

NSF's Response to the Office of Inspector General's Semiannual Report to Congress

Spring 2022



Karen Marrongelle National Science Foundation Chief Operating Officer

NSF Management appreciates the opportunity to respond to the Office of Inspector General's Semiannual Report for the period from October 1, 2021 through March 31, 2022. During this reporting period, NSF launched its first new directorate in over 30 years, focused on Technology, Innovation and Partnerships ("TIP"). Correspondingly, in this Response we highlight the ways our strong relationship with the OIG helps position NSF to execute dynamic initiatives such as TIP. The outcomes of the OIG's activities, as reflected in three audits completed during this reporting period, confirm that, while the Agency and the OIG are separate by design, we are not apart in our goal: to fulfill NSF's mission to serve as a beacon of U.S. innovation, embodying the highest values of sound and ethical stewardship of taxpayer funds. Finally, as required by statute, we provide summaries of audit data during this reporting period.

The cover of this Management Response illustrates the potential of the TIP Directorate, the acceleration of discovery and innovation to rapidly bring new technologies to the benefit of the American people. The TIP Directorate will leverage strategic partnerships spanning multiple disciplines and sectors to advance the frontiers of emerging industries, from artificial intelligence systems to biotechnology, cybersecurity, next-generation wireless networks, microelectronics and semiconductors, and quantum computing platforms. TIP will also extend the opportunities of science and technology to every American, establishing a broad footprint that touches communities across the country and provides novel education pathways to support future science and technology leaders.

Around the same time that NSF launched the TIP Directorate, Director Panchanathan re-issued NSF's Directive for Cooperation with the OIG. Originating over 30 years ago, our Directive embodies the conviction that Agency performance and results go hand-in-hand with accountability. NSF is also proud that our longstanding Directive aligns with the recent memorandum from the Office of Management and Budget ("OMB"), M-22-04, Promoting Accountability through Cooperation among Agencies and Inspectors General. Consistent with M-22-04, NSF's Directive sets the tone at the top that NSF personnel should fully and promptly comply with all OIG requests for documents, interviews, and other information; respect the rights of NSF employees and encourage them to speak directly and confidentially with the OIG, without fear of reprisal; and report to the OIG all allegations of misconduct, fraud, waste, or abuse.

By defining the metes and bounds for NSF's engagement with the OIG, the OIG Cooperation Directive has served as a foundation for a healthy, functional Agency-OIG relationship upon which mutual trust is built. Adherence to the Directive by NSF personnel promotes (1) trust by the OIG that NSF is being transparent and forthcoming, no matter where the OIG's inquiries lead; and (2) trust by the Agency that the OIG's findings and recommendations are sound, well-supported, and reasoned, with appropriate consideration of management's discretion to address core issues and root causes.

Three FY 2021 audits highlighted in the OIG's Semiannual Report, the Financial Statement Audit, the Audit of NSF's Implementation of the Digital Accountability and Transparency Act ("DATA Act"), and the Federal Information Security Modernization Act ("FISMA") Audit demonstrate that trust between NSF and our OIG results in rigorous and constructive OIG reports that apply a critical lens to our programs and operations. By way of context, the annual Financial Statement and FISMA Audits and the biennial DATA Act Audit are mandated by statute and conducted by the OIG's contract auditor, Kearney & Company ("Kearney"). The audits span up to eight months, sweep NSF's financial and information technology systems

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as well as program activities, encompass production by NSF of hundreds of documents and related materials, and require regular, iterative discussions by Kearney and the OIG with NSF on the audits' findings. Indeed, the Financial Statement and FISMA Audits, in particular, require that the Agency, the OIG, and Kearney work collaboratively year-round on audit-related activities, including tracking NSF's responsive actions to audit findings.

First, we are pleased that the OIG's Financial Statement Audit for FY 2021 provided NSF its twenty-fourth consecutive unmodified audit opinion for its FY 2021 and 2020 comparative financial statements. We further note that the FY 2021 audit's opinion is the fifth consecutive year for which NSF has an unmodified (or clean) opinion, without material weaknesses, significant deficiencies, or instances of non-compliance with applicable laws and regulations. A key factor to sustaining this impressive record, notably over the past five years, is Kearney's and the OIG's communication of observations and suggestions arising from the audits from year to year. NSF recognizes that, notwithstanding any positive audit result, there are always opportunities for improvement and maintaining vigilance to the integrity of our financial systems and controls ensures that NSF can adapt to new challenges and execute initiatives at speed and scale.

