

Semiannual Report to Congress

April 1 – September 30, 2020



National Science Foundation
Office of Inspector General
NSF-OIG-SAR-63

In Memoriam



This Semiannual Report is dedicated to the memory of our valued colleague and friend, Dr. James (Jim) Thomas Kroll, who passed away on July 21, 2020. Jim was largely responsible for the establishment and development of our Research Integrity and Administrative Investigations Division and served as its director for nearly 20 years.

Jim earned his B.S. from Rutgers University and his M.S. and Ph.D. in Meteorology from North Carolina State University. He served 20 years in the Air Force, earning the rank of Lieutenant Colonel, prior to his NSF service.

At NSF, Jim was a beloved leader, who created a constructive and nurturing workplace culture. He treated his staff with respect and inspired among them a sense of community and common purpose. In 2016 he received a Director's Award for Excellence, the nomination for which was written by his staff.

Jim was deeply respected among the greater community of research integrity professionals and research administrators. He was often invited to give presentations and participate in their conferences, where his endearing style of mixing humor with content drew high praise. His passion for the subject, the encyclopedic knowledge he had of our cases, and the dry wit that infused his tutorials made every point he made sparkle. His dedication to outreach helped our office make invaluable contributions to the research integrity community across the United States.

Jim also found time for his community. He served on his condominium's HOA and was an umpire in the Northern Virginia Softball Umpires Association. He enjoyed the arts, sports, swing dancing, and helping others any way he could.

Jim was a mentor to many and will be remembered for his people-first leadership style, sense of humor, and selflessness. He has left an indelible mark on the office and his work as an investigator and leader will remain with us for years to come, but those who knew him best will forever remember his generous spirit and passion for life.



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From the Inspector General

I am pleased to present our semiannual report, which summarizes our work and accomplishments during fiscal year 2020.

As this period ends, the world is in the midst of a pandemic. While the circumstances are challenging and likely to remain so for some time, we will continue to adjust the way we perform our work so we can keep delivering results. Thankfully, NSF and our office built a strong telework program long before the pandemic began. When stay-at-home orders were issued, we were able to transition to full-time telework, keep our employees safe, and take advantage of the technology to continue our work almost seamlessly. During these extraordinary times, our professional and dedicated staff remain focused on identifying fraud, waste, and abuse affecting NSF's ability to achieve its mission.

I would also like to acknowledge enormity of the loss our office has suffered with the passing of Dr. James Kroll, Director of the Research Integrity and Administrative Investigations Division, who died during this semiannual period. It is never easy to lose a valued colleague and friend, and such losses are intensified during times like these. Jim's tremendous contributions to our office, the research integrity community, his family, friends, and community will always be remembered and greatly appreciated.

In this report, we focus on our impact on the Foundation. Inspired by our findings and recommendations, NSF has enhanced its efforts to promote scientific progress; advance national health, prosperity, and welfare; and secure the national defense. Our work also continues to reflect our commitment to helping NSF carefully steward taxpayer dollars. For example, during this reporting period, our work led to more than \$8 million in potential savings to taxpayers, including \$6.2 million in investigative recoveries and \$1.96 million in questioned costs.

Notably, our Audit Execution and Zhang Investigation and Prosecution teams were recently recognized at the Council of Inspectors General on Integrity and Efficiency's (CIGIE) annual awards ceremony. This event celebrated the outstanding achievements of our award winners, as well as those of the inspector general community. The Zhang Investigation and Prosecution Team was recognized for "the outstanding commitment, dedication, initiative, and teamwork demonstrated in the successful investigation and prosecution of Yiheng Percival Zhang." The Audit Execution Team, supported by the Compliance Analytics Team, Office of Counsel, and the Communications Analyst, was recognized for the "implementation of a new audit approach resulting in stronger, more holistic internal audit findings and recommendations, resulting in improved oversight of millions of dollars of Federal funds."

We appreciate the support of NSF management and staff from across the Foundation. Our partnership with NSF, the National Science Board, and Congress is a critical component to fulfilling our mission. We also look forward to continuing our work with CIGIE on important issues that cut across the Government in the years to come.

Allison C. Arnes

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. We assess the seriousness of misconduct and recommend proportionate action. We work in partnership with agencies and award recipients to resolve issues when possible.

Program Integrity Investigations

As part of our mission, we investigate allegations concerning misuse of NSF funds, false statements in documents submitted to NSF, and employee misconduct. When we identify a violation of a criminal or civil statute, we refer our investigations to the U.S. Department of Justice (DOJ) for criminal prosecution or civil action. When appropriate, we also refer matters to NSF for administrative action, such as award termination and Governmentwide suspension or debarment. A brief description of case outcomes during this SAR period follows:

UNIVERSITY PAID MORE THAN \$3.7 MILLION TO RESOLVE GRANT FRAUD CLAIMS

A university agreed to pay the United States more than \$3.7 million to resolve claims it knowingly engaged in a pattern and practice of improperly charging NSF awards in violation of NSF award terms and conditions and the *False Claims Act*. We found that for nearly 12 years, the university improperly charged graduate students' stipends, tuition remission, and related facilities and administrative charges to NSF awards. These charges were used in part for time the graduate students spent performing teaching duties unrelated to the university's NSF research and development awards. On each proposal and request for payment, the university certified that it was complying with NSF award terms and conditions. To settle the allegations, the university agreed to pay \$3,754,186 — double the loss to the United States. DOJ's press release regarding this case can be found [here](#).

UNIVERSITY PAID \$1 MILLION TO SETTLE CLAIMS ASSOCIATED WITH FEDERAL AWARDS

A university agreed to pay the United States \$1 million to settle claims that it did not properly account for certain rebates and credits the university received on purchases it made in connection with Federal awards. The resolutions obtained in this matter resulted from a coordinated effort between multiple Federal agencies. NSF's portion of the settlement is \$100,000. DOJ's press release regarding this case can be found [here](#).

MORE THAN \$1 MILLION IN FUNDS PUT TO BETTER USE IN ONGOING INVESTIGATION OF RESEARCH CORPORATION

We found that a research corporation underspent seven awards, could not account for more than \$1 million in NSF funds, and invested a significant amount of NSF funds in a certificate of deposit. Although NSF terminated the corporation's three active awards, the corporation could still request reimbursement for expenses incurred before the termination date according to NSF terms and conditions. Thus, we recommended that NSF

permanently withhold additional payments and reduce the award amounts for the three awards. NSF accepted our recommendation, resulting in more than \$450,000 in funds put to better use.¹ During this reporting period, the research corporation also returned to NSF more than \$700,000 in excess funding that it had retained on four other awards. We recommended that the research corporation, its former chief financial officer, and its president and chief executive officer be suspended Governmentwide pending our investigation. Our ongoing investigation is being conducted with the U.S. Attorney's Office in the district where the research corporation is located.

