

NATIONAL SCIENCE FOUNDATION

OFFICE OF INSPECTOR GENERAL

Performance Plan

FY 2019



## INTRODUCTION

This performance plan is presented in two sections: the Office of Inspector General (OIG) Strategic Plan for 2018-2023, and the OIG Annual Plan, which covers the 12-month period from October 1, 2018, through September 30, 2019.

The OIG Strategic Plan (p. 2) identifies the OIG's vision, mission, basic values, five-year strategic focus, and management challenges for the National Science Foundation (NSF), and core functions. It also includes the OIG Workforce Plan (p. 10) which describes the human capital needed to meet the office's strategic goals over the next three years.

The OIG Annual Plan (p. 15) describes the goals and strategies we will use to focus our operations over the next year to achieve our strategic objectives, as well as the measures we will use to determine our progress. Our goals include: (1) promoting NSF effectiveness and efficiency, (2) safeguarding the integrity of NSF programs and resources, and (3) using OIG resources effectively and efficiently.

The purpose of our performance plan is to present 1) OIG's broad priorities and objectives for the period FY 2018 through FY 2023, 2) an estimate of resources needed to achieve these objectives, and 3) specific strategies and measures for the current year that will advance us toward accomplishing those objectives. We are committed to integrating this plan into our ongoing management system, assessing its progress on a regular basis, making adjustments as needed, and achieving our goals.

# OIG Strategic Plan

## VISION

We will use our diverse and talented staff to assist NSF in improving its programs and meeting the needs of the communities it supports. We will help prevent problems, address existing issues in a timely and proportionate manner, keep abreast of emerging challenges and opportunities, and facilitate positive change.

## MISSION

Under the authority of the Inspector General Act of 1978, as amended, the OIG conducts independent and objective audits, investigations, and other reviews to provide effective oversight of NSF activities. Our specific aims are to promote the effectiveness and efficiency of NSF programs and operations and to safeguard their integrity. We strive to address the concerns of our stakeholders: the National Science Board (NSB), the Congress, NSF, the research communities, the executive branch of government, and the American public.

## BASIC VALUES

**Professionalism.** We follow accepted technical and ethical standards of our disciplines; do our work fairly and thoroughly; represent our results accurately, objectively, and with a sense of proportion; and complete our work within a reasonable time so that it is available for relevant decisions.

**Accountability.** We take responsibility for the quality of the work we perform and promote integrity, objectivity, and consistency in all our efforts.

**Flexibility.** We make every effort to anticipate changing information, environmental conditions, and potential opportunities and obstacles; adjust our priorities and work methods as needed; and employ effective communications to increase the positive impact of change.

**Innovation.** We think creatively, adopt new ways of addressing issues tailored to unique circumstances, take reasonable risks in resolving problems, and build on successful processes to make them better.

**Teamwork.** We are respectful of others; seek common ground when differences occur; are honest, trustworthy, and straightforward; and are cooperative without compromising our independence. We engage employees at all levels to develop and continually improve our work methods and products.

## 5-YEAR STRATEGIC FOCUS

The OIG's strategy focuses primarily on providing independent oversight to ensure the effectiveness, efficiency, and integrity of NSF's business activities. Inspectors General are not responsible for managing agency programs; nor do we attempt to assess the scientific merit of research funded by NSF. Our oversight mission requires that we concentrate our resources on performing audits of the agency's financial statements and award funds, monitoring and evaluating management functions that may pose significant financial or administrative risk, investigating allegations of criminal behavior or other misconduct, and recommending proactive solutions to NSF management. In determining our priorities, we consider the results of prior audits and investigations and consult closely with the NSB and the Congress, NSF managers and staff, the Office of Management and Budget (OMB), and members of the research communities supported by NSF. Over the five-year period covered by this strategic plan, OIG has identified the following NSF issue areas for priority attention:

- Accountability over major multi-use facilities
- Oversight of NSF awardees
- Investments in Antarctic infrastructure
- NSF's business operations
- Encouraging the ethical conduct of research.

*Internal Audits of NSF.* Internal audits and reviews enable OIG to assess priority areas listed above. In addition, OIG auditors will continue to oversee an Independent Public Accounting (IPA) firm, which performs annual audits of NSF's financial statements and the IT security reviews required by the Federal Information Security Modernization Act of 2014. Auditors will also assess NSF's compliance with the Improper Payments Elimination and Recovery Act of 2010, which requires Federal agencies to periodically review and identify programs and activities that may be susceptible to significant improper payments; and the Digital Accountability and Transparency Act of 2014 (DATA Act), which requires agencies to report financial and payment data on a public website.

