ORGANIZATIONAL EXCELLENCE

Change ove FY 2018 FY 2019 FY 2020 FY 2018 Actu Actual (TBD) Request Amount Pe	(Dollars in Millions)								
	EV 2019	EV 2010	EV 2020	•					
					Percent				
\$491.45 - \$513.90 \$22.45	\$491.45	-			4.6%				

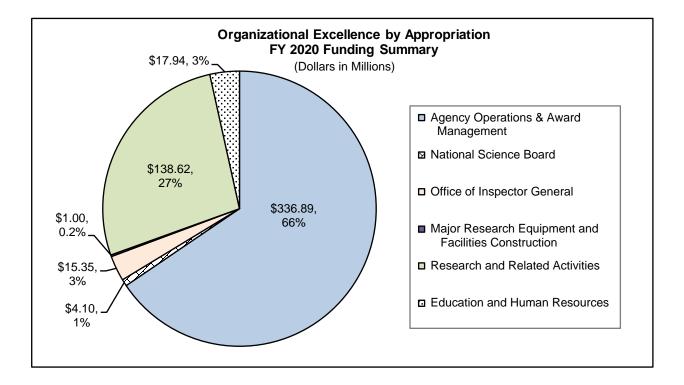
Organizational Excellence Funding Summary

NSF's FY 2020 funding for Organizational Excellence is \$513.90 million, this is about seven percent of the total NSF FY 2020 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 initiatives to which the agency contributes. 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, Major Research Equipment and Facility Construction (MREFC) Oversight, and support for the National Science Board (NSB) and the Office of Inspector General (OIG)—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 2018	FY 2019	FY 2020	Change FY 2018	
	Actual	(TBD)	Request	Amount	Percent
Agency Operations & Award Management	\$328.51	-	\$336.89	\$8.38	2.6%
National Science Board	4.30	-	4.10	-0.20	-4.6%
Office of Inspector General	15.09	-	15.35	0.26	1.7%
Major Research Equipment and Facilities Construction	0.56	-	1.00	0.44	77.3%
Program Support Subtotal:	142.99	-	156.56	13.57	9.5%
Research and Related Activities	126.73	-	138.62	11.89	9.4%
Education and Human Resources	16.26	-	17.94	1.68	10.3%
Total	\$491.45	-	\$513.90	\$22.45	4.6%

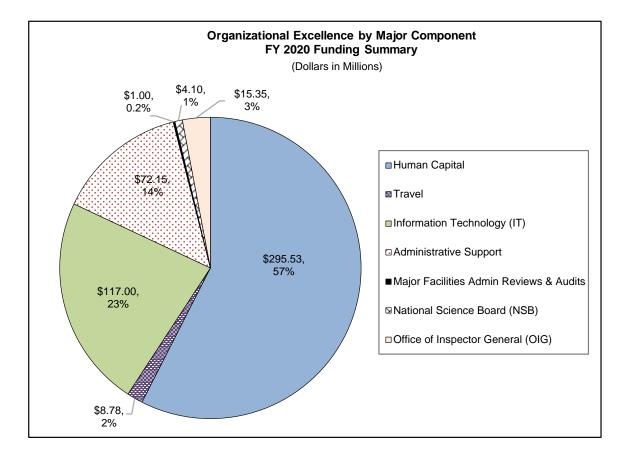
Organizational Excellence by Major Component

