

ORGANIZATIONAL EXCELLENCE**\$525,060,000**
+\$27,570,000 / 5.5%**Organizational Excellence Funding Summary**

(Dollars in Millions)

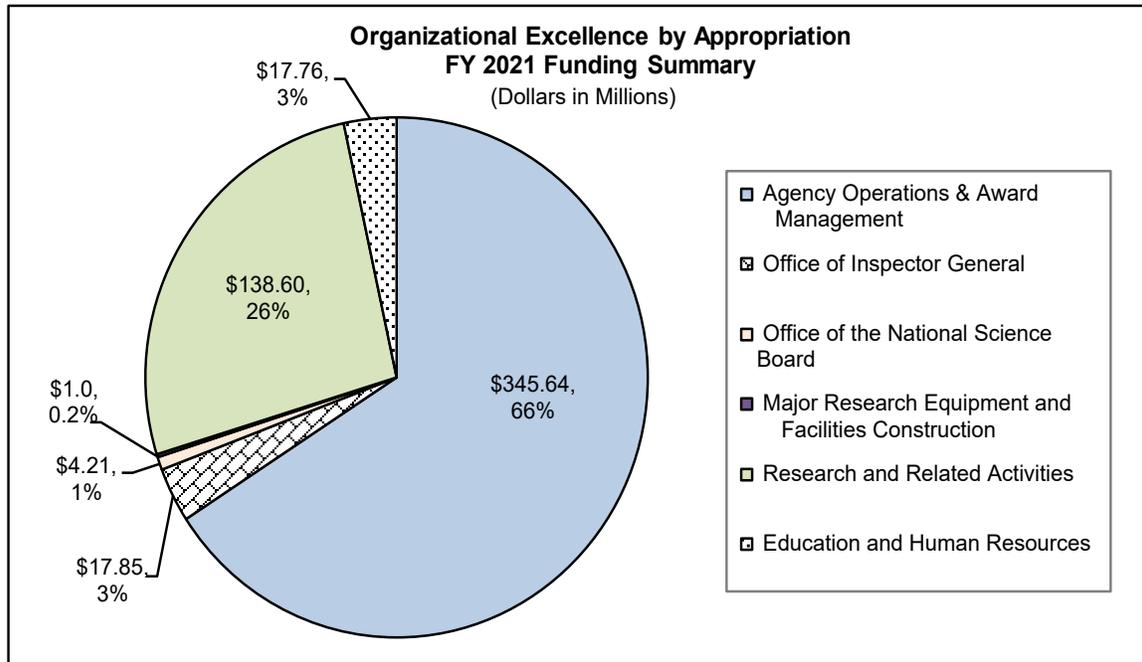
FY 2019 Actual	FY 2020 (TBD)	FY 2021 Request	Change over FY 2019 Actual	
			Amount	Percent
\$497.49	-	\$525.06	\$27.57	5.5%

NSF’s FY 2021 funding for Organizational Excellence is \$525.06 million, about seven percent of the total NSF FY 2021 Request. NSF’s management objectives have the goal of achieving organizational excellence through a continuous emphasis on efficiency and efficacy, as noted in NSF’s Strategic Plan for 2018-2022¹ under Strategic Goal 3, Enhance NSF’s Performance of its Mission. The portfolio of activities included in Organizational Excellence addresses the agency’s operations and administrative functions, which underpin NSF’s programmatic activities. These activities are critical to the accomplishment of the agency’s other two strategic goals, Expand Knowledge in Science, Engineering and Learning, and Advance the Capability of the Nation to Meet Current and Future Challenges.

An overview of the various activities that are included in the Organizational Excellence portfolio is included in this summary. Also included in this discussion is information on the E-Government and Line-of-Business initiatives to which the agency contributes and signed IT Resource Statements. The two tables on the following pages show first the Organizational Excellence portfolio by appropriation, and second the portfolio by its components—Human Capital, Travel, Information Technology (IT), Administrative Support, MREFC Oversight, and support for OIG and NSB along with their funding sources, as several are funded through more than one appropriation.