NSF SUSPENDED PROFESSOR FOR FAILURE TO DISCLOSE FOREIGN AFFILIATIONS

Based on our recommendation, NSF suspended a professor from obtaining Federal grants and contracts for a temporary period not to exceed 12 months. A multiagency investigation found that the professor failed to disclose his foreign affiliations, which included positions held, income, and financial and other support for research. Our investigation is ongoing.

UNIVERSITY PAID \$151,000 TO RESOLVE POTENTIAL FALSE CLAIMS LIABILITY

A university agreed to pay the United States \$151,000 to resolve potential liability under the *False Claims Act*. The joint investigation arose from alleged mischarges to various grants and contracts from NSF, the Department of the Navy, the National Aeronautics and Space Administration, and the Air Force. The university cooperated with the investigation and has implemented policy changes to prevent mischarges in the future. NSF's portion of the settlement is \$13,962. DOJ's press release regarding this case can be found [here](#).

STTR COMPANY PAID \$70,000 TO RESOLVE POTENTIAL FALSE CLAIMS LIABILITY

As a result of our investigation, a Small Business Technology Transfer (STTR) company agreed to pay the United States \$70,000 to resolve potential liability under the *False Claims Act*. Our investigation arose from allegations that the company improperly charged unallowable and unallocable costs, applied a significantly higher overhead rate to account for underspending, and provided false certifications in a final report regarding an STTR award from NSF. DOJ's press release regarding this case can be found [here](#).

UNIVERSITY PROFESSOR DEBARRED FOR 3 YEARS

A university notified NSF that a professor failed to disclose a dual employment and other foreign affiliations to both the university and NSF. We substantiated the allegations through the review of publicly available documents. The professor resigned his position at the university and the university voluntarily terminated the award and returned all award funds to NSF. We referred the matter to the U.S. Attorney's Office, which declined to prosecute the case. During this reporting period, NSF debarred the professor for 3 years, consistent with our recommendation.

¹ As used here, "funds put to better use" is consistent with the definition in 5 USC app. 3 § (f)(4)(B) (pertaining to more efficient use of funds through de-obligation, which frees them up for other uses).

NSF CANCELLED FINAL PAYMENT OF NEARLY \$495,000 ON SBIR AWARD

A Small Business Innovation Research (SBIR) company misrepresented its facilities and equipment in proposals to NSF and other agencies. It also misrepresented who at the company was submitting proposals and corresponding with Federal agencies, and who completed work under its awards. Additionally, the company charged costs to unrelated project codes at a local university. Based on our recommendation, NSF cancelled the final payments for the SBIR award, resulting in nearly \$495,000 in savings. We referred the matter to the U.S. Attorney's Office, which declined to prosecute the case.

AWARD TERMINATION RESULTED IN NEARLY \$460,000 IN SAVINGS

We investigated allegations that a principal investigator (PI) submitted fraudulent reimbursement requests to a university for expenses incurred on multiple NSF awards spanning 7 years. A preliminary investigation identified potential misuse of NSF funds totaling more than \$35,000. We also learned that the PI resigned from the university and was employed as a computer scientist in a foreign country, but the university had not notified NSF of the PI's departure as required. Based on our recommendation, NSF and the university mutually terminated the PI's active award, which saved more than \$410,000 in unexpended award funds. Additionally, NSF requested that the university repay nearly \$47,000.

Actions Resulting from Previously Reported Program Integrity Investigations

SBIR COMPANY RETURNED MORE THAN \$60,000 TO NSF

We found that a company did not expend award funds in accordance with its approved budget or the award terms and conditions, despite its certifications to the contrary. Specifically, the company expended funds on a trademark and patent attorney even though the award solicitation expressly prohibited such expenditures, and expended funds on independent contractors, despite having no money budgeted for consultants and no advance approval from NSF to use contractors. The company also could not account for all its award funds and received award funds for a subaward that it never executed or paid. We referred these concerns to DOJ, which ultimately declined the matter. In response to our letter detailing these issues, the company agreed to return more than \$60,000 to NSF. We previously recommended suspension and termination of an award to the company, based in part on misrepresentations the company made about maintaining general ledgers and timekeeping records. NSF accepted our recommendations, resulting in more than \$110,000 in funds put to better use, which we reported in the September 2016 SAR.

SBIR/STTR COMPANY SENIOR SCIENTIST PLEADED GUILTY TO WIRE FRAUD

We previously reported² that, based on our recommendation, NSF suspended an SBIR company and its president, senior scientist, and PI Governmentwide. Evidence collected during the investigation indicated the company submitted false statements and claims related to the PI's primary employment, violated the SBIR percentage of work requirement, and failed to expend NSF funds in accordance with the approved budget. Additionally, the senior scientist proposed individuals without their permission as company employees, proposed using subcontractors and consultants without their permission, modified subcontract proposals without authority, and used modified endorsements in proposals. During this reporting period, the senior scientist pled guilty to one count of wire fraud and agreed to repay the government approximately \$700,000 in damages for violations under the *False Claims Act*. Sentencing in this joint investigation is scheduled for December 2020. DOJ's press release regarding this case can be found [here](#).

SBIR/STTR COMPANY FOUNDER AND FORMER UNIVERSITY PROFESSOR DEBARRED 10 YEARS

We previously reported that a former university professor and founder of two SBIR/STTR companies was convicted of one count of conspiracy, three counts of false statements, and one count of obstruction. He was suspended Governmentwide, along with his companies, and sentenced to time served (about 2 years in jail and home confinement combined) followed by 2 years supervised release. The former professor was also ordered to pay a special assessment of \$500.³ NSF agreed with our recommendation to terminate one of the company's awards and withheld the final payment on another award, resulting in more than \$320,000 in funds put to better use. During this reporting period, the founder and one of his companies were debarred for 10 years, consistent with our recommendation. The other company has since been dissolved.

PROFESSOR SENTENCED FOR MAKING FALSE STATEMENTS

We previously reported that a tenured full professor pleaded guilty to providing materially false statements in furtherance of a scheme to defraud NSF.⁴ During this reporting period, the professor was sentenced to 10 months of probation and 2 months of home confinement to be served in 2021.