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 2018 Actual	FY 2019 (TBD)	FY 2020 Request	Change FY 2018 Amount		Funding Source		
Human Capital	\$277.18	-	\$295.53	\$18.34	6.6%			
Personnel Compensation & Benefits ¹ Management of Human Capital	226.21 6.84	-	237.33 8.53	11.12 1.69	4.9% 24.7%	AOAM AOAM		
IPA Appointments	44.13	-	49.66	5.53	12.5%			
Compensation	40.39	-	<u>45.59</u>	<u>5.30</u> 5.20	<u>12.9%</u>	RRA/EHR		
Lost Consulting & Per Diem	3.74	-	4.07	0.33	8.8%	RRA/EHR		
Travel	\$8.17	-	\$8.78	\$0.61	7.4%			
NSF Federal Employee Staff	5.63	-	5.45	-0.18	-3.1%	AOAM		
IPA Appointments	2.55	-	3.33	0.78	30.7%	RRA/EHR		
Information Technology (IT)	\$102.08	-	\$117.00	\$14.92	14.6%			
Agency Operations IT	<u>20.87</u>	-	24.29	3.42	<u>16.4%</u>	AOAM		
Administrative Applications Services and Support	7.51	-	6.53	-0.98	-13.1%	AOAM		
Administrative Infrastructure Services and Support	9.81	-	14.16	4.35	44.3%	AOAM		
Administrative Security and Privacy Services and Support	3.03	-	3.09	0.06	1.9%	AOAM		
Administrative IT Management	0.51	-	0.51	-	0.0%	AOAM		
Program Related Technology (PRT)	<u>81.21</u>	-	<u>92.71</u>	<u>11.50</u>	<u>14.2%</u>	RRA/EHR		
Mission-Related Applications Services	53.26	-	59.42	6.16	11.6%	RRA/EHR		
Mission-Related IT Operations and Infrastructure	21.53	-	25.84	4.31	20.0%	RRA/EHR		
Mission-Related Security and Privacy Services	4.18	-	5.22	1.04	24.9%	RRA/EHR		
Mission-Related IT Management	2.24	-	2.24	-	0.0%	RRA/EHR		
Administrative Support	\$83.73	-	\$72.15	-\$11.59	-13.8%			
Space Rental	32.89	-	31.13	-1.77	-5.4%	AOAM		
Operating Expenses	17.95	-	17.16	-0.80	-4.4%	AOAM		
Building and Administrative Services	17.78	-	13.00	-4.78	-26.9%	AOAM		
Other Program Related Administration	<u>3.93</u>	-	<u>3.65</u>	-0.28	-7.1%	RRA/EHR		
Proposal Management Efficiencies ²	1.33	-	-	-133.0%	-100.0%	RRA/EHR		
E-Government Initiatives General Planning and Evaluation Activities	1.46 1.14	-	1.33 2.32	-0.13 1.18	-8.6% 103.3%	RRA/EHR RRA/EHR		
ů –		-						
Other Organizational Excellence Activities	<u>11.17</u>	-	<u>7.21</u>	<u>-3.96</u>	<u>-35.5%</u>			
Major Facilities Admin Reviews and Audits	0.74 2.99	-	0.36 3.00	-0.38 0.01	-51.4% 0.4%	RRA-various RRA-IA		
Evaluation and Assessment Capability Public Access Initiative	2.99 3.50	-	3.00 1.75	-1.75	-50.0%	RRA-IA		
Planning and Policy Support	3.50	-	2.10	-1.75	-30.0%	RRA-CISE RRA-IA		
Major Facilities Admin Reviews and Audits	\$0.56	-	\$1.00	0.44	77.3%	MREFC		
NSF Headquarters Relocation	\$0.33	-	-	-0.33	-100.0%	AOAM		
National Science Board (NSB)	\$4.30	-	\$4.10	-\$0.20	-4.6%	NSB		
Office of Inspector General (OIG)	\$15.09	-	\$15.35	\$0.26	1.7%	OIG		
Total	\$491.45	-	\$513.90	\$22.45	4.6%			

¹ Funding levels for PC&B reflect direct appropriated funds only. In FY 2018, \$5.34 million in Administrative Cost Recoveries (ACRs) were received bringing the total PC&B obligation to \$231.55 million. Approximately \$4.19 million in ACRs are estimated for FY 2020 to meet the total PC&B requirement of \$241.52 million.

² In FY 2019 Proposal Management Efficiencies moves from a line item under Other Program Related Administration to be part of Planning and Policy Support in the Integrative Activities (IA) budget activity.



1. Human Capital: The FY 2020 funding amount for Human Capital is \$295.53 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 employee 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 2020.

	NSF Workforce								
Full-Time Equivalents (FTE)									
				Change	e over				
	FY 2018	FY 2019	FY 2020	FY 2018	Actual				
	Actual	(TBD)	Request	Amount	Percent				
AOAM FTE Allocation									
Regular	1,315	-	1,315	-	-				
_ Pathways Intern ¹	42	-	42	-	-				
Total, AOAM FTE Allocation	1,357	-	1,357	-	-				
IPA FTE Allocation	198	-	198	-	-				
AOAM FTE Usage (Actual/Projected)									
Regular	1,308	-	1,315	7	0.5%				
Pathways Interns ¹	21	-	42	21	100.0%				
Subtotal, AOAM FTE Usage	1,329	-	1,357	28	2.1%				
Office of the Inspector General	68	-	68	-	-				
Regular	67	-	68	1	1.5%				
Pathways Interns ¹	1	-	-	-1	-100.0%				
National Science Board	17	-	18	1	4.2%				
Arctic Research Commission	3	-	3	-	-				
Subtotal, Federal Employees FTE Usage	1,417	-	1,446	29	2.0%				
IPA FTE Usage (Actual/Projected)	165	-	198	33	20.0%				
Detailees to NSF	3	-	3	-	-				
Total	1,585	-	1,647	62	3.9%				

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 (PC&B) 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 2020 Request for staff and IPA travel is \$8.78 million. Staff travel accounts for about 62 percent of this total at a level of \$5.45 million in FY 2020 and is provided from the AOAM account. Travel for IPA appointments, which is supported by the R&RA and EHR accounts, is \$3.33 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 2020 Request for IT investments total \$117.0 million. Funding for NSF's IT investment is provided from the AOAM, R&RA, and EHR accounts.

IT Investments by Appropriation (Dollars in Millions)								
				Change	e over			
	FY 2018	FY 2019	FY 2020	FY 2018 Actual				
	Actual	(TBD)	Request	Amount	Percent			
Agency Operations & Award Management (AOAM)	\$20.87	-	\$24.29	\$3.42	16.4%			
Program Related Technology (PRT)	81.21	-	92.71	11.50	14.2%			
Research and Related Activities (R&RA)	69.93	-	80.43	10.50	15.0%			
Education and Human Resources (EHR)	11.28	-	12.28	1.00	8.9%			
Total	\$102.07	-	\$117.00	\$14.93	14.6%			

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 in the FY 2020 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 2020 Request for IT investments. More information on PRT can be found in the Program Accounts: R&RA and EHR chapter.

