



NSF Management appreciates the opportunity to provide this response to the Office of Inspector General's Semiannual Report for the period from April 1, 2020 through September 30, 2020. During this time, the coronavirus pandemic has profoundly impacted the Nation, including the students, investigators, and institutions supported by NSF as well as NSF personnel. Notwithstanding, NSF has continued to focus on our mission, propelling the nation forward by advancing fundamental research in all fields of science and engineering, while welcoming our 15th Director, Dr. Sethuraman Panchanathan. Similarly, the OIG continues to focus on its mission, preventing and detecting fraud, waste, and abuse and promoting Agency efficiency and effectiveness. In sum, NSF and the OIG continue to press ahead, adapting to changing workplace environments and shifting demands and pressures arising from the challenges of the pandemic.

As we adjust to this "new normal," we continue to focus on the groundbreaking research supported by NSF, including the CRISPR/Cas technology depicted on the cover of this Management Response. CRISPR/Cas refers to a method for genome editing, for which a researcher supported by NSF was a co-recipient of the 2020 Nobel Prize in Chemistry. CRISPR/Cas is opening new and exciting worlds of possibility in fields as wide-ranging as bioengineering, medicine, and agriculture. NSF has also supported the recipients of the 2020 Nobel Prizes in Physics and Economics.

We recognize that successful execution of NSF's mission is grounded in vigilance against waste, fraud, and abuse, and sound financial stewardship. The OIG helps fortify this foundation. To that end, our Management Response focuses on the core principles and values for NSF's engagement with the OIG and how these principles yield positive results in OIG investigations and audits.

NSF's Director set the tone at the top at the start of his term by re-affirming the core values of cooperation with our OIG, without fear of retaliation. More specifically, this past July, the Director reminded all employees that NSF will continue to enforce steadfastly its longstanding policies on cooperation with the OIG. These include fully and promptly complying with all OIG requests for documents, interviews, and other information; respecting the rights of NSF employees and encouraging them to speak directly and confidentially with the OIG, without fear of reprisal; and reporting to the OIG all allegations of misconduct, fraud, waste, or abuse. More recently, the Director emphasized to all staff that NSF takes employee rights very seriously and that every NSF employee has a right to be free of prohibited personnel practices, including retaliation for making protected disclosures to the OIG. He emphasized that acts of retaliation may result in disciplinary action, up to and including removal from Federal service.

Consistent with these directives and policies, NSF is proud to have supported the OIG in its diligent and comprehensive investigative activities that yielded over \$6M in recoveries in this Semiannual Reporting period. For example, based on OIG recommendations, NSF's Office of Budget, Finance and Award Management (BFA) terminated, requested repayment, or withheld/cancelled final payments for awards related to OIG investigations. These actions resulted in over \$1.3M of savings in taxpayer funds.

Similarly, audit reports issued by the OIG during this Semiannual Reporting period highlight the importance of cooperating with the OIG to advance Agency efficiency and effectiveness. NSF acknowledges and appreciates the OIG's rigorous, fair, and constructive auditing work. We believe that the OIG's practice of issuing formal Notices of Potential Findings and Recommendations (NPFRs) during the audit process promotes ongoing dialog with the OIG and enables NSF to take early and

substantial action, before final audit reports are issued. Finally, we appreciate that the OIG recognizes the Agency's responsive actions in its audit reports.

More specifically, the OIG's recently issued reports on audits related to two types of NSF property, Government-owned equipment (GOE) purchased on NSF awards and NSF's vehicle fleet, illustrate the benefits of the NPFR process. During the GOE audit, the OIG provided NSF with NPFRs covering the full lifecycle of equipment, consisting of identification, tracking, and disposition. Similarly, the OIG's audit of NSF's vehicle fleet yielded NPFRs, focused on defining the fleet, vehicles at major research facilities, and related requirements.

The OIG's deep dive and early reporting of findings and recommendations for these audits provided NSF the opportunity to understand the scope of issues presented, identify the Programs and Offices involved, bring together cognizant personnel to improve policies and procedures, and take substantial action before the OIG issued its reports. Further, the OIG's NPFR process promoted consideration of root causes of the findings, including reconciling our policies with the primary purpose of NSF awards, to "transfer a thing of value to the non-Federal entity." As such, NSF views risks related to property to our overall award enterprise as low, while focusing primarily on major facility awards.

