

Semiannual Report to Congress

October 1, 2022 – March 31, 2023



National Science Foundation
Office of Inspector General
NSF-OIG-SAR-68

Table of Contents

From the Inspector General.....	1
Audits and Reviews.....	2
Audits and Reviews of NSF Programs and Operations.....	2
Audits of NSF Award Recipients.....	4
Reviews of Single Audits	5
Audit Resolution.....	7
Investigations.....	9
Program Integrity Investigations.....	9
Actions Resulting from Previously Reported Program Integrity Investigations.....	10
Research Misconduct Investigations	11
NSF Actions on Previously Reported Research Misconduct Investigations.....	14
Administrative Investigations.....	15
Other Products.....	16
Peer Review	16
Statistical Tables.....	17



From the Inspector General

I am pleased to present our semiannual report, which summarizes our work and accomplishments during the first half of fiscal year 2023. In this reporting period, our work led to more than \$1.7 million in potential savings to taxpayers, including \$1,042,333 in investigative recoveries and \$687,304 in questioned costs.

Our audits of NSF programs and operations continued to promote effectiveness, efficiency, and integrity. During this period, we reported on ways NSF could improve its vetting process for individuals assigned under the *Intergovernmental Personnel Act*; reduce financial and management risks to the Graduate Research Fellowship Program; and mitigate potential risks related to the use of other transaction agreements. Additionally, this semiannual period marks the twenty-fifth consecutive year NSF has received a “clean” opinion on its financial statements.

Our investigations continued to address threats to the integrity of NSF-funded research. Notably, a university agreed to pay more than \$875,000 as part of a civil settlement to resolve potential *False Claims Act* liability for failure to disclose a professor’s affiliations with and support from a foreign government in proposals. Also, NSF suspended 14 awards to a university for failure to disclose foreign affiliations for multiple principal investigators, and NSF suspended a professor government-wide for not disclosing his organizational affiliations and support.

Finally, with the support of NSF management and the National Science Board, our office was able to send a multi-disciplinary team to Antarctica in February to conduct interviews and fieldwork related to our ongoing inspection of NSF’s response to the [Sexual Assault/Harassment Prevention and Response](#) report. Also, in March, we issued a white paper on law enforcement perspectives related to sexual assault and stalking issues in the U.S. Antarctic Program, which discusses approaches for effective reporting and response to sexual assault and stalking allegations in Antarctica. Our on-site work in this critical area will provide NSF and its stakeholders with valuable insights on this ongoing challenge.

We will continue to use our audit and investigative resources to protect taxpayer funds and safeguard the integrity of NSF’s operations and investments in science. Our partnership with NSF management and staff, the National Science Board, and Congress is critical to fulfilling this mission, and we appreciate their support for our work.

Allison C. Lerner



Audits and Reviews

The Office of Audits reviews NSF programs and operations to ensure that administrative, programmatic, and financial aspects of NSF operations are conducted effectively, efficiently, and economically. We also audit grants, contracts, and cooperative agreements funded by NSF. By providing independent and objective assessments of NSF's program and financial performance, we help NSF improve its business policies and practices to better support its mission.

Audits and Reviews of NSF Programs and Operations

[FY 2022 Financial Statement Audit Results in 25th Unmodified Opinion and No Material Weaknesses or Significant Deficiencies in Internal Controls](#)

NSF is required to prepare annual financial statements, which must be audited by an independent entity. Kearney & Company, P.C. (Kearney), under a contract with NSF OIG, audited NSF's FY 2022 and FY 2021 comparative financial statements. Kearney issued an unmodified opinion on the financial statements and identified no instances of noncompliance or other matters that are required to be reported under *Generally Accepted Government Auditing Standards*. Additionally, Kearney's tests disclosed no instances in which financial management systems did not substantially comply with the *Federal Financial Management Improvement Act of 1996*. This marks the twenty-fifth consecutive year NSF has received a "clean" opinion on its financial statements.

[Audit of NSF's Information Security Program for FY 2022 Determined the Program Was Effective](#)

NSF depends on computerized information systems to process, maintain, and report essential information. *The Federal Information Security Modernization Act of 2014* (FISMA, Pub. L. No. 113-283) requires an annual independent evaluation of NSF's information security program and practices, as well as an assessment of its compliance with FISMA requirements. Under a contract with NSF OIG, Kearney performed the FY 2022 FISMA audit and rated NSF's Information Security Program as effective according to the Inspector General FISMA Reporting Metrics maturity model criteria. For the FY 2022 audit, the auditors issued one new finding and two new recommendations, as well as five modified repeat findings with associated recommendations to address weaknesses in information technology security controls. We will evaluate the progress and effectiveness of NSF's corrective actions as part of the FY 2023 FISMA audit.



Audit of NSF's Vetting Process for Individuals Assigned Under the Intergovernmental Personnel Act

NSF provides scientists, engineers, and educators the opportunity to temporarily serve as NSF program directors, advisors, and senior leaders. Most of these individuals are assigned under Title IV of the *Intergovernmental Personnel Act* (5 U.S.C. §§ 3371– 3376) and are referred to as IPAs. Although NSF has policies and procedures for assigning IPAs, it did not always ensure IPA candidates met all program eligibility requirements or verify IPAs' salary and employment history before assignment. Additionally, NSF did not update its personnel security and suitability review process to address risks associated with foreign influence. These problems occurred, in part, because NSF's IPA vetting process is decentralized; no single office or individual has full visibility of the entire vetting process; and the NSF offices that participate in the IPA vetting process did not always coordinate and communicate effectively.

