconduct based on a preponderance of the evidence. 45 CFR § 689.2(c). After reviewing the Investigative Report, NSF has determined that, based on a preponderance of the evidence, your plagiarism was committed intentionally and constituted a significant departure from accepted practices of the relevant research community. I am, therefore, issuing a finding of research misconduct against you.

NSF's regulations establish three categories of actions (Group I, II, and III) that can be taken in response to a finding of misconduct. 45 CFR § 689.3(a). Group I actions include issuing a letter of reprimand; conditioning awards on prior approval of particular activities from NSF; requiring that an institution or individual obtain special prior approval of particular activities from NSF; and requiring that an institutional representative certify as to the accuracy of reports or certifications of compliance with particular requirements. 45 CFR § 689.3(a)(1). Group II actions include award suspension or restrictions on designated activities or expenditures; requiring special reviews of requests for funding; and requiring correction to the research record. 45 CFR § 689.3(a)(2). Group III actions include suspension or termination of awards; prohibitions on participation as NSF reviewers, advisors or consultants; and debarment or suspension from participation in NSF programs. 45 CFR § 689.3(a)(3).

In determining the severity of the sanction to impose for research misconduct, I have considered the seriousness of the misconduct, and our determination that it was committed intentionally. I have also considered the fact that your misconduct was part of a pattern, and had little impact on the research record, as well as other relevant circumstances. 45 CFR § 689.3(b).

After assessing the relevant facts and circumstances of this case, I am taking the following actions against you:

- (1) Until April 30, 2014, you must provide certifications to the OIG that any proposal or report you submit to NSF as a PI or co-PI does not contain plagiarized, falsified, or fabricated material;
- (2) Until April 30, 2014, you must obtain, and provide to the OIG, assurances from a responsible official of your employer that any proposal or report you submit to NSF as a PI or co-PI does not contain plagiarized, falsified, or fabricated material;
- (3) Until April 30, 2014, you are prohibited from serving as a reviewer, advisor, or consultant on NSF proposals; and

- (4) By April 30, 2013, you must attend a training course in research ethics, with content including proper citation practices, and provide a certificate of attendance to the OIG that you have completed such a course.

The certifications, assurances, and certificate of attendance should be submitted in writing to OIG, Associate Inspector General for Investigations, 4201 Wilson Boulevard, Arlington, Virginia 22230.

Procedures Governing Appeals

Under NSF's regulations, you have 30 days after receipt of this letter to submit an appeal of this decision, in writing, to the Director of the Foundation. 45 CFR § 689.10(a). Any appeal should be addressed to the Director at the National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230. If we do not receive your appeal within the 30-day period, this decision will become final.

For your information, we are attaching a copy of the applicable regulations. If you have any questions about the foregoing, please call 292-8060. Assistant General Counsel, at (703)

Sincerely,



Wanda Ward
Senior Advisor to the Director

Enclosures

- Investigative Report
- 45 C.F.R. Part 689

National Science Foundation Office of Inspector General



Confidential Report of Investigation Case Number A10030018

16 December 2011

**This Confidential Report of Investigation is provided to you
FOR OFFICIAL USE ONLY.**

It contains protected personal information, the unauthorized disclosure of which may result in personal criminal liability under the Privacy Act, 5 U.S.C. § 552a. This report may be further disclosed within NSF *only* to individuals who *must* have knowledge of its contents to facilitate NSF's assessment and resolution of this matter. This report may be disclosed outside NSF only under the Freedom of Information and Privacy Acts, 5 U.S.C. §§ 552 & 552a. Please take appropriate precautions handling this confidential report of investigation.

Executive Summary

Allegation Plagiarism.

OIG Inquiry We identified 4 NSF proposals containing approximately 100 lines of text, 3 figures, and 1 table copied from 10 source documents without proper citation. We referred the matter to the Subject's home institution for investigation.

