



NSF Management appreciates the opportunity to respond to NSF's Office of Inspector General's ("OIG") Semiannual Report for the period from April 1, 2021 through September 30, 2021. As we transition to the third fiscal year impacted by the pandemic, we reflect upon the importance of NSF investments in science and engineering research. At the same time, we are steadfast in our commitment to upholding the highest standards of transparency and accountability, which is complemented by the activities of the OIG. More than ever, as we face new challenges and opportunities for growth, we recognize the importance of the OIG to managing change while sustaining NSF's mission.

The cover of this Management Response, a graphical depiction of the development of the internet beginning over three decades ago, exemplifies NSF's successful execution of its mission. Beginning in 1985 with NSFNET, a high–speed network for the academic research community, NSF support created a major infrastructural backbone that would eventually link to smaller regional networks, spreading connectivity across the country and overseas. NSF leveraged public-private partnerships to broaden access to the network, including managing domain name creation and the development of one of the first internet browsers, Mosaic. By 1995, successful commercial networking

efforts allowed for public use of the internet. Bringing the internet to the public involved investment in basic research, translation to technological innovation, and active engagement with private partners to sustain the Nation's leadership in science and engineering. At the same time, the internet advanced the goals of accessibility.

This Management Response highlights innovations by the OIG to its internal and external audits which contribute to NSF's execution of its mission, particularly with respect to advancing equity and inclusion and addressing the impacts of the pandemic in science and engineering, including education. The OIG has focused on root causes for findings, with the goals of (1) identifying issues that may cut across awardee institutions; and (2) assessing the relationship of NSF's controls to those common issues. The OIG has also adopted a more flexible approach to external audits, moving away from relying principally on incurred cost audits to more custom tailoring of the type of audit to the awardee, based on risk areas and preliminary testing. We believe that these enhancements to the OIG's audit plans are well-suited to constructive oversight of agencies such as NSF, for which over 90% of funding is distributed to research institutions and other entities. The OIG's innovations have further enhanced our collaborative relationship.

The OIG's Audit of NSF's Established Program to Stimulate Competitive Research ("EPSCoR") Awards, as highlighted in the OIG's Semiannual Report, exemplifies a key innovation by the OIG, the "hybrid audit." By way of background, a hybrid audit considers (1) NSF's internal controls; and (2) the operation and effectiveness of those controls on NSF's oversight and stewardship of awards. To that end, the OIG conducts field work both onsite at NSF and offsite at recipient institutions. The hybrid approach to the OIG's review of the EPSCoR program resulted in two types of audit products: (1) audit reports and memoranda focused on specific awardees; and (2) an internal audit report with concrete recommendations for NSF action, grounded in the observations and findings from both the internal and external audit work.

We appreciate that the OIG's hybrid engagement found that NSF has controls in place to help ensure EPSCoR awardees comply with Federal and NSF requirements, including site visits and reviews of budget and subaward requests. Correspondingly, we recognize that the audit's NSF-focused recommendations, directed to improving outreach, clarifying guidance on the allowability of certain types of costs, and strengthening award management capacity of recipients will improve administration of EPSCoR awards. We also recognize a broader impact of successful implementation of the OIG's recommendations, helping advance EPSCoR programmatic goals by building the award management capacity of institutions that have

historically received less Federal funding. The timing of the OIG's audit report is opportune, in view of Administration and NSF initiatives to consider ways to increase NSF funding to institutions serving underserved communities and populations.

A second audit innovation, a more flexible, nimble approach to external audits, is highlighted by the OIG's audits of implementation by 10 awardees of the temporary administrative flexibilities authorized by the Office of Management and Budget ("OMB") in response to the pandemic. As detailed in the OIG's Semiannual Report, the OIG deployed its more flexible audit approach to address this unique and significant issue in a timely way. We are pleased that the OIG found that (1) NSF promptly implemented the COVID-19 flexibilities, issuing guidance for the three OMB memos within 1 to 7 days of their issuance; and (2) there were no exceptions noted from the flexibilities but for one awardee. We also appreciate that the OIG considered application of flexibilities for awards from different agencies and synthesized the audit results into a capstone report that will assist NSF – as well as other Agencies – in navigating future national emergencies that warrant the use of administrative flexibilities. In sum, OIG did not only focus on exceptions or questioned costs but extended its analysis to the utilization and impact of the flexibilities, as issued by different agencies, across a range of institutions.