FAILURE TO DISCLOSE FOREIGN AFFILIATIONS AND CONFLICTS OF INTEREST RESULTED IN GOVERNMENTWIDE SUSPENSION

We previously reported that a professor's failure to disclose foreign affiliations and conflicts of interest resulted in the termination of his Intergovernmental Personnel Act award.⁵ During this reporting period, the professor was suspended Governmentwide for 1 year.

² September 2017 Semiannual Report (SAR), p. 15

³ September 2017 SAR, p. 13; March 2018 SAR, p. 11; March 2019 SAR, pp. 9-10, September 2019 SAR, pp. 4-5

⁴ March 2020 SAR, p.7

⁵ March 2020 SAR, p.7

Research Misconduct Investigations

Research misconduct damages the scientific enterprise, is a potential misuse of taxpayer dollars, and undermines the trust of citizens in Government-funded research. It is imperative to the integrity of research that NSF-funded researchers 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 take appropriate actions against the individuals. Unless otherwise specified, NSF’s decisions are pending.

PI PLAGIARIZED IN THREE NSF PROPOSALS

We found that a PI plagiarized text from three sources into three NSF proposals. We initially received an allegation of plagiarism in a single proposal, and our analysis found copied text from three sources. In response to our inquiry, the PI noted that similar copied text appeared in two other proposals he submitted. The PI’s response to our inquiry did not dispel the allegation, and we referred the matter to the PI’s university for investigation.

The university considered the PI’s acts as six allegations of plagiarism, where each allegation pertained to a combination of one of the three proposals and one of the three sources. The university determined four of the allegations merited further investigation. The university’s investigation concluded the PI’s actions were not culpable because the PI did not realize he needed to be as thorough with citations in a proposal as he did in a publication. Therefore, the university did not make research misconduct findings for any of the four allegations.

We found the university’s reasoning inconsistent and contrary to NSF guidance. We conducted a full review of the allegations and evidence. Because the PI stated he understood plagiarism but did not exercise the same care with citations in a proposal as in a publication, we concluded the PI acted culpably when he copied the material into the proposals. We concluded the PI knowingly committed plagiarism and recommended that NSF:

- Make a finding of research misconduct;
- Issue a letter of reprimand;
- Require completion of interactive responsible conduct of research training; and
- For 1 year:
 - Require certifications and assurances, and
 - Bar the Subject from NSF participation as a peer reviewer, advisor, or consultant.

POSTDOCTORAL RESEARCHER FALSIFIED DATA, THEN LEFT UNIVERSITY

A postdoctoral researcher (postdoc) allegedly falsified data in a published paper and in a manuscript being prepared for publication. The postdoc’s university initiated an inquiry of the allegations and concluded that an investigation was warranted. However, the postdoc left the university before the inquiry was completed. The postdoc said he would not

publish the manuscript, that his departure should preclude an investigation, and that NSF funds were not involved because he worked on weekends, and his friend personally paid for the experiments (estimated by the PI to cost \$15,000). The university disagreed and proceeded with its investigation.

The postdoc declined all invitations for meetings and provided none of the requested data to the investigation committee. We issued a subpoena for the data, and the postdoc responded that the data were in the PI's lab, so he had no data to provide. The PI and his lab personnel searched all lab computers and equipment for the postdoc's data but did not find any.

The university's investigation committee concluded that the postdoc committed research misconduct when he falsified the data and figures in the manuscript, as well as two figures and their associated data in the published paper. The university adjudicator accepted the committee's findings and recommended retraction of the paper, which the journal did. The adjudicator directed the PI and current lab members to develop a written data management plan for the laboratory, including secure storage of raw and processed research data, regular and routine data reviews, and research documentation and reporting practices.

We accepted the university's report and concurred with its findings. Based on the evidence, we recommended NSF:

- Make a finding of research misconduct;
- Issue a letter of reprimand;
- Debar the postdoc for 3 years;
- Require completion of interactive responsible conduct of research training; and
- For 5 years (concurrent with the debarment plus 2 years afterward):
 - Require certifications and assurances,
 - Bar the postdoc from NSF participation as a peer reviewer, advisor, or consultant, and
 - Require a data management plan.

PI USED ANOTHER RESEARCHER'S PROPOSAL AS A TEMPLATE

We investigated an allegation of intellectual theft and plagiarism against a PI who requested another researcher's awarded proposal via the *Freedom of Information Act* (FOIA). The PI used the awarded proposal as a template, adapting sections to his university and geographical area, but retaining substantial similarity to the previously awarded proposal. During our investigation, the PI told us that the proposal was the fourth resubmission, the first three having been submitted prior to receiving the awarded proposal via FOIA. We reviewed those earlier three submissions and found that the PI had copied about half of the proposals from a different faculty member's awarded proposal at his prior university. After receipt of the awarded proposal via FOIA, older versions found on his computer show that the PI rewrote most of his proposal to mirror it.

The university concluded that the PI intentionally plagiarized, and the plagiarism constituted a significant departure from accepted practices. We agreed with the university. Further, we found that during our inquiry the PI resubmitted the proposal a

fifth time with minimal revisions. This plagiarized resubmission was awarded. The NSF PO confirmed that the plagiarism likely contributed to a higher ranking among NSF review panel members. However, the PO's subsequent scrutiny revealed that the PI's program was robust, which led to the award. The award was used to establish a scholarship program as proposed. Because an award termination would most heavily impact students whose college scholarship programs were underway, we did not recommend that the PI's award be terminated. We recommended NSF:

- Make a finding of research misconduct;
- Issue a letter of reprimand;
- Require completion of interactive responsible conduct of research training; and
- For 3 years:
 - Require certifications and assurances, and
 - Bar the PI from NSF participation as a peer reviewer, advisor, or consultant.

PI ACCEPTED RESPONSIBILITY FOR PLAGIARISM HE CANNOT REMEMBER

We investigated an allegation that a PI plagiarized many of the required supplementary documents in his NSF proposal. The source documents came from another team's awarded proposal. The PI's university found that the PI was the only author with a copy of the awarded NSF proposal. The university concluded the text was intentionally copied because the PI only minimally edited the source text. The PI accepted responsibility for the plagiarized text, although the PI stated that due to a medical condition, he could not remember the plagiarism. We recommended NSF:

- Make a finding of research misconduct;
- Issue a letter of reprimand;
- Require completion of interactive responsible conduct of research training; and
- For 2 years:
 - Require certifications and assurances, and
 - Bar the Subject from NSF participation as a peer reviewer, advisor, or consultant.