University Investigation The University concluded the Subject committed research misconduct when she intentionally plagiarized. The University will: require the Subject to complete a course in the ethical conduct of science; require the Subject to withdraw all pending grant applications from NSF and will prohibit the Subject from submitting proposals to NSF for 3 years; allow the Subject to submit proposals to other funding agencies under the supervision of the Dean [redacted] or his designee after a 1-year suspension; and prohibit the subject from taking on additional graduate students and participating in graduate student committees. The Subject is required to review the progress of her current graduate students with the Dean [redacted] or his designee and it is up to the Dean's discretion as to whether the Subject can continue to mentor students.

OIG Assessment We concurred with the University that the Subject committed research misconduct, concluding:

The Act: The Subject plagiarized approximately 50 lines of text and 1 figure from 3 source documents into an NSF proposal.

Intent: The Subject acted intentionally.

Significant Departure: The Subject's plagiarism represents a significant departure from accepted practices in the research community.

Pattern: We found an additional 50 lines of text and 2 figures plagiarized from 6 source documents into 3 NSF proposals. The Subject's plagiarism of text and figures into 4 proposals exhibits a pattern of plagiarism.

OIG Recommendations

- Send a letter of reprimand to the Subject informing her that NSF has made a finding of research misconduct.
- Require the Subject to either attend a course in research ethics, with content including proper citation practices, within 1 year, or to provide the certification for the course the University is requiring her to take.
- Prohibit the Subject from serving as a reviewer, advisor, or consultant on an NSF proposal for 2 years.
- Require the Subject to provide certifications for 2 years with every submission to NSF that the submitted work is either entirely her own writing or is properly cited.
- Require the Subject to ensure her employer submits assurances for 2 years that, to the best of his/her knowledge, the Subject's submitted work is either entirely the Subject's own writing or is properly cited.

OIG's Inquiry

We reviewed an allegation that an NSF proposal¹ (Proposal 1) contained plagiarized text and a figure. Our review of the Subject's proposal confirmed the presence of an uncited figure, as well as 14 lines copied from 2 additional source documents,² which were not cited in the proposal references. The text following the figure references the source document, but neither the figure nor its caption reference the figure's original source document. None of the copied text was offset or distinguished in such a way as to enable a reader to differentiate the Subject's own text and citations from the copied text and citations.

We reviewed three other proposals for additional evidence of plagiarism: Proposal 2,³ Proposal 3,⁴ and Proposal 4.⁵ All three of these proposals were declined, and the Subject was the PI. Collectively, these 3 proposals had an additional 86 lines of text, 3 figures, and 1 table that were not properly cited from 9 source documents.⁶ Two of the source documents for Proposal 4 were the same as those for Proposal 1, and the uncited figure in the two proposals was the same.⁷ As an indicator of copying, in some cases, the Subject used the same citations that were included in the source document text, *i.e.*, embedded references.

We wrote to the Subject regarding the copied text, figures, and table,⁸ and the Subject responded⁹ that she provided adequate references and gave examples of how she cited those references in her proposals. She said "oversight and omission on [her] part" were responsible for her failure to properly cite the questioned material, but she does not "claim that it is [her] work or try to take credit of others [*sic*] work."¹⁰ One of the Subject's justifications for using the copied text and images without appropriately citing the source was that "[i]t is my understanding that it can be used for academic purposes."¹¹ With regard to taking images off of the internet, the Subject asserted, "I see this as a practice in an academic environment around me for making

¹ Tab 1:[redacted] It was submitted by[redacted] (the University) and lists [redacted] (the Subject) as the PI. The proposal was declined. The Subject is an Associate Professor[redacted] at the University.

² Tab 2; the three source documents are two papers (Source Documents A and B), from which the text was copied, and an online tutorial (Source Document C), from which the figure was copied.

³ Tab 3:[redacted]

⁴ Tab 5:[redacted]

⁵ Tab 7; [redacted]

⁶ Tabs 4, 6, and 8, contain the source documents for proposals 2-4, respectively. The nine source documents are six papers (Source Documents D and E, H-J, and L), two internet articles (Source Documents F and G), and an online tutorial (Source Document K).

⁷ See Source Documents A and I compared to Proposals 1 and 4, respectively.

⁸ Tab 9.

⁹ Tab 10 contains the Subject's response with attachments. The attachments are four folders, one for each proposal, with examples of how she believes the technical nature of the description constrains its expression. The documents provided by the Subject did not elucidate any technical constraints of the copied material in the Subject's proposals.

