The Appropriations Act that funds the National Science Foundation provides for a separate appropriation for NSF's Office of Inspector General (OIG). Accordingly, the FY 2009 Budget Request identifies the resources needed to support OIG, including amounts for personnel compensation and benefits, contract services, training, travel, supplies, materials, and equipment.

The FY 2009 Budget Request for OIG is \$13.1 million, which represents an increase of \$1.67 million over the FY 2008 Estimate of \$11.43 million.

### Office of Inspector General Funding

(Dollars in Millions)

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				Change over FY 2008 Estimate	
	FY 2007	FY 2008	FY 2009		
	Actual	Estimate	Request	Amount	Percent
Personnel Compensation	\$8.71	\$8.96	\$9.56	\$0.60	6.7%
and Benefits					
Other Operating Expenses <sup>1</sup>	3.21	2.47	3.54	1.07	43.3%
Total	\$11.92	\$11.43	\$13.10	\$1.67	14.6%
Full-Time Equivalent Employment	67	63	64	1	1.6%

Totals may not add due to rounding.

#### **Appropriation Language**

For necessary expenses of the Office of Inspector General as authorized by the Inspector General Act of 1978, as amended, \$11,427,000,\$13,100,000, to remain available until September 30, 2009-2010 (Science Appropriations Act, 2008.)

# Office of Inspector General FY 2009 Summary Statement

(Dollars in Millions)

	Enacted/	Carryover/	P.L. 110-161		Total	Obligations
	Request	Recoveries	Rescission	Expired	Resources	Incurred/Est.
FY 2007 Appropriation	\$11.43	\$1.24	-	-\$0.05	\$12.62	\$11.92
FY 2008 Estimate	11.43	0.71	-0.46		11.68	11.68
FY 2009 Request	13.10	=	-		13.10	13.10
\$ Change from FY 2008						\$1.42
% Change from FY 2008						12.2%

Totals may not add due to rounding.

<sup>&</sup>lt;sup>1</sup> Includes the costs of the annual financial statements audit and the outsourcing of contracting services.

#### **Explanation of Carryover**

Within the Office of Inspector General (OIG) appropriation, a total of \$707,223 was carried forward into FY 2008 of which \$457,308 is rescinded, as required under P.L. 110-161. The remaining \$249,915 will fund priority audits that are contracted out and the forensic analysis support required for some OIG investigations.

#### **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.
- 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.

As set forth in the OIG Strategic Plan, the primary functions of the Office are audits, reviews, and investigations. To provide the diverse skills, training, and experience necessary to oversee NSF's varied programs, the OIG staff includes scientists, attorneys, certified public accountants, investigators, evaluators, and information technology specialists. The focus of an investigation, audit, or other review may be on a single entity or individual, an organization, a project involving multiple disciplines, or a broad program or functional area.

OIG performs audits of grants, contracts, and cooperative agreements funded by the Foundation'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 the Foundation's annual financial statements, which are required for all NSF accounts and activities by the Government Management Reform Act of 1994. The Office contracts with a public accounting firm to conduct the financial statements audit, and in the past the cost was allocated proportionately to the accounts audited. Since FY 2006, funds to cover the complete cost of the financial audit have been requested in this appropriation. OIG also audits financial, budgetary, and data processing systems used by NSF to develop 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 submit proposals to, receive awards from, conduct business with, or work for the Foundation. Allegations of research misconduct 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 the Foundation for administrative resolution and, when appropriate, recommends modifications to agency policies and procedures to ensure the integrity in NSF's systems. The Office works closely with institutions on the conduct of their internal investigations and performs outreach activities aimed at preventing and detecting fraud, waste, and abuse and at raising the awareness of funded researchers, institutional administrators, and agency employees about the OIG's role and NSF's rules and expectations.

## Personnel Compensation and Benefits and General Operating Expenses (Dollars in Thousands)

	(Dollars ii	n Thousands)			
				Change over	
	FY 2007	FY 2008	FY 2009	FY 2008 Estimate	
	Actual	Estimate	Request	Amount	Percent
Personnel Compensation	\$8,712	\$8,964	\$9,560	\$596	6.6%
and Benefits					
Travel & Transportation of Persons	253	270	310	40	14.8%
Advisory & Assistance Services <sup>1</sup>	2,753	1,978	2,930	952	48.1%
Communications, Supplies and					
Equipment, and Other Services	198	215	300	85	39.5%
Total	\$11,916	\$11,427	\$13,100	\$1,673	14.6%

Totals may not add due to rounding.