*External Audits.* Audits of NSF awards generally focus on the risks that the auditee is: 1) using NSF funds for unallowable, unallocable or unreasonable costs; and 2) failing to comply with applicable Federal and agency requirements. Consequently, OIG will continue to allocate a significant portion of its resources to audits of selected high-risk awardees to evaluate their financial accountability, underlying internal controls, and compliance with Federal requirements and the terms and conditions of their NSF awards. OIG will continue to use its own staff, and IPA firms under contract with OIG to conduct audits of high-risk programs and institutions.

*External Testing on Internal Audits.* Sometimes audit projects have both an internal and external focus. For example, an internal audit focusing on NSF's oversight of its awardees may require auditors to visit awardees to determine the effectiveness of NSF's oversight. As a result, these projects may result in more than one audit report. Some reports will focus on issues found at the awardees during the visit and may

question costs. The internal audit report will focus on NSF's policies and procedures and any recommendations for improving them.

*Single Audits.* Awardees that spend \$750,000 or more of Federal funds in a year are required to obtain a Single Audit, which is a valuable tool for Federal agencies in their oversight of grantees. Single Audits for grantee fiscal years ending in 2017 covered approximately \$6 billion of NSF's funds. We will continue to review the quality of the presentation of the reporting package for Single Audits of NSF awardees for which NSF has audit cognizance or oversight — defined generally as those institutions that receive the majority of their Federal funding from NSF — as well as non-NSF cognizant or oversight awardees when we have concerns regarding the NSF-related information contained in the reports to determine whether the audits comply with Federal requirements and professional audit standards.

*Investigations.* We will continue to react promptly and effectively to allegations of fraudulent practices and research misconduct, while maintaining a focus on proactive measures such as prevention and detection of grant fraud and contribution to the development of effective training throughout the research community on the responsible conduct of research. This will include, in accord with budgetary constraints, outreach activities to ensure that NSF staff and awardees understand the rules and regulations that apply to them. It also includes efforts to determine if violations identified during individual investigations are more widespread, identify any that may undermine the integrity of the data upon which NSF relies, and evaluate indicators of grant fraud found during audits and other reviews.

We will continue to identify opportunities to assist awardee institutions, other government agencies, and other IG offices in deterring misconduct, fraud, and other violations. Within the Federal IG community, we will continue to play a leadership role in the establishment of more effective coordination in the area of grant fraud prevention and detection and in promotion of best practices in the investigation of research misconduct. For example, over the past six years the Office of Investigations has led a working group of OIGs to improve Federal law enforcement efforts involving fraudulent Small Business Innovation Research Program/Small Business Technology Transfer Program (SBIR/STTR) grants. During that period, we have opened over 155 SBIR/STTR cases and expect our caseload in this area to continue to grow.

We will also continue our involvement in national and international discussions about the global impact of research misconduct. We have joined with other Federal investigative agencies with Statutory Law Enforcement Authority to ensure maintenance of the highest professional investigative standards through an effective peer review process. Finally, we will continue to lead IG community efforts to promote the use of government-wide suspension and debarment to protect taxpayer funds.

*Management Challenges.* To a significant extent, OIG's priorities are reflected by its annual list of the most serious management and performance challenges facing NSF. In many cases, these difficult challenges will extend over at least the next several years, and they are largely the product of our past work, the priorities enunciated for the Federal government by the Congress and the Administration, and our staff's knowledge of agency operations. Management challenges for FY 2019 include:

- Major Multi-User Research Facilities Management
- Meeting Digital Accountability and Transparency Act of 2014 (DATA Act) reporting requirements
- Eliminating improper payments
- Management of the Intergovernmental Personnel Act (IPA) Program
- Management of the U.S. Antarctic Program
- Encouraging the Ethical Conduct of Research

## CORE FUNCTIONS

The work of NSF OIG may be divided into four functional areas: (1) *audits and reviews*, which provide information about how well systems function, determine whether activities comply with financial and compliance standards, and identify how systems can be improved; (2) *investigations*, which address allegations of serious civil, criminal, administrative or research misconduct; (3) *education and outreach*, which establish and maintain effective communication between OIG and its oversight officials and stakeholders such as NSB, Congress, OMB, NSF, the research community, and other OIGs and federal agencies; and (4) *overarching management of OIG*, which refers to all who are engaged in leading or supporting the above mentioned core functions including the Immediate Office (of the IG), Office of Management, and Office of Legal Counsel. In each area, we strive to focus on substantive matters, and are committed to perform our duties fairly and to work cooperatively without compromising our independence.

