

PERFORM AS A MODEL ORGANIZATION

The NSF Strategic Plan for Fiscal Years (FY) 2011-2016 establishes Perform as a Model Organization as one of three strategic goals for NSF. It emphasizes that NSF expects to attain excellence in all operational aspects. Excellence in NSF's performance as a model organization is essential to achieving and carrying out the Foundation's mission and accomplishing its other strategic goals: Transform the Frontiers and Innovate for Society.

The activities that advance NSF's Perform as a Model Organization goal are funded through five appropriations accounts. Additional details on each account are provided in the respective chapters.

Agency Operations and Award Management (AOAM) increases by \$57.74 million, or 19.2 percent, to \$357.74 million in FY 2012. These resources include funding for personnel compensation and benefits, information technology (IT) that supports administrative activities, staff travel, training, rent, and other operating expenses necessary for effective management of NSF's research and education activities. Approximately \$44 million of this increase is associated with the expiration of NSF's headquarters lease.

Office of Inspector General (OIG) increases by \$1.0 million, or 7.1 percent, to \$15.0 million in FY 2012. These resources include funding for personnel compensation and benefits, contract audits, training and operational travel, office supplies, materials, and equipment.

National Science Board (NSB) increases by \$300,000, or 6.6 percent, to \$4.84 million in FY 2012. These resources include funding for personnel compensation and benefits, employment of external experts and consultants, contracts, training and operational travel, office supplies, materials, and equipment.

Program Accounts - Research and Related Activities (R&RA) and Education and Human Resources (EHR) – Model Organization funding from program accounts increases by \$4.80 million, or 4.3 percent, to \$116.01 million in FY 2012. Program funded Model Organization activities include Intergovernmental Personnel Act (IPA) agreements and certain Foundation-wide activities such as major studies, evaluations, outreach efforts, information technology investments that are directly related to the mission of the Foundation, and NSF contributions to interagency e-Government activities.

Model Organization by Appropriations Account

(Dollars in Millions)

	FY 2010		FY 2010 Enacted/ Annualized FY 2011 CR	FY 2012 Request	Change over FY 2010 Enacted	
	FY 2010 Omnibus Actual	FY 2010 ARRA Actual			FY 2012 Request	Amount
Agency Operations and Award Management	\$299.85	-	\$300.00	\$357.74	\$57.74	19.2%
Office of Inspector General	13.97	0.05	14.00	15.00	1.00	7.1%
National Science Board	4.38	-	4.54	4.84	0.30	6.6%
Program Support						
<i>Research & Related Activities</i>	97.45	-	96.47	100.62	4.15	4.3%
<i>Education and Human Resource.</i>	14.83	-	14.74	15.39	0.65	4.4%
Subtotal, Program Support	112.28	-	111.21	116.01	4.80	4.3%
Total	\$430.48	\$0.05	\$429.75	\$493.59	\$63.84	14.9%

Totals may not add due to rounding.

NSF Workforce

NSF Workforce					
Full-Time Equivalents (FTE)					
	FY 2010 Omnibus Actual	FY 2010 Enacted/ Annualized FY 2011 CR	FY 2012 Request	Change over FY 2010 Enacted	
				Amount	Percent
<i>AOAM FTE Allocation</i>					
<i>Regular</i>	1,310	1,310	1,325	15	1.1%
<i>Student</i>	40	40	40	-	-
<i>Subtotal, AOAM FTE Allocation</i>	1,350	1,350	1,365	15	1.1%
AOAM FTE Usage (Actual/Projected)					
NSF Regular	1,285	1,285	1,325	40	3.1%
NSF Student	44	40	40	-	-
Subtotal, AOAM FTE ¹	1,329	1,325	1,365	40	3.0%
Office of the Inspector General ²	76	73	84	11	15.1%
<i>Regular</i>	70	67	76	9	13.4%
<i>Student</i>	6	6	8	2	33.3%
National Science Board ³	19	17	18	1	5.9%
Arctic Research Commission ⁴	3	4	3	-1	-25.0%
Total, Federal Employees	1,427	1,419	1,470	51	3.6%
IPAs	165	195	195	-	-
Detailees to NSF	2	6	6	-	-
Contractors (est.)	494	449	494	45	10.0%
Total, Workforce (usage)	2,088	2,069	2,165	96	4.6%

¹ Additional information regarding FTEs funded through AOAM appropriation are available in the AOAM chapter.

² The Office of Inspector General is described in a separate chapter and is funded through a separate appropriation.

³ The National Science Board is described in a separate chapter and is funded through a separate appropriation.

⁴ The U.S. Arctic Commission is described in a separate chapter and is funded through the R&RA appropriation.

