

HUMAN CAPITAL

\$396,080,000
+\$60,030,000 / 17.9%

Human Capital
(Dollars in Millions)

	FY 2020 Actual	FY 2021 Estimate	FY 2022 Request	Change over		Funding Source
				FY 2021 Estimate Amount	Percent	
Personnel Compensation & Benefits	\$256.35	\$272.98	\$311.81	\$38.83	14.2%	AOAM/ACRs
Management of Human Capital	7.11	9.33	15.16	5.83	62.4%	AOAM
IPA Compensation and Per Diem ¹	47.39	53.73	69.11	15.38	28.6%	R&RA/EHR
Total, Human Capital	\$310.85	\$336.05	\$396.08	\$60.03	17.9%	
Total AOAM	257.32	278.13	326.97	48.84	17.6%	
Total ACRs	6.14	4.19	-	-4.19	-100.0%	
Total R&RA	41.86	48.02	60.93	12.91	26.9%	
Total EHR	5.53	5.71	8.18	2.47	43.3%	

¹ Costs for IPA travel are found within the Travel section of this chapter.

Support for NSF’s human capital activities is the largest component of Organizational Excellence, accounting for 56 percent of the total portfolio. The Human Capital component includes personnel compensation and benefits (PC&B) 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.

The Human Capital component also includes support for the Management of Human Capital, which includes:

- Human resources systems accessed through shared service providers, including the Federal Personnel Payroll System, the time and attendance system (WebTA), and eRecruit capabilities using USAJobs.
- Operational activities including recruiting, hiring, and on-boarding of permanent and rotating staff, as well as processing support for pay and benefits and awards.
- Workplace and career-life balance support for employees including the Health Unit, the Employee Assistance Program, and childcare subsidy.
- Contracts that support training and development programs, on-line training capabilities, networking activities including the NSF mentoring program, executive and supervisory training, and program management training.

Personnel Compensation and Benefits (PC&B)

Personnel Compensation & Benefits					
(Dollars in Millions)					
	FY 2020 Actual	FY 2021 Estimate	FY 2022 Request	Change over FY 2021 Estimate	
				Amount	Percent
Regular FTE Usage (projected)	1,314	1,330	1,430	100	7.5%
Student FTE Usage (projected)	20	42	42	-	-
Regular FTE Base Salary ¹	\$190.13	\$195.34	\$219.54	\$24.21	12.4%
Student Salary	0.92	2.01	2.16	0.15	7.4%
Other Compensation ²	1.93	2.60	2.78	0.18	6.9%
Awards	2.41	7.32	8.64	1.32	18.0%
Subtotal, FTE Compensation	\$195.40	\$207.26	\$233.12	\$25.86	12.5%
Benefits	59.52	65.18	77.42	12.24	18.8%
Other Benefits ³	1.43	0.54	1.27	0.73	134.6%
Subtotal, Benefits	\$60.95	\$65.72	\$78.69	\$12.97	19.7%
Total, PC&B	\$256.35	\$272.98	\$311.81	\$38.83	14.2%
Source of Funds					
AOAM Appropriation	\$250.21	\$268.79	\$311.81	\$43.02	16.0%
Administrative Cost Recoveries ⁴	6.14	4.19	-	-4.19	-100.0%
Total	\$256.35	\$272.98	\$311.81	\$38.83	14.2%

¹ Includes full support for a 2.7 percent COLA in FY 2022 (\$5.88 million).

² Includes reimbursable details to NSF and terminal leave.

³ Includes Federal Employee's Compensation Act (FECA) funding and transit subsidies.

⁴ The ACR level for FY 2021 is estimated based on amount received in FY 2019.

The FY 2022 Request for PC&B is \$311.81 million. While FY 2020 and 2021 funding for PC&B reflects funding from two sources, AOAM appropriated funds and ACRs received during the year, FY 2022 funding includes AOAM appropriated funds only; no ACRs are factored into NSF's Organizational Excellence budget plans for the FY 2022 Request.

The FY 2022 PC&B cost estimate will support the projected year-end usage of 1,430 regular FTE employees, a total of 42 Pathways intern FTE, associated cost of benefits, general workforce performance awards (GWFPFA), and Senior Executive Service (SES) bonuses. The increased level of FTE is required for NSF to achieve the program objectives set forth by the Director in the FY 2022 Request, including establishing a new directorate and growing agency administration, operations, and technical support commensurate with a \$10 billion federal research agency. This estimate includes funding to cover a Cost of Living Adjustment in FY 2022 of 2.7 percent. The FY 2022 Request for PC&B also contains approximately \$920,000 for the Federal Transit Benefits Program. In total, NSF believes this PC&B estimate presents a realistic estimate of these costs in FY 2022 and, if appropriated at the requested level, should minimize the amount of any transfer should NSF need to exercise its transfer authority.