Second, we appreciate that the DATA Act Audit for FY 2021 resulted in significant improvements from the prior audit in FY 2019. More specifically, in the FY 2021 DATA Act Report, NSF received a data quality rating of "Higher" with an 11.5% projected error rate for data completeness, accuracy, and timeliness, which is the second highest ranking in the new Council of the Inspectors General on Integrity and Efficiency ("CIGIE") data quality determination guidelines. Of particular relevance is the audit report's acknowledgment that this error rate was solely attributable to legitimate differences between NSF's and the auditor's interpretations of DATA Act reporting guidance.

The shared respect between NSF and the OIG and Kearney helped us traverse these differences to achieve the shared goal of successful implementation of the DATA Act. Since the last audit, NSF clarified its normal business practices and enhanced its existing monitoring and oversight controls. With these improvements, NSF and Kearney worked together to reach consensus on an actionable path forward to address the FY 2021 report's sole recommendation, even though we did not reach agreement on the interpretation differences. The result: NSF has fully implemented the OIG's recommendation, OIG closed this last audit recommendation, and NSF and the OIG remain aligned in our commitment to the DATA Act's goals of increasing accountability and transparency of Federal spending.

Third, we appreciate that the OIG's FISMA Audit for FY 2021 found NSF's Information Security Program to be effective and that NSF complied with the five National Institute of Standards and Technology ("NIST") domains as specified in the U.S. Department of Homeland Security's FY 2021 Inspector General FISMA Reporting Metrics. At the same time, we recognize the importance of implementing responsive actions to address the FY 2021 findings, and we will incorporate information gained and lessons learned from the review to continue making improvements to our information security program.

Finally, as required by the IG Act, NSF appends to this Response the Management Report on Final Actions Taken on Audits (also known as the Final Action Tables). The Final Action Tables report data from OIG as well as Single Audit (formerly OMB Circular A-133 audit) reports. The data include disallowed costs, by audit and in aggregate, and NSF's disposition of recommendations for the better use of funds over the Semiannual Reporting period.

We conclude by emphasizing that NSF respects the OIG's independence and values its contributions to helping to improve Agency operations and programs. We further acknowledge that accountability, through OIG activities such as the FY 2021 Financial Statement, DATA Act, and FISMA Audits, runs in parallel with Agency performance. We take pride in our collaborative and constructive relationship with the OIG, based on open communication and the trust that, while there may be differences in views, we share the same goals. With the launch of the TIP Directorate, we appreciate that the OIG's work assists NSF in effectively, efficiently, and responsibly navigating the path ahead.

Karen Marrongelle National Science Foundation Chief Operating Officer

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Management Report on Final Actions Taken on Audits with Disallowed Costs for the Six-Month Period Ended March 31, 2022

	Number or Reports	Dollar Value
A. Audit reports with management decisions on which final action has not been taken at the beginning of the period	1	\$ 97
B. Audit reports on which management decisions were made during the period	9	\$367,099
C. Total audit reports pending final action during this period (Total A+B)	10	\$367,196
D. Audit reports on which final action was taken during this period		
(1) Recoveries		
a) Collection and Offset	6	\$314,372
b) Amount uncollectible	0	
(2) Write-offs	0	
E. Audit reports needing final action at the end of the reporting period (C-D)	4	\$ 52,824
F. Total (D+E)	10	\$367,196

Management Report on Final Actions Taken on Audits with Recommendations for Better Use of Funds Agreed to by Management for the Six-Month Period Ended March 31, 2022

	Number or Reports	Dollar Value
A. Audit reports with management decisions on which final action has not been taken at the beginning of the period	0	\$0
B. Audit reports on which management decisions were made during the period	0	\$0
C. Audit reports on which final action was taken during this period (Total A+B)	0	\$0
D. Recommendations on which final action was taken during this period	0	
(1) The dollar value of recommendations that were actually completed		\$0
(2) The dollar value of recommendations that management subsequently concluded should not or could not be implemented or completed		\$0
E. Audit reports for which no final action has been taken by the end of the reporting period (C-D)	0	\$0

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Management Report on Final Actions Taken on Audits with Disallowed Costs for the Six-Month Period Ended March 31, 2022