¹⁰ Tab 10, response, p.2.

¹¹ *Ibid.*, p.3.

presentations etc.”¹² The Subject “agree[d] with [our] observation and admit[ted] three images were downloaded from the web along with the description.”¹³ The Subject contended that the table was not copied.

The Subject explained that she “took the help of graduate students in preparing some parts of the narrative and asked them to give the references.”¹⁴ The Subject wrote:

I am not sure how they chose to paraphrase the sentences. I could not contact students as they have graduated and are no longer with the university. However from the description it is evident that they are quoting the works of others. I should have been more careful in scrutinizing their narrative.¹⁵

Nowhere does the Subject provide the names of these alleged graduate students; nor were the graduate students listed as co-authors of the NSF proposals, as required by the Proposal and Award Policies and Procedures Guide (PAPPG).¹⁶ The Subject concluded her response by apologizing for the omitted citations and stating that she would “be more careful in [the] future.”¹⁷

We found the Subject’s responses insufficient to dispel the allegation and determined there was sufficient substance to proceed to an investigation. Thus, we referred the investigation to the Subject’s institution (the University).¹⁸

University Investigation

The University provided us a transcript of a meeting with the Subject, the Investigation Committee’s report, and the report appendices.¹⁹ The Research Integrity Officer (RIO)²⁰ established a Board of Inquiry that came to “the unanimous decision...that the allegations ha[d] merit and that there [was] sufficient evidence to warrant a formal investigation.”²¹ The RIO then established an Investigation Committee to further assess the allegations, including the Subject’s other proposal submissions and her scholarly publications.

In reviewing the 41 instances of plagiarism we identified, the Committee determined that the allegedly copied table included in Proposal 4 was, in fact, not copied; the information in the table is maintained on another university’s²² website and is used freely by others.

¹² *Ibid.*, p.4.

¹³ Tab 10, response, p.5.

¹⁴ *Id.*

¹⁵ *Ibid.*, p.6.

¹⁶ See NSF PAPPG, part 1, Chapter I, Section D.3.

¹⁷ Tab 10, response, p.6.

¹⁸ Tab 11.

¹⁹ Tab 12.

²⁰ [redacted]

²¹ Tab 12, Appendix A, p. 2.

²² [redacted]

In addition to reviewing the evidence we provided, the Committee reviewed the Subject's other works and identified a plagiarized image in one of the Subject's publications, four instances of self-plagiarism, and one instance in which a third party plagiarized from the Subject.²³ The Committee stated, "Although only a sampling of [the Subject's] published works were examined, the committee was unanimous in their conclusion that [the Subject] routinely plagiarizes the work of others in her published research findings, in the same manner as her NSF proposals."²⁴

The Subject told the Committee "(a) the practice [of copying others' work without attribution] is widespread in her field; and (b) that the violation is not serious because she did not steal anyone's ideas."²⁵ The Subject acknowledged she "...made some mistakes and errors in referencing" and stated, "I also provided the references for these authors [of the source documents] work in the reference section of the proposal."²⁶ The Committee rejected the Subject's first defense, stating:

Either [the Subject's] field has drifted outside the norms expected of scholars at this University and the broader scientific community, or else the claims are merely a desperate plea by someone who has over the years come to expect impunity for undetected plagiarism.²⁷

Likewise, the Committee rejected the Subject's second defense reasoning that from a reader's point of view "[t]he presumption must be that a text is the product of the author's own efforts, except where clearly and explicitly identified as the work of another."²⁸ It reasoned "[t]he probability that such extensive duplication of published text could be inadvertent is vanishingly small. The ineluctable conclusion is that the pattern of copying without proper acknowledgement of the sources was deliberate."²⁹

The Committee unanimously concluded, based on a preponderance of evidence standard that 1) the Subject committed plagiarism; 2) the Subject committed the plagiarism intentionally; 3) the plagiarism was a significant departure from accepted practices; and 4) there was a pattern of plagiarism. The Committee recommended that the Subject: a) complete a course on professional ethics and ethical conduct in science; b) write letters to the authors of the copied source documents apologizing for her plagiarism; c) immediately withdraw all pending grant applications and not submit proposals to any intramural or extramural funding agency for 3 years; and d) not mentor graduate students for 3 years, including having her graduate students be reassigned and not serving on any graduate student committees.