PI CLAIMED A FIGURE HE COPIED INTO AN NSF PROPOSAL AS HIS OWN

A PI plagiarized material into an NSF proposal, including one figure he captioned as "developed by PI." The PI acknowledged copying material without citation and attributed his carelessness to family matters; to heavy teaching, research, and mentoring loads; and to increased university responsibilities. He submitted to us a "corrected" proposal in which he changed the copied figure's caption to indicate he adapted it from a pre-existing source.

We referred the matter to the PI's university, which concluded, during an inquiry and without much explanation, that he recklessly and carelessly committed plagiarism, and deemed it a significant departure from accepted practice of the research community. It also identified a pattern of plagiarism. The university required that the PI submit all publications and proposals for software and faculty review for 2 years; be ineligible for tenure or promotion for 1 academic year; not receive a merit increase for 1 year; have a letter of reprimand placed in his file and promotion packet; register for and attend an

integrity workshop and provide certification of completion within 6 months; and communicate NSF's adjudication to the university.

We found the university's inquiry report incomplete in its assessment of the required elements of a research misconduct determination, particularly regarding intent and whether the act was a significant departure from accepted practice. Further, we found the university did not follow its own procedures in making a finding of research misconduct without completing an investigation or convening a committee. We could not accept the report in lieu of conducting our own investigation.

Our independent investigation determined the PI knowingly committed plagiarism, deeming it a significant departure from accepted practices. We also determined that the PI exhibited a pattern of plagiarism, having plagiarized in a second declined NSF proposal. We recommended NSF:

- Make a finding of research misconduct;
- Issue a letter of reprimand;
- Require completion of interactive responsible conduct of research training; and
- For 3 years:
 - Require certifications and assurances, and
 - Bar the subject from serving as an NSF peer reviewer, advisor, or consultant.

PI BLAMED NONEXISTENT POSTDOC FOR PLAGIARISM

During the March 2020 SAR period, we investigated an allegation that a PI submitted an NSF proposal with plagiarized text. We noted the PI changed the spelling of words in a British source article to American spellings. The PI blamed a prospective postdoctoral researcher (postdoc) for writing several sections that contained copied text.

The PI's university investigated the matter and found no evidence of the postdoc's contribution or that the postdoc even existed. The university held the PI responsible for intentional plagiarism and terminated his faculty position. The PI told us that the proposal was not prepared using a computer, so he had no evidence of his purported collaboration with the postdoc. We concluded that the PI was not forthcoming and had fabricated a collaborator upon whom he could place blame.

We reviewed the PI's other written work and found that he plagiarized a larger amount of text in a prior NSF proposal. He also plagiarized approximately one third of a proposal submitted to another Federal agency, and a third of a published paper, both of which were submitted while he was under investigation by his university. We concluded the PI intentionally plagiarized and recommended that NSF:

- Make a finding of research misconduct;
- Issue a letter of reprimand;
- Require completion of interactive responsible conduct of research training; and
- For 3 years:
 - Require certifications and assurances, and
 - Bar the subject from serving as an NSF peer reviewer, advisor, or consultant.

NSF implemented all our recommendations for this case during this SAR period.

NSF Management Actions on Previously Reported Research Misconduct Investigations

Based on our recommendations, NSF adjudicated seven 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 responsible conduct of research training. NSF also took additional significant actions in response to our recommendations, as summarized below:

- In the case of an NSF graduate research fellow who falsified data by re-using and, in some cases, manipulating data and claiming it resulted from experiments he did not conduct,⁶ NSF required, for a period of 4 years, that the research fellow:
 - submit a detailed data management plan with any NSF proposal;
 - submit contemporaneous certifications that any proposals or reports he submits to NSF do not contain plagiarized, falsified, or fabricated material (certifications); and
 - submit contemporaneous assurances by a responsible official of his employer that any proposals or reports he submits to NSF do not contain plagiarized, falsified, or fabricated material (assurances).

NSF also barred the fellow from participating as an NSF peer reviewer, advisor, or consultant for 4 years. NSF did not accept our recommendation to debar the research fellow for 1 year.

- In the case of a PI who plagiarized in four unfunded proposals,⁷ NSF required certifications and assurances for a period of 2 years and prohibited the PI from serving as an NSF reviewer, advisor, or consultant for 2 years. NSF did not accept our recommendation to debar the PI for 1 year.
- In the case of the an assistant professor who used a student's plagiarized summary as part of her NSF proposal,⁸ NSF required that she comply with all actions imposed by her university, submit certifications and assurances for 1 year, and barred her from serving as a reviewer, advisor, or consultant for NSF for 1 year. The assistant professor appealed NSF's finding and actions; the appeal is pending.
- In the case of the PI who plagiarized text into his CAREER proposal,⁹ NSF required that the PI submit certifications and assurances for 1 year and barred him from serving as an NSF reviewer, advisor, or consultant for 1 year.

⁶ March 2020 SAR, p. 10

⁷ March 2020 SAR, p. 11

⁸ September 2019 SAR, p. 8

⁹ September 2019 SAR, p. 8

- In the case of a PI who committed plagiarism when he copied text into one NSF proposal and a figure into a second NSF proposal,¹⁰ NSF required the PI to submit certifications and assurances for 1 year. NSF also barred the PI from participation as an NSF peer reviewer, advisor, or consultant for 1 year.
- In the case of a PI who committed plagiarism in two unfunded NSF proposals,¹¹ NSF required the PI to submit certifications and assurances for 1 year. NSF also barred the PI from participation as an NSF reviewer, advisor, or consultant for 1 year.
- In the case of a PI who plagiarized large amounts of text from multiple sources into two NSF Faculty Early Career Development Program grants,¹² NSF required that the PI comply with all university-imposed requirements and submit certifications and assurances for 1 year.

Administrative Investigations

Our office investigates a wide variety of allegations that are not pursued as criminal or civil matters or do not meet the strict definition of research misconduct. These cases, which are resolved administratively, include (but are not limited to) whistleblower reprisal, misallocation of grant funds, violations of human and animal subjects' regulations, violations of peer review confidentiality, conflicts of interest, and employee misconduct.

PANEL REVIEWER DIVULGED CONFIDENTIAL INFORMATION

An ad hoc reviewer had a confrontational meeting with the PI of a proposal he negatively reviewed at a professional conference. The reviewer subsequently revealed confidential information about his review in an email to two journal editors, the NSF program officer who handled the proposal, the PI, and the reviewer's collaborator. Specifically, the reviewer disclosed the existence of the proposal, named the PI, discussed an aspect of the proposed research focus, and mentioned the proposal's low ranking.