As part of its Agency Reform Plan, NSF launched its “Renewing NSF” initiative focusing on operational reforms in four areas: (1) make information technology work for us, (2) align NSF’s workforce and work, (3) expand public and private partnerships, and (4) streamline, standardize, and simplify programs and processes. NSF will work to ensure that IT tools enhance employee productivity and satisfaction by enabling access to readily available, reliable, and fully integrated data that supports decision making. NSF will optimize the alignment of staffing and position descriptions with the changing landscape. NSF will maintain its already lean workforce through continuous improvements in personnel training and utilization, and through effective performance management. NSF will improve efficiencies in developing, implementing, and managing partnerships that maximize the scientific, economic, and societal impacts of its investments. NSF will also revise policies and business processes to increase standardization across NSF organizations and eliminate unnecessary complexity. These Agency reforms will allow NSF to continue to achieve its mission within a constantly evolving landscape in alignment with NSF’s history of continued organizational improvement, and the Administration’s government-wide agency reform activities as detailed in the President’s Management Agenda (PMA).

¹ NSF (2018). Building the Future: Investing in Discovery and Innovation – NSF Strategic Plan for Fiscal Years (FY) 2018-2022. Retrieved from: www.nsf.gov/about/performance/strategic_plan.jsp



Organizational Excellence by Appropriation
(Dollars in Millions)

	FY 2019 Actual	FY 2020 (TBD)	FY 2021 Request	Change over FY 2019 Actual	
				Amount	Percent
Agency Operations & Award Management	\$332.69	-	\$345.64	\$12.95	3.9%
Office of Inspector General	15.28	-	17.85	2.57	16.8%
Office of the National Science Board	4.32	-	4.21	-0.11	-2.6%
Major Research Equipment & Facilities Construction	0.32	-	1.00	0.68	212.9%
Program Support Subtotal:	144.88	-	156.36	11.48	7.9%
<i>Research & Related Activities</i>	127.43	-	138.60	11.17	8.8%
<i>Education & Human Resources</i>	17.45	-	17.76	0.31	1.8%
Total	\$497.49	-	\$525.06	\$27.57	5.5%

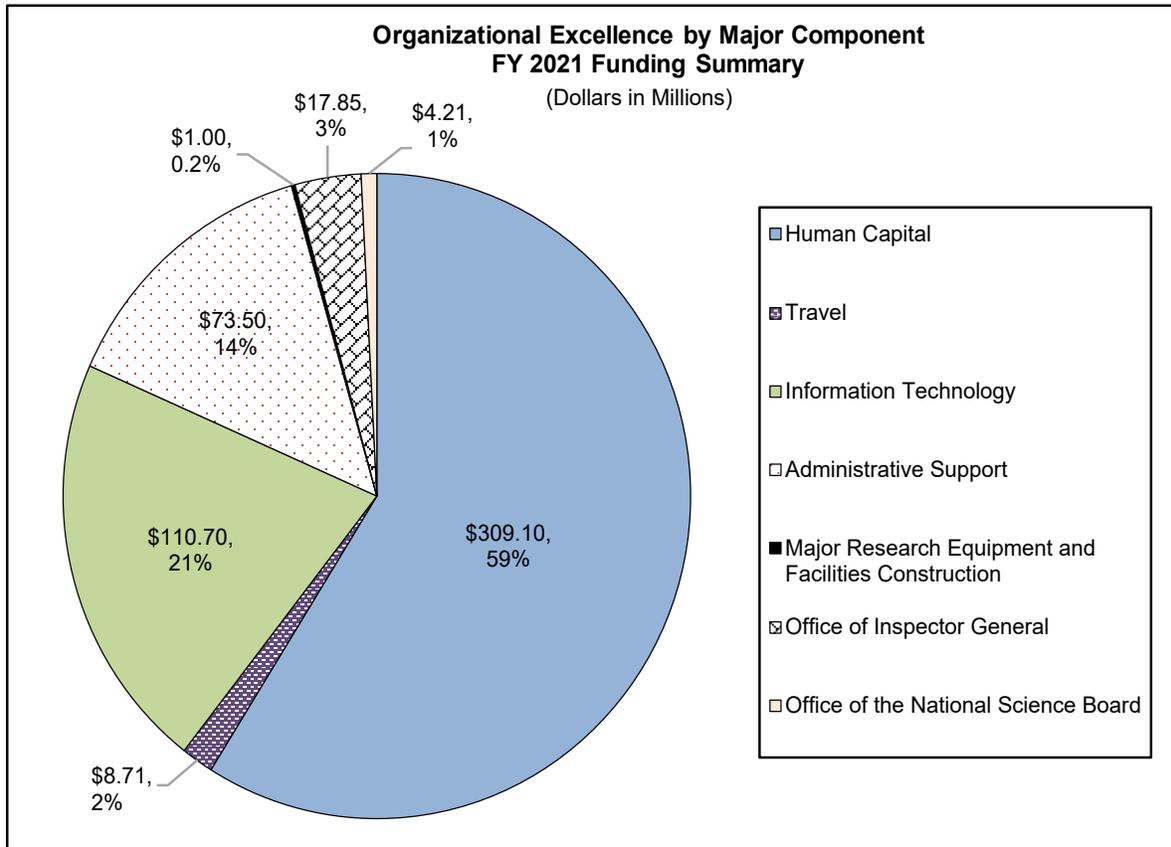
Organizational Excellence by Major Component