The net result of the NPFR process for these property audits: NSF agreed with all of the OIG's recommendations and made substantial progress on responsive actions by the time the reports were issued. More importantly, the OIG's audit process provided NSF with constructive notice of concerning issues and the opportunity to make thoughtful, comprehensive, and sustainable improvements in these areas. Finally, we note that the benefits of the OIG's NPFR process were compounded in view of the demands imposed by the pandemic during this reporting period. Had the OIG waited until the audit reports were nearing issuance to make its recommendations, our ability to respond in a timely manner to the audits would have been complicated by the sudden and competing demands of the pandemic on Agency operations and award management.

Finally, as required by the Inspector General 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 our response by emphasizing that a positive relationship with the OIG rests on the core principles of cooperation and mutual respect. Upon this foundation, NSF and the OIG construct a functional relationship that permits communication at all stages of the OIG's engagements. Correspondingly, this dialog enables NSF to take responsive actions as issues arise, thereby protecting Agency funds and improving operations. We look forward to maintaining this relationship with the OIG to promote proper stewardship of taxpayer dollars as NSF traverses the challenges of the pandemic to execute its mission to promote the progress of science.

F. Fleming Crim

Chief Operating Officer, National Science Foundation

Management Report on Final Actions Taken on Audits with Disallowed Costs for the Six-Month Period Ended September 30, 2020

		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	5	\$ 1,535,226
В.	Audit Reports on which management decisions were made during the period	7	\$ 198,891
C.	Total audit reports pending final action during this period (Total A+B)	12	\$ 1,734,117
D.	Audit reports on which final action was taken during this period		
	(1) Recoveries		
	a) Collection and Offset	9	\$ 1,566,254
	b) Amount uncollectible	0	
	(2) Write-offs	0	
E.	Audit reports needing final action at the end of the reporting period (C-D)	3	\$ 167,863
F.	Total (D+E)	12	\$ 1,734,117

Management Report on Final Action on Audits with Recommendations for Better Use of Funds Agreed to by Management For the Six-Month Period Ended September 30, 2020

	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, 2020

			Sus	tained Costs			
A. Audit Reports with management decisions on which final action has not been taken at the beginning of the period							
1	16-4-052	National Ecological Observatory Network (NEON) ¹	\$	789,972			
2	16-5-009	Yukon River Inter-Tribal Watershed	\$	58,012			
3	19-1-006	University of Minnesota - Twin Cities	\$	73,260			
4	19-1-007	Arizona State University	\$	330,369			
5	19-1-012	University of Texas - Austin	\$	283,613			
		Subtotal A	\$	1,535,226			
		5					
B. Au	udit Reports on whi	ch management decisions were made during the period:					
1	19-1-014	University of Cincinnati Main Campus	\$	3,018			
2	19-5-068	Alabama State University	\$	12,064			
3	20-1-002	University of Connecticut	\$	73,797			
4	20-1-003	Johns Hopkins University	\$	91,048			
5	20-5-008	Clemson University	\$	15,632			
6	20-5-025	University of Wyoming	\$	0			
7	20-5-036	Alabama State University	\$	3,332			
		Subtotal B	\$	198,891			
		7					
C. To	tal Audit Reports p	pending final action during this period: (Total A+B: 12)	\$	1,734,117			
D. Au	udit Reports on whi	ch final action was taken during this period:					
1	16-4-052	National Ecological Observatory Network (NEON) ¹	\$	789,972			
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7	20-5-008	Clemson University	\$	15,632			
8	20-5-025	University of Wyoming	\$	0			
9	20-5-036	Alabama State University	\$	3,332			
		Subtotal D	\$	1,566,254			
		9					
E. Au	Audit Reports needing final action at the end of the period:						
1	19-1-014	University of Cincinnati Main Campus	\$	3,018			
2	20-1-002	University of Connecticut	\$	73,797			
3	20-1-003	Johns Hopkins University	\$	91,048			
		Subtotal E	\$	167,863			
		3					
F. Reconciliation of Audit Reports: (Total D+E: 12)			\$	1,734,117			

NSF previously reported sustained costs of \$962,298; however, that amount included disallowed indirect costs related to non-NSF awards. The total sustained amount related to NSF awards was \$789,972 of which \$600,000 was repaid as a result of the finalization of the FY 2015 negotiated indirect cost rate. The balance of \$189,972 was turned over to the NSF Grants Officer for consideration as "pre-existing liabilities" in accordance with the terms and conditions included in the Battelle Memorial Institute's (BMI) current awards. In the final settlement, the NSF Grants Officer allowed \$128,983 and the balance of \$60,989 was repaid by BMI.