

OFFICE OF INSPECTOR GENERAL (OIG)**\$14,430,000**
+\$230,000 / 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 2015 budget submission 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 2015 Budget Request for OIG is \$14.43 million, which represents an increase of \$230,000 over the FY 2014 Estimate of \$14.20 million.

Office of Inspector General

(Dollars in Millions)

	FY 2013 Actual	FY 2014 Estimate	FY 2015 Request	Change over	
				FY 2014 Estimate	
				Amount	Percent
Total, OIG	\$13.17	\$14.20	\$14.43	\$0.23	1.6%
<i>ARRA Obligations: FY 2013</i>	<i>1.16</i>				
Total, OIG including ARRA	\$14.33	\$14.20	\$14.43	\$0.23	1.6%
Full-Time Equivalent (FTEs)	77	71	73	2	2.8%

Totals may not add due to rounding.

Appropriations Language

For necessary expenses of the Office of Inspector General as authorized by the Inspector General Act of 1978, ~~\$14,200,000~~, \$14,430,000, of which \$400,000 shall remain available until September 30, ~~2015~~2016.

**Office of Inspector General
FY 2015 Summary Statement**

(Dollars in Millions)

	Enacted/ Request	Carryover/ Recoveries	Permanently Reduced	Expired	Total Resources	Obligations/ Estimates
FY 2013 Appropriations	\$14.20		-\$1.00	-\$0.03	\$13.17	\$13.17
FY 2013 ARRA	-	1.17		-	1.17	1.16
FY 2014 Estimate	14.20			-	14.20	14.20
FY 2015 Request	14.43			-	14.43	14.43
\$ Change from FY 2014 Estimate						\$0.23
% Change from FY 2014 Estimate						1.6%

Totals may not add due to rounding.

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;

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- 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;
- Issue semiannual reports to the National Science Board and Congress to keep them informed about problems, recommended corrective actions, and progress being made in improving the management and conduct of NSF programs.

OIG performs audits of grants, contracts, and cooperative agreements funded by NSF's programs. The office also 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 is also responsible for overseeing 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. In FY 2006, we received an adjustment to our appropriation to cover the cost of the financial statement audit. OIG also audits financial, budgetary, and data processing systems used by NSF to prepare the financial statements. In addition, the office performs multi-disciplinary reviews – involving auditors, attorneys, management analysts, investigators, 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 work for NSF. Allegations of research misconduct on the part of NSF recipients are also investigated. OIG assesses the validity and seriousness of all the allegations it receives and recommends proportionate 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 other cases to NSF for administrative resolution and when needed will recommend modifications to agency policies and procedures to ensure the integrity of NSF's business systems. The Office works closely with institutions on the conduct of 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, investigators including special agents and 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, 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 review of the agency's financial systems controls and their compliance with FISMA. OIG will maintain its oversight of the few ARRA awards that remain active in FY 2015. The special appropriation that OIG received in FY 2009 to oversee ARRA funds expired on September 30, 2013.

**Office of Inspector General
Personnel Compensation and Benefits and General Operating Expenses**

(Dollars in Thousands)

	FY 2013 Actual	FY 2013 ARRA	FY 2014 Estimate	FY 2015 Request	Change over FY 2014 Estimate	
					Amount	Percent
Personnel Compensation and Benefits ¹	\$11,043	\$146	\$10,656	\$11,258	\$602	5.6%
Travel & Transportation of Persons	164	4	250	250	0	0.0%
Advisory & Assistance Services ²	1,832	1,011	2,984	2,612	-372	-12.5%
Communications, Supplies, Equipment & Other Services	134		310	310	0	0.0%
<i>Training</i>	48		160	160	0	0.0%
<i>Other</i>	86		150	150	0	0.0%
Total, OIG	\$13,173	\$1,161	\$14,200	\$14,430	\$230	1.6%
Full-Time Equivalent	77		71	73	2	2.8%

Totals may not add due to rounding.

¹ Includes projected 2015 pay raise of 1.0 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 2015 appropriation of \$14.43 million would enable OIG to carry out the core elements of its mission. In particular, it will allow our office to fill some of the positions that became vacant during FY 2012 through FY 2014 and continue to rebuild its workforce to maintain effective oversight of NSF's programs and riskiest awards. Recent budget cuts have had an impact on OIG's productivity, as our workforce has declined 15 percent from 78 FTE at the start of FY 2013 to just 67 during February 2014.

OIG has streamlined its administrative unit in order to preserve as many resources as possible for audits and investigations. In the near term, OIG will forego back filling some of these vacancies in order to assure that: the necessary number of audit contracts can be procured; and the civil/criminal investigative unit, which has lost a number of investigators to retirement, is adequately staffed. Investments in equipment and technology upgrades (e.g. expansion of our data analytics capability for Audits and Investigations) and the addition of an IT specialist to support these initiatives will continue to be stretched out. 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 continue at a reduced level.