NSF AOAM Workforce

NSF AOAM Workforce					
(Full-Time Equivalent (FTE) and Other Staff)					
	FY 2020	FY 2021	FY 2022	Change over	
	Actual	Estimate	Request	FY 2021 Estimate	Amount
				Amount	Percent
<i>NSF AOAM FTE Allocation</i>					
NSF AOAM -- Regular	1,315	1,330	1,430	100	8%
NSF AOAM -- Pathways Intern	39	42	42	-	-
Subtotal, FTE Allocation	1,354	1,372	1,472	100	7%
<i>NSF AOAM FTE Usage</i>					
NSF AOAM -- Regular	1,314	1,330	1,430	100	7.5%
NSF AOAM -- Pathways Intern	20	42	42	-	-
Subtotal, FTE Usage	1,333	1,372	1,472	100	7.3%
Detailees to NSF	3	3	3	-	-
Total	1,336	\$1,375	1,475	100	7.3%

NSF’s FY 2022 FTE allocation is 1,472. The FY 2022 FTE estimated usage is 1,430 regular and 42 Pathways FTE. This is an increase over the FY 2021 Estimate of 100 regular FTE reflecting the creation of the new directorate and a growth in the number of federal staff FTE commensurate with the growth in the total NSF Request.

Management of Human Capital

Management of Human Capital					
(Dollars in Millions)					
	FY 2020	FY 2021	FY 2022	Change over	
	Actual	Estimate	Request	FY 2021 Estimate	Amount
				Amount	Percent
	\$7.11	\$9.33	\$15.16	\$5.83	62.4%

The FY 2022 Request for Management of Human Capital is \$15.16 million. This funding level will enable NSF to grow operational support activities, learning and development programs essential for NSF’s permanent and rotator staff, and contractual support for human capital initiatives as the agency grows and establishes a new directorate. Further, the increased funding level will provide for new strategic human capital management activities supportive of a post-COVID work environment. FY 2022 investments support the following activities:

Learning and Development Programs (\$4.48 million, +\$1.90 million above the FY 2021 Estimate)

Investments in this category fund contracts in support of learning and development programs, such as the Learning Management System, LearnNSF, and related on-line learning capabilities, as well as support for learning and capacity-building activities including the NSF mentoring program, executive and supervisory training, and program management training. These learning and development activities are designed to help ensure that the workforce, including permanent and rotating staff, as well as new supervisors and executives, are equipped with the tools needed to succeed as NSF employees. The FY 2022 Request level will increase contractor support for learning and development activities associated with the expansion of NSF and the establishment of the new directorate, as well as NSF’s establishment of an agency wide hybrid

Management of Human Capital

work model. In addition, in FY 2022, NSF will support the implementation of a pilot Summer Leadership Institute, which will target new IPAs coming to NSF. This pilot program is intended to provide the new IPAs with the skills and knowledge they will need to be successful upon arrival at NSF. The FY 2022 Request also includes funding to support talent teams, to identify assessments which are appropriate for NSF, and to improve internships and Pathways Programs.

Operations Support (\$4.10 million, +1.26 million above the FY 2021 Estimate)

This category includes contract support for recruiting, hiring, and on-boarding of permanent and rotating staff, outreach, and employee surveys as well as processing support for pay, benefits, and incentive and other awards. The FY 2022 funding level is guided by costs associated with these employee-driven human capital activities and NSF anticipates requirements for additional contractor support in the recruiting, hiring and onboarding of FTE associated with the expansion of NSF and the establishment of the new directorate. Also included within the FY 2022 Request is funding and plans for NSF to implement a student loan repayment program to aid with employee recruitment and retention.

Strategic Human Capital Support (\$3.58 million, +\$1.86 million above the FY 2021 Estimate)

NSF relies on strategic human capital support contracts for assistance in developing new approaches to critical human resource needs, including those identified and highlighted in NSF's Strategic Plan, Strategic Goal 3: Enhance NSF's performance of its mission, Strategic Objective 1: Human Capital - Attract, retain, and empower a talented and diverse workforce. FY 2022 funding reflects NSF's planned investment in business intelligence and other tools anticipated to bring agility and process efficiency to the agency and enable workload analysis and workforce planning in support of strategic management of human capital resources. The increased funding level will provide additional contractor support for strategic human capital initiatives associated with the expansion of NSF and the establishment of the new directorate. The additional investment is also part of a larger initiative across NSF to enable data-driven decision-making regarding FTE management.

