



National Science Foundation
Office of the Director

May 12, 2020

Ellen Ochoa, Ph.D.
Chairperson, National Science Board
Director (Retired), Lyndon B. Johnson Space Center
150 S. Villa Place
Boise, ID 83712

Dear Dr. Ochoa:

The accompanying document is the Management Response by the National Science Foundation to the Office of Inspector General's Spring Semiannual Report, which covers the period from October 1, 2019 through March 31, 2020. Included in the response is the report on final actions on audits for the same period.

The cover picture of our response is the NSF-supported Frontera Supercomputer, the fastest computer at any university. Launched in 2019, before the onset of the coronavirus pandemic, Frontera is being used by researchers, also supported by NSF, to develop a computer model of the virus that will help researchers design new drugs and vaccines.

As NSF focuses on addressing the pandemic's challenges to our mission and operations, we benefit from our constructive and collaborative relationship with the OIG. Our response focuses on the importance of open and continuous lines of communication and mutual respect to this relationship. We illustrate this positive relationship in two ways: (1) how NSF and the OIG work together effectively during the rigorous financial and information technology reporting cycle; and (2) how we stand together against the fraudulent use of NSF funds.

During this unprecedented time, our positive relationship with the OIG helps NSF continue to concentrate on safety, mission, and operations while the OIG's audit and investigative work proceeds. As we press forward, adapting to disruptions caused by the pandemic, we will continue to foster an effective relationship with the OIG.

Sincerely,

A handwritten signature in blue ink that reads "F. Fleming Crim".

F. Fleming Crim, Ph.D.
Chief Operating Officer

Enclosure

cc: Dr. Kelvin Droegemeier

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



National Science Foundation
Spring 2020



NSF Management appreciates the opportunity to provide this response to the Office of Inspector General's Semiannual Report for the period from October 1, 2019 through March 31, 2020. During this time, the Nation has experienced unprecedented challenges due to the onset of the coronavirus pandemic. Today the importance of NSF's mission - to promote the progress of science, to advance the national health, prosperity, and welfare, and to secure the national defense – resonates as much as it did seven decades ago when the Agency was founded.

To that end, the NSF-funded Frontera Supercomputer, which is the cover of this Management Response, is supporting coronavirus research. Frontera, launched in 2019 as the fastest supercomputer at any university and the fifth most powerful system in the world, is being used by researchers, also supported by NSF, developing a massive computer model of the virus. The researchers have taken the first steps, testing the first parts of the model and optimizing code on the supercomputer. The knowledge gained from the full model will help researchers design new drugs and vaccines to combat the virus.

As NSF traverses the pandemic's challenges to mission and operations, we benefit from our well-established, constructive, and collaborative relationship with the OIG. This relationship fosters open communication and flexibility so that, during this unprecedented time, OIG audit and investigative work proceeds, while also considering the Agency's focus on the health and safety of staff and mission support and execution.

Three audit reports issued this Fall reflect our effective working relationship with the OIG's Office of Audits as well as its contract auditor, Kearney & Company (Kearney). The audits cover NSF's financial statements, information technology, and spending data. Performed concurrently in view of the applicable statutory authorities and Governmentwide guidance, the audits sweep the Agency's financial and information technology systems, operations, and programs. As such, their successful execution requires mutual respect, open and continuous lines of communication, and maintaining professionalism under time and resource pressures.

More specifically, we are pleased that the OIG's Financial Statement Audit for FY 2019 resulted in NSF receiving its twenty-second consecutive unmodified audit opinion for its financial statements as of and for the years ended September 30, 2019, and 2018, without any material weaknesses, significant deficiencies, or any instances of non-compliance with applicable laws and regulations. This result arose from the high integrity and collaboration the NSF staff, OIG, and Kearney demonstrated. We will continue to work with auditors to maintain the accuracy in our systems, business processes, and timeliness of financial reporting, while recognizing the need for continuous improvements.

Second, we appreciate our robust engagement with the OIG and Kearney for the Federal Information Security Modernization Act (FISMA) Audit for FY 2019. NSF is incorporating the information gained and the lessons learned from the audit as we continue to make improvements in our Information Security program. Based on Kearney's audit, NSF's program was rated as not effective using OMB's maturity model criteria. Our approach for continuous improvement is consistent with the Inspector General FISMA Reporting Metrics, issued annually by the U.S. Department of Homeland Security, which assess the effectiveness of an Agency's information program on a

maturity model spectrum. We appreciate that the auditors recognized that the Agency had completed actions sufficient to close the two prior year findings. For the seven new findings, NSF is taking corrective actions to implement the corresponding recommendations.

Third, the OIG's Audit of NSF's Implementation of the Digital Accountability and Transparency Act (DATA Act) for FY 2019 demonstrated that, even when NSF and the OIG disagree about our interpretations of relevant standards, we will continue to work together to reach common goals, in this case, the transparency of NSF's spending data. More specifically, while Kearney determined that there were high error rates in our data, we appreciate that the audit report acknowledged that the majority of these discrepancies resulted from our differing interpretations of the applicable guidance and technical requirements. Indeed, under NSF's interpretation, our data evidenced remarkably low error rates of only 0.04% for completeness, 0.07% for accuracy, and 1.73% for timeliness. As we address the audit's findings, we are committed to working together to reach a common understanding of the DATA Act reporting guidance so as to improve financial data transparency and reduce administrative burden.