Certain issues require interdisciplinary coordination across all functional areas. For example, to maintain an effective computer security posture we assemble teams with diverse skillsets such as auditors, investigators, attorneys, and/or outside experts in information technology and related fields in order to investigate possible security breaches, audit the capacity of NSF computer systems to withstand attempted intrusions, and develop preventive measures to meet the security needs of both NSF and OIG. Other opportunities for interdisciplinary collaboration includes involving forensic accountants at early stages of investigations into alleged financial improprieties, creating teams of auditors and investigators to work on compliance issues, and bringing together scientists and auditors for comprehensive performance reviews of awardees.

## Audits and Reviews

Audits and reviews focus on NSF's programs and operations (internal focus), on awardees' compliance with Federal and NSF requirements (external focus), or on both (internal and external focus). For internally focused projects, we assess effectiveness and efficiency. For externally focused projects, we assess awardees' compliance with Federal and NSF requirements. For projects focusing both internally and externally, we assess NSF's oversight internally and its application externally. In all cases, we are concerned with detecting and preventing fraud, waste, and abuse of Federal resources.

The internal focus includes statutorily required audits of NSF's financial statements, including an evaluation of agency financial internal controls; and reviews of information security. In addition, internal issues include NSF's management of: 1) the award processes from inception to closeout, 2) major programs, and 3) business operations.

The external focus includes audits that determine whether awardees' internal control systems are adequate for monitoring their NSF awards, and whether their costs claimed are allowable, reasonable, and properly allocated. Auditors use data analytics to identify institutions to audit and what to audit at the selected institutions.

The combined internal and external audits may start with a singular emphasis but evolve to focus on both aspects of an issue to provide a more complete picture. Effectiveness and efficiency of NSF's processes and policies designed to oversee programs and operations are tested at the awardee level, to determine if they are being implemented and whether they are working.

We focus our audits and reviews on issues of substantial concern and prospective importance to NSF and its goals. We select, and design projects based on assessments of the risk involved in the activity to be reviewed and the likelihood that an audit or review would lead to improvements.

### Focusing on Substantive Matters

- We consider program, management, and financial risks.
- We conduct our audits and reviews in accordance with government standards and in ways that assist NSF in pursuing its mission.
- We develop and explain our recommendations in terms of how they will improve NSF effectiveness and efficiency.
- We establish priorities for our work by selecting reviews that promise the greatest substantive benefit for NSF.

### Conducting Reviews Fairly

- After we collect and analyze our data, we solicit feedback from the affected parties and give full consideration to their views.
- To ensure that our reports are thorough, fair, and accurate, we follow accepted quality control practices in the IG community and comply with all relevant Federal and professional standards.

### Working Cooperatively without Compromising our Independence

- We keep affected parties informed, invite them to identify issues of special concern, and endeavor to address the issues they identify.
- We seek to develop analyses and recommendations that enable NSF management and awardees to make improvements.
- We work with NSF managers and awardees to familiarize them with Federal requirements and explore ways they can comply without undue burden.

### Investigations

We are responsible for investigating possible wrongdoing involving organizations or individuals who submit proposals to, receive awards from, conduct business with, or work for NSF. We seek to perform focused, well-documented investigations addressing evidence of serious wrongdoing. When appropriate, the results of these investigations are referred to the Department of Justice or other prosecutorial authorities for criminal prosecution or civil litigation, or to NSF for administrative resolution. In addition, systemic issues identified in the course of investigations or investigative proactive reviews are brought to the attention of NSF management in order to increase the economy and efficiency of NSF programs and operations.

Our civil, criminal, and administrative investigative activities have resulted in millions of dollars in actual recoveries and funds put to better use. Further, they have protected the Federal government from unscrupulous individuals and entities, have served as a deterrent against similar wrongdoing, and have led to positive systemic changes in NSF programs and operations. Investigating allegations of research misconduct, specifically falsification of data, fabrication of data, and plagiarism, is similarly a high-impact investigative activity and is among our most important responsibilities. Often leading to suspension and/or debarment of unscrupulous researchers and entities, research misconduct strikes at the core of NSF's mission and compromises the research enterprise, which operates increasingly on a global scale. It is therefore a special concern for our office.