The University's Adjudicator³⁰ agreed with the Committee's recommendations, but made the following modifications: i) the Subject does not need to write to the source authors if she

²³ *Ibid.*, p.3.

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Ibid.*, p. 4.

²⁹ *Ibid.*, p. 2.

³⁰[redacted]

accepts the gravity of her actions; ii) while the Subject must withdraw all pending grant applications and cannot submit proposals to NSF for 3 years, the Subject can submit proposals to other agencies under the supervision of the Dean [redacted]³¹ or his designee after a 1-year suspension; and, iii) the Subject can complete work with her current graduate students, at the discretion of the Dean.³²

OIG's Assessment

We reviewed the University's report for accuracy and completeness and concluded we could use it in lieu of conducting our own investigation. We also concluded the University followed reasonable procedures. Regarding specific content, we agreed with the University's assessment about the copied table and removed Source Document L from our consideration.

NSF's Research Misconduct Regulation states that a finding of misconduct requires that: (1) there be a significant departure from accepted practices of the relevant research community; (2) the research misconduct be committed intentionally, knowingly, or recklessly; and (3) the allegation be proven by a preponderance of the evidence.³³

The Act

The Subject copied approximately 50 unique lines of text and 1 figure from 3 different source documents into Proposal 4 (see Table³⁴ below). The NSF Proposal and Award Policies and Procedures Guide is clear with regard to citation practices: "NSF expects strict adherence to the rules of proper scholarship and attribution. The responsibility for proper attribution and citation rests with authors of a proposal; all parts of the proposal should be prepared with equal care for this concern."³⁵ By failing to appropriately distinguish verbatim copied material from her own original material, the Subject presented the work of others as her own and failed to give appropriate credit to the actual authors. The Subject claimed that graduate students helped prepare her proposals, but never provided their names; nor did the University's investigation reveal any additional details about these alleged co-authors of the proposals. Consequently, we conclude that the Subject is solely responsible for the plagiarized material in the proposals.

Proposal	Total plagiarized lines	Total plagiarized figures
1	14	1
2	19	1
3	24	1
4	50	1

³¹ [redacted]

³² Tab 13.

³³ 45 C.F.R. §689.2(c).

³⁴ The Table represents the total (non-unique) lines and figures in each proposal. As noted in the OIG Inquiry section, there is a repeated use of sources and a figure, so the 100 lines and 3 figures in the Act represent the non-duplicative plagiarism.

³⁵ NSF PAPPG, Chapter I, Section D.3.

Intent

The Subject admitted she copied text and figures from the source documents into her proposals. In her initial response to the allegation, the Subject claimed that she believed she could use others' work as long as it was for academic purposes. Moreover, the Subject claimed it was common to see others' images used in presentations. As described above, the University concluded that the Subject acted intentionally. Given the Subject's perspective about copying others' work together with the pattern of plagiarism, we agree with the University's assessment that the Subject intentionally put unattributed material into her NSF proposals.

Significant Departure

Based on the evidence, the Subject's response, and the University's investigation, we conclude, by a preponderance of evidence standard that the Subject intentionally copied unattributed text and figures into her proposals without appropriately distinguishing this material from her own work. In doing so, the Subject significantly departed from the accepted practices of her research community, as determined by the University's investigation and NSF OIG. A major scientific publisher in the Subject's field states: "Plagiarism in any form is unacceptable and is considered a serious breach of professional conduct."³⁶

Accordingly, we conclude that the Subject intentionally plagiarized, and the plagiarism was a significant departure; hence, the Subject committed research misconduct.

OIG's Recommended Disposition

In deciding what actions are appropriate when making a finding of research misconduct, NSF must consider several factors. These factors include how serious the misconduct was; the degree of intent; whether it was an isolated event or part of a pattern; its impact on the research record; and other relevant circumstances.³⁷

Seriousness

The University determined that the preponderance of evidence supports the conclusion that the Subject acted intentionally when she plagiarized material into Proposals 1-4. Plagiarism violates research integrity and is a significant departure from accepted practices in the research community. We conclude the amount of plagiarized material is sufficiently serious to warrant a finding of research misconduct.