The table below shows the major components of Organizational Excellence. This table also shows the funding sources for the major components and activities, as several are funded through more than one appropriation.

Organizational Excellence by Major Component (Dollars in Millions)						
	FY 2019 Actual	FY 2020 (TBD)	FY 2021 Request	Change over FY 2019 Actual		Funding Source
				Amount	Percent	
Human Capital	\$290.66	-	\$309.10	\$18.43	6.3%	
Personnel Compensation & Benefits ¹	233.29	-	248.23	14.94	6.4%	AOAM
Management of Human Capital	11.96	-	8.07	-3.88	-32.5%	AOAM
IPA Appointments	<u>45.42</u>	-	<u>52.79</u>	<u>7.37</u>	<u>16.2%</u>	
Compensation	41.75	-	48.40	6.65	15.9%	RRA/EHR
Per Diem	3.67	-	4.39	0.72	19.7%	RRA/EHR
Travel	\$7.85	-	\$8.71	\$0.86	10.9%	
NSF Federal Employee Staff	5.50	-	5.16	-0.34	-6.3%	AOAM
IPA Appointments	2.35	-	3.55	1.20	51.3%	RRA/EHR
Information Technology	\$110.73	-	\$110.70	-\$0.02	0.0%	
Agency Operations IT	<u>25.89</u>	-	<u>22.98</u>	<u>-2.91</u>	<u>-11.2%</u>	AOAM
Administrative Applications Services & Support	7.10	-	5.91	-1.19	-16.8%	AOAM
Administrative Infrastructure Services & Support	14.95	-	13.67	-1.28	-8.5%	AOAM
Administrative Security and Privacy Services & Support	3.33	-	2.92	-0.41	-12.3%	AOAM
Administrative IT Management	0.51	-	0.48	-0.03	-5.9%	AOAM
Program Related Technology (PRT)	<u>84.84</u>	-	<u>87.72</u>	<u>2.88</u>	<u>3.4%</u>	RRA/EHR
Mission-Related Applications Services	55.98	-	55.93	-0.05	-0.1%	RRA/EHR
Mission-Related IT Operations & Infrastructure	21.64	-	25.00	3.36	15.5%	RRA/EHR
Mission-Related Security & Privacy Services	4.98	-	4.75	-0.23	-4.6%	RRA/EHR
Mission-Related IT Management	2.24	-	2.04	-0.20	-8.8%	RRA/EHR
Administrative Support	\$68.33	-	\$73.50	\$5.16	7.6%	
Space Rental ²	23.87	-	32.66	8.79	36.8%	AOAM
Operating Expenses	17.29	-	16.06	-1.23	-7.1%	AOAM
Building & Administrative Services	14.90	-	12.48	-2.42	-16.2%	AOAM
Other Program Related Administration	<u>3.66</u>	-	<u>3.45</u>	<u>-0.21</u>	<u>-5.6%</u>	RRA/EHR
E-Government Initiatives	1.50	-	1.37	-0.13	-8.4%	RRA/EHR
General Planning & Evaluation Activities	2.16	-	2.08	-0.08	-3.7%	RRA/EHR
Other Organizational Excellence Activities	<u>8.62</u>	-	<u>8.85</u>	<u>0.23</u>	<u>2.6%</u>	
Major Facilities Admin Reviews & Audits	0.98	-	0.22	-0.76	-77.5%	RRA-various
Evaluation and Assessment Capability	3.00	-	3.00	-	-	RRA-IA
Public Access Initiative	0.91	-	1.63	0.72	78.9%	RRA-CISE
Planning & Policy Support	3.73	-	4.00	0.27	7.1%	RRA-IA
Major Research Equipment & Facilities Construction	\$0.32	-	\$1.00	0.68	212.9%	MREFC
Office of Inspector General	\$15.28	-	\$17.85	\$2.57	16.8%	OIG
Office of the National Science Board	\$4.32	-	\$4.21	-\$0.11	-2.6%	NSB
Total	\$497.49	-	\$525.06	\$27.57	5.5%	

¹ Funding levels for PC&B reflect direct appropriated funds only. In FY 2019, \$6.34 million in Administrative Cost Recoveries (ACRs) were received bringing the total PC&B obligation to \$239.62 million. ACRs of \$5.18 million are estimated for FY 2021 to meet the total PC&B requirement \$253.41 million.