We wrote to the reviewer asking if he was aware of NSF's confidentiality requirement for all reviewers and why he made the disclosures. He responded that he reviews for NSF and many journals and all require varying degrees of confidentiality. He said it is permissible with many journals for reviewers to reveal themselves to authors to promote scientific discourse. In this case, he conflated a journal's less stringent requirements with NSF's stricter requirements. He also revealed much more information about the proposal than himself as a reviewer.

Based on our recommendation, NSF prohibited the reviewer from serving as an NSF reviewer, advisor, or consultant for 2 years. NSF also advised the reviewer to disclose to any other Federal agencies that ask him to review proposals during this period that he is barred from serving as a reviewer, advisor, or consultant for NSF.

¹⁰ March 2020 SAR, p. 12

¹¹ March 2020 SAR, p. 12

¹² March 2020 SAR, p. 13

FORMER EMPLOYEE OF NOT-FOR-PROFIT ENTITY ALLEGED RETALIATION

A former employee of a not-for-profit entity alleged that she was terminated in retaliation for disclosing internal control deficiencies in the management of Federal awards, including those from NSF. We investigated this matter under the whistleblower protection provisions of 41 U.S.C. § 4712 and submitted a report of our findings to NSF management. NSF concluded the former employee made protected disclosures, but that the not-for-profit entity would have taken the same actions regardless.

NSF CONCLUDED THAT A FACULTY MEMBER WAS NOT SUBJECT TO REPRISAL

A faculty member alleged that a university denied her a customary raise and reduced her faculty committee assignments in retaliation for reporting research misconduct by a graduate student in her laboratory. We investigated this matter under the whistleblower protection provisions of 41 U.S.C. § 4712 and submitted a report of our findings to NSF management. NSF concluded that the faculty member's claim was not a prohibited reprisal for three reasons. First, there was insufficient evidence that the university's actions concerning her salary and committee assignments were adverse so as to constitute discriminatory conduct under the statute. Second, the preponderance of evidence did not establish a nexus between the university's actions and the faculty member's disclosures. Third, there was clear and convincing evidence that the university would have taken the same actions regardless of the disclosures.

NSF DETERMINED THAT A GRADUATE STUDENT WAS NOT SUBJECT TO REPRISAL

A graduate student alleged that her university withdrew its offer of a teaching assistant position in retaliation for reporting that the award's PI stole materials purchased with NSF award funds. We investigated this matter under the whistleblower protection provisions of 41 U.S.C. § 4712 and submitted a report of our findings to NSF management. NSF determined that no reprisal occurred based on clear and convincing evidence that the university would have withdrawn the offer absent the graduate student's disclosures. NSF concluded that the decisions to withdraw the teaching assistant position were due to the graduate student's repeated failures to follow established laboratory procedures, the risks to students because of these failures, and other performance and professionalism problems. Further, NSF determined there was no evidence the graduate student was treated adversely compared to others who did not follow laboratory procedures.

Audits and Reviews

The Office of Audits is responsible for reviewing 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 the Foundation. 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

NSF COULD IMPROVE ACCOUNTABILITY FOR ITS VEHICLE FLEET AND RECIPIENT-TITLED VEHICLES AT MAJOR FACILITIES

Senate Report 115-139, *Federal Vehicle Fleet Management*, dated July 27, 2017, requires Inspectors General to conduct annual audits of their agency's Federal vehicle fleet management practices. We conducted this audit to determine if NSF is managing its Federal vehicle fleet in accordance with the *Federal Management Regulation (FMR)*. We found that NSF is generally managing its fleet according to the FMR. However, NSF did not conduct a complete vehicle allocation methodology because it did not have formal policies and procedures for conducting one. Additionally, at the time of our audit, NSF did not have a consistent process for titling vehicles purchased with award funds or for tracking vehicles at major facilities. Because of our audit, NSF established a working group to improve its ability to account for equipment, including vehicles, and has begun taking other corrective actions. NSF agreed with our three recommendations to improve its ability to account for vehicles in its fleet and for vehicles maintained by NSF award recipients.

AUDIT OF NSF'S PROCESS FOR EVALUATING THE OPERATIONS AND MAINTENANCE COST PROPOSAL FOR THE OCEAN OBSERVATORIES INITIATIVE

In September 2018, NSF awarded a \$220 million, 5-year cooperative agreement to Woods Hole Oceanographic Institution (WHOI) to operate the Ocean Observatories Initiative (OOI). We determined that NSF did not ensure WHOI's proposal to operate OOI within the proposed \$220 million budget adequately addressed expected inflation or potential operational risks. Further, at the time of our audit, NSF did not require a risk and uncertainty analysis for operations proposals.

We recommended that NSF analyze WHOI's plans to determine if it is achieving its proposed efficiency cost savings and ensure that future major facility operations proposals include inflation factors, as well as an evaluation of key operational risks, their potential cost and scientific impacts, and mitigation strategies. NSF agreed with our recommendations and has begun taking corrective action.

NSF NEEDS TO IMPROVE MONITORING OF GOVERNMENT-OWNED EQUIPMENT PURCHASED ON NSF AWARDS

We determined that NSF did not have sufficient controls to account for certain types of equipment purchased by award recipients. At the time of our audit, NSF vested title to equipment purchased with NSF award funds either in the Government, called Government-owned equipment (GOE), or in the recipient. NSF did not always account for GOE held by award recipients, ensure its award letters contained the correct terms and conditions regarding equipment, or ensure recipients properly handled GOE after award expiration. In addition, NSF's policies and procedures did not articulate staff responsibilities for GOE oversight. We made seven recommendations aimed at improving NSF's controls to account for certain types of equipment purchased on awards. NSF

agreed with our recommendations and has set up an agency-wide equipment working group to develop new internal standard operating guidance.

[NSF NEEDS BETTER CONTROLS OVER ACCESS TO SOCIAL SECURITY NUMBERS IN NSF REPORT DATABASE](#)

During our ongoing audit NSF's Graduate Research Fellowship Program, we discovered that some NSF staff and contractors without a current or continuing business need could view social security numbers in NSF's Report Database. We issued a memorandum to alert NSF of this matter and made three recommendations to strengthen controls over access to sensitive information. NSF agreed with our recommendations.