In FY 2012, NSF's total federal workforce will increase by 51 FTE over the FY 2010 Enacted. The staffing profile in the table above shows that a small but significant percentage of the NSF workforce included in the FY 2012 Request – 195 people or approximately 9 percent – consists of temporary employees hired through the authority provided by the Intergovernmental Personnel Act (IPA). IPAs do not count as federal FTE. A smaller number of visiting staff – roughly 40 people annually – are employed through NSF's own Visiting Scientist, Engineer, and Educator Program (VSEE). VSEEs count as federal FTE and are included in the Federal Employees total (see table above). The use of IPAs and VSEEs, 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.

Program Funded Model Organization

R&RA and EHR Program Support funds account for about a quarter of the total Model Organization portfolio. There are two activities that comprise Program-Funded Model Organization – Intergovernmental Personnel Act (IPA) costs and Program Related Administration.

Summary of Program Funded Model Organization

(Dollars in Millions)

	FY 2010		FY 2012 Request	Change over	
	FY 2010 Omnibus Actual	Enacted/ Annualized FY 2011 CR		FY 2010 Enacted Amount	Percent
	IPA Costs	\$42.28		\$47.12	\$49.92
Program Related Administration	69.99	64.09	66.09	2.00	3.1%
<i>Program Related Technology</i>	<i>56.00</i>	<i>56.00</i>	<i>58.00</i>	<i>2.00</i>	<i>3.6%</i>
<i>Other Program Related Administration</i>	<i>13.99</i>	<i>8.09</i>	<i>8.09</i>	-	-
Total, Program Funded Model Organization	\$112.27	\$111.21	\$116.01	\$4.80	4.3%

Totals may not add due to rounding.

IPA Costs

IPA Costs by Appropriation

(Dollars in Millions)

	FY 2010		FY 2012 Request	Change over	
	FY 2010 Omnibus Actual	Enacted/ Annualized FY 2011 CR		FY 2010 Enacted Amount	Percent
	R&RA				
IPA Compensation	\$31.15	\$33.63	\$36.49	\$2.86	8.5%
IPA Lost Consultant & Per Diem	3.19	4.07	3.73	-0.34	-8.4%
IPA Travel	2.35	2.86	2.75	-0.11	-3.8%
Subtotal, R&RA Costs	36.69	40.56	42.97	2.41	5.9%
EHR					
IPA Compensation	4.63	5.39	5.75	0.36	6.7%
IPA Lost Consultant & Per Diem	0.69	0.86	0.86	-	-
IPA Travel	0.27	0.31	0.34	0.03	9.7%
Subtotal, EHR Costs	5.60	6.56	6.95	0.39	5.9%
Total, IPA Costs	\$42.28	\$47.12	\$49.92	\$2.80	5.9%

Totals may not add due to rounding.

IPAs remain employees of their home institution while serving alongside NSF employees during their temporary appointment. They are not paid directly by NSF and are not subject to federal pay benefits and limitations. NSF reimburses the home institution using the traditional grant mechanism. IPAs are eligible to receive per diem, relocation expenses, and reimbursement for income foregone because of their

assignment at NSF (i.e., lost consulting fees). IPAs function in a manner virtually identical to NSF permanent staff – leading the merit review process and overseeing awards.

Total IPA costs increase by \$2.80 million, or 5.9 percent, to \$49.92 million due to an increase in the estimated total number of IPAs on board.

Program Related Administration

Program Related Administration (PRA) includes funding for certain Foundation-wide activities such as major studies, evaluations, outreach efforts, NSF contributions to interagency e-Government activities, and grants management applications that benefit the research community, such as a reviewer management system to more effectively plan for and find the thousands of scientific experts required to support the merit review process.

Program Related Administration

(Dollars in Millions)

	FY 2010 Omnibus Actual	FY 2010 Enacted/ Annualized FY 2011 CR	FY 2012 Request	Change over FY 2010 Enacted	
				Amount	Percent
Program Related Technology	\$56.00	\$56.00	\$58.00	\$2.00	3.6%
Other Program Related Admin	13.99	8.09	8.09	-	-
Total, PRA	\$69.99	\$64.09	\$66.09	\$2.00	3.1%

Totals may not add due to rounding.

Program Related Technology (PRT) (+\$2.00 million, to a total of \$58.00 million)

PRT investments support NSF program staff as they formulate and announce program opportunities; accept proposals; conduct the merit review process; make awards to fund proposals that have been judged the most promising by the merit-review process; monitor program performance and results; and disseminate results of NSF funded research. Major IT systems funded through PRT include iTRAK, Research.gov, eJacket, and FastLane.