We also found other matters of concern related to home institution policies, documentation of IPA salary calculations, and cost share waiver approvals. NSF has taken steps to strengthen its IPA vetting process. NSF agreed with the five recommendations aimed at improving NSF's administration of the IPA program.

Audit of NSF's Controls over Graduate Research Fellowship Program Funding

NSF's Graduate Research Fellowship Program (GRFP) recognizes and supports outstanding graduate students who are pursuing full-time, research-based master's and doctoral degrees in science, technology, engineering, and mathematics (STEM) or STEM education.

Although NSF distributed, monitored, and accounted for most GRFP funding as required, improvements are needed to reduce financial and management risks. We recommended that NSF better define roles and responsibilities in the GRFP program, develop standard operating procedures for its staff, and improve information technology and data analysis controls. We also recommended that NSF develop a monitoring program to ensure institutions have the necessary policies and procedures to comply with GRFP requirements, provide additional administrative guidance for institutions, and conduct outreach to ensure institutions understand NSF's expectations for managing the program.

NSF agreed with our recommendations and initiated several actions in response, such as increasing program resources; updating the GRFP Administrative Guide; conducting webinars over the past year to communicate program requirements and responsibilities for applicants, fellows, and institutions; and enhancing information technology controls for award administration.



Summary of Federal OIG Findings and Recommendations Related to Other Transaction Agreements

The *CHIPS and Science Act of 2022* (Pub. L. No. 117-167) formally established NSF's Technology, Innovation, and Partnerships (TIP) directorate. It also provided NSF with the authority to use other transaction agreements (OTAs) to carry out the activities of the TIP directorate. OTAs are often used to advance new technologies and for research, development, and demonstration projects. Although OTAs are subject to federal fiscal law, they are not subject to the Uniform Guidance and the Federal Acquisition Regulation, which govern grants, cooperative agreements, and contracts. As such, agencies must develop a rigorous control environment with comprehensive policies, processes, and procedures to ensure proper oversight and accountability over OTAs.

To inform NSF of potential risks inherent to OTAs as it develops its own OTA policies and procedures, we identified and summarized relevant information from 8 reports published by 4 federal OIGs over the past 5 years. These reports identified 19 findings concerning the management of OTAs, which we categorized into 3 key issues:

- Agencies obligated funds without complete information and/or documentation.
- Agencies did not comply with applicable laws, regulations, or policies during the award period, such as validating that work was completed, cost sharing occurred, or incurred costs were allowable.
- Agencies did not properly secure, maintain, track, or report award information.

These issues occurred because agencies did not have proper guidance or policies for overseeing OTA recipients, sufficient training for staff, or adequate systems to retain documents or track data. Federal OIGs made a total of 39 recommendations to improve agencies' oversight of OTAs in the 8 reports we reviewed, which we summarized in our report. NSF indicated that it plans to use our report to help identify and mitigate potential risks related to the use of OTAs.

Audits of NSF Award Recipients

Audits of Award Recipients Resulted in \$687,304 in Questioned Costs

OIG contractors completed audits of five NSF award recipients that expended more than \$177 million of NSF funds. These audits assessed the allowability, allocability, and reasonableness of costs charged to NSF and resulted in \$687,304 in questioned costs. The findings included unallowable costs, inadequately supported costs, and inappropriately allocated costs. The auditors recommended that the award recipients strengthen controls over the areas that led to the questioned costs and that NSF recover the questioned costs.



Reports of Award Recipients this Semiannual Period

Report No.	Issue Date	Award Recipient	Questioned Costs
23-1-001	10/27/2022	Cary Institute of Ecosystem Studies	\$33,024
23-1-002	10/28/2022	Computing Research Association	\$319,674
23-1-003	11/18/2022	University of Mississippi	\$129,951
23-1-004	2/3/2023	University of North Carolina, Charlotte	\$6,048
23-1-005	2/7/2023	Incorporated Research Institutions for Seismology	\$470
23-1-006	3/22/2023	Rensselaer Polytechnic Institute	\$198,137
Total			\$687,304

Source: NSF OIG

Reviews of Single Audits

Quality of Single Audits Decreased Significantly from Prior Period

Uniform Guidance¹ requires colleges, universities, and non-profit organizations that expend \$750,000 or more a year in federal awards to obtain an annual independent financial audit, referred to as a "single audit." NSF relies on the results of single audit reports to plan its oversight efforts, including site visits and other post-award monitoring. We conduct desk reviews on all single audit reporting packages for which NSF is the cognizant or oversight agency.² During a desk review, we examine the audit reporting package, which includes financial statements, federal award expenditures, and auditors' reports, but not the underlying auditors' audit documentation, to determine whether it meets Uniform Guidance, *Generally Accepted Government Auditing Standards*, and American Institute of Certified Public Accountants (AICPA) audit standards.

