

OFFICE OF INSPECTOR GENERAL (OIG)**\$15,345,000**
+\$248,000 / 1.6%

The Appropriations Act that funds the National Science Foundation provides for a separate appropriation for NSF's Office of Inspector General (OIG). Accordingly, this FY 2019 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 2019 Budget Request for OIG is \$15.35 million, an increase of \$248,000 from the FY 2017 Actual of \$15.10 million.

Office of Inspector General Funding					
(Dollars in Millions)					
	FY 2017 Actual	FY 2018 Annualized CR	FY 2019 Request	Change Over FY 2017 Actual	
				Amount	Percent
Total, OIG	\$15.10	\$15.10	\$15.35	\$0.25	1.6%
Full-Time Equivalents (FTEs)	72	69	71	-1	-1.4%

Appropriations Language

For necessary expenses of the Office of Inspector General as authorized by the Inspector General Act of 1978, ~~\$15,008,000~~ \$15,345,000, of which \$400,000 shall remain available until September 30, ~~2019~~ 2020.

Office of Inspector General						
FY 2019 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 2017 Appropriation	\$15.20	\$0.38	-\$0.39	-\$0.09	\$15.10	
FY 2018 Annualized CR	15.10	0.39			15.49	
FY 2019 Request	15.35				15.35	
\$ Change from FY 2018 Annualized CR					-\$0.15	
% Change from FY 2018 Annualized CR					-0.9%	

Explanation of Carryover

Within the Office of Inspector General (OIG) two-year account, \$392,372 was carried over into FY 2018.

Office of the Inspector General

- Amount: \$392,372
- Reason: Funds are expected to be used to procure financial and forensic audit services. 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.
- Obligation: Anticipated FY 2018 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 of civil and criminal wrongdoing related to NSF programs and operations, including all entities and individuals that receive NSF funds;
- Evaluate allegations of research misconduct, such as fabrication, falsification, or plagiarism, related to NSF-funded research;
- 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;
- 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 conducts 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 is vested with law enforcement authority and 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 2017	FY 2018	FY 2019	Change Over	
	Actual	Annualized CR	Request	FY 2017 Actual Amount	FY 2017 Actual Percent
Personnel Compensation and Benefits ¹	\$12,360	-	\$12,162	-\$198	-1.6%
Travel & Transportation of Persons	224	-	185	-39	-17.4%
Advisory & Assistance Services ²	1,799	-	2,548	749	41.6%
Rent	83	-	100	17	20.5%
Information Technology	89	-	50	-39	-43.8%
Communications, Supplies, Equipment & Other Services	542	-	300	-242	-44.6%
<i>Training</i>	192	-	150	-42	-21.9%
<i>Other</i>	350	-	150	-200	-57.1%
Total, OIG	\$15,097	\$15,096	\$15,345	\$248	1.6%
Full-Time Equivalents	72	69	71	-1	-1.4%

¹ FY 2019 PC&B includes base salary costs and anticipated within grade and promotion increases.

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

An FY 2019 appropriation of \$15.35 million will enable OIG to carry out the core elements of its mission with a workforce of 71 FTEs. OIG’s appropriation is just 0.2 percent of NSF’s, and serves as a safeguard against waste, fraud, and abuse within the agency’s 42,000 active awards worth more than \$28.0 billion.

Between FY 2013 and FY 2017, OIG has sustained an increase in its average cost per FTE of 19.4 percent, as personnel costs and benefits have increased more than expected, and professionals such as lawyers, investigators and CPAs have replaced administrative staff. The office strives to maintain a workforce of at least 68-71 FTEs to carry out our most critical responsibilities. As our current workforce ages, new hires are critical to revitalizing our workforce and are carefully vetted for technical skills along with their potential to assume more senior management responsibilities as they progress. Currently, approximately 24 percent of our staff (mostly managers) are eligible to retire.

Beyond its annual payment of dues, OIG has made outsized contributions to the Inspector General community and the government at large through its leadership in the Council of the Inspectors General on Integrity and Efficiency (CIGIE). The NSF Inspector General has served as the CIGIE Vice Chair since 2014, and as such helped lead the community as it supported the passage of the Inspector General Empowerment Act. NSF OIG has also played a leading role in founding and running two working groups aimed at raising awareness within the IG community about: preventing fraud within the SBIR/STTR programs; and using government-wide suspension and debarment as tools to deter and reduce instances of fraud, waste and abuse. In addition, NSF OIG led a working group with representatives from OIGs at over 20 grant-making agencies that provided valuable feedback to OMB as it worked to combine eight grant-related circulars into the Uniform Guidance.

Economy and Efficiency of Operations. For context, in operating a lean, efficient organization, the NSF Office of Inspector General practices the principles it espouses in its reports. In recent years OIG has

reduced its senior leadership team from five to four, and devolved senior level administrative responsibilities to lower graded staff, saving \$220,000 per year. The Assistant Inspector General for Investigations doubles as Chief Information Officer, saving yet another FTE. In addition, OIG streamlined its administrative unit, electing to re-allocate as many FTEs as possible to line staff that directly perform audits and investigations.

Funding for “upstream” preventive activities, such as educating researchers about rules and requirements associated with federal grants, is reduced from previous years in order to ensure that adequate resources are available for more urgent audits and investigations that will have greater effect. Investments in equipment and technology upgrades (e.g., expansion of our data analytics capability for Audits and Investigations) are pursued only if a persuasive business case can be made.