The PRT budget includes:

Mission-Support Applications Services (+\$2.0 million, to a total of \$41.13 million)

- **iTRAK (+\$2.30 million, to a total of \$3.90 million)** This will fund the first year of acquisition and implementation for NSF’s financial management system modernization. iTRAK is the Foundation-wide strategic initiative to transition NSF from its disparate, aging financial and property management systems to a fully integrated financial management and property solution. iTRAK is proportionately funded out of PRT (70 percent) and AOAM (30 percent) accounts based on the respective share of program-related and administrative financial transactions. iTRAK will:
 - Facilitate standardization and increase automation of NSF financial transactions, business processes, and operating procedures;
 - Provide NSF managers with financial and business analysis capabilities to support informed decision-making in administering and managing NSF grants; and
 - Enable NSF to comply with federal regulations and standards, which cannot be fully supported by NSF's current financial management environment.

The total iTRAK budget, including \$1.67 million funded by the AOAM account, will be \$5.57 million in FY 2012.

- Other mission-related applications (-\$300,000 to a total of \$22.23 million) This decrease will reduce funding for operations and maintenance for NSF's suite of legacy applications that provide comprehensive services for NSF staff, applicants, and awardees to manage the grants life cycle. NSF processes approximately 44,000 proposals annually. Every proposal is acted on: withdrawn, declined, or awarded. These legacy capabilities are essential to carrying out NSF's mission in an efficient manner and include FastLane, eJacket, and the Awards system.
- Research.gov (no change, to a total of \$15.0 million) Funding will provide NSF staff and its extended research community with capabilities to plan and manage programs, proposals, and awards; information to further promote scientific innovations and discoveries; and to support broadening participation by enabling a more diverse set of institutions, investigators, and reviewers greater access to NSF funding opportunities. Research.gov is NSF's critical investment to meet the high priority needs of NSF staff and the research community, consistent with new government-wide standards, and in partnership with the broader research community. Research.gov will:
 - Provide NSF staff new services and tools via an intuitive, easy to use desktop portal;
 - Provide services and access to information for institutions and researchers as they conduct business with NSF throughout the grants lifecycle; and
 - Implement new and emerging government-wide standards for research agencies, such as the new Research Performance Progress Report standard.

Associated IT Operations and Infrastructure (no change, to a total of \$13.91 million)

Investments in this category provide basic maintenance and operations levels for ongoing operations, which includes NSF's data center, hosting, phone, email, remote access services, and help desk services. FY 2012 funding will provide associated IT infrastructure support and services, including technical refresh projects, system redundancy, and network connections to the offsite commercial data facility housing NSF critical systems.

Related Security and Privacy Services (no change, to a total of \$2.96 million)

These investments will secure mission-related applications and protect information by providing proactive protection from viruses, spyware, and other threats. This includes network security, application security, security control testing and tools, automated vulnerability assessment tools, and remediation and intrusion detection services.

Other Program Related Administration (no change, to a total of \$8.09 million)

Other Program Related Administration includes funding for Foundation-wide activities such as major studies, evaluations, and NSF's costs associated with interagency e-Government activities. These activities include verification and validation of performance information; surveys of scientists, engineers, and educators who submit proposals for NSF awards; the Waterman Award which recognizes an outstanding young researcher in any field of science or engineering supported by NSF; AAAS fellowship program and internships; and external evaluations of cross-foundational programs.

Information Technology Investments

Information Technology (IT) Investments by Appropriation and Activity (Dollars in Millions)

	FY 2010		FY 2012 Request	Change over	
	FY 2010	Enacted/ Annualized		FY 2010	Enacted
	Omnibus Actual	FY 2011 CR		Amount	Percent
Agency Operations and Award Management (AOAM)					
Applications Services and Support	\$12.81	\$11.81	\$13.48	\$1.67	14.1%
Associated IT Operations and Infrastructure	13.80	11.50	11.50	-	-
Security and Privacy Services and Support	2.79	2.79	2.79	-	-
Subtotal, AOAM	\$29.40	\$26.10	\$27.77	\$1.67	6.4%
Program Related Technology					
Mission-Support Applications Services	39.13	39.13	41.13	2.00	5.1%
Associated IT Operations and Infrastructure	13.91	13.91	13.91	-	-
Related Security and Privacy Services	2.96	2.96	2.96	-	-
Subtotal, Program Related Technology	\$56.00	\$56.00	\$58.00	\$2.00	3.6%
Total, Information Technology Investments	\$85.40	\$82.10	\$85.77	\$3.67	4.5%

Totals may not add due to rounding.

