

OFFICE OF INSPECTOR GENERAL (OIG)**\$15,008,000**
+\$248,000 / 1.7%

The Appropriations Act that funds the National Science Foundation (NSF) provides for a separate appropriation for NSF's Office of Inspector General (OIG). Accordingly, this FY 2018 Budget Request identifies the resources needed to support OIG, including amounts for personnel compensation and benefits (PC&B), contract services, training, travel, supplies, materials, and equipment.

The FY 2018 Budget Request for OIG is \$15.01 million, an increase of \$248,000 from the FY 2016 Actual of \$14.76 million.

Office of Inspector General Funding

(Dollars in Millions)

	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Change Over FY 2016 Actual	
				Amount	Percent
Total, OIG	\$14.76	\$15.13	\$15.01	\$0.25	1.7%
Full-Time Equivalents (FTEs)	67	72	69	2	2.8%

Appropriations Language

For necessary expenses of the Office of Inspector General as authorized by the Inspector General Act of 1978, ~~\$15,160,000~~, \$15,008,000, of which \$400,000 shall remain available until September 30, 2017-2019.

(Note – A full-year 2017 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Further Continuing Appropriations Act, 2017 (P.L. 114-254). The amounts included for 2017 reflect the annualized level provided by the continuing resolution.)

**Office of Inspector General
FY 2018 Summary Statement**

(Dollars in Millions)

	Enacted/ Request	Unobligated Balance Available Start of Year	Unobligated Balance Available End of Year	Adjustments to Prior Year Accounts	Obligations Actual/ Estimates
FY 2016 Appropriation	\$15.16	\$0.17	-\$0.38	-\$0.19	\$14.76
FY 2017 Annualized CR	15.13	0.38			15.51
FY 2018 Request	15.01				15.01
\$ Change from FY 2017 Annualized CR					-\$0.50
% Change from FY 2017 Annualized CR					-3.2%

Explanation of Carryover

Within the **Office of Inspector General (OIG)** two-year account, \$380,002 was carried over into FY 2017.

Office of the Inspector General

- Amount: \$380,002
- Reason: Funds are expected to be used to procure audit and forensic contracts. The selection of awards and institutions to be audited will require careful preparation and is subject to changing circumstances and new information that may require additional time to process.

- Anticipated Obligation: FY 2017 Quarter 4

OIG Responsibilities

In February 1989, the National Science Board established OIG pursuant to the Inspector General Act Amendments of 1988. The statute confers on OIG the responsibility and authority to:

- Conduct and supervise audits of NSF programs and operations, including organizations that receive NSF funding;
- Conduct investigations concerning NSF programs and operations, including organizations that receive NSF funding;
- Evaluate allegations of research misconduct, such as fabrication, falsification, or plagiarism, involving individuals who participate in NSF-funded activities;
- Provide leadership, coordination, and policy recommendations for:
 - Promoting economy, efficiency, and effectiveness in the administration of NSF programs and operations, and
 - Preventing and detecting fraud and abuse in NSF programs and operations; and
- Keep both agency management and Congress fully and currently informed about problems, recommended corrective actions, and progress being made in improving the management and conduct of NSF programs, to include the issuance of a Semiannual Report to Congress.

OIG performs audits of grants, contracts, and cooperative agreements funded by NSF's programs; and audits and reviews of both internal agency programs and external organizations that receive NSF funding to ensure that financial, administrative, and programmatic activities are conducted economically, effectively, and in compliance with agency and federal requirements. OIG oversees the audit of NSF's annual financial statements, which are required for all NSF accounts and activities by the Government Management Reform Act of 1994. Audit work mandated by the Federal Information Security Modernization Act of 2014 (FISMA), the Improper Payments Elimination and Recovery Act (IPERA), and the Digital Accountability and Transparency Act (DATA Act) is also performed annually.

OIG also audits the systems used by NSF to prepare the financial statements. In addition, the office performs multi-disciplinary reviews—involving auditors, attorneys, management analysts, investigators, scientists, and others as needed—of financial, management, and program operations to identify broader problems and highlight best practices.