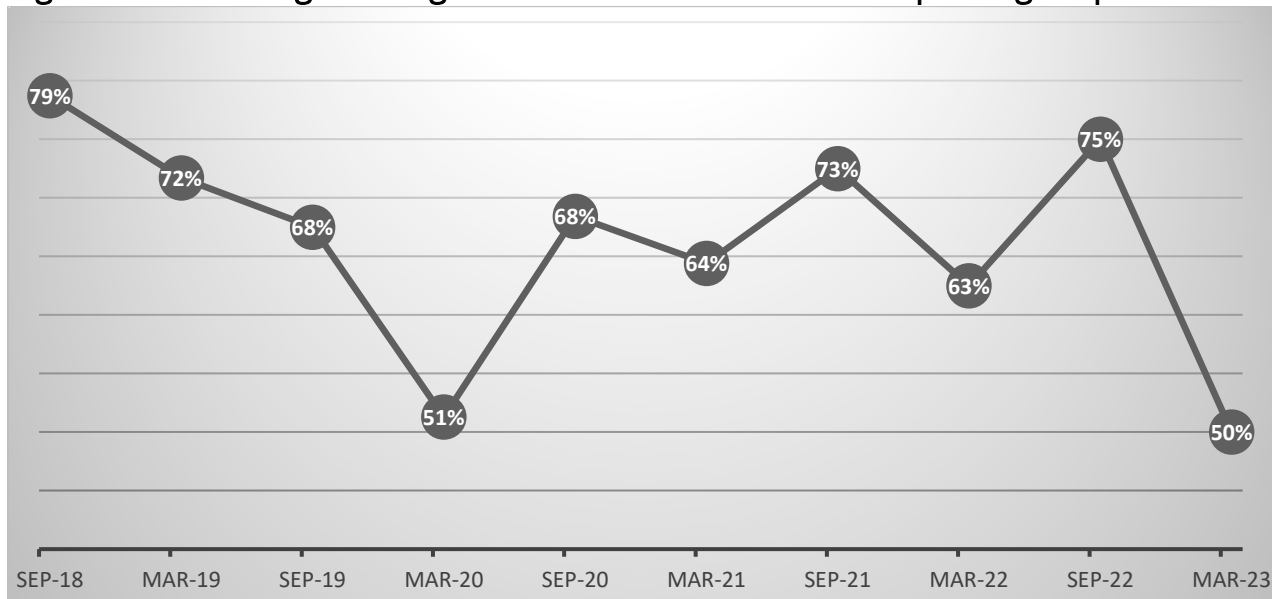
During this period, we conducted desk reviews of 38 single audit reporting packages. The audits were conducted by 29 different independent public accounting firms and covered nearly \$421 million in total federal expenditures, including more than \$241 million in NSF direct expenditures. There was a significant decrease (25 percent) from the prior period in audit reporting packages that fully met federal reporting requirements. Also, the percentage of audit reporting packages that fully met federal reporting requirements during the period was significantly below the 5-year average of 66 percent. As shown in Figure 1, 19 audit reporting packages (50 percent) fully met federal reporting requirements.

¹ 2 CFR Pt. 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*

² Generally defined as an awardee's predominant federal funding agency.



Figure 1. Percentage of Single Audits That Met Federal Reporting Requirements



Source: NSF OIG Semiannual Reports

We identified deficiencies in 19 audit reporting packages, including reporting packages submitted after required deadlines; audit reports missing required language; incomplete identification of awards within the major programs; incomplete and inaccurate Schedules of Expenditures of Federal Awards; audit report findings with missing elements and insufficient information to support audit resolution; incomplete and inaccurate Schedules of Findings and Questioned Costs; incomplete and inaccurate reporting on the Data Collection Form; incomplete or failure to provide corrective action plans; incomplete or failure to report information regarding prior year audit findings; and incorrect determination of auditee risk.

For errors that potentially impacted the reliability of the audit reporting packages, we contacted the auditors and awardees for explanations of each of the potential errors. In most cases, the auditors and awardees provided adequate explanations or additional information to demonstrate compliance with federal reporting requirements. However, in two instances, we rejected the audit reporting package because the deficiencies were significant. For all reviews, we issued a memorandum to the auditor and awardee informing them of the results of our review and the actions needed to improve the quality and reliability of future audits. We also provided a copy of the memorandum to the awardee's other federal funding agencies for their use in monitoring and oversight. In the instances where we rejected the audit, we separately referred the auditor to the AICPA Professional Ethics Division and Peer Review Program for additional review.



Audit Resolution

We work closely with NSF to resolve recommendations resulting from our findings to improve operations and internal controls, recover questioned costs, and put funds to better use. We have different processes for resolving recommendations pertaining to NSF programs and operations and those pertaining to external organizations, such as universities.

To resolve recommendations pertaining to NSF programs and operations, NSF sends a corrective action plan to our office with proposed actions and milestone dates. We review the plan and work with NSF to ensure the proposed corrective actions are timely and responsive to the report's recommendations. When we accept the corrective action plan, the recommendations are resolved. Once NSF provides evidence that it has implemented the corrective action and we confirm the work is done, we close the recommendation.

Our audit reports pertaining to external organizations generally contain recommendations to improve internal controls and/or recover questioned costs claimed by the award recipients. In such cases, NSF formally issues our report to the auditee and reviews the auditee's response to the report's recommendations. The auditee also has the opportunity to discuss concerns with NSF, and in some circumstances, NSF may discuss those concerns with us. NSF then provides us with a draft management decision record, which details its reasons for sustaining or not sustaining recommendations and questioned costs. If necessary, we may ask for clarification or additional information and discussion on NSF's management decision. Once we agree with NSF's management decision, the recommendations are resolved. NSF notifies our office when it confirms that the auditee has completed recommended internal control corrective actions and repaid questioned costs. The recommendations are closed once we receive this notification.