Office of Audits (OA). Over the past two years, OA has been implementing a plan to improve both the efficiency and effectiveness of its external audits in concert with NSF's growing number of grants, contracts, and complex cooperative agreements. We are employing enhanced technical capabilities and data analytics to improve oversight of NSF funds by: 1) better targeting our audits toward the riskiest awardees; and 2) more efficiently screening and analyzing large volumes of data.

Through the use of analytics, we have increased the number of transactions we are capable of reviewing from dozens to thousands and improved our ability to identify problematic or questionable costs from an average of \$250,000 per audit to as much as \$6 million. Since FY 2012, OA has lost eight staff representing 24 percent of its workforce, including those with significant experience in grant audits and data analytics that are difficult to replace. The loss of resources has reduced completed audit work from 37 reports in FY 2011 to only 25 in FY 2013, a 33 percent reduction. However, despite these challenges, OA's transition to its new business model has already produced promising results. External audits since FY 2010 have demonstrated a return of \$30 in funds put-to-better-use and questioned costs for every \$1 spent to perform the audits.

While at present we continue to utilize both contractors and OIG staff in a variety of roles to conduct audits of awardee institutions, OA is moving more toward the use of a hybrid approach to external audits. The new business model requires our in-house staff to conduct the analytics, drawing on their experience in auditing NSF grants to identify the riskiest transactions in the data. We then provide the questionable data sets to our contractors to go on site at the institutions and perform the transaction testing. Using this combination of in-house staff and contract support maximizes our efficiency and resolves the problem of being able to find and hire experienced grant auditors. Leveraging the expertise of OIG auditors in this manner also helps to address quality and timeliness issues we have experienced with our contractors. As one of the first OIGs to adopt these new methods, we are engaged in teaching others within the Inspector General community how to use analytics to improve the effectiveness of their audits.

Along with analytics, the use of contractors is vital to our oversight of NSF awards, as it allows us to audit the larger contracts, cooperative agreements, and grants, such as the multi-year support contract for the US Antarctic Program (USAP). NSF commits over \$330 million per year in Antarctic research awards and associated support contractors. OIG has recently undertaken a comprehensive review and risk assessment of this key NSF program and has committed to expanding its oversight. The review identified a dozen medium and high risk areas, such as, health and safety, information technology, and deferred maintenance that warrant audit attention. Audits of NSF's IT infrastructure are also part of our audit plan, as the agency moves its applications and resources into cloud computing and its internet service into the Trusted Internet Connection (TIC) in FY 2014.

Office of Investigations (OI). Recent investments in OIG's Office of Investigations have yielded an excellent return for the government. In addition to civil and criminal convictions, our cases frequently produce both financial settlements for institutional fraud, and compliance agreements aimed at strengthening internal controls and systems to better protect federal funding in the future. Since the beginning of FY 2013, OI has sustained a loss of four FTEs or 12 percent of its investigative staff due to attrition.

Because OI has been unable to replace departed staff throughout FY 2013 and early FY 2014, the impact of these losses is not notional. These vacancies have had a three-fold impact. First, in order to address those investigations currently open within OI we have had to significantly increase the number of active cases carried by each investigator. Over the last three years, the average number of active criminal investigations and research misconduct cases has increased by approximately 25 percent. Since our average caseload per criminal investigator was 20 active investigations, the loss of four investigators has meant that approximately 80 cases have been redistributed among the remaining staff. This has resulted in delay in completing investigations and in presenting cases to U.S. Attorneys for prosecution. It has also resulted in increased personal risk to our investigators as they plan and conduct law enforcement operations with a smaller contingent of law enforcement personnel. Similarly, the impact of these losses has resulted in an inability to meet the regulatory guidelines for timeliness of research misconduct investigations.

Second, the unfilled vacancies combined with a lack of travel funds have caused us to reduce our preventive activities and very successful proactive review program. In the past, these efforts have surfaced potential problems associated with individuals, entities and their oversight at an early stage, and allowed us to identify systemic weaknesses and make recommendations to the agency regarding their correction. Third, operating with reduced investigative staff has required us to be more selective in the issues we pursue to full investigation in an effort to conserve our resources. While our performance measured in terms of recoveries and funds put-to-better-use remains high, our ability to maintain that momentum over time depends on the adequacy of our funding. The budget request will sustain our current level of performance and production but may not enable us to build on that success.

Recent budget cuts have seriously impaired our efforts to address the continuing increase in financial frauds within the SBIR/STTR programs, an area of special Congressional concern. OIG opened 22 new SBIR investigations in calendar year 2011, 33 in 2012, but only 20 in 2013 due to the lack of available investigative staff. The establishment of the SBIR Investigative Working Group has opened a dialogue within the OIG community about the pursuit of SBIR fraud, resulting in a higher profile for such cases and numerous joint investigations. Our office has helped lead this multi-agency effort since its inception, and sustaining a high level of commitment has been a top priority. However, more investigative resources will be needed to sustain the momentum that was generated during the first two years of this initiative.