The additional funds requested for FY 2009 are needed to cover increased personnel costs, one additional FTE, the rapidly rising costs of audits conducted by CPA firms under contract to OIG, and essential technology upgrades to replace aging personal computers, about two-thirds of which are over four years old, and to acquire software that will provide more efficient support for our investigations and audits. Personnel costs, which consume 70 percent of the annual OIG budget, have continued to rise. The last two years have also brought significantly higher costs in staff travel, which is essential for conducting investigations, audits, and meetings with counterparts in this country and abroad to share information and best practices and foster improved coordination of efforts. Finally, the requested funding will allow OIG to keep pace with the increased risks faced by NSF. While other agencies may primarily contend with other kinds of liabilities, NSF's greatest risk by far is its financial exposure in awarding billions of dollars in grants and contracts each year. As the agency's funding grows, so does this risk -- and the concomitant need for increased OIG oversight.

The additional FTE is needed to improve audit coverage of larger, and increasingly complex, interdisciplinary and collaborative NSF awards. The greatly increased demand in the marketplace for auditors due to the Sarbanes-Oxley legislation has severely impaired OIG's ability to hire and retain qualified grant auditors. To address this hiring issue, we would like to contract with the Office of

<sup>&</sup>lt;sup>1</sup> Includes the costs of the annual financial statements audit and the outsourcing of contracting services.

Personnel Management on ways to attract and retain staff with knowledge and expertise in these highly specialized areas. The requested funds would allow us to move this effort forward. In addition, OIG expects to convert to electronic workpapers in keeping with most other OIG and professional audit organizations, which will require an initial expenditure of more than \$80,000, annual fees of 20 percent of the base cost, and the cost of training existing staff to use the new workpaper format.

The FY 2009 request would enable OIG to cover the significantly higher costs for outsourced audits conducted by CPA firms. Their average cost has increased 30 percent over the past few years, from approximately \$100,000 per audit in FY 2004 to approximately \$130,000 per audit in FY 2007, and they are expected to exceed \$140,000 per audit in FY 2008. To ensure OIG independence and provide more efficient and timely servicing of contracting requirements, we will continue to use the Department of Treasury's business service center, Administrative Resource Center. For FY 2009, therefore, the additional funding requested will also cover the estimated \$300,000 cost of outsourcing contract administration services that used to be performed by the NSF contracts office.

Increased resources would enable OIG to focus audits more effectively on the seven areas we have identified as posing the greatest risks to NSF: 1) pre-award and post-award monitoring of grants, contracts, and large facility projects, especially those that have experienced large cost overruns; 2) the human capital resources needed to process the more than 40,000 proposals submitted to the agency each year; 3) the merit review process, including such issues as (a) obtaining sufficient reviewers with the appropriate expertise to review proposals that are increasingly multidisciplinary and (b) increasing traditionally underrepresented groups in the reviewer pools; 4) NSF processes for ensuring the confidentiality of sensitive agency information, including personally identifiable information, and for building an enterprise architecture that will enable NSF to develop optimal information technology systems in the future; 5) the infrastructure for the United States Antarctic Program, which NSF manages, to ensure the health and safety of researchers and support personnel and to enable world-class research in such an extreme environment; 6) implementation of the new administrative requirements on financial reporting controls required by the Federal Managers Financial Integrity Act; and 7) the evaluation of NSF programs and the dissemination of NSF-funded research results.

In FY 2006 OIG had the resources to audit only five percent of the total \$11 billion of NSF funds expended by awardees classified as high risk. The requested funding would enable audits of a larger percentage of risky awardees, provide more effective oversight of NSF programs, and promote the more efficient use of NSF grant funds. This level of funding would also allow for the major ongoing initiative to audit labor-effort costs charged to NSF awards by institutions receiving the most funding from NSF. Labor effort is the single largest cost in NSF awards, and it is frequently cited in audit reports for weak internal controls. OIG will also continue to focus attention on audits of international institutions, which are an increasingly important part of NSF's research portfolio but often are not subject to the terms and conditions of NSF's other awardees. Our efforts will be coordinated with other OIGs and international audit organizations to evaluate the need for developing standardized financial, accounting, and audit requirements for better accountability of funds provided by all sources.

In support of the American Competitiveness Initiative (ACI), OIG will help ensure that each additional dollar NSF invests in basic research is subject to appropriate oversight and sound management controls. With their emphasis on efficiency and effectiveness, OIG program audits support efforts to increase NSF's operational capacity at a reasonable cost to the taxpayer. Our audits continue to focus on many of the priorities identified in the ACI. For example, we are working on an audit of NSF centers, which facilitate collaboration on complex scientific projects, and of large-scale facilities and instruments, which enable discovery and development. Following the recommendations of prior OIG audits of large

facilities, NSF is reengineering its approach to planning, building, and managing these projects. Our audits have also recommended improvements in the way NSF disseminates research results for the benefit of the research community. The changes will facilitate technology transfer, enhance researcher access to information useful for their own work, and accelerate the process by which basic research enables the introduction of successful new products. As NSF attempts to leverage its investments by entering into a growing number of international partnerships, OIG has played a leadership role in establishing a dialogue among international organizations responsible for science research funding to discuss strategies for addressing mutual accountability challenges.