. Audi			Sustained Co
	t reports with m	anagement decisions on which final action has not been taken at the begining of the p	eriod:
1	21-4-057	UNAVCO, Inc. ¹	\$ 97
		Subtotal A	\$ 97
		1	
. Audi	t reports on whi	ch management decisions were made during the period:	
1	19-1-008	University of Utah	\$ 15,417
2	19-1-013	University of Pennsylvania ²	\$192,077
3	20-1-006	Temple University	\$ 5,969
4	21-1-005	University of Alaska Fairbanks Campus	\$ 28,606
5	21-1-010	SUNY at Stony Brook	\$ 31,341
6	21-4-051	Institute for Learning Innovation	\$ 59,325
7	21-5-019	Harvard University ³	\$ 25,866
8	21-5-030	Duke University ⁴	\$ 2,482
9	22-4-005	Santa Fe Institute	\$ 6,016
		Subtotal B	\$367,099
		9	
. Total	l audit reports p	ending final action during this period: (Total A+B: 10)	\$367,196
). Audi	t raparts on whi		
	•	ch final action was taken during this period:	t402.077
1	19-1-013	University of Pennsylvania ²	\$192,077
1 2	19-1-013 21-1-005	University of Pennsylvania ² University of Alaska Fairbanks Campus	\$ 28,606
1 2 3	19-1-013 21-1-005 21-4-051	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation	\$ 28,606 \$ 59,325
1 2 3 4	19-1-013 21-1-005 21-4-051 21-5-019	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³	\$ 28,606 \$ 59,325 \$ 25,866
1 2 3 4 5	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482
1 2 3 4	19-1-013 21-1-005 21-4-051 21-5-019	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482 \$ 6,016
1 2 3 4 5	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute Subtotal D	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482
1 2 3 4 5 6	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030 22-4-005	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute Subtotal D	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482 \$ 6,016
1 2 3 4 5 6	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030 22-4-005	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute Subtotal D 6 g final action at the end of the period:	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482 \$ 6,016 \$314,372
1 2 3 4 5	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030 22-4-005	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute Subtotal D 6 g final action at the end of the period: University of Utah	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482 \$ 6,016
1 2 3 4 5 6	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030 22-4-005	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute Subtotal D 6 g final action at the end of the period:	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482 \$ 6,016 \$314,372
1 2 3 4 5 6	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030 22-4-005 t reports needin 19-1-008	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute Subtotal D 6 g final action at the end of the period: University of Utah	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482 \$ 6,016 \$314,372
1 2 3 4 5 6 . Audit 1 2	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030 22-4-005 t reports needin 19-1-008 20-1-006	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute Subtotal D 6 g final action at the end of the period: University of Utah Temple University	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482 \$ 6,016 \$314,372 \$ 15,417 \$ 5,969
1 2 3 4 5 6 . Audit 1 2 3	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030 22-4-005 t reports needin 19-1-008 20-1-006 21-1-010	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute Subtotal D 6 g final action at the end of the period: University of Utah Temple University SUNY at Stony Brook	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482 \$ 6,016 \$314,372 \$ 15,417 \$ 5,969 \$ 31,341
1 2 3 4 5 6 . Audit 1 2 3	19-1-013 21-1-005 21-4-051 21-5-019 21-5-030 22-4-005 t reports needin 19-1-008 20-1-006 21-1-010	University of Pennsylvania ² University of Alaska Fairbanks Campus Institute for Learning Innovation Harvard University ³ Duke University ⁴ Santa Fe Institute Subtotal D 6 g final action at the end of the period: University of Utah Temple University SUNY at Stony Brook UNAVCO, Inc. ¹	\$ 28,606 \$ 59,325 \$ 25,866 \$ 2,482 \$ 6,016 \$314,372 \$ 15,417 \$ 5,969 \$ 31,341 \$ 97

¹ The audit report questioned \$54 and UNAVCO, Inc. identified an additional disallowed amount of \$43 for a total of \$97 disallowed.

² The NSF sustained amount is \$257,004; however, NSF's consideration of circumstances and alternative documentation resulted in a management decision to disallow only \$191,839. NSF identified an additional disallowed amount of \$238 for a total disallowed amount of \$192,077, which has been repaid.

³ The audit report questioned \$25,798 and Harvard University identified an additional disallowed amount of \$68 for a total of \$25,866 disallowed.

⁴ The audit report questioned \$24 and Duke University identified an additional disallowed amount of \$2,458 for a total of \$2,482 disallowed.