As noted above, our proactive review program has been very productive in generating substantive new cases and identifying systemic problems that are discussed in Management Implication Reports and referred to NSF for corrective action. In recent years, our proactive program has gained access to powerful database analysis tools originally developed by The Recovery Accountability and Transparency Board to uncover fraud in federal expenditures made under the auspices of the American Recovery and Reinvestment Act. These tools increased the number of fraud investigations undertaken by OIG and allowed us to identify prospective NSF awardees that are high-risk recipients of federal funds based on their past misconduct. However, recent budget cuts have prevented us from taking full advantage of this opportunity to leverage our investigative assets, improve our case production, and proactively identify systematic weaknesses.

Office of Administration and Legal, Legislative and External Affairs (LLE). In FY 2012, OIG created the Office of Legal, Legislative, and External Affairs (LLE) as a new organizational element under the executive leadership of an Assistant Inspector General. LLE consolidates a number of functions that have historically worked together, but which were aligned directly under the Inspector General -- legal, legislative/congressional, and external affairs (including public/media contacts). The LLE staff actively supports government-wide projects in which NSF OIG has taken a leadership role, including those focused on increasing the use and effectiveness of suspension and debarment remedies to protect taxpayer funds; and preventing and detecting fraud, waste, and abuse in the Small Business Innovative Research Program.

In May 2013, the staff and responsibilities for Administration were merged into LLE upon the retirement of the Deputy IG (who directly supervised the Office of Administration) to conserve funds. The AIG LLE assumed responsibility for both operating units, and the position of Deputy IG will not be permanently filled for the foreseeable future. Administration is charged with performing strategic planning/budgeting, procurement, and office administration and is currently comprised of six staff. Combining the two units has the potential to provide synergistic benefits to the organization but it comes at a cost as one senior executive now fulfills the many responsibilities that were previously provided by two.

To assure that there are adequate resources available for our core mission of audits and investigations, support functions such as LLE and Administration, have been streamlined to the maximum extent practical. LLE's top priority during its first year was to expand legal support across OIG and to provide a comprehensive review of key OIG work products and legal guidance for critical office activities such as procurements involving contracts at an early stage. Proactive legal training to staff (to help avoid legal issues) was also contemplated. However two attorney positions became vacant over the past year and have not been filled given current funding constraints. On an interim basis, attorneys working within Investigations have been assisting LLE to help ensure a basic level of office-wide legal support, which is largely reactive in nature. Also, the AIG LLE must personally handle a number of staff level legal issues and questions, in addition to managing his expanded portfolio of responsibilities.

Originally LLE's portfolio also included an inspections and evaluation (IE) function, which was intended to address special situations when there is an urgent need by NSF oversight officials for information and not enough time to conduct an audit. The value to be added by IE included: recommending improvements to programs, policies, and procedures; providing factual and analytical information; checking compliance; and assessing efficiency and effectiveness of specific aspects of agency programs. The loss of the two attorneys (who conducted IE projects in addition to their traditional legal assignments) and the lack of funds to hire other staff (such as a management analyst) have severely constrained LLE's ability to undertake IE projects.

In order to assure that adequate resources are available for our core mission of audits and investigations, LLE will likely keep any staffing increases to a minimum, perhaps hiring only one attorney-advisor. Similarly, OIG expects to continue to defer the development of the fledgling IE program intended to provide quick information to agency decision-makers to promote efficiency and economy.

Preventive initiatives. Recent budget cuts have forced OIG to reduce many of its initiatives aimed at fulfilling its core mission to prevent fraud, waste, and abuse. These include our efforts to address: 1) growing concerns regarding the erosion of research integrity, as evidenced by a threefold increase in allegations in the past decade, and studies indicating that 25 to 30 percent of scientists engage in questionable research practices; 2) the issues underlying the increasing number of allegations of serious misconduct that we are investigating which are related to the employment of scientists from other countries who may not understand U.S. rules and procedures; and 3) the underlying causes of SBIR program fraud. In the past, our staff has played a key role in educating the agency's stakeholders, drawing on our extensive experience in dealing with grant fraud and research misconduct. OIG's proactive efforts are consistent with the emphasis on transparency and accountability mandated by the Administration and the Congress, and they help to assure the integrity of federally-funded research by promoting effective oversight of NSF-funded activities.

Our ability to continue a robust preventive program of proactive investigative reviews and effective outreach depends on whether our staffing and travel resources provide sufficient support, especially in light of our other urgent audit and investigative priorities, as set out above. The direct interaction with the research community by our staff not only helps educate the community on how to maintain research integrity and financial accountability, but it also establishes vital channels of communication that provide our investigators and auditors with valuable information and insights into the needs and concerns of the institutions and researchers.

Finally, along with the progress OIG has made in the use of data analytics to strengthen its audits of awardee institutions comes a responsibility to share information about this new technology with the research community and other Federal agencies. Our outreach efforts aim to educate institutions about the advanced analytics we employ and provide insight on system and audit support requirements necessary to complete the engagements in a timely and effective manner. At outreach events we also discuss how institutions can perform data analytics using software and financial applications already at their disposal to improve business intelligence and assure accountability for Federal funds. In addition, many Federal audit offices have expressed interest in learning about and introducing analytics in their own programs. OIG has complied with these requests as our resources allow and anticipates a continuing need for our support.