Reviews Related to COVID-19

In March 2020, we established an ad-hoc team to conduct a series of engagements related to NSF's response to the COVID-19 pandemic. We issued two products concerning those efforts during this semiannual period. We also designed our FY 2021 audit work plan to address the evolving health, economic, and societal impacts of COVID-19 on NSF and its award recipients and considered the effects of COVID-19 when developing our report on management challenges for the Foundation in FY 2021.

[TOP CHALLENGES FACING FEDERAL AGENCIES: COVID-19 EMERGENCY RELIEF AND RESPONSE EFFORTS](#)

The *Coronavirus Aid, Relief, and Economic Security Act* (CARES Act) and other related legislation provided approximately \$2.4 trillion in Federal spending to address the public health and economic crises resulting from the COVID-19 pandemic. The CARES Act also established the Pandemic Response Accountability Committee (PRAC) within CIGIE.

As a PRAC member, we contributed to its report titled *Top Challenges Facing Federal Agencies: COVID-19 Emergency Relief and Response Efforts*. Specifically, we reported that fiscal constraints impacting award recipients could lead to staff cuts in sponsored research offices or the offices responsible for identifying and managing scientists' conflicts of interest and commitment. Those reductions could impact recipients' ability to ensure compliance with NSF award terms and conditions, putting NSF funds at risk. Further, the pandemic is also likely to affect some of NSF's preexisting management challenges, including oversight of major multi-user research facilities, managing the Antarctic Infrastructure Modernization for Science project, and navigating threats posed by foreign government talent programs.

[REVIEW OF THE NATIONAL SCIENCE FOUNDATION CARES ACT SPENDING PLAN](#)

NSF received \$76 million in CARES Act funding, including \$75 million to support NSF's ongoing grant response to COVID-19 and \$1 million for related grant administration. We conducted a review to identify whether NSF's plan for expending those funds was reasonable, prudent, and met the intent of the funding objectives. NSF planned to use the CARES Act funds to support additional fast-track, fundamental, and transformational research activity associated with (1) improving the understanding of SARS-CoV-2; (2) developing a predictive understanding of the virus's spread; and (3) enabling

approaches that mitigate the negative impacts of COVID-19 on public health, society, and the economy. NSF planned to allocate the \$76 million as follows:

- \$67.25 million apportioned to the Rapid Response Research and Early-Concept Grants for Exploratory Research funding mechanisms.
- \$5 million apportioned to the Education and Human Resources account to support fundamental and transformational research activities that align with the three identified research areas.
- \$2.75 million apportioned to the Small Business Innovation Research and Small Business Technology Transfer programs.
- \$1 million to support measures taken by NSF to secure ongoing continuity of operations during this period, including additional oversight, management, and reporting requirements for COVID-19 program funding.

We found NSF’s plan to be reasonable, prudent, and consistent with the intent of the Act’s funding objectives. NSF is using existing funding mechanisms with established policies, procedures, and controls to disperse the CARES Act funds. This reduces the risk of misuse and helps ensure accountability. NSF also established a process to ensure appropriate financial controls over CARES Act funds by using a unique fund code. Further, NSF is using funding mechanisms that allow for quickly mobilizing the research community so that CARES Act funds can have a timely and immediate impact.

Audits of NSF Award Recipients

OIG contractors completed audits of six NSF award recipients that expended nearly \$538 million of NSF funds during the respective audit periods. The audits assessed the allowability, allocability, and reasonableness of costs charged to NSF and resulted in nearly \$2 million of 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.

In addition, during our ongoing audit of Established Program to Stimulate Competitive Research (EPSCoR) awards at the University of Wyoming, we alerted NSF to the inappropriate use of funds that we identified outside the scope of the audit.

REPORTS OF AWARD RECIPIENTS THIS SEMIANNUAL PERIOD

Report No.	Award Recipient	Questioned Costs
20-1-003	Johns Hopkins University	\$91,048
20-1-004	University of North Carolina-Chapel Hill	\$744,671
20-1-005	University of Houston	\$133,305
20-1-006	Temple University	\$5,969
20-1-007	Yale University	\$251,973
20-1-008	Duke University	\$708,906
20-6-002	University of Wyoming - EPSCoR	\$20,776
Total		\$1,956,648

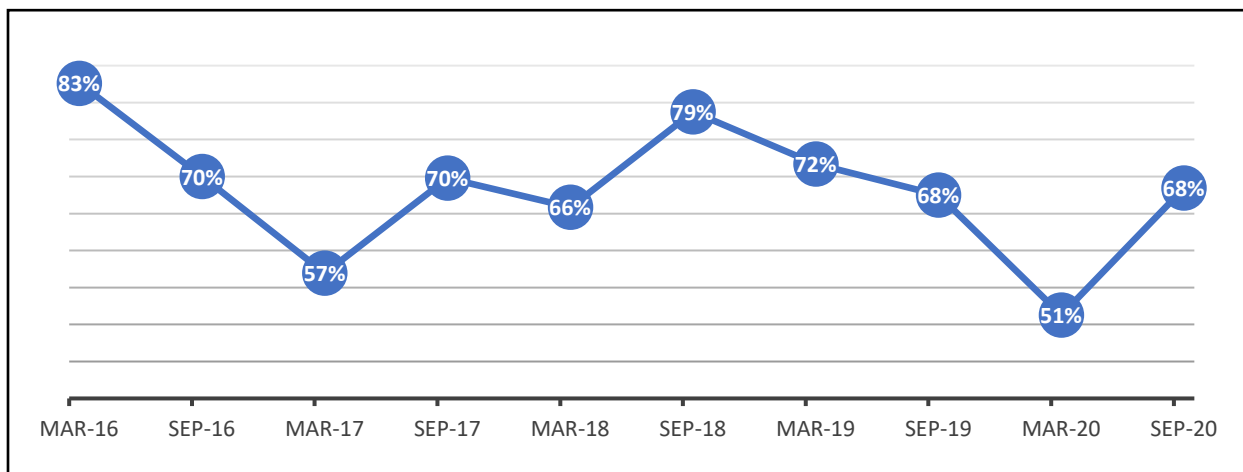
Source: NSF OIG

Reviews of Single Audits

*Uniform Guidance*¹³ 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 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 oversight agency. 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 (GAGAS)*, 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 28 different independent public accounting firms and covered \$1.2 billion in total Federal expenditures, including \$609 million in NSF direct expenditures. As shown in Figure 1, 26 audit reporting packages (68 percent) fully met Federal reporting requirements.