NSF Implemented Efforts to Improve Merit Review Panelist Demographic Data

We closed the final open recommendation of our 2022 report [*Remote Versus In-Person Merit Review Panels*](#), which noted NSF had limited data to assess the impact remote panels have on increasing panel diversity. As a result of our review, NSF integrated reviewers into its "Single ID" account management system in Research.gov, which provides access to research information and grants management services. This system will require that new panelists complete demographic information as part of registration and account maintenance, and it will prompt existing panelists to complete missing information.



NSF Strengthened Its Purchase Card Policies and Oversight

We closed the final two open recommendations from our 2022 report [*Audit of NSF's Purchase Card Program*](#), which identified ways to improve NSF's purchase card program's internal controls. As a result of our audit, NSF developed a health and wellness program policy outlining acceptable health education and intervention expenses, updated its purchase card manual, and strengthened its purchase card program oversight procedures.

NSF Sustained \$292,828 of Questioned Costs

NSF and OIG resolved five previous audits of award recipients this semiannual period. In addition to sustaining questioned costs, NSF required the award recipients to implement actions to strengthen administrative and management controls, as recommended by the auditors. Examples include monitoring NSF projects that close 90, 60, and 30 days before the project end date, better flagging and controlling of costs incurred after award completion, strengthening controls for cash drawdowns from NSF for expiring awards, and strengthening controls and training for document retention, charging of indirect costs, effort reporting, and cost transfers.

The objectives of the Florida International University and the California Institute of Technology (Caltech) audits were to determine if they complied with COVID-19 flexibilities authorized by the Office of Management and Budget (OMB). Auditors found that Florida International University complied, but Caltech charged unallowable salary after applicable OMB guidance had expired. During audit resolution, Caltech agreed to repay the unallowable salary and retroactively updated its policy to comply with the OMB guidance. The reports and recommendations for the University of South Carolina and West Virginia Research Corporation closed at the time of resolution.



Reports of Award Recipients Resolved This Semiannual Period

Report No.	Issue Date	Award Recipient	Questioned Costs	Sustained Questioned Costs
20-1-001	1/10/20	University of Colorado Boulder	\$79,831	\$68,303
21-1-011	5/19/21	Florida International University	\$22,144	\$22,144
21-1-014	5/26/21	California Institute of Technology	\$50,721	\$18,865
21-1-016	6/29/21	University of South Carolina	\$140,360	140,360
22-1-010	7/5/22	West Virginia Research Corporation	\$43,156	\$43,156
Total			\$336,312	\$292,828

Source: NSF OIG

Investigations

The Office of Investigations is dedicated to promoting effectiveness and efficiency in NSF programs and operations. We investigate wrongdoing involving organizations or individuals that receive awards from, conduct business with, or work for NSF.

Program Integrity Investigations

We investigate allegations concerning misappropriation and misuse of NSF funds, false statements in documents submitted to NSF, and NSF employee misconduct. When we identify a violation of a criminal or civil statute, we refer our investigation to the U.S. Department of Justice (DOJ) for criminal prosecution or civil action; if the case is accepted, we work with DOJ attorneys to support any resulting litigation. When appropriate, we also refer matters to NSF for administrative action, such as award termination and government-wide suspension or debarment. The following are brief descriptions of case outcomes during this semiannual period:

University Settles Allegations of Non-Disclosure

As part of a civil settlement agreement, a university agreed to pay more than \$875,000 to resolve potential *False Claims Act* liability. The university failed to disclose a professor's



affiliations with and support from a foreign government in proposals submitted to several agencies, including NSF. NSF's part of the settlement was more than \$63,000. DOJ issued a [press release](#) about this case.

NSF Suspended 14 Awards to a University for Failure to Disclose Foreign Affiliations for Multiple Principal Investigators

We reviewed a university's foreign contracts, awards, and restricted gifts over the past 5 years to determine if the university disclosed foreign awards to principal investigators (PI) or Co-PIs who were also recipients of NSF awards. We identified 14 active awards where the university and its PIs did not disclose foreign-funded projects or organizational affiliations in their NSF proposals. Based on our recommendation, NSF suspended the awards pending the completion of our investigation. This investigation is part of a larger review to determine if U.S. institutions are complying with NSF's requirements that PIs and Co-PIs disclose all forms of current and pending sources of funding.

Professor Suspended Government-Wide for Failure to Disclose Material Information to NSF

Based on our recommendation, NSF suspended a professor government-wide for his failure to disclose to NSF all his organizational affiliations and current and pending support. A multi-agency investigation found that the professor held a position with a foreign university and received foreign research funding, neither of which was disclosed to NSF. Our investigation is ongoing.

NSF Suspends Four Awards to a University

Based on our recommendation, NSF suspended four awards under the direction of three PIs. We determined the PIs did not disclose all current and pending support in their NSF proposals as required. Our investigation is ongoing.

Actions Resulting from Previously Reported Program Integrity Investigations

This section describes significant actions taken on cases discussed in previous semiannual reports. Investigations may span multiple years and result in a variety of outcomes over multiple semiannual reporting periods. For example, criminal or civil matters may result in prosecution, settlement agreements, fines, and repayments. NSF may take administrative actions such as suspension and termination of awards, or debarments of individuals and



businesses. Additionally, universities may return award funds and/or improve policies and procedures.