For FY 2020, funding for NSF's IT portfolio increases \$14.93 million, or 14.6 percent. Investment priorities are strategically aligned with the PMA and will:

- Support the Agency's commitment to "Renewing NSF".
 - Accelerate necessary technology transformations geared toward improving the user experience both internally and for citizen-facing services. (Cross-Agency Priority (CAP) goal 4: Improving customer experience with federal services)
 - Support continued exploration of advanced technologies to support NSF's mission. (CAP goal 1: Modernize IT to increase productivity and security)
 - Employ innovative and advanced technology capabilities to transform the agency's workforce and amplify human performance. (CAP goal 3: Developing a workforce for the 21st century)
- Continuing support for the IT infrastructure and systems that support the administrative operations of the agency, leveraging converged infrastructure acquisitions to optimize systems and services for continued operation as an agile organization. (CAP goal 1: Modernize IT to increase productivity and security)
- Maintain the security of NSF's infrastructure to respond to the ever-evolving threat landscape and allocate a minimum of \$202,165 to the FY 2020 operations and maintenance costs for Continuous Diagnostics and Mitigation (CDM) Phase 1 and Phase 2 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 other mission systems to ensure continued interoperability and increase integration of NSF's core financial functions thereby increasing transparency and accuracy of reporting. (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 2020 funding for Administrative Support is \$71.79 million. The activities that comprise NSF's FY 2020 Administrative Support are:

- Space Rental at \$31.13 million. More detailed information about Space Rental can be found in the AOAM chapter.
- Operating Expenses (\$17.16 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 (CEOSE) activities; NSF's Enterprise Information System; and supplies, equipment, and training which 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 (\$13.0 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 (PRA) is funded a \$3.65 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 (\$7.21 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 supported for the Public Access Initiative, an NSF-wide activity managed by the CISE. For more information on EAC, Planning and Policy Support, and Public Access Initiative, see the IA and CISE narratives respectively, in the RRA chapter.

5. Major Facilities Administrative Reviews and Audits: The FY 2020 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. National Science Board: FY 2020 funding for the National Science Board (NSB) is \$4.10 million. The staffing and operations of the NSB office are supported through a separate NSB appropriation. Details about the NSB FY 2020 Request can be found in the NSB chapter.

7. Office of Inspector General: FY 2020 funding for the Office of Inspector General (OIG) is \$15.35 million. The staffing and operations of the OIG are supported through a separate OIG appropriation. Details about the OIG FY 2020 Request can be found in the OIG chapter.

NSF FY 2020 Request Funding for E-Government Initiatives

The tables below show NSF's contributions and service fees for various E-Government initiatives. Both the FY 2019 and FY 2020 levels are consistent with the funding amounts provided by the initiatives' respective managing partners.

NSF FY 2019 Request Funding for E-Government Initiatives									
		FY 2019	Appropriations Account						
	Agency	Agency							
Initiative	Contributions	Svc. Fees	NSF Total	AOAM	R&RA				
Grants.gov	\$233,849	-	\$233,849	-	\$233,849				
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	-	19,862	19,862	19,862	-				
USA Jobs	-	10,350	10,350	10,350	-				
E-Human Resource Integration	-	24,634	24,634	24,634	-				
Integrated Acquisition Environment (IAE)	-	944,275	944,275	21,000	923,275				
Human Resources Management LoB	68,478	-	68,478	-	68,478				
Financial Management LoB	139,094	-	139,094	-	139,094				
Budget Formulation/Execution LoB	110,000	-	110,000	-	110,000				
E-Payroll (incl. Shared Services)	-	314,640	314,640	314,640	_				
Total	\$576,421	\$1,868,228	\$2,444,649	\$944,953	\$1,499,696				

LoB: Line of Business

		FY 2020		Appropriations Account		
	Agency	Agency				
Initiative	Contributions	Svc. Fees	NSF Total	AOAM	R&RA	
Grants.gov	\$325,000	-	\$325,000	-	\$325,000	
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	-	18,904	18,904	18,904	-	
USA Jobs	-	10,399	10,399	10,399	-	
E-Human Resource Integration	-	24,634	24,634	24,634	-	
Integrated Acquisition Environment (IAE)	-	687,673	687,673	21,000	666,673	
Human Resources Management LoB	68,478	-	68,478	-	68,478	
Financial Management LoB	139,094	-	139,094	-	139,094	
Budget Formulation/Execution LoB	110,000	-	110,000	-	110,000	
E-Payroll (incl. Shared Services)	-	314,640	314,640	314,640	-	
Total	\$667,572	\$1,610,717	\$2,278,289	\$944,044	\$1,334,245	

NSF FY 2020 Request Funding for E-Government Initiatives

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.

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: 3) 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.

Signed: nen

Dorothy Aronson Chief Information Officer National Science Foundation

Organizational Excellence