Our constructive, collaborative relationship with the OIG extends to the OIG's Office of Investigations. More specifically, the OIG participates in NSF's workshops for Small Business Innovation Research/Small Business Technology Transfer award recipients. As this group of awardees may have less established financial systems and controls, the OIG's outreach helps promote awareness of the grantees' responsibilities and obligations while also emphasizing that NSF and the OIG stand together against the fraudulent use of NSF funds.

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 communication is the cornerstone of a high functioning relationship between NSF and the OIG. An effective working relationship helps us navigate emergent challenges such as the coronavirus pandemic as NSF focuses on our mission and operations while the OIG's work proceeds. In this way, we advance our shared goal of continuous improvement of Agency operations and proper stewardship of Federal funds, which, in turn, advances NSF's core 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 March 31, 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	9	\$ 2,228,346
B. Audit Reports on which management decisions were made during the period	7	\$ 884,553
C. Total audit reports pending final action during this period (Total A+B)	16	\$ 3,112,899
D. Audit reports on which final action was taken during this period		
(1) Recoveries		
a) Collection and Offset	11	\$ 1,405,347
b) Amount uncollectible	0	
(2) Write-offs	0	
E. Audit reports needing final action at the end of the reporting period (C-D)	5	\$ 1,707,552
F. Total (D+E)	16	\$ 3,112,899

**Management Report on Final Action
on Audits with Recommendations for Better Use of Funds
Agreed to by Management
For the Six-Month Period Ended March 31, 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 March 31, 2020**

			Sustained 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	\$ 962,298
2	16-5-009	Yukon River Inter-Tribal Watershed ²	\$ 58,012
3	18-1-003	North Carolina State University	\$ 49,192
4	18-1-007	University of Montana	\$ 367,779
5	19-1-002	University of Wyoming	\$ 207,276
6	19-1-003	Colorado State University	\$ 3,486
7	19-1-004	Princeton University	\$ 55,889
8	19-1-005	University of Tennessee - Knoxville	\$ 34,094
9	19-6-002	University of Delaware ³	\$ 490,320
		Subtotal A	\$ 2,228,346
		9	
B. Audit Reports on which management decisions were made during the period:			
1	16-1-004	University of Washington	\$ 75,463
2	19-1-006	University of Minnesota - Twin Cities	\$ 73,260
3	19-1-007	Arizona State University ⁴	\$ 330,369
4	19-1-012	University of Texas - Austin	\$ 283,613
5	19-4-046	University of Southern California	\$ 0
6	19-4-058	Computing Research Association	\$ 2,200
7	19-5-052	Regents of the University of Michigan	\$ 119,648
		Subtotal B	\$ 884,553
		7	
C. Total Audit Reports pending final action during this period:			(Total A+B: 16)
			\$ 3,112,899
D. Audit Reports on which final action was taken during this period:			
1	16-1-004	University of Washington	\$ 75,463
2	18-1-003	North Carolina State University	\$ 49,192
3	18-1-007	University of Montana	\$ 367,779
4	19-1-002	University of Wyoming	\$ 207,276
5	19-1-003	Colorado State University	\$ 3,486
6	19-1-004	Princeton University	\$ 55,889
7	19-1-005	University of Tennessee - Knoxville	\$ 34,094
8	19-6-002	University of Delaware ³	\$ 490,320
9	19-4-046	University of Southern California	\$ 0
10	19-4-058	Computing Research Association	\$ 2,200
11	19-5-052	Regents of the University of Michigan	\$ 119,648
		Subtotal D	\$ 1,405,347
		11	
E. Audit Reports needing final action at the end of the period:			
1	16-4-052	National Ecological Observatory Network (NEON) ¹	\$ 962,298
2	16-5-009	Yukon River Inter-Tribal Watershed ²	\$ 58,012
3	19-1-006	University of Minnesota - Twin Cities	\$ 73,260
4	19-1-007	Arizona State University ⁴	\$ 330,369
5	19-1-012	University of Texas - Austin	\$ 283,613
		Subtotal E	\$ 1,707,552
		5	
F. Reconciliation of Audit Reports:			(Total D+E: 16)
			\$ 3,112,899

¹ NSF disallowed a total of \$962,298, of which \$812,941 has been remitted via an offset resulting from finalization of the FY 2015 NSF-negotiated indirect cost rate. The balance of disallowed costs has been turned over to the NSF Grants Officer for consideration as "pre-existing liabilities" in accordance with terms and conditions included in Battelle Memorial Institute's (BMI) current award(s). Upon a decision by the Grants Officer, disposition of the entire amount will be reported accordingly.

² The previously reported amount of \$98,721 was appealed by the awardee and the appeal review by the Division of Grants and Agreements (DGA) determined that \$40,709 was in fact allowable. As a result of the DGA appeal decision dated 12/9/2019 the final disallowed amount to be collected is \$58,012.

³ The difference of \$323,984 between amount collected and the amount presented in the OIG Semiannual Report Questioned Cost Tables represents additional unallowable costs identified by awardee and disallowed by NSF.

⁴ The amount to be collected differs by \$815,982 from the amount presented in the OIG Semiannual Report Questioned Cost Tables. This is due to the OIG reporting the entire questioned cost amount under Finding 1 as "sustained," based on NSF agreement with the finding. While NSF sustained Finding 1, based on a determination that the award objectives were met and subawards were appropriately monitored, NSF negotiated a settlement with ASU to disallow \$75,000.