Professor Sentenced for False Statement

We previously reported a professor was found guilty of one count of making a false statement and three counts of wire fraud for receiving federal award funds and salary while employed by a foreign research university.³ The court dismissed the 3 wire fraud counts before sentencing, and sentenced the professor to 2 years supervised release and time served for making a false statement. DOJ issued a [press release](#) about this case.

Research Misconduct Investigations

Research misconduct damages the scientific enterprise, is a potential misuse of taxpayer dollars, and undermines the public's trust in government-funded research. NSF-funded researchers must carry out their projects with the highest ethical standards. Pursuing allegations of research misconduct — plagiarism, fabrication, and falsification — continues to be a focus of our investigative work. NSF takes research misconduct seriously, as do NSF's awardee institutions.

For each case described in this section, we recommended that NSF make a finding of research misconduct, issue a letter of reprimand, and require interactive responsible conduct of research (RCR) training, except where noted. Unless otherwise specified, NSF's decisions are pending.

Graduate Student Fabricated and Falsified Data in a Paper

We contacted a university following the retraction of a paper that acknowledged NSF support. The university was already conducting a research misconduct inquiry involving two co-authors of the report — a graduate student and a postdoctoral researcher. The university later determined an investigation was warranted and we referred the investigation to the university.

The university concluded most of the paper's data had been intentionally falsified and fabricated by the graduate student. Specifically, the student fabricated data in an electronic lab notebook, cherry-picked data for publication, backdated lab notebook entries, and falsified data by manipulating a sample. The graduate student cooperated with the investigation and admitted to falsifying data. The university concluded the

³ September 2022 Semiannual Report, pp. 2-3



graduate student should be withdrawn from the Ph.D. program without receiving a Master's or Ph.D. degree.

We concurred with the university that the graduate student committed research misconduct by falsifying and fabricating data in the published paper. We recommended that NSF debar the student for 1 year. We also recommended that for 3 years (concurrent with the debarment and for 2 years thereafter), NSF require the student to submit contemporaneous certifications that any proposals or reports submitted to NSF do not contain plagiarized, falsified, or fabricated material (certifications); submit contemporaneous assurances by a responsible official of the student's employer that any proposals or reports submitted to NSF do not contain plagiarized, falsified, or fabricated material (assurances); and prohibit the student from participating as a peer reviewer, advisor, or consultant for NSF.

The university also made a finding of research misconduct against the postdoctoral researcher (discussed separately).

Postdoctoral Researcher Responsible for Reckless Data Falsification

We contacted a university following the retraction of a paper that acknowledged NSF support. The university conducted an inquiry involving two co-authors of the report — a graduate student and a postdoctoral researcher and later concluded an investigation was warranted. We concurred and referred the investigation to the university.

The university concluded most of the paper's data had been intentionally falsified and fabricated by the graduate student (discussed separately). The University also made a finding of research misconduct against the postdoctoral researcher who collaborated on the research and was co-first author on the paper. The university's report described multiple incidents of careless data management and lapses in experimental oversight related to the retracted paper. We concurred with the university's conclusion that the postdoctoral researcher knew, or should have known, the majority of the paper's data had been falsified or fabricated by the student. The postdoctoral researcher ignored warning signs, such as the inability to replicate data and inadequate data records.

The university concluded the postdoctoral researcher committed research misconduct by recklessly failing to review raw data and failing to perform the PI's requested experimental verification after results were questioned. We concurred with the university that the postdoctoral researcher committed research misconduct and recommended NSF require the postdoctoral researcher to submit certifications and assurances for 3 years. We also recommended NSF, for 3 years, require a data management plan with any NSF proposal



and prohibit the postdoctoral researcher from participating as a peer reviewer, advisor, or consultant.

PI Plagiarized from Example Proposal

A PI plagiarized from a previously funded NSF proposal that a colleague shared as an example of a successful proposal. According to the allegation, a proposal with a PI and four co-PIs was very similar to, and in places verbatim to, a previously funded NSF proposal. We identified a substantive amount of copied text from the previously funded proposal into the submitted proposal. We learned the PI was responsible for the copied text. The PI told us he unintentionally omitted the citations for the copied text but, in a separate explanation he provided to the co-PIs, stated that he had intended to reword the copied text. We referred the investigation to the university.

The university considered neither of the PI's explanations — that he either forgot to cite or forgot to reword — valid excuses for plagiarism, noting that another grant proposal would not be citable. The university found the PI committed research misconduct and required that for 3 years, the PI should help the Research Integrity Officer teach the responsible conduct of research class, and the PI's department head should certify that all the PI's publications and proposals do not contain plagiarism.

We concurred with the university that the PI committed research misconduct. We recommended NSF require the PI to provide certifications and assurances with each document the PI submits to NSF; and prohibit the PI from serving as a peer reviewer, advisor, or consultant for NSF for 2 years.

CAREER Awardee Suspension Recommended Pending Completion of Investigation

We received an allegation that a funded Faculty Early Career Development Program (CAREER) proposal and two published papers authored by a PI contained text and ideas plagiarized from a funded CAREER award in a different field. After assessing the initial evidence and interviewing the program officer, we recommended NSF suspend the award pending the outcome of our investigation.

University Returns More Than \$700,000 to NSF Following Research Misconduct Finding

A university returned more than \$700,000 to NSF after finding a CAREER award PI had engaged in research misconduct by falsifying and fabricating data. Our investigation is ongoing.