### Focusing on Substantive Matters

- We concentrate our investigative resources on the most serious cases, as measured by such factors as the amount of money involved, the seriousness of the alleged offenses or ethical violations, and the strength of the evidence.
- We give highest priority to cases that will directly affect future NSF activities, including cases that involve protecting the integrity of Federal funding and decision-making processes, allegations of wrongdoing by NSF staff, and allegations that concern ongoing awards.
- We give priority to cases that will create significant issues for NSF management if they remain unresolved.
- Our research misconduct cases focus on serious violations of the ethical standards that are important to the scientific community.

### Handling Cases Fairly

- Our investigative process includes internal review by staff who have not yet formed an opinion in the case and who bring different disciplinary perspectives to bear on it. Our reviews ensure that matters are kept in proportion and that similar matters are treated consistently.
- We make every effort to collect relevant information in a manner that minimizes the burden on the providers while also allowing a thorough analysis of the facts.
- We protect the privacy of investigative subjects by seeking information directly from them when appropriate. To the greatest extent practicable, we conduct our investigations discreetly to avoid inadvertent damage to reputations.
- We value timeliness and recognize that delay can undermine fairness. We give priority to resolving cases in which we have already contacted the subject of the investigation.
- We review past cases as a frame of reference for how to handle new cases, in order to foster consistency without sacrificing flexibility.

### Working cooperatively without compromising our independence

- When handling allegations of research misconduct, we seek to accommodate variations in the investigative procedures at awardee institutions. We require that awardees follow fair and reasonable procedures consistent with NSF regulations.
- We work with awardee institutions to ensure that our investigations meet the expectations of all parties (NSF, OIG, and awardee) by articulating our concerns at the outset and offering assistance throughout.
- We explain our practices and procedures to all affected parties, and when we cannot share substantive information, we explain why.
- We coordinate our work closely with Department of Justice attorneys, law enforcement officers, research university administrators, and officials at other agencies and institutions.
- Based on our experience with research misconduct, we play a leadership role among Federal agencies.

### Education and Outreach

An effective education and outreach program is essential to the successful performance of our mission of preventing and detecting problems. Our outreach program also plays a key role in reinforcing NSF's support for the integrity of and compliance with its rules, policies, and procedures.

Outreach activities within NSF make us more accessible to managers and staff and increase the likelihood that we will hear about important issues within the agency. These activities also help educate NSF employees about their obligations to report alleged research misconduct and other issues of fraud, waste, and abuse. Through external outreach to the communities NSF supports, we help NSF foster the responsible use of government funds and promote integrity in government-supported

research programs. We also communicate that our work focuses on matters of substantial concern to NSF and is done with sensitivity to the perspectives and practices of the research community.

Outreach activities are also a valuable learning tool for OIG staff, as they help familiarize us with NSF and its people, further our understanding of agency operations and the communities it serves and keep us abreast of changing conditions. They also build trust among NSF staff in our ability to handle sensitive matters with tact, fairness, thoroughness, and a sense of proportion. Such trust is essential for our office to sustain high quality audits, reviews, and investigations.

### **OIG Management**

This centralized office is responsible for strategic planning/budgeting, procurement, human resources, IT services and administrative support for the entire office. It was created in April 2018 in order to consolidate most financial, administrative and support functions throughout the office under the direction of the new AIG for Management.

We pay special attention to developing our staff, rationalizing our operations and administrative processes, and striving to maintain a positive, productive workplace. To perform outstanding audits and investigations and otherwise promote economy and efficiency, we need a capable staff, sound policies and procedures, in-depth knowledge of NSF and the communities it serves, and a coordinated education and outreach effort.

We are committed to developing the skills of our staff through formal training, challenging work assignments, and a work environment that encourages teamwork, diversity, open communication, and learning. Through collaboration among staff members in the various disciplines represented in OIG, we help our staff develop a broader appreciation of the different aspects of effective performance in NSF-funded activities.

We continue to improve our management information systems and technologies to create a more productive and satisfying work environment, in which work is planned better and executed in accordance with office-wide priorities. We work with NSF to continue to improve human resource support and manage our training resources effectively. Our individual performance plans are tied closely to the OIG annual plans.

## OIG WORKFORCE PLAN

*Overview.* The NSF Office of Inspector General workforce plan serves as a guide for identifying human capital needs, developing and implementing solutions, and evaluating progress toward achieving OIG's strategic goals over the next three years. The plan projects how our current workforce will be adjusted in response to future challenges, assuming that OIG's appropriation continues on its current trajectory. OIG will update this plan each year in conjunction with its annual performance plan. In an era of tighter government budgets, we are committed to continual improvement of our operations and using our people in the most efficient way possible.