OIG investigates possible wrongdoing by organizations and individuals who seek or receive NSF funds such as those who submit proposals to, receive awards from, conduct business with, or perform work for NSF. Allegations of research misconduct by NSF recipients are also investigated. OIG assesses the validity and seriousness of all the allegations it receives to determine whether or not to pursue legal or administrative action. When appropriate, the office refers the results of these investigations to the Department of Justice or other authorities for criminal prosecution, civil litigation, or resolution via settlement agreements and institutional compliance plans. OIG refers some cases to NSF for administrative resolution and when indicated will recommend modifications to agency policies and procedures to ensure the integrity of NSF's business systems. OIG works closely with institutions on their internal research misconduct investigations and regularly engages in activities aimed at preventing and detecting fraud, waste, and abuse; and at raising the awareness of funded researchers, institutional administrators, and agency employees about OIG's role and NSF's rules and expectations.

Because diverse skills, training, and experience are necessary to oversee NSF's many programs, the OIG staff includes scientists, attorneys, certified public accountants, criminal investigators, management analysts, evaluators, and information technology specialists. The subjects of investigations, audits, and other reviews are also varied and may include: an individual grant recipient or institution; a broad program

or functional area of NSF; or a project involving multiple disciplines or entities. In addition, the OIG utilizes contractors to perform work when it is cost effective, or when it lacks the necessary expertise in-house, as in the case of the annual audit of the agency’s financial statements and annual review of its compliance with the Federal Information Security Modernization Act of 2014 (FISMA).

Office of Inspector General
Personnel Compensation and Benefits and General Operating Expenses
(Dollars in Thousands)

	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 Request	Change Over FY 2016 Actual	
				Amount	Percent
Personnel Compensation and Benefits ¹	\$11,476	-	\$12,075	\$599	5.2%
Travel & Transportation of Persons	186	-	180	-6	-3.2%
Advisory & Assistance Services ²	2,655	-	2,283	-372	-14.0%
Rent	76	-	95	19	25.0%
Information Technology	90	-	50	-40	-44.4%
Communications, Supplies, Equipment & Other Services	279	-	325	46	16.5%
<i>Training</i>	140	-	175	35	25.0%
<i>Other</i>	139	-	150	11	7.9%
Total, OIG	\$14,762	\$15,130	\$15,008	\$246	1.7%
Full-Time Equivalents	67		69	2	3.0%

¹ Includes projected 2018 pay raise of 1.9 percent, as well as anticipated within grade and promotion increases.

² Includes the costs of the annual financial statements audit and the outsourcing of contracting services.

An FY 2018 appropriation of \$15.01 million will enable OIG to carry out the core elements of its mission and maintain a workforce of 69 FTEs. NSF’s portfolio of grants and cooperative agreements increases in complexity each year, and requires the majority of OIG’s audit and investigative resources. However, we project that rising personnel and contract costs will limit spending on audit contracts, training, technology, and preventive activities.

At the beginning of FY 2017, five professional staff were added to program areas where workload imbalances are of greatest concern. As our current workforce ages, new hires are critical to revitalizing our workforce and are carefully vetted not just for technical skills but also for their readiness to assume future management responsibilities. Currently, approximately 24 percent of our staff (mostly managers) are eligible to retire.

Between FY 2013 and FY 2016, OIG has sustained an increase in its average cost per FTE of about 18 percent, as personnel costs and benefits have increased, and professionals such as lawyers, investigators and CPAs replace administrative staff. We believe that being able to maintain a workforce of at least 68-70 FTEs is necessary to effectively perform our mission.

OIG has streamlined its administrative unit, electing to allocate as many FTEs as possible for audits and investigations. Investments in equipment and technology upgrades (e.g., expansion of our data analytics capability for Audits and Investigations) will continue to be pursued as funds allow. Funding for preventive activities, such as educating researchers at regional conferences about rules and requirements associated with federal grants, as well as other outreach efforts to stakeholders, will be curtailed to fund more urgent programmatic priorities.

Office of Audits (OA). The Office of Audit conducts audits and reviews of NSF's finances and operations that are either mandated by statute or discretionary. Audit work required by statute has grown in recent years from auditing NSF's financial statements and compliance with the Federal Information Security Modernization Act of 2014 (FISMA), to reviewing compliance with new legislation, such as the Improper Payments Elimination and Recovery Act (IPERA), and the Digital Accountability and Transparency Act (DATA Act). These new audit responsibilities will require additional staff hours and funding for contractors than had previously been the case. In FY 2017, we estimate that the cost of the Financial Statements and FISMA contract will amount to approximately \$1.10 million, up from \$940,000 in FY 2015.