Graduate Student Data Falsification Leads University to Terminate Award and Return Funds

We received an allegation that a former graduate student falsified data in three publications. The university found the student committed research misconduct, terminated an NSF award to the student's major professor, and returned more than \$250,000 to NSF. Our investigation is ongoing.

NSF Actions on Previously Reported Research Misconduct Investigations

NSF acted on 6 research misconduct investigations reported in previous semiannual reports. Except where noted, each case resulted in NSF making a finding of research misconduct, issuing a letter of reprimand, and requiring interactive responsible conduct of research training. Investigations may span multiple years, and NSF may take various actions based on our recommendations in multiple semiannual reporting periods. Significant actions taken during this period are summarized below:

- In the case of a professor who plagiarized from confidential documents into his own proposal and appealed NSF decision,⁴ NSF reaffirmed its findings and the imposition of all sanctions, including a 2-year, government-wide debarment and other administrative sanctions.
- In the case of a PI who accepted responsibility for plagiarism in multiple proposals,⁵ NSF prohibited the PI from participating as a reviewer, advisor, or consultant for NSF for 1 year, and required certifications and assurances for 1 year.
- In the case of a reviewer who shared proposals without permission,⁶ NSF barred the reviewer from serving as a reviewer, advisor, or consultant for 3 years.
- In the case of a postdoctoral researcher who plagiarized images and falsified data,⁷ NSF imposed a 1-year government-wide debarment. NSF also prohibited the

⁴ Fall 2021 Semiannual Report, p. 6; Spring 2022 Semiannual Report, pp. 11-12; Fall 2022 Semiannual Report, p. 9

⁵ Spring 2022 Semiannual Report, p. 13

⁶ Fall 2022 Semiannual Report, p. 10

⁷ Spring 2022 Semiannual Report, pp. 13-14; Fall 2022 Semiannual Report, p. 9



postdoctoral researcher from participating as a reviewer, advisor, or consultant for NSF for 4 years and required certifications and assurances for 4 years.

- In the case of a co-PI who plagiarized teaching materials for an NSF-funded course,⁸ NSF concurred with our recommendation to require certifications and assurances, and prohibit the co-PI from participation as a peer reviewer, advisor, or consultant for NSF, but reduced our recommended term of 3 years to 2 years. Additionally, NSF required that the co-PI certify compliance with university-imposed requirements.
- In the case of an NSF-funded graduate student working on NSF- and National Institutes of Health-supported research who falsified and fabricated data in laboratory progress reports,⁹ NSF debarred the student for 3 years; and for 4 years (the debarment and 1 year afterward), NSF required certifications and assurances; barred the student from participating as peer reviewer, advisor, or consultant for NSF; and required a data management plan with each submitted NSF proposal.

Administrative Investigations

Our office investigates a variety of allegations that are not pursued as criminal or civil matters or do not meet the definition of research misconduct. These cases, which are resolved administratively, include allegations such as retaliation against whistleblowers, violations of human and animal subject regulations, violations of peer review confidentiality, conflicts of interest, and employee misconduct.

Former Small Business PI Alleged Retaliation by Employer

A former PI at a small business alleged that the business and its chief executive officer retaliated against the PI for making protected disclosures about violations of laws, rules, or regulations related to an NSF award. The PI made the disclosures to the chief executive officer of the small business and an NSF program officer. We investigated this matter under the whistleblower protection provisions of 41 U.S.C. § 4712 and reported our findings to NSF. NSF concluded that, although the PI's protected disclosures were a contributing factor to the business's adverse actions against the PI, clear and convincing evidence established the business would have taken the actions against the PI absent the protected disclosures.

⁸ Spring 2022 Semiannual Report, pp. 12-13

⁹ Fall 2021 Semiannual Report, p.6; Fall 2022 Semiannual Report, p. 9



Other Products

Law Enforcement Perspectives on Sexual Assault and Stalking Issues Pertaining to the United States Antarctic Program

We issued this white paper to provide NSF with considerations for an effective reporting and response capability when presented with allegations of sexual assault and stalking in Antarctica. This paper discusses the definitions of sexual assault and stalking under the U.S. criminal code; describes the current law enforcement and prosecutorial framework for Antarctica; and explores approaches to facilitate effective reporting and response. This paper complements a related, ongoing inspection of the U.S. Antarctic Program; it does not contain findings or formal recommendations.

Peer Review

Federal audit organizations performing work under Government Auditing Standards must have an external peer review by reviewers independent of the organization every 3 years. The reviews are conducted under guidelines established by the Council of the Inspectors General on Integrity and Efficiency and focus on the audit organization's quality control system. A quality control system includes the office's organizational structure as well as policies and procedures that facilitate compliance with *Generally Accepted Government Auditing Standards*. On external peer reviews, audit organizations can receive a rating of pass, pass with deficiencies, or fail. The Office of Audits received a rating of pass in March 2021 for the year ending September 30, 2020. A copy of the final peer review report is posted on our [website](#).

The Office of Investigations received a rating of pass in December 2017. The scheduled peer review for the Office of Investigations was delayed due to the pandemic and will begin in April 2023.