Our current strategic plan describes issue areas on which we expect to focus attention over the next three years. They include:

- NSF's planning, construction (e.g. the planned modernization of United States Antarctic Program facilities in Antarctica), operation, and appropriate divestment of its major research facilities;
- Management of the Intergovernmental Personnel Act (IPA) program (including participants' conflicts of interest);
- Business operations (e.g. compliance with the Improper Payments Elimination and Recovery Act of 2010, the DATA Act of 2014, and the Federal Acquisition Regulation);
- Grant administration;
- Management of the U.S. Antarctic Program;
- Investigation of fraud and research misconduct.

OIG uses multiple tools to maximize the productivity of our staff. For example:

- The Office of Audits (OA) uses software that extracts financial data from NSF and external sources, including general ledger data from awardees, to evaluate audit risk and identify anomalies among transactions for further research and analysis.
- OA employs commercial software to create electronic workpapers, track the utilization of staff and financial resources, and issue reports on the status of audit recommendations. OA also uses this software to prepare the statistical tables in Semiannual Reports to Congress.
- The Office of Investigation (OI) has deployed its new system for electronic management of case files (eLOC) to increase its efficiency and reduce the use of paper. All staff are fully trained and enhancements to the system continue to be identified and completed.
- OIG audit and investigative staffs utilize technology to better target high-risk situations.
- The Office of Management (OM), Office of Counsel, and Immediate Office continue to support the operational divisions through a variety of means, including performance planning and management, budget and finance, information technology, administrative support, and proactive legal-oriented training and document review and analysis.

OIG currently has 72 staff in addition to the IG: 30 work in OA, 26 in OI, 11 in OM, and 5 in the Office of Counsel and Immediate Office. Due to rising costs and the

austere budget environment of recent years OIG's workforce has declined from a high of 78 FTEs in 2012 to 67 in 2018. The office assumes that budgets will remain relatively flat for the foreseeable future.

Between FY 2013 and FY 2018, OIG has sustained an increase in its average cost per FTE of 24 percent, as personnel costs and benefits have increased more than expected, and professionals such as lawyers, investigators and CPAs have replaced some administrators. The rise in personnel costs exceeds the increase in OIG's appropriation since 2013. The office strives to maintain a workforce of at least 68-70 FTEs to carry out its most critical responsibilities, and continually reviews its staffing levels in light of budgetary pressures. At times OIG will temporarily carry more FTEs than it aims for to smooth workload or skillset imbalances. 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 21 percent of our staff are eligible to retire.

In terms of operating a lean, efficient organization, the NSF Office of Inspector General practices the principles it espouses in its reports. Funding for "upstream" preventive activities, such as educating researchers about rules and requirements associated with federal grants, has been reduced from previous years in order to ensure that adequate resources are available for urgent audit and investigative priorities. 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.

In 2018 OIG reorganized all financial administrative and support personnel into the new Office of Management. Previously, core management support programs were scattered among three offices. The Office of Management consolidates the support programs in one unit that provides oversight of contracts, human resources, budget, policies, and other administrative functions. The purpose of the realignment is to deliver management services more effectively and efficiently by eliminating duplication of effort, and cross-training staff so that they can quickly be redirected to address temporary workload imbalances.

The Office of Audits (OA) and Office of Investigations (OI) have 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.

In August 2017, NSF moved to new offices in Alexandria VA. The new office space presented several workforce planning challenges for OIG. For example, it effectively places a ceiling on the number of staff we can house at headquarters, allowing for growth of only 5-10 percent. OIG expects that the use of telework will increase over time among both managers and staff and help ease any space limitations. The change in venue to Alexandria has already resulted in an increase in retirements among those who are eligible. Consequently, the office has increased its training expenditures to prepare younger staff to assume increased responsibilities in the near future.

*Audits.* OA has strengthened its in-house information technology audit capability, which enables greater control over the audit process, resulting in better quality and more timely audits at a lower cost. The Office contracts with IPA firms to perform some audits of NSF awardees. These outside auditors provide additional expertise and resources necessary to accomplish OA's varied and complex audit projects. However, the office is currently training staff members so that they can take increased responsibility for performing awardee audits in-house. This process entails additional training costs initially but is expected to result in long-term benefits to the office in terms of developing staff with increased audit expertise and depth.