² Funding levels for Space Rental in the FY 2019 Actual column reflect actual obligations after adjustments. Adjustments include -\$11.17 million for FY 2019 rental costs funded in FY 2018 and +\$3.29 million for FY 2020 rental costs funded in FY 2019. For more information on Space Rental costs, see the Space Rental narrative in the Agency Operations and Award Management (AOAM) chapter.



1. Human Capital: The FY 2021 funding amount for Human Capital is \$309.10 million. The Human Capital component includes personnel compensation and benefits of NSF’s federal employees as well as support for NSF’s temporary employees—both those that are hired through authority provided by the Intergovernmental Personnel Act, known as IPAs, and those employed through NSF’s own Visiting Scientist, Engineer, and Educator (VSEE) program. NSF’s federal employee full-time equivalents (FTE) and VSEEs are funded through the AOAM account while IPAs are funded through two programmatic accounts—R&RA and EHR.

The use of IPAs and VSEEs, together commonly referred to as rotators, has been a defining characteristic of NSF since its inception in 1950, as it gives NSF a direct connection to the researchers and educators working at the frontiers of science and engineering. VSEEs count as regular federal FTE and are included in the regular AOAM FTE totals. IPAs are not included in the regular AOAM FTE totals.

NSF Workforce

The table below shows the agency’s total workforce for FY 2021.

NSF Workforce					
Full-Time Equivalents (FTE)					
	FY 2019	FY 2020	FY 2021	Change over	
	Actual	(TBD)	Request	FY 2019 Actual	Amount Percent
<i>FTE Allocation</i>					
AOAM	1,357	-	1,357	-	-
Regular	1,315	-	1,315	-	-
Pathways Interns ¹	42	-	42	-	-
IPAs	198	-	205	7	3.5%
<i>FTE Usage (Actual/Projected)</i>					
AOAM	1,324	-	1,357	33	2.5%
Regular	1,304	-	1,315	11	0.8%
Pathways Interns ¹	20	-	42	22	112.8%
Office of the Inspector General	71	-	71	-	-
Office of the National Science Board	17	-	17	-	-
Arctic Research Commission	3	-	3	-	-
Total, Federal Employees (FTE) Usage	1,415	-	1,448	33	2.3%
IPAs (FTE)	166	-	205	39	23.6%
Detailees to NSF	3	-	3	-	-
Total, NSF Workforce (FTE)	1,584	-	1,656	72	4.6%

¹ The Pathways Intern program was established by Executive Order 13562, Recruiting and Hiring Students and Recent Graduates. The internship program offers part- or full-time paid internships in federal agencies to qualifying students (students in high schools, community colleges, four-year colleges, trade schools, career and technical education programs, and other qualifying technical education programs).

A discussion of NSF’s FTE allocation and usage is included in the Personnel Compensation and Benefits section of the AOAM chapter. A more detailed discussion about IPAs is included in the Program Accounts: R&RA and EHR chapter. The OIG, NSB, and U.S. Arctic Research Commission chapters include a discussion of their respective workforces.

The Human Capital component also includes support for the Management of Human Capital, which is discussed in the AOAM chapter.

2. Travel: The FY 2021 Request for staff and IPA travel is \$8.71 million. Staff travel accounts for about 59 percent of this total at a level of \$5.16 million and is provided from the AOAM account. Travel for IPA appointments, which is supported by the R&RA and EHR accounts, is \$3.55 million. For more detailed information about NSF staff and IPA travel funding, see the AOAM and Program Accounts: R&RA and EHR chapters, respectively.

3. Information Technology: NSF’s FY 2021 Request for IT investments total \$110.70 million. Funding for NSF’s IT investment is provided from the AOAM, R&RA, and EHR accounts.