FIGURE 1. PERCENTAGE OF SINGLE AUDITS THAT MET FEDERAL REPORTING REQUIREMENTS



Source: NSF OIG Semiannual Reports

We identified deficiencies in 12 audit reporting packages, including missing report language and information needed to identify awards received from pass-through entities; incorrect identification of direct awards; reporting packages submitted after required deadlines; lack of identification of Research and Development cluster awards; audit report findings without the required elements; insufficient corrective action plans; and inaccurate information on a data collection form.

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

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

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 packages because the deficiencies were significant. We issued a letter to each 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 copies of the letters to each awardee’s other Federal funding agencies for their use in monitoring and oversight. In the two instances where we rejected the audits, we referred the auditors to the AICPA Professional Ethics Division and Peer Review Program for additional review.

Audit Resolution

Three previous audits of award recipients were resolved this period. In addition to sustaining questioned costs, NSF generally required the award recipients to implement recommended actions to strengthen applicable internal controls.

REPORTS OF AWARD RECIPIENTS RESOLVED THIS SEMIANNUAL PERIOD

Report No.	Issue Date	Award Recipient	Questioned Costs	Sustained Questioned Costs
19-1-014	6/3/2019	University of Cincinnati	\$18,526	\$3,018
20-1-002	3/23/2020	University of Connecticut	\$75,139	\$73,797
20-1-003	4/24/2020	Johns Hopkins University	\$91,048	\$91,048
Total			\$184,713	\$167,863

Source: NSF OIG

Statistical Tables

Investigations Data

Table 1. Investigative Case Activities¹⁴

Referrals to DOJ Criminal Prosecutors (individuals and entities counted separately for all referrals)	2
Referrals to Criminal State/Local Authorities	0
Indictments/Criminal Information	1
Arrests	0
Criminal Convictions/Pleas	1
Referrals to DOJ Civil Prosecutors	
Referrals to DOJ Civil Prosecutors	7
Referrals to Civil State/Local Authorities	0
Civil Settlements/Judgements/Compliance Plans	5
Investigative Reports Issued to NSF Management for Action	
Investigative Reports Issued to NSF Management for Action	16
Research Misconduct Findings Issued by NSF	9
Governmentwide Suspensions/ Debarments/ Voluntary Exclusions	5
Administrative Actions taken by NSF (Includes sanctions related to findings of research misconduct, suspension/termination of awards or employee misconduct)	53
Total Investigative Recoveries (includes funds returned to NSF, restitution, fees, proceeds from civil settlements and funds put to better use)	
Total Investigative Recoveries (includes funds returned to NSF, restitution, fees, proceeds from civil settlements and funds put to better use)	\$6,200,235
Substantiated Whistleblower Retaliation	
Substantiated Whistleblower Retaliation	0
Substantiated Agency Interference	
Substantiated Agency Interference	0

Table 2. Investigative Case Statistics

	Preliminaries	Investigations
Cases Active at Beginning of Period	1	145
Cases Opened this Period	8	35
Cases Closed this Period	6	42
Cases Active at End of Period	3	138

¹⁴ 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 Governmentwide suspension or debarment, or suspension/terminations of awards). We count recommendations for each individual and entity separately.

Research Misconduct (RM) Statistics FY 2011 – FY 2020

Table 3. RM Allegations¹⁵

FY	RM Allegations Received (Including allegations made against both funded and declined NSF proposals.)			Total
	Plagiarism	Fabrication	Falsification	
2011	85	17	15	117
2012	96	9	8	113
2013	84	10	12	106
2014	38	7	5	50
2015	67	12	12	91
2016	38	9	12	59
2017	38	1	8	47
2018	43	6	5	54
2019	30	3	6	39
2020	28	4	5	37
Totals	547	78	88	713

Table 4. RM Investigations¹⁶

FY	RM Allegations Investigated (Including case activity defined as "Inquiry" in the RM regulation.)			Total
	Plagiarism	Fabrication	Falsification	
2011	58	15	8	81
2012	80	7	5	92
2013	80	8	11	99
2014	36	7	5	48
2015	67	12	12	91
2016	25	5	10	40
2017	27	1	5	33
2018	35	5	4	44
2019	19	3	4	26
2020	18	2	5	25
Totals	445	65	69	579

Note: Tables 3 and 4 only provide information about allegations that come to our office's attention and those we investigate. Thus, they may not reflect the total universe of

¹⁵ Trends cannot be identified across the reporting period (FY 2011-2020) because we used different methods of capturing allegation data in three periods: 1) FY 2011-2012; 2) FY 2013-2015 with new statutory law enforcement authority; and 3) FY 2016-to date, with a new investigative case management system. Periodically, we also conducted proactive assessments looking for plagiarism, which inflated the number of plagiarism allegations in some years. We conducted the last proactive assessment in 2013, but allegations resulting from it were still being identified in 2014.

¹⁶ A small number of allegations involving RM result in criminal or civil investigations; we have not included those allegations in this table.

research misconduct related to NSF proposals or awards. Some of the figures in the tables may differ from previous semiannual reports due to additional allegations being identified during an investigation.

Table 5. Investigative Outcomes¹⁷

FY	Total RM Findings				Included Debarment
	Plagiarism	Fabrication/Falsification	Multi	Total	
2011	14	3	0	17	5
2012	18	0	0	18	2
2013	13	3	0	16	6
2014	19	7	0	26	7
2015	10	2	0	12	6
2016	12	5	0	17	4
2017	5	8	0	13	5
2018	7	6	1	14	7
2019	2	4	0	6	3
2020	9	1	0	10	0
Totals	109	39	1	149	45

Note: This table reflects RM findings by NSF in the fiscal year of the finding. The outcomes reported in this table cannot be linked to the allegations and investigations by fiscal year, due to the varying amount of time it takes to investigate and adjudicate allegations of RM. NSF’s debarment actions typically lag its RM findings because debarment is a multi-step process with a separate response period.

¹⁷ The column titled “Multi” indicates that an allegation of plagiarism and either fabrication or falsification was substantiated in our investigation. NSF makes a single finding of RM, even if we refer multiple allegations to them.