The Office of Audits (OA) and Office of Investigations (OI) have each recently reorganized themselves to better align their activities with their mission. For example, OA recently reduced the number of audit divisions from five to three, while OI streamlined the intake and handling of Hotline calls to respond more rapidly to information from whistleblowers and others. Both offices recently invested in new systems that automate many of the steps involved in the production and recordkeeping of their reviews and cases. This has significantly reduced the number of support staff and storage space (for paper records) needed in each office. They have also revised their respective operations manuals to implement work processes that improve efficiency and reduce errors in OIG final products.

Other cost saving measures include:

- Outsourced OIG contracting services to the Department of Interior in order to maintain independence from the agency in the contracting arena (an area subject to oversight). Outsourcing this function was more cost effective than hiring a contracting officer.
- Eliminated two student positions that saved \$80,000.
- Reorganized front office to increase the IG’s capacity to focus on higher level strategic matters.
- Office of Counsel conducts thorough reviews of all reports and contracts to identify potential legal issues at the earliest possible time and prevent costly re-work and unintended consequences.
- Manage and track required professional training on-line through the use of a third party provider to reduce the cost of obtaining Continuing Professional Education credits.
- Expanded use of SharePoint collaborative platform to provide staff with one virtual location for most OIG information, and enable them to work more efficiently.
- Utilized high speed scanners to upload paper evidence thereby reducing time spent copying, handling, and storing voluminous files.
- Increased reliance on WebEx and other teleconferencing technologies to reduce travel costs.

OIG’s bottom line results demonstrate its effectiveness. In just the past two fiscal years, OA has issued 78 audit reports with over \$16.0 million in questioned costs. During the same period, OI secured \$16.60 million in investigative recoveries.

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). The universe of potential topics for discretionary audits is large, consisting of about 42,000 active awards worth \$28.0 billion and all of NSF’s internal programs and operations. Historically, the OA audit plan includes about 40 discretionary audits.

Much of our recent discretionary audit work has focused on NSF's construction and management of its large facilities. Since 2010, OIG has issued 59 reports containing more than 149 recommendations to improve NSF's use and management of cooperative agreements for the construction and operation of its high-dollar, high-risk research facilities. As a direct result of these reports, NSF has adopted new policies and procedures to strengthen its monitoring of large facilities. NSF frequently funds the development of large-scale, multiuser scientific facilities through federal assistance awards under cooperative agreements. As of July 2017, NSF supports a broad array of 23 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 over the lifecycle of the facilities. This audit work 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).

NSF generally 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 period was over \$1.0 billion. We have recently initiated a review that focuses 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 several 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. Thus, pay and benefits for IPAs are set by their home institutions and are not subject to limitations on federal pay and benefits.

Additionally, in FY 2018 and beyond OIG will monitor the design, construction, and ongoing capital investment and support of NSF's major initiative known as the Antarctic Infrastructure Modernization for Science, or AIMS. According to NSF, the AIMS project will ensure that McMurdo Station remains a viable platform for supporting Antarctic science for the next 35 to 50 years. This new major initiative, as well as ongoing support for the U.S. Antarctic Program, will be accomplished through a series of large contracts.

Office of Investigations (OI). The NSF Office of Investigations was vested with law enforcement authority by the Department of Justice in 2012. OI's staff of 21 line investigators are divided into three units and cover the entire spectrum of investigative functions. The Research Integrity/Admin Investigations (RIA) division is primarily responsible for investigating allegations of Research Misconduct (RM) and personnel misconduct within NSF. Staff from this unit also serve as our principal liaison to the research community,

through the conduct of organized outreach events, consultations on referred RM investigations, and participation in professional scientific associations and interagency RM working groups.

Our Program Integrity (PI) division is primarily responsible for investigating allegations of civil and criminal wrongdoing. They also serve as our principal liaison to the federal OIG and law enforcement communities, as well as to federal and state prosecuting authorities. They perform this liaison through leadership of, and participation in, numerous formal and informal working groups and through direct outreach to particular elements of those communities.

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. IL is also responsible for liaison with formal and informal federal working groups assembled to craft, refine, and educate the IG community on the tools available to identify, deter, and remedy fraud against the government. Such working groups have focused on the Program Fraud Civil Remedies Act and Suspension & Debarment (a mechanism that prevents irresponsible parties from receiving federal funds).

The work of OIG's Office of Investigations serves as an important deterrent to grant fraud and research misconduct. OI 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 line investigators recovered \$8,926,748, an average of \$441,966 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. 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. Addressing OIG's "prevent" mission, OI has successfully partnered with NSF program managers to improve the processes and procedures surrounding the SBIR/STTR program in a manner that greatly reduces the opportunity to fraudulently abuse these important programs. Through its leadership of the SBIR Working Group, OI has also shared those opportunities for process and policy improvements with other OIGs at SBIR-award making agencies.

Despite its relatively small size, OI's activities consistently benefit the federal government far beyond NSF. The Assistant IG for Investigations (AIGI) has been Chair of the CIGIE AIGI Committee for the past two years. In that role, he plans and presides over quarterly meetings that gather AIGIs and IGs from all 73 agency OIGs. In addition, OI's staff have 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 2017, OI hosted its fifth Suspension and Debarment 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.

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 (including review of all audit and inspection reports) 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 Acts; 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. Functional alignment of the two areas under a single executive subordinate to the IG has saved money and afforded some synergistic benefits to the organization. No additions to staff in FY 2019 are contemplated. 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 2019. OIG plans to reduce its costs for computers and printers by lengthening their replacement cycle and phasing out the use of desktop printers.