The OIG's audit innovations have promoted and enhanced the communications between NSF and the OIG. We share information gleaned from desk reviews and other oversight activities to inform the OIG's risk assessments and evaluations. Correspondingly, NSF considers findings in the OIG's audits of awardees in a broader context, including whether they could be mitigated by additional outreach or may represent a cross-cutting concern. Most simply, the rigor of the OIG's findings advance meaningful consideration of its recommendations and promote fulsome exchanges between NSF and the OIG regarding a range of awardee issues.

NSF appends to this response additional audit information, the Management Report on Final Actions Taken on Audits (also known as the Final Action Tables), as required under the Inspector General Act. 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.

NSF remains focused on achieving its mission by advancing research into the future, ensuring inclusivity, and continuing global leadership in science and engineering. Our optimism — and belief that NSF will continue to usher in groundbreaking discoveries that impact all Americans — is grounded, in part, by the contributions of the OIG in the identification of opportunities to enhance our stewardship and improve execution of our mission.

Karen Marrongelle Karen Marrongelle

Chief Operating Officer, NSF

Management Report on Final Actions Taken on Audits with Disallowed Costs for the Six-Month Period Ended September 30, 2021

		Number of Reports	Dollar Value
A. Audit reports with management decisions on which final action has not been taken at the beginning of the period		2	\$ 70,760
B. Audit Reports on which management decisions were made during the period		4	\$ 44,066
C. T	otal audit reports pending final action during this period (Total A+B)	6	\$114,826
D. A	Audit reports on which final action was taken during this period		
	(1) Recoveries		
	a) Collection and Offset	5	\$114,729
	b) Amount uncollectible	0	
	(2) Write-offs	0	
E. A	Audit reports needing final action at the end of the reporting period (C-D)	1	\$ 97
F. Total (D+E)		6	\$114,826

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 September 30, 2021

	Number of Reports	Dollar Value
A. Audit Reports with management decisions on which final action had 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

Management Report on Final Actions Taken on Audits with Disallowed Costs for the Six-Month Period Ended September 30, 2021

			Sustained Costs
	Audit Reports of the period	with management decisions on which final action has not been taken at the beginning :	
1	19-5-057	American Society For Engineering Education	\$49,98
2	20-6-002	University of Wyoming	\$20,77
		Subtotal A	\$70,76
		2	
В. А	Audit Reports	on which management decisions were made during the period:	
1	20-4-078	Friends of the North Carolina State Museum of Science	\$1,79
2	21-1-006	University of Kentucky Research Foundation	\$33,15
3	21-1-012	Florida State University	\$9,02
4	21-4-057	UNAVCO, Inc. ¹	\$9
		Subtotal B	\$44,06
		4	
C. Total Audit Reports pending final action during this period: (Total A+B: 6)			
<u> </u>	Audit Danasta	on which for all mation was taken during this naviad.	
	1	on which final action was taken during this period:	£40.00
1	19-5-057	American Society For Engineering Education	\$49,98
2	20-4-078	Friends of the North Carolina State Museum of Science	\$1,79
3	20-6-002	University of Wyoming	\$20,77
4	21-1-006	University of Kentucky Research Foundation	\$33,15
5	21-1-012	Florida State University	\$9,02
		Subtotal D	\$114,72
		5	
E. /		needing final action at the end of the period:	
1	21-4-057	UNAVCO, Inc. ¹	\$9
		Subtotal E	\$9
		1	
F. Reconciliation of Audit Reports: (Total D+E: 6)			\$114,82

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