IT Investments by Appropriation

(Dollars in Millions)

	FY 2019 Actual	FY 2020 (TBD)	FY 2021 Request	Change over FY 2019 Actual	
				Amount	Percent
Agency Operations & Award Management	\$25.89	-	\$22.98	-\$2.91	-11.2%
Program Related Technology	84.84	-	87.72	2.88	3.4%
<i>Research & Related Activities</i>	73.44	-	75.97	2.53	3.4%
<i>Education & Human Resources</i>	11.39	-	11.75	0.36	3.1%
Total	\$110.73	-	\$110.70	-\$0.02	-

Agency IT investments funded through the AOAM account support the agency’s operations to ensure high quality, reliable, and secure administrative applications and associated IT infrastructure support and services to meet the needs of the Foundation. This funding accounts for about 21 percent of NSF’s total IT investment at the FY 2021 Request. Additional detail regarding the AOAM funded IT investments can be found in the AOAM chapter.

Program Related Technology (PRT) investments support NSF’s programmatic activities and associated services and are funded through the R&RA and EHR accounts. PRT investments are mission-related IT investments that support the merit review process, including pre-award planning and activities; receipt of proposals; processing proposals; reviewing proposals; award decisions, documentation, and notification; funding awards; post-award oversight; dissemination of award results; and award close-out. PRT investments account for 79 percent of NSF’s FY 2021 Request for IT investments. More information on PRT can be found in the Program Accounts: R&RA and EHR chapter.

Investment priorities will support the Agency’s commitment to Renewing NSF with a continued focus on implementing and scaling solutions that will further PMA priorities. Activities prioritized in FY 2021 include:

- Continue necessary technology transformations geared toward improving the user experience both internally and for citizen-facing websites and digital services. (Cross-Agency Priority (CAP) Goal 4: Improving customer experience with federal services)
- Continue development and implementation of advanced technologies such as artificial intelligence (AI) and blockchain to support NSF’s mission. (CAP Goal 1: Modernize IT to increase productivity and security)
- Employ innovative and advanced technology capabilities in support of agency priorities, such as to transform the agency’s workforce and provide platforms for development and testing of new technology tools and capabilities. (CAP Goal 3: Developing a workforce for the 21st century)
- Continuing support for the information technology infrastructure and systems that serve the agency, preserving secure, reliable operations to the greatest extent possible as well as maintain the security of NSF’s infrastructure to protect and defend agency assets and respond to the ever-evolving threat landscape, prioritizing continued efforts to manage, modernize, and secure agency information systems. As part of this activity, NSF will allocate a minimum of \$216,100 to the FY 2021 operations and maintenance costs for Continuous Diagnostics and Mitigation (CDM) tools and services. (CAP Goal 1: Modernize IT to increase productivity and security)
- Support the continued operation of iTRAK, the Foundation’s financial management system, and NSF’s Financial Services Support investment, distinct from the iTRAK investment, to ensure continued

interoperability between NSF's core financial functions, modernize NSF's financial management functions, and increase transparency and accuracy of reporting between iTRAK and other mission systems. (CAP Goal 2: Leveraging data as a strategic asset)

- Support continued use and refinement of the Technology Business Management (TBM) framework for managing IT as a business. (CAP Goal 10: Improving outcomes through federal IT spending transparency)

4. Administrative Support: FY 2021 funding for Administrative Support is \$73.50 million. The activities that comprise this major component are:

- Space Rental at \$32.66 million. More detailed information about Space Rental can be found in the AOAM chapter.
- Operating Expenses (\$16.06 million) includes funding for various financial and award management and leadership activities such as post-award monitoring; contract close-out activities; large facility oversight; improper payments, financial statement, and internal controls reporting; Committee on Equal Opportunities in Science and Engineering activities; NSF's Enterprise Information System; and supplies, equipment, and training that are necessary for the accomplishment of NSF's mission. A detailed discussion about Operating Expenses can be found in the AOAM chapter.
- Building and Administrative Services (\$12.48 million) includes administrative contracts that support NSF's facilities and business operations, administrative services, and infrastructure such as security system maintenance, ID issuance, continuity of operations support services, and Federal Register notices for panels and advisory committees. A detailed discussion of these activities can be found in the AOAM chapter.
- Other Program Related Administration (Other PRA) is funded at \$3.45 million to support general planning and evaluation activities, which include agency-wide efforts such as the verification and validation of performance information, and E-Government efforts. A detailed discussion about Other PRA can be found in the Program Accounts: R&RA and EHR chapter.
- Other Organizational Excellence Activities (\$8.85 million) funds the Evaluation and Assessment Capability (EAC) and Planning and Policy Support—two NSF-wide activities managed by the Office of Integrative Activities. It also includes support for the Public Access Initiative, an NSF-wide activity managed by CISE. For more information on EAC, Planning and Policy Support, and Public Access Initiative, see the IA and CISE narratives respectively, in the R&RA chapter.