Internal performance audit and reviews will continue to address Federal and OIG priorities as they pertain to NSF programs and operations, such as: (1) NSF's management of:

- its major facility projects from inception to termination;
- the modernization of the United States Antarctic Program facilities in Antarctica;
- its contracts, including NSF's compliance with the contracting requirements in the Federal Acquisition Regulation and the National Science Foundation Acquisition Manual;
- Government-owned equipment purchased on NSF awards
- Established Program to Stimulate Competitive Research (EPSCoR)

*Investigations.* Our investigative cases continue to become more complex, requiring increased interaction with NSF, institutional administrators, other Federal agencies, international organizations, and the Department of Justice and other prosecutorial authorities in order to bring about effective resolutions. We have institutionalized the impact on our workload resulting from the Attorney General's grant of Statutory Law Enforcement Authority but our caseload per special agent still remains high by community standards at approximately 15 cases per agent.

OI has taken a lead role in the federal IG community in addressing questions of fraud within the SBIR/STTR Programs, in addressing the national security threat of foreign talent programs and the theft of funded research, and in the effort to increase the use of suspension and debarment authority as an important tool to protect federal grant funds. These efforts are essential to ensuring the protection of federal funds but require significant staff hours to complete. OI will need to continue to recruit staff with exceptional legal, administrative, investigative and communications skills to conduct these critical functions.

The Office of Investigations serves as the focal point within the agency for investigating allegations of research misconduct and making recommendations for appropriate actions when such allegations are substantiated. Our investigations continue to substantiate allegations of fabrication, falsification, and plagiarism in NSF-funded research. We also continue to receive substantiated allegations related to violations of NSF peer review confidentiality, false representations in résumés, false representations of publications in annual/final reports, and fraudulent or otherwise improper use of grant funds. The number and variety of ethical issues reviewed by our investigative scientists continues to tax our resources; the caseload per investigative scientists is approximately 12.

In July 2017, we issued a report on our review of a sample of institutional Responsible Conduct of Research (RCR) training plans. While most of the institutions we sampled complied with NSF's RCR requirements, almost one quarter of the institutions did not initially do so. In response to our report, the NSF Director issued a notice to all institutions, reminding them of the requirement to have an RCR plan. Important initiatives such as these make significant contributions to the successful completion of our "prevent" mission, increasing the knowledge, skills, and insights of personnel in NSF and throughout the research community in order that they may better protect Federal grant funds and prevent civil and criminal frauds and misuse of scarce Federal funds.

Prevention activities also include outreach to ensure that NSF staff and awardees understand the rules and regulations that apply to them. As NSF programs have increased in funding, complexity, and number, OIG has seen a commensurate increase in requests from universities, research institutions, and individual researchers for presentations and information. Due to budgetary constraints, however, we have not had the funds or personnel to adequately respond to this demand in the research community. We have had to reduce the number of outreach events and largely limited them to the local area unless remote participation through webinars, etc. was possible.

Over the next few years we will continue to conduct proactive reviews to the extent that personnel strength and investigator workload permits. These reviews serve to detect grant fraud and to deter fraudulent behavior in the research community; through our improved targeting of high-risk institutions and activities, they have been remarkably successful in detecting fraud and mismanagement. In recent years, these efforts have benefitted from the use of a forensic accountant with financial and computer system skills.

As these trends continue and budgets allow, we would like to replace an investigative scientist, special agent and investigative analyst, as well as recruit at least one *additional* investigative scientist to handle the increased workload in the areas of civil/criminal cases, research misconduct cases, and outreach efforts to prevent and detect fraud, waste and abuse.

*Office of Management.* This centralized office is responsible for strategic planning, budgeting, procurement, human resources, IT services and administrative support for the entire office. Specific functional areas in OM include:

- Budget and administration - responsible for all budgetary, financial and most administrative business conducted by the office, as well as coordination with NSF to provide human resources and procurement support.
- Intake operation – all complaints regarding fraud, waste, and abuse are handled by an Intake coordinator, who processes over 250 allegations annually.
- Forensic accounting and data analytics – Increasingly within the OIG community, data analytics is being utilized to identify anomalies that are indicative of fraud, waste, or abuse. OM utilizes a forensic accountant skilled in data analytics to help investigators manage the large amounts of information they received through subpoenas and other means. The forensic accountant is now supporting the entire office, including the Office of Management.