Statistical Tables

Audit Reports Issued During This Semiannual Period

Report Number & Date Issued	Report Title	Questioned Costs	Unsupported Costs ¹⁰	Better Use of Funds	Total Recommendations	Management Decision ¹¹
23-1-001 10/27/22	Performance Audit of Incurred Costs - Cary System of Ecosystem Studies	\$33,024	\$0	\$0	15	0
23-1-002 10/28/22	Performance Audit of Incurred Costs - Computing Research Association	\$319,674	\$262,509	\$0	27	0
23-1-003 11/18/22	Performance Audit of Incurred Costs - University of Mississippi	\$129,951	\$0	\$0	16	0
23-1-004 2/3/23	Performance Audit of Incurred Costs - University of North Carolina, Charlotte	\$6,048	\$0	\$0	10	0
23-1-005 2/7/23	Performance Audit of Incurred Costs - Incorporated Research Institutions for Seismology	\$470	\$0	\$0	5	0
23-1-006 3/22/23	Performance Audit of Incurred Costs-Rensselaer Polytechnic Institute	\$198,137	\$4,519	\$0	22	0
23-2-001 11/4/22	Performance Audit of the National Science Foundation's Information Security Program for FY 2022	\$0	\$0	\$0	2	1

¹⁰ Unsupported costs are a subset of questioned costs.

¹¹ Number of recommendations for which a management decision has been made by 3/31/23. A "Management Decision" is NSF's response to findings and recommendations including actions it determined necessary.



23-2-002 11/14/22	Audit of the National Science Foundation's Fiscal Years 2022 and 2021 Financial Statements	\$0	\$0	\$0	0	N/A
23-2-003 1/9/23	Audit of NSF's Vetting Process for Individuals Assigned Under the Intergovernmental Personnel Act	\$0	\$0	\$0	5	5
23-2-004 3/30/23	Audit of NSF's Controls over Graduate Research Fellowship Program Funding	\$0	\$0	\$0	6	0
23-6-001 3/3/23	Summary of Federal OIG Findings and Recommendations Related to Other Transactions Agreements	\$0	\$0	\$0	0	N/A
N/A 1/25/23	Government Charge Card Letter from NSF OIG for FY 22	\$0	\$0	\$0	0	N/A
Total	12 Reports	\$687,304	\$267,028	\$0	108	6

Audit / Inspection Recommendations Made Before October 1, 2022, for Which Corrective Actions Have Not Been Completed

Report Number & Date Issued	Report Title	Total Recs.	Open Recs. as of 3/31/2023	Total Potential Cost Savings ¹²
17-2-009 07/06/17	NSF Could Strengthen Key Controls Over Electronic Records Management	5	1	N/A
19-1-010 05/02/19	Performance Audit of Incurred Costs - University of Maryland College Park	19	19	\$357,108
19-1-016 08/08/19	Performance Audit of Incurred Costs - Ohio State University	22	22	\$502,587
19-1-017 09/13/19	Performance Audit of Incurred Costs - Oregon State University	24	24	\$369,532
19-2-003 12/21/18	NSF Could Improve its Controls to Prevent Inappropriate Use of Electronic Devices	7	1	N/A

¹² Potential Cost Savings includes both Questioned Costs and Funds Put to Better Use



Report Number & Date Issued	Report Title	Total Recs.	Open Recs. as of 3/31/2023	Total Potential Cost Savings ¹²
20-1-001 01/10/20	Performance Audit of Incurred Costs - University of Colorado Boulder	15	15	\$79,831
20-1-004 07/13/20	Performance Audit of Incurred Costs - University of North Carolina Chapel Hill	43	43	\$744,671
20-1-005 07/23/20	Performance Audit of Incurred Costs - University of Houston	30	30	\$133,305
20-1-007 08/11/20	Performance Audit of Incurred Costs - Yale University	36	36	\$251,973
20-1-008 08/31/20	Performance Audit of Incurred Costs -Duke University - Incurred Cost Audit	48	48	\$708,906
20-2-002 11/22/19	Performance Audit of the National Science Foundation's Information Security Program for FY 2019	23	3	N/A
21-1-001 01/07/21	Performance Audit of Incurred Costs on EPSCoR Awards - University of Kansas Center for Research, Inc.	11	11	\$1,550,054
21-1-002 12/17/20	Performance Audit of Incurred Costs - Texas A&M University	24	24	\$137,558
21-1-003 01/13/21	Performance Audit of Incurred Costs on EPSCoR Awards - University of Wyoming	15	15	\$256,351
21-1-004 01/15/21	Performance Audit of Incurred Costs - University of Florida	17	17	\$640,723
21-1-007 04/30/21	Performance Audit of Incurred Costs- Clemson University	35	35	\$276,440
21-1-008 05/13/21	Performance Audit of Incurred Costs - Emory University	8	8	\$89,884
21-1-009 05/13/21	Performance Audit of the Implementation of OMB COVID-19 Flexibilities - University of New Mexico	9	9	\$20,965
21-1-010 05/18/21	Performance Audit of the Implementation of OMB COVID-19 Flexibilities - State University of New York at Stony Brook	10	10	\$31,341
21-1-011 05/19/21	Performance Audit of the Implementation of OMB COVID-19 Flexibilities - Florida International University	9	9	\$22,144
21-1-014 05/26/21	Performance Audit of the Implementation of OMB COVID-19 Flexibilities - California Institute of Technology	11	11	\$50,721