5. Major Research Equipment and Facilities Construction: The FY 2021 Request includes \$1.0 million within the MREFC account for oversight of NSF's major facility projects. For more information on this activity, see the MREFC chapter.

6. Office of Inspector General: FY 2021 funding for the OIG is \$17.85 million. The staffing and operations of the OIG are supported through a separate OIG appropriation. Details about the OIG FY 2021 Request can be found in the OIG chapter.

7. Office of the National Science Board: FY 2021 funding for the NSB is \$4.21 million. The staffing and operations of the NSB office are supported through a separate NSB appropriation. Details about the NSB FY 2021 Request can be found in the NSB chapter.

NSF FY 2021 Request Funding for E-Government Initiatives

The table below shows NSF's contributions and service fees for various E-Government and Line-of-Business initiatives. The FY 2021 levels are consistent with the funding amounts provided by the initiatives' respective managing partners.

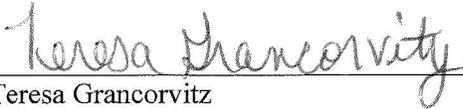
Initiative	FY 2021			Appropriations Account	
	Agency Contributions	Agency Svc. Fees	NSF Total	AOAM	R&RA
Grants.gov	\$323,000	-	\$323,000	-	\$323,000
E-Travel	-	184,467	184,467	184,467	-
Geospatial LoB	25,000	-	25,000	-	25,000
E-Training	-	370,000	370,000	370,000	-
E-Rulemaking	-	17,253	17,253	19,862	-
USA Jobs	-	10,399	10,399	10,350	-
E-Human Resource Integration	-	24,634	24,634	24,634	-
Integrated Acquisition Environment (IAE)	-	719,644	719,644	21,000	698,644
Human Resources Management LoB	68,478	-	68,478	-	68,478
Financial Management LoB	139,094	-	139,094	-	139,094
Budget Formulation/Execution LoB	120,000	-	120,000	-	120,000
E-Payroll (incl. Shared Services)	-	314,640	314,640	314,640	-
Total	\$675,572	\$1,641,037	\$2,316,609	\$944,953	\$1,374,216

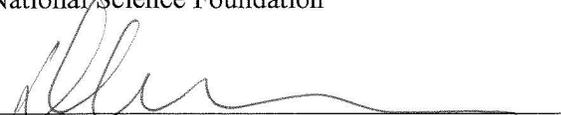
LoB: Line-of-Business

IT Resource Statements

We jointly affirm that the Chief Information Officer (CIO) had a significant role in reviewing planned IT support for major programs and significant increases and decreases in IT resources reflected in this budget request.

Other than a minor financial systems upgrade on an existing contract to support Treasury G-invoicing mandates, NSF has no planned deviations from the requirements specified in M-19-16 regarding agency solicitation of new or modernized technology or services for which a Quality Service Management Office (QSMO) has been pre-designated.

Signed: 
Teresa Grancorvitz
Chief Financial Officer
National Science Foundation

Signed: 
Dorothy Aronson
Chief Information Officer
National Science Foundation

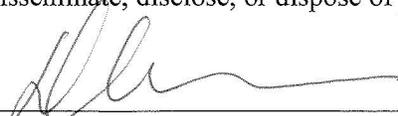
I affirm that I have collaborated with component Leadership and the Chief Financial Officer (CFO) on the IT Budget submission, and that IT includes appropriate estimates of all enterprise IT resources included in the budget request/President’s Budget.

I affirm that I have reviewed and had significant input in approving all major IT investments included in this budget request.

The CIO’s common baseline rating for Element D (“D1. CIO reviews and approves major IT investment portion of budget request”) is: c) Fully Implemented – Agency has developed and implemented its plan to ensure that all common baseline FITARA responsibilities are in place.

I affirm that I have reviewed and certified the use of incremental development practices, as appropriate for the agency’s IT investments.

I affirm that the IT Budget submission explicitly identifies and includes any privacy requirements, as well as any associated costs, with respect to any IT resources that will be used to create, collect, use, process, store, maintain, disseminate, disclose, or dispose of personally identifiable information (PII).

Signed: 
Dorothy Aronson
Chief Information Officer and
Senior Agency Official for Privacy (SAOP)
National Science Foundation