Degree of Intent

As we noted above, the University concluded the Subject acted intentionally, which is a culpable level of intent. The Subject received a significant amount of her post baccalaureate

³⁶ See the "A Plagiarism FAQ" on [redacted] website. The Subject has a paper [redacted] published in the [redacted] journal.

³⁷ 45 C.F.R. §689.3(b).

education in the United States.³⁸ Moreover, the Subject served as both a thesis advisor for graduate students and as both an *ad hoc* and panel merit reviewer of NSF proposals, roles that require a high level of understanding of research ethics. We noted that the Subject has submitted numerous papers to well-known professional journals.³⁹ These journals have clear policies concerning plagiarism,⁴⁰ providing the subject ample opportunity to understand appropriate conduct. Therefore, we conclude the Subject was aware of the requirement to cite and distinguish others' work when using it verbatim. The Subject also knew that the material she copied without attribution into the proposals was not hers. As noted above, the Subject's perspective toward the unattributed use of others' work led her to disregard her community standards. Therefore, we consider the Subject's actions to be intentional.

Pattern

During our inquiry, we examined Proposal 1, the proposal associated with the original allegation, as well as three additional proposals submitted by the Subject: Proposals 2-4. We identified plagiarism of text and figures in all four of these proposals. As indicated in the Table, Proposal 4 contains the most plagiarism, which we consider the primary Act of plagiarism. We consider Proposals 1-3 as evidence of a pattern of plagiarism and an aggravating factor. Therefore, we conclude that the four proposals present distinct evidence of a pattern of plagiarism.

Impact on the Research Record

The University reviewed the Subject's publications and found that, after finding four examples of self-plagiarism and one example of image plagiarism, the Subject's actions had a significant impact on the research record. NSF OIG concluded that the impact of the research misconduct in the proposals submitted to NSF was minor, as all the proposals were declined, and NSF does not consider self-plagiarism as rising to the level of research misconduct.

Subject's Response

In the Subject's response,⁴¹ she explained the circumstances behind some of the text the Committee described as self-plagiarism. We clarified in the Impact section above that self-plagiarism is not considered by NSF to be research misconduct. The Subject said she has begun working with a colleague on the responsible conduct of research.

Recommendations

We recommend NSF take the following actions as final disposition of this case to protect the interests of the Federal Government:

³⁸ The Subject earned her Masters and Ph.D. degrees [redacted]

³⁹ The societies that publish the journals include [red] and [redact

⁴⁰ See, for example, the [red] "A Plagiarism FAQ" on its web site.

⁴¹ Tab 14.

- (1) Issue a letter of reprimand informing the Subject that NSF has made a finding of research misconduct against her;⁴²
- (2) Require the Subject to either attend a course in research ethics, with content including proper citation practices, within 1 year, or to provide the certification for the course the University is requiring her to take.⁴³
- (3) Require the Subject to provide certifications for 2 years with every submission to NSF that the submitted work is either entirely her own writing or is properly cited;⁴⁴
- (4) Require the Subject to ensure her employer submits assurances for 2 years that the submitted work is either entirely the Subject's own writing or is properly cited.⁴⁵
- (5) Prohibit the Subject from serving as a reviewer, advisor, or consultant on an NSF proposal for 2 years.⁴⁶

The proof of course completion, certifications, and assurances should be sent to the Assistant Inspector General for Investigations (AIGI) for retention in OIG's confidential file on this matter.

⁴² This is a Group I action (45 C.F.R. § 689.3(a)(1)(i)).

⁴³ This is similar to a Group I Action (45 C.F.R. § 689.3(a)(1)).

⁴⁴ This is similar to a Group I action (45 C.F.R. § 689.3(a)(1)).

⁴⁵ This is similar to a Group I action (45 C.F.R. § 689.3(a)(1)).

⁴⁶ This is a Group III action (45 C.F.R. § 689.3(a)(3)(ii)).