- IT services – IT support including website maintenance and posting of reports, digital forensics, and data security. The digital forensics activity has become increasingly critical in investigations, as most of the evidence being captured is electronic.

No additional positions are planned for OM at this time.

*Office of Counsel/Front Office.* The Office of Counsel consists of the Counsel to the IG and two assistant counsels. It provides comprehensive legal advice and critical analysis to the IG and all OIG divisions, including legal review of externally-issued OIG work products and certain correspondence. OC handles myriad subject areas, including audit-related support, ethics, appropriations law, acquisitions, information disclosure, privacy, personnel, and IG Act authorities. OC also provides written legal and legislative updates to staff to keep them abreast of matters that may affect OIG operations, and supports the larger IG community through active participation CIGIE projects and committees. During FY 2017 Office of Counsel hired a second Assistant Counsel in order to ensure that the Office’s expanding legal requirements remained fully supported. This includes proactive measures, such as training, which will be aimed at identifying and addressing problems at an early stage.

The Inspector General’s immediate office is a lean unit of two – the Chief of Staff and Executive Assistant. The Chief of Staff handles all matters relating to external affairs, primarily congressional relations, and public/media contacts.

*Summary.* Due to the challenging budget environment that has prevailed in recent years, OIG has been forced to reduce staffing levels by 10-15 percent since FY 2012. Lean budgets are expected to continue, and OIG will seek to further leverage technology and to “work smarter” to maintain and potentially increase office production. We expect that staffing will remain between 65 and 70 FTEs over the next three years. However, the need to equip staff with additional skillsets due to budget constraints, retirements, and the transition (in Audit) from hiring contractors to performing work in-house, means that training will be a funding priority.

# OIG Annual Plan

## October 1, 2018–September 30, 2019

### OIG GOALS

We have three goals that provide the framework for our performance plan:

1. Promote NSF effectiveness and efficiency.
2. Safeguard the integrity of NSF programs and resources.
3. Utilize OIG resources effectively and efficiently.

Our success is directly related to how well NSF accomplishes its programmatic responsibilities. Consequently, we will ensure that our work focuses on priority agency issues and that we provide useful, timely feedback to agency managers, the National Science Board (NSB), and the Congress. This plan covers the period from October 1, 2018-September 30, 2019.

## Goal 1

### Promote NSF Efficiency and Effectiveness

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Goal 1 involves increasing OIG's impact on NSF's effectiveness and efficiency. In recent years, we have identified a wide range of issues concerning NSF management and operations, analyzed their causes, and made recommendations for improvements to the cognizant agency managers. Although NSF has taken many steps to improve operations, we continue to identify systemic issues, particularly with implementation of controls at the awardee level. Though we cannot make management decisions, we have seen that good recommendations from solid audit work can and will help NSF to achieve better results. The following performance measures and strategies describe the steps we will take to increase our impact on NSF effectiveness and efficiency.

#### How We Will Measure Progress

Specific strategies and performance targets (goals) associated with accomplishing this strategic goal are listed on the following pages, along with a set of performance measures, as necessary, to ensure that each action is fully implemented and that the efficiency and effectiveness of the agency will be improved as a result.

Performance targets are divided between those that are quantitative and qualitative. Quantitative targets, reflect measurable results that should be achievable during the twelve-month period. Qualitative targets are those that are less concrete. They reflect activities that will enhance or benefit NSF or OIG operations, but which do not lend themselves to a predetermined baseline performance level.

## STRATEGIES AND ASSOCIATED TARGETS

The following describes the strategies for achieving this overall goal, as well as associated quantitative and qualitative targets.