The requested budget level will provide the resources that are needed to continue the expansion of OIG's Quality Control Reviews of the CPA firms conducting audits for grantees under the Single Audit Act (OMB Circular A-133). Because NSF relies extensively on these audits for post-award monitoring and financial statement reporting, it is critical that the quality of the audits be carefully assessed and that any deficiencies be corrected. In June 2007 the President's Council on Integrity and Efficiency and the Executive Council on Integrity and Efficiency (ECIE) published their *Report on National Single Audit Sampling Project*. It found that for entities expending at least \$500,000 of federal awards, but less than \$50 million, only 48 percent of the A-133 audits were acceptable.

The criminal, civil, administrative, and research misconduct cases conducted by our investigative staff have become increasingly more complex, requiring more extensive discussions and negotiations with NSF management, awardee administrators, international organizations, and the Department of Justice to bring them to a satisfactory resolution. Our civil and criminal cases frequently produce both financial settlements for institutional fraud and compliance agreements for correcting the underlying problems and providing greater protection for future federal funding. Monitoring institutions' efforts to meet the terms of their 5-year compliance plans is vital to preventing fraud from recurring, but it is also very time consuming for our staff. With the increase in the number of compliance programs in recent years, we have experienced a corresponding growth in staff hours committed to monitoring them. The systemic problems that have allowed fraud to occur take time to correct, and ongoing oversight is required to ensure that the flaws in the systems are not further exploited. The requested budget level will provide the additional resources needed to meet this critical requirement.

We will continue to initiate proactive reviews based on previous investigative findings. These reviews have identified institutions whose high-risk management practices created significant opportunities for institutional fraud, and they have resulted in improved institutional controls, recoveries, and new civil/criminal cases. Recent efforts have been successful in revealing the misuse of participant support, cost sharing, and expired award funds. These more complex, institution-wide efforts require increasing amounts of staff time and more frequent and extensive use of forensic financial services to develop persuasive investigative evidence.

We anticipate that cases handled in FY 2009, like current cases, will result in significant recoveries and critical system changes in institutions. Further, we expect concomitant improvements in institutional detection of fraud and greater assurance that federal funds will thereafter be put to proper use. Under our monitoring, the systemic changes will also promote higher ethical conduct in the application for and execution of federal awards. As in our compliance efforts, these cases require significantly more staff time, as well as specialized knowledge and strong forensic, computer and analytical skills.

Our investigative workload is also growing rapidly in other areas. Over the past year, we have seen a notable increase in serious data fabrication and falsification cases, which usually result in findings of research misconduct, and in international collaboration cases. The latter, in particular, require substantial resources

to determine their scope and complexity and to perform the more-intricate investigations they require. Overall, in the past ten years we have experienced almost a four-fold increase in the number of matters we have reviewed, a more than 15-fold increase in actions related to cases (including financial recoveries, debarments, and DOJ actions), and a more than 20-fold increase in referrals to DOJ or other entities for investigation, prosecution, or recovery. The additional resources we have requested will allow us to pursue matters that threaten the integrity of NSF's systems more aggressively and meet the challenges inherent in the growing number, size, and complexity of NSF awards projected under the ACI.

OIG will continue its commitment to a strong outreach effort to educate NSF staff and the national and international research communities to help them avoid the kinds of problems that lead to investigations, unfavorable audit findings, or administrative corrective actions. This initiative is designed to make NSF staff, awardee institutions, international collaborators, and other researchers more aware of grant management issues and any preventive or corrective measures that may need to be taken. Auditors, investigators, and other staff regularly participate in outreach activities, and as NSF programs increase in funding, complexity, and number, OIG has seen a commensurate increase in requests for information from universities and research institutions. As in recent years, we will continue to play a leadership role in organizing and participating in international conferences and workshops, which have been well attended by NSF's counterparts in other countries, including their auditing and investigative components, to discuss common issues and share best practices.

We will also continue to work closely with other IG offices on issues that are of mutual concern. NSF's IG was honored to be appointed by OMB as Vice-Chair of the ECIE in May 2007. This leadership position serves the IG community, the administration, and the Congress, and it entails significant responsibilities that place demands on both the IG's time and office resources. Commitment of staff effort is necessary for a variety of IG community responsibilities, including analyzing legislation, planning and conducting ECIE meetings and initiatives, providing testimony, and responding to inquiries from the research community, the Congress, the public, and the press.

OIG's increasingly complex audits and investigations require significantly more staff time and contractor support than in the past, as well as specialized knowledge and strong forensic, IT systems, and analytical skills. This request will provide the resources needed to ensure diligent audits and investigations of the growing number of substantive complaints we are receiving and to enable us to respond to emerging situations, such as NSF's increasing reliance on computer information systems and security controls to process and report accurate grant and other financial information, changing audit standards, and challenges to NSF's cybersecurity at NSF, its funded institutions, and remote locations like Antarctica.