Information Technology (IT) Investments by Appropriation (Dollars in Millions)

	FY 2010		FY 2012 Request	Change over	
	FY 2010	Enacted/ Annualized		FY 2010	Enacted
	Omnibus Actual	FY 2011 CR		Amount	Percent
Agency Operations and Award Management	\$29.40	\$26.10	\$27.77	\$1.67	6.4%
Program Related Technology	56.00	56.00	58.00	2.00	3.6%
<i>R&RA</i>	48.72	48.72	50.46	1.74	3.6%
<i>EHR</i>	7.28	7.28	7.54	0.26	3.6%
Total	\$85.40	\$82.10	\$85.77	\$3.67	4.5%

Totals may not add due to rounding.

Total funding for NSF's Information Technology (IT) investments in FY 2012 is \$85.77 million, an increase of \$3.67 million over the FY 2010 Enacted. This increase will fund first year acquisition and implementation of NSF's financial system modernization (iTRAK).

- \$58.0 million is for Program Related Technology (PRT) activities that relate directly to NSF's programmatic investments and associated services and support, such as iTRAK, Research.gov, eJacket, and FastLane. PRT is funded with direct program resources from the R&RA and EHR accounts. Further information on PRT-funded IT investments can be found on page 4 of this chapter.
- \$27.77 million is funded with AOAM resources and will support routine administrative activities, such as human resources, financial statement preparation, procurement, etc. Further information on AOAM-funded IT investments can be found in the AOAM chapter of this Request.

E-Government Activities

NSF is providing funding to these E-Government Activities:

NSF FY 2010 Enacted/ FY 2011 Annualized CR Funding for E-Government Initiatives

Initiative	FY 2010 Agency Contributions	FY 2010 Agency Svc. Fees	NSF Total	Appropriations Account		
				AOAM	R&RA	EHR
Grants.gov	\$475,294	-	\$475,294	-	\$413,506	\$61,788
Grants Management LoB	174,360	-	174,360	-	151,693	22,667
E-Travel	-	150,038	150,038	150,038	-	-
Geospatial LoB	15,000	-	15,000	-	13,050	1,950
E-Training	-	370,000	370,000	370,000	-	-
E-Rulemaking	-	5,100	5,100	5,100	-	-
Recruitment One-Stop (USA Jobs)	-	4,871	4,871	4,871	-	-
E-HRI	-	48,724	48,724	48,724	-	-
Integrated Acquisition Environment (IAE)	-	18,866	18,866	18,866	-	-
Human Resources Management LoB	65,217	-	65,217	-	56,739	8,478
Financial Management LoB	44,444	-	44,444	-	38,666	5,778
Budget Formulation/Execution LoB	95,000	-	95,000	-	82,650	12,350
E-Payroll (incl. Shared Services)	-	304,704	304,704	304,704	-	-
Total	\$869,315	\$902,303	\$1,771,618	\$902,303	\$756,304	\$113,011

Totals may not add due to rounding.

NSF FY 2012 Funding for E-Government Initiatives

Initiative	FY 2012	FY 2012	NSF Total	Appropriations Account		
	Agency Contributions	Agency Svc. Fees		AOAM	R&RA	EHR
Grants.gov	-	\$481,957	\$481,957	-	\$419,303	\$62,654
Grants Management LoB	106,426	-	106,426	-	92,591	13,835
E-Travel	-	215,163	215,163	215,163	-	-
Geospatial LoB	-	-	-	-	-	-
E-Training	-	370,000	370,000	370,000	-	-
E-Rulemaking	-	10,500	10,500	10,500	-	-
Recruitment One-Stop (USA Jobs)	-	7,522	7,522	7,522	-	-
E-HRI	-	26,237	26,237	26,237	-	-
Integrated Acquisition Environment (IAE)	-	18,511	18,511	18,511	-	-
IAE - Loans and Grants		89,973	89,973	89,973	-	-
Human Resources Management LoB	65,217	-	65,217	-	56,739	8,478
Financial Management LoB	44,444	-	44,444	-	38,666	5,778
Budget Formulation/Execution LoB	105,000	-	105,000	-	91,350	13,650
E-Payroll (incl. Shared Services)	-	314,640	314,640	314,640	-	-
Total	\$321,087	\$1,534,503	\$1,855,590	\$1,052,546	\$698,649	\$104,395

Totals may not add due to rounding.