1. Identify and implement approaches to improve product quality and timeliness.

### Quantitative

- Complete 50 percent of OIG internal audit products performed by OIG staff within 18 months of the engagement letter.
- Evaluate (consistent with Government Auditing Standards) grantee implementation of NSF policy in 25 percent of internal audits.
- Include steps to assess risk and test for potential fraud (when applicable) in 75 percent of audit plans, consistent with OA policies and procedures.
- Perform at least one independent quality control review of an audit product issued during the performance year in accordance with government auditing (GAGAS) requirements and Office of Audits policy.
- Resolve all internal quality control review (IQCR) findings and recommendations within three months of report issuance and in accord with OA policy, applicable CIGIE guidelines, and *Government Auditing Standards* (Yellow Book).
- Issue Annual Quality Assurance report to the AIGA in accordance with Office of Audits policy and government auditing (GAGAS) standards.
- Resolve all actions identified in the Annual Quality Assurance Report within three months of report issuance and in accord with OA policy.
- Assign 80 percent of all investigative cases to appropriate staff teams within 30 days of being opened/received.
- Make 75 percent of investigative referrals to other offices or organizations within 30 days of the need for referral being identified and are conducted in a manner consistent with office policy.
- Provide legal reviews or opinions within agreed upon timeframes 60 percent of the time to ensure that the office's operations stay within the bounds of governing legal requirements and that courses of action are promptly taken to minimize legal risk.
- Ensure that 80 percent of all confidential financial disclosure filings are reviewed and certified in accordance with Office of Government Ethics standards and timeframes.
- Circulate at least one IT update which discusses topics relevant to OIG operations or activities to assist in mission support.
- Provide at least one forensic accounting update to investigative management on the status of contract funds and ongoing case work.
- Ensure 75 percent of OIG publications are posted to external websites, such as Oversight.gov, consistent with relevant directives.

#### Qualitative/Other

- Ensure audit work remains on schedule through bi-weekly tracking and monitoring of the status of the teams' timeframes
- Review records practices and develop approaches for enhancements needed for accuracy or completeness.
- Provide data necessary for tracking and monitoring status of investigations to appropriate managers on a weekly basis to ensure work remains on schedule.
- Review OI investigative case management system (eLOC) and make refinements as necessary.
- Improve and enhance processing of OIG FOIA requests.
- Ensure timely processing of human resources actions.
- Update the OIG's COOP plans in accordance with NSF and overarching DHS guidelines at least annually.
- Update the OIG's strategic plan and communicate verbally to all OIG staff to facilitate discussion and foster collaboration/coordination at least annually.

We will use the following measures to assess progress in implementing this strategy:

- Percent of OIG-performed internal audit products completed within 18 months of the engagement letter date as verified through internal audit review and documented in OA's automated workpaper system.
- Percent of internal audits that evaluate grantee implementation of NSF policy.
- Percent of audit plans that include steps to assess risk and test for potential fraud (when applicable).
- Issuance of internal quality control review reports for one audit team/division.
- Percent of IQCR findings resolved in accordance with *Government Auditing Standards* within three months of report issuance.
- Issuance of an annual internal Quality Assurance Report.
- Percent of the findings identified in the annual internal Quality Assurance Report resolved within three months of report issuance, as determined by OA response to the report, if required, and any corresponding response necessary to ensure compliance with OA policies.
- Percent of all investigative cases assigned to appropriate staff teams within 30 days of being opened/received.
- Percent of investigative referrals to other offices or organizations made within 30 days of the need for referral being identified.
- Percent of legal reviews of opinions provided within agreed upon timeframes.
- Percent of financial disclosures processed in accordance with OGE standards and timeframes.
- Number of IT updates circulated to staff.
- Number of forensic accounting updates provided to OI managers.
- Percent of OIG publications posted to external websites.
- Number of bi-weekly reports on the status of audits issued.
- Review of records management practices.
- Weekly tracking and monitoring of the status of investigation

- Number of eLOC reviews/refinements identified and addressed.
- Number of improvements to FOIA process.
- HR actions processed timely.
- Annual update of OIG's COOP plans in accordance with NSF and overarching DHS guidance....
- Update of strategic plan and dissemination to staff.
  
- Completion of MLE policy review.
- Percent of legal assignments completed within agreed upon timeframes.

2. Strengthen our focus by refining approaches for selecting work and setting priorities.

Quantitative

- 80 percent of investigations are opened in accord with investigative management intake recommendations.
- 70 percent of discretionary audit products issued during the performance year address top management challenges or NSF's high-risk areas.
- 75 percent of external audit in the annual audit plan cover high-risk awardees, as evidenced by reference to OIG's published management challenges and annual risk assessment documentation

Qualitative

- Optimize hotline webpage and intake form at least annually.

We will use the following measures to assess progress in implementing this strategy:

- Percent of investigations opened in accord with identified priorities
- Percent of discretionary audit products issued during the performance year that address top management challenges or NSF's high-risk areas, as evidenced by reference to Management Challenges and the annual risk assessment documentation.
- Percent of external audits in the annual audit plan that cover high-risk awardees in accordance with OIG's annual risk assessment and OA policy.
- Number of enhancements to webpage and intake form.

Goal 2  
Safeguard the Integrity  
of NSF Programs and Resources

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To properly safeguard the integrity of NSF programs and resources, OIG must continually enhance its