Report Number & Date Issued	Report Title	Total Recs.	Open Recs. as of 3/31/2023	Total Potential Cost Savings ¹²
21-1-017 07/20/21	Performance Audit of Incurred Costs - Tennessee State University	13	13	\$155,432
21-1-019 08/30/21	Performance Audit of Incurred Costs - University of Pittsburgh	12	12	\$106,659
21-1-020 09/29/21	Performance Audit of Incurred Costs - University of California, San Francisco	20	20	\$136,810
21-2-004 08/13/21	Audit of NSF Established Program to Stimulate Competitive Research Awards	6	1	N/A
22-1-001 10/15/21	Performance Audit of Incurred Costs - University of Rhode Island EPSCoR Awards	21	21	\$627,748
22-1-002 12/09/21	Performance Audit of Incurred Costs - University of Texas at Dallas	24	24	\$249,210
22-1-003 04/15/22	Performance Audit of Incurred Costs - University of California, Merced	33	33	\$226,652
22-1-006 06/21/22	Performance Audit of Incurred Costs - Cal Poly Corporation	13	13	\$30,177
22-1-007 06/22/22	Performance Audit of Incurred Costs San Francisco State University	6	6	\$260
22-1-008 06/28/22	Performance Audit of Incurred Costs - Education Development Center	12	12	\$88,089
22-1-009 06/28/22	Performance Audit of Incurred Costs - BSCS Science Learning	16	16	\$158,050
22-1-011 08/09/22	Performance Audit of Incurred Costs - Arctic Research Consortium of the United States	10	10	\$14,847
22-1-012 08/12/22	Performance Audit of Incurred Costs - North Carolina Central University	14	14	\$60,320
22-1-013 09/23/22	Performance Audit of Incurred Costs - Colorado School of Mines	10	10	\$10,260
22-2-003 11/17/21	Performance Audit of the National Science Foundation's Information Security Program for FY 2021	5	2	N/A
22-2-006 09/02/22	Audit of NSF's Divestment of Major Facilities	3	3	N/A
22-3-001 09/14/22	Inspection of NSF's Compliance with International Telework Requirements	6	6	N/A
22-6-004 03/18/22	NSF Vetting of United States Antarctic Program Contractors	2	2	N/A



Report Number & Date Issued	Report Title	Total Recs.	Open Recs. as of 3/31/2023	Total Potential Cost Savings ¹²
22-6-006 08/23/22	The Massachusetts Institute of Technology's Administration of Graduate Research Fellowship Program Funding	5	5	N/A
Total	40 reports	652	614	\$8,088,608

Investigative Outcomes

Investigative Reports Issued to NSF Management for Action ¹³	9
Referrals to DOJ Criminal Prosecutors (individuals and entities counted separately for all referrals)	1
Referrals to Criminal State/Local Authorities	0
Indictments/Criminal Information	1
Criminal Convictions/Pleas	0
Substantiated Senior Government Employee Misconduct	0
Substantiated Whistleblower Retaliation	0
Substantiated Agency Interference	0
Arrests	0
Referrals to DOJ Civil Prosecutors	4
Referrals to Civil State/Local Authorities	0
Civil Settlements/Judgements/Compliance Plans	1
Research Misconduct Findings Issued by NSF ¹⁴	2
Government-wide Suspensions/Debarments/Voluntary Exclusions	5
Administrative Actions taken by NSF (Includes actions related to findings of research misconduct, suspension/termination of awards or employee misconduct)	29
Total Investigative Recoveries (includes funds returned to NSF, restitution, fees, proceeds from civil settlements and funds put to better use)	\$1,042,333

¹³ For “Investigative Reports Issued to NSF Management for Action” we count only investigative reports issued to NSF that include recommendations for administrative action (e.g., findings of research misconduct, imposition of government-wide suspension or debarment, or suspension/terminations of awards). We count recommendations for each individual and entity separately.

¹⁴ Research misconduct statistics are reported on our [website](#).



About the National Science Foundation

NSF is an independent federal agency created by Congress in 1950 “[t]o promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes.” NSF leadership has two major components: a director who provides oversight of NSF staff and management responsible for program creation and administration, merit review, planning, budget, and day-to-day operations; and a 24-member National Science Board to establish overall policies.

With a budget of about \$9.9 billion (FY 2023), NSF is the funding source for about 25 percent of all federally supported basic research conducted by America’s colleges and universities. Each year, NSF supports about 300,000 scientists, engineers, educators, and students at universities, laboratories, and field sites.

About the NSF Office of Inspector General

The NSF Office of Inspector General promotes effectiveness, efficiency, and economy in administering the Foundation’s programs; detects and prevents fraud, waste, and abuse within NSF or by individuals who receive NSF funding; and identifies and helps to resolve cases of research misconduct. NSF OIG was established in 1989, in compliance with the *Inspector General Act of 1978* (5 USC 401-24). Because the Inspector General reports directly to the National Science Board and Congress, the Office is organizationally independent from the Foundation.

Connect with Us

For more information or questions, please contact us at oigpublicaffairs@nsf.gov. Follow us on Twitter at [@nsfoig](https://twitter.com/nsfoig). Visit our website at oig.nsf.gov.

Report Fraud, Waste, Abuse, or Whistleblower Reprisal

- File an online report: oig.nsf.gov/contact/hotline
- Anonymous Hotline: 1.800.428.2189
- Mail: 2415 Eisenhower Avenue, Alexandria, VA 22314 ATTN: OIG HOTLINE

Photo Credit

Front cover image: *NSF/GBO 20*; photo by Jill Malusky (available under Creative Commons [Attribution 2.0 Generic](https://creativecommons.org/licenses/by/2.0/))