Workplace and Work-Life Support (\$2.07 million, +\$730,000 above the FY 2021 Estimate)

The Workplace and Work-Life Support investment is focused on helping NSF's employees by providing health and family-friendly programs and activities, including the health unit, employee assistance program, and childcare subsidy. The increase for this investment will allow the agency to expand services in support of NSF's health, wellness, and work-life programs and activities that will meet the needs and demands of the larger agency in FY 2022.

Human Resource Systems and Shared Services (\$930,000, +\$76,000 above the FY 2021 Estimate)

This category represents NSF's HR systems accessed through shared service providers, such as the Federal Personnel Payroll System, the time and attendance system (WebTA), and eRecruit capabilities using USAJobs. FY 2022 funding reflects the rising costs of the Interior Business Center's (IBC) shared services support for various critical personnel management systems. The FY 2022 increase will also allow for the established use of IBC's prospective candidate qualifications assessment Shared Services that will support NSF's compliance with OMB's guidance on improving the assessment process for new hires.

Intergovernmental Personnel Act Costs

A portion of NSF's workforce consists of temporary staff hired through the Intergovernmental Personnel Act (IPA) authority. IPAs remain employees of their home institution while serving at NSF during their temporary assignments. They are not paid directly by NSF and are not subject to federal pay, benefits, or other limitations. NSF reimburses their home institution without overhead. IPAs are eligible to receive relocation expenses or a per diem allowance in lieu of relocation. As part of the continuing effort to enhance the administration of temporary personnel at NSF under the IPA program, in FY 2017, NSF piloted a required 10 percent cost share of the IPA's base salary and fringe benefits for all new IPA agreements.

After a successful pilot period, in FY 2020, NSF implemented the required cost share as policy effective January 31, 2020, requiring that institutions provide a minimum of 10 percent cost share for every full-time IPA agreement.¹ Total cost share increased by over \$1 million between FY 2019 and FY 2020, with the percent of assignments that cost share near 90 percent. The cost share mechanism continues to maximize taxpayer value.

The agency uses IPA science and engineering staff to help ensure that the Foundation’s funding decisions are based on the best input from the field and reflect fresh ideas and creativity. The expertise provided by these IPAs is essential to help shape the NSF research portfolio and support transformational advances across the frontiers of all fields of science, engineering, and education.

IPA Costs Compensation and Per Diem by Appropriation

(Dollars in Millions)

	FY 2020 Actual	FY 2021 Estimate	FY 2022 Request	Change over FY 2021 Estimate	
				Amount	Percent
IPA FTE Allocation ¹	198	205	255	50	24.4%
IPA FTE Usage (Actual/Projected) ¹	177	198	255	57	28.5%
Research and Related Activities (R&RA)					
IPA Compensation	\$39.23	\$44.49	\$56.25	\$11.76	26.4%
IPA Per Diem	2.63	3.53	4.68	1.15	32.6%
Subtotal, R&RA Costs	\$41.86	\$48.02	\$60.93	\$12.91	26.9%
Education and Human Resources (EHR)					
IPA Compensation	5.17	5.33	7.40	2.07	38.8%
IPA Per Diem	0.37	0.38	0.78	0.40	105.3%
Subtotal, EHR Costs	\$5.53	\$5.71	\$8.18	\$2.47	43.3%
Total¹	\$47.39	\$53.73	\$69.11	\$15.38	28.6%

¹ IPA FTE of approximately one in FY 2020, FY 2021, and FY 2022 are included in the IPA FTE Usage lines of the table above but the costs are budgeted within Other Program Administration and included in Operating Expenses section of this chapter.

The FY 2022 funding for IPA compensation and per diem costs are associated with full use of NSF’s IPA FTE allocation for FY 2022. The FY 2022 IPA FTE allocation increases 50 IPA FTE over the FY 2021 Estimate reflecting the creation of the new directorate and a growth in the number of IPA FTE commensurate with the growth in the total NSF Request. Cost increases are estimated based on projected IPA FTE utilization, current IPA funding, and the need to provide competitive salaries to recruit the best researchers in the STEM fields. For both R&RA and EHR, per IPA FTE costs in FY 2022 are estimated using amounts commensurate with current FY 2021 levels projected into FY 2022.

Information on costs associated with travel for NSF's IPAs is found within the Travel section of this chapter.

¹ If a home institution is unable to provide the full 10 percent cost share, the institution may submit requests for NSF to waive the cost-sharing requirement. Such requests must include the rationale for not being able to provide the required amount.