The increased costs for the OIG's mandatory work has reduced the capacity of OA to perform discretionary audits, which target high-risk programs and institutions. The universe of potential discretionary audits is large, consisting of about 42,000 active awards worth \$28.0 billion. Historically, the OA audit plan includes about 40 discretionary audits.

Much of our discretionary audit work recently has focused on NSF's construction and management of its large facilities. Since 2010, OIG has issued 28 reports containing more than 80 recommendations to improve NSF's use and management of cooperative agreements for the construction and operation of its high-dollar, high-risk research facilities. NSF has adopted new policies and procedures to strengthen its monitoring of large facilities as a direct result of these reports. NSF frequently funds the development of large-scale, multiuser scientific facilities through federal assistance awards under cooperative agreements (CAs). As of February 2016, NSF supports a broad array of 28 major research facilities, which individually cost between \$100.0 million and \$500.0 million each to construct. As of January 2017, NSF had 459 active cooperative agreements totaling nearly \$8.0 billion.

Twenty-two of these agreements are valued at over \$50.0 million each and add up cumulatively to more than \$4.40 billion. Recent OIG audits and reviews of NSF's oversight of four of these facilities identified several control issues which the Foundation has begun to address. This initiative will help strengthen the Foundation's ability to ensure grant and procurement funds are not wasted by improper expenditures and mismanagement. Strong controls, as well as increased oversight by additional OIG staff, will help ensure NSF obtains critical assets and services necessary to meet its missions in a declining budget environment.

For example, construction is ongoing for the \$469.0 million National Ecological Observatory Network (NEON), a continental-scale observation system for examining ecological change over time. Beginning in 2011, auditors identified serious flaws in NEON's proposed construction budget and issued three inadequacy memos along with an adverse opinion on the proposed budget. Within the proposal, OIG found \$154.0 million in questioned and unsupported costs (approximately 36 percent of the total budget). Our concerns about NEON's finances were validated in June 2015 when NEON management informed NSF that the project was facing a potential cost overrun of \$80.0 million. Similar issues surfaced during OIG's review of proposed costs for the \$467.70 million Large Synoptic Survey Telescope (LSST).

In a given year, NSF spends significantly more on operating its facilities than it does on constructing them. NSF requested over \$193.0 million for fiscal year 2017 to pay for four large facility construction projects. In contrast, NSF's operation and maintenance request for its existing large facilities for the same time period was over \$1.0 billion. We have recently initiated a review focusing on the risk of commingling construction and operations funds. Ensuring that strong controls exist over the use of such funds is vital, as use of operations funds for construction work can hide cost overruns and deplete funding needed for the operations phase. OIG will also monitor the actions NSF takes in response to requirements in the American Innovation and Competitiveness Act, which mandates a number of important controls to be applied in the development of NSF's large facilities projects.

OIG audits have also led NSF to pay more attention to the amounts it pays scientists, engineers, and educators who come to NSF under Intergovernmental Personnel Act (IPA) assignments. Individuals on IPA appointments remain employees of their home institutions. As a result, pay and benefits for IPAs are set by their home institutions and are not subject to limitations on federal pay and benefits.

Audits issued in 2013 and 2016 found that the Foundation's use of IPAs comes at increasing cost. In 2015, NSF paid nearly \$8.90 million for 27 executive-level IPAs, compared to \$6.50 million for 21 executive level IPAs in 2012. IPA salaries can also significantly exceed the salaries of the highest paid federal employees. In 2015 the highest executive-level IPA salary was more than \$440,000, up 45 percent from \$301,247 in 2012. In 2015, the salaries for all but two executive level IPAs were more than the highest salary of any federal employee at NSF. Our audits recommended that NSF evaluate ways to reduce IPA costs and NSF has begun to take action.

Office of Investigations (OI). OI investigations cover the entire spectrum of investigative functions, and is comprised of three units. The Research Integrity/Admin Investigations (RIA) division is primarily responsible for investigating allegations of Research Misconduct (RM) and personnel misconduct within NSF. Our Program Integrity (PI) division is primarily responsible for investigating allegations of civil and criminal wrongdoing. The Investigative Legal (IL) division works with both RIA and PI in the successful accomplishment of investigations, liaison activities, and outreach to both the government and science communities.