Audit Data

Table 6. Audit Reports Issued with Recommendations for Better Use of Funds

		Dollar Value
A.	For which no management decision has been made by the commencement of the reporting period	\$0
B.	Recommendations that were issued during the reporting period	\$0
C.	Adjustments related to prior recommendations	\$0
Subtotal of A+B+C		\$0
D.	For which a management decision was made during the reporting period	\$0
	i. Dollar value of management decisions that were consistent with OIG recommendations	\$0
	ii. Dollar value of recommendations that were not agreed to by management	\$0
E.	For which no management decision had been made by the end of the reporting period	\$0
F.	For which no management decision was made within 6 months of issuance	\$0

Table 7. Audit Reports Issued with Questioned Costs¹⁸

		Number of Reports	Questioned Costs	Unsupported Costs
A.	For which no management decision has been made by the commencement of the reporting period	9	\$2,137,504	\$472,059
B.	That were issued during the reporting period	7	\$1,956,648	\$0
C.	Adjustment related to prior recommendations	0	\$0	\$0
Subtotal of A+B+C		16	\$4,094,152	\$472,059
D.	For which a management decision was made during the reporting period	3	\$184,713	\$0
	i. Dollar value of disallowed costs		\$167,863	N/A
	ii. Dollar value of costs not disallowed		\$16,850	N/A
E.	For which no management decision had been made by the end of the reporting period	13	\$3,909,439	\$472,059
F.	For which no management decision was made within 6 months of issuance	7	\$2,043,839	\$472,059

¹⁸ Unsupported costs are a subset of questioned costs.

Table 8. Reports Issued (by OIG and independent public accounting firms)

Report No./ Date Issued	Title	Questioned Costs	Un-supported Costs	Better Use of Funds	No. of Recs.
20-1-003 4/24/20	<i>Performance Audit of Incurred Costs -Johns Hopkins University</i>	\$91,048	\$0	\$0	8
20-1-004 7/13/20	<i>Performance Audit of Incurred Costs - University of North Carolina</i>	\$744,671	\$0	\$0	43
20-1-005 7/23/20	<i>Performance Audit of Incurred Costs - University of Houston</i>	\$133,305	\$0	\$0	30
20-1-006 8/5/20	<i>Performance Audit of Incurred Costs-Temple University</i>	\$5,969	\$0	\$0	4
20-1-007 8/11/20	<i>Performance Audit of Incurred Costs-Yale University</i>	\$251,973	\$0	\$0	36
20-1-008 8/31/20	<i>Performance Audit of Incurred Costs-Duke University</i>	\$708,906	\$0	\$0	48
20-2-004 4/14/20	<i>Audit of NSF's Process for Evaluating the Operations and Maintenance Cost Proposal for the Ocean Observatories Initiative</i>	\$0	\$0	\$0	3
20-2-006 5/21/20	<i>NSF Could Improve Accountability for its Vehicle Fleet and Recipient-titled Vehicles at Major Facilities</i>	\$0	\$0	\$0	3
20-2-007 8/26/20	<i>Audit of NSF's Monitoring of Government-Owned Equipment Purchased on NSF Awards</i>	\$0	\$0	\$0	7
20-6-001 5/21/20	<i>Review of the National Science Foundation CARES Act Spending Plan</i>	\$0	\$0	\$0	0
20-6-002 9/10/20	<i>Management Notification Memo Regarding University of Wyoming Charging Indirect Costs to Participant Support</i>	\$20,776	\$0	\$0	1
20-6-003 9/16/20	<i>Management Notification Regarding Access to Social Security Numbers in the NSF Report Database</i>	\$0	\$0	\$0	3
N/A 4/9/20	<i>Fiscal Year 2019 IPERA Letter</i>	\$0	\$0	\$0	0
Total	13 Reports	\$1,956,648	\$0	\$0	186

Table 9. Reports Issued before April 1, 2020¹⁹ with Unimplemented Recommendations as of September 30, 2020 (Summary Table)

Year	Number of Reports with Unimplemented Recommendations	Number of Unimplemented Recommendations	Dollar Value of Aggregate Potential Cost Savings ²⁰
2017	1	1	N/A
2018	1	2	N/A
2019	10	121	\$1,967,026
2020	5	68	\$153,628
Total	17	192	\$2,120,654

Table 10. Reports Issued before April 1, 2020, for Which No Management Decision Has Been Made by September 30, 2020, Including the Aggregate Potential Cost Savings of Those Recommendations (Detailed Table)²¹

Report No./ Date Issued	Topic/Type of Audit	No. of Recs without Mgmt. Decision	Why Mgmt. Decision Has Not Been Made	Desired Timetable for Mgmt. Decision	Aggregate Potential Cost Savings
19-1-008 4/17/19	University of Utah Incurred Cost Audit	12	Resolution delayed due to the need for additional awardee response.	3/31/2021	\$42,157
19-1-010 5/2/19	University of Maryland College Park Incurred Cost Audit	19	Resolution delayed to allow for completion of a priority indirect cost rate negotiation.	3/31/2021	\$357,108
19-1-011 4/30/19	University of Delaware Incurred Cost Audit	12	Draft management decisions require additional review before finalizing.	12/31/2020	\$426,667
19-1-013 5/1/19	University of Pennsylvania Incurred Cost Audit	18	Resolution delayed due to University slow response caused by employee turnover.	3/31/2021	\$265,957

¹⁹ NSF has commented on all reports within 60 days of receipt.

²⁰ Aggregate potential savings are "questioned costs" if the recommendations have not been resolved, and "sustained costs" if the recommendations have been resolved.

²¹ This table shows only recommendations that are unimplemented because they are unresolved, either because NSF has not provided corrective action plans, or NSF and OIG have not agreed on the adequacy of the proposed corrective actions. Table 9 includes additional reports/recommendations because it includes the reports with unresolved recommendations shown in Table 10, plus reports with resolved recommendations that have not yet been implemented.

19-1-016 8/8/19	Ohio State University Incurred Cost Audit	22	Resolution delayed to allow for completion of a priority indirect cost rate negotiation.	3/31/2021	\$502,587
19-1-017 9/13/19	Oregon State University Incurred Cost Audit	24	Draft management decisions require additional review before finalizing.	3/31/2021	\$369,532
20-1-001 1/10/20	University of Colorado Boulder Incurred Cost Audit	15	Resolution delayed due to the need for additional awardee response.	3/31/2021	\$79,831
Total	7 reports	122			\$2,043,839

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” (Pub. L. No. 81-507). 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 the overall policies of the Foundation.

With a budget of approximately \$8.3 billion (FY 2020), NSF is the funding source for approximately 25 percent of all federally supported basic research conducted by America’s colleges and universities. Each year, NSF supports an average of about 200,000 scientists, engineers, educators, and students at universities, laboratories, and field sites throughout the United States and the world.

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, abuse, and whistleblower reprisal 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*, as amended. Because the Inspector General reports directly to the NSB and Congress, the Office is organizationally independent from the Foundation.

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- Mail: 2415 Eisenhower Avenue, Alexandria, VA 22314 ATTN: OIG HOTLINE

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