Benefits realized through the use of these activities are:

- *Grants Management Line of Business (GMLoB)*
NSF anticipates the key benefit of Grants Management LoB (GMLoB) will be having a common place for grantees to track the status of applications, find award information, and submit grant progress and financial reports. Automated business processes available through Consortia will decrease agency reliance on manual and paper-based processing. GMLoB will lead to a reduction in the number of record systems for grants data across NSF and the government and will foster the development of common reporting standards, improving NSF's ability to provide agency and government wide reports on grant activities and results.

As a GMLoB Consortium lead, NSF has developed Research.gov in partnership with NASA, the Defense Research Agencies, and USDA National Institute of Food and Agriculture. Research.gov is a web portal containing government-wide resources and tools for research institutions to conduct grants business with Federal research agencies. Research.gov aims to ease the grants administrative burden on applicants and awardees by providing a menu of services focused on the needs of research institutions. Research.gov provides:

- Research Spending and Results Service enabling the general public to search for detailed research grant award information including Principal Investigator, Award Abstract, and Publication Citations.
- Research Headlines and Events highlighting research activities from NSF and partner agencies;

- Policy library providing access to federal and agency-specific policies, guidelines, and procedures;
- Grants Application Status Service enabling principal investigators and sponsored project office staff to check the status of grant applications submitted to participating agencies;
- Federal Financial Report Service enabling grant recipients to complete and submit grant financial reports using the new government-wide federal financial report standard; and,
- Institutions and User Management Service allowing institution administrators to add users and manage their profiles.

By leading the GMLoB Consortium, NSF will receive the following benefits:

- Avoiding costs related to developing and implementing online grants management services;
- Supporting federal agencies' efforts to promote their common research mission;
- Fulfilling federal mandates (Public Law 106-107, President's Management Agenda, E-Government Act, and the Federal Funding Accountability and Transparency Act); and
- Organizing information into a single access point throughout the grants management business process.

Service to constituents will be improved through the standardization and streamlining of government-wide grants business processes. The public will receive time savings as a result of quicker notification and faster payments due to an automated system for grants processing. Furthermore, GMLoB will minimize complex and varying agency-specific requirements and increase grantee ease of use on federal grants management systems. Constituents will benefit from having fewer unique agency systems and processes to learn; grantees' will benefit from ease in learning how to use the system and reduced need to rely on call center technical support.

- *Geospatial Line of Business*

NSF supports basic research at the frontiers of discovery across all fields of science through competitive proposals that are evaluated using merit-based peer review. To advance its mission, NSF actively participated in activities that shape and enhance the scientific enterprise. Although NSF is not currently a provider of geospatial data, it does consider proposals for support of fundamental research that utilizes or enhances the value of geospatial information. NSF recognized the importance of the Geospatial LoB in establishing a more collaborative and performance-oriented culture within the federal geospatial arena that optimizes investments in data and technology and yield many long-term benefits to the Nation.

- *Human Resources Line of Business (HRLoB)*

NSF benefits through its use of best-in-class Human Resources (HR) services and systems provided by one of the approved service providers, the Department of Interior's National Business Center. Through its adoption of an approved service provider, NSF achieves the benefits of "best-in-class" HR solutions and offers employees across the agency improved HR services without the costs of developing and maintaining their own HR systems. Participation in the Human Resources Management LoB (HR LoB) allows NSF to participate in the implementation of modern HR solutions and benefit from best practices and government-wide strategic HR management.

- *Financial Management LoB (FMLoB)*

NSF will realize the following benefits through participation in the Financial Management LoB (FM LoB) and usage of a common solution:

- **Cost Savings:** Customer agencies will reduce the cost of their financial operations when adopting the centralized transaction processing solutions.

- **Reduced administrative burden:** Customers of a common shared solution can rely on authoritative data sources for certain financial reporting thereby reducing or eliminating the need to capture and send data for reporting.
 - **Cost Avoidance:** Agencies implementing common solutions will eliminate the capital expenses associated with building and maintaining server and system infrastructures.
 - **Minimizing Risk:** Customer agencies will minimize risk by implementing solutions for their transactions processing that are already operating with standard data and standard data exchanges.
-
- *Budget Formulation and Execution Line of Business (BFELoB)*

The Budget Formulation and Execution LoB (BFELoB) chartered a workgroup with the intent of reducing the need for duplicate data entry by agencies into the MAX A-11 system by improving the quality of data and data exchange. NSF has participated in the process of developing standards formats for data submission and rules validation, and worked to coordinate their agency's efforts to build or update their agency's budget system to interface with MAX A-11 directly. NSF has also provided input into the development and validity testing of the Budgeting Capabilities Self Assessment Tool (BCSAT) and has already begun using it to assess organizational practices and develop strategic plans to address areas of need. The National Science Foundation (NSF) currently has approximately 250 users registered for the MAX Federal Community.