The work of OIG's Office of Investigations (OI) serves as an important deterrent to grant fraud and research misconduct and consistently contributes much more than its cost to the government's bottom line. Between FY 2009 and FY 2016, OI recovered almost \$35.0 million for the government. In FY 2016 alone, our 21 staff investigators recovered \$8,926,748, an average of \$425,083 per investigator, approximately three times their average salaries.

OI's workload has increased in recent years due primarily to growth in Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) cases. In particular, OIG has successfully partnered with NSF program managers to improve the identification of the nature and extent of fraudulent conduct on the part of grant recipients under the SBIR/STTR program. Our proactive efforts generated over 175 SBIR/STTR-related cases, while the number of awards has increased from 599 to 715 (an increase of almost 20 percent) over three years.

Despite its relatively small size, OI's activities consistently benefit agencies beyond NSF. Among other things, its staff has produced and annually updates a digest of successfully prosecuted grant fraud cases. This has been used by civil and criminal Assistant United States Attorneys across the country to facilitate prosecutions of individuals who have defrauded grant-funding agencies and/or the SBIR/STTR set aside programs.

In FY 2016, OI hosted its fifth Suspension and Debarment (S&D) Workshop. These free events (which are now co-sponsored by the Interagency Suspension and Debarment Council) have trained hundreds of individuals from OIGs, Suspension and Debarment Offices, Offices of General Counsel and United States Attorney's Offices. As a result of these workshops, several agencies that were not previously using suspensions or debarments to protect federal funds have begun to do so, and agencies that were using these critical tools have strengthened their practices and identified more robust ways to protect federal funds.

Also in FY 2016, OI sponsored its second SBIR workshop. Like the S&D workshops, this free event helped investigators, DOJ attorneys, and program personnel identify new and improved ways to fight fraud in the SBIR program. As a result of these workshops and OI's leadership role in this area, many agencies

(including the Department of Health and Human Services OIG and the Air Force) have created new programs to fight fraud in the SBIR program or enhanced existing ones.

OIG Support Functions. Most office-wide support functions fall under the executive leadership of an Assistant Inspector General (who also serves as OIG's Legal Counsel) and are functionally encompassed within two operating units—an immediate office and a management division.

Immediate office functions comprise those that have historically worked together, but which were formerly aligned under the direct supervision of the Inspector General—legal, legislative/congressional, and external affairs (including public/media contacts). The staff also actively supports government-wide projects in which NSF OIG has taken a leadership role, such as increasing the use and effectiveness of suspension and debarment remedies to protect taxpayer funds.

Besides providing comprehensive legal advice, counsel, and critical analysis to the IG and all OIG divisions, the legal activity also administers financial disclosure requirements for OIG staff; performs certain functions related to the Freedom of Information and Privacy Act; represents the office in external forums; and also enables the office to engage in proactive efforts (such as training and routine reviews) to help OIG staff recognize and deal with legal concerns as early as possible.

OIG's management/administrative arm is responsible for performing strategic planning/budgeting, procurement, human resources, and administrative support and is currently comprised of just three staff. Organizational alignment of the two units under a single executive subordinate to the IG has saved money and afforded some synergistic benefits to the organization. To assure that there are adequate resources available for our core mission of audits and investigations, support functions across the OIG have been streamlined to the maximum extent practical.

Information Technology. Spending on hardware, software, and IT services is expected to remain at a reduced level through FY 2018. OIG plans to reduce its costs for computers and printers by lengthening their replacement cycle, phasing out the use of desktop printers and relying more on network printers.

Preventive initiatives. To optimize limited budget resources OIG has already reduced many of its initiatives aimed at fulfilling its core mission to prevent fraud, waste, and abuse. These include our efforts to address the issues underlying grant fraud, research misconduct, and SBIR program fraud. In the past, our staff has played a key role in educating the agency's stakeholders on matters related to grant fraud and research misconduct. OIG's proactive efforts help to assure the integrity of federally-funded research by promoting effective oversight of NSF-funded activities at the institutional level. Robust interaction between OIG and the research community not only helps to promote research integrity and financial accountability, but also provides our investigators and auditors with valuable insights into the needs and concerns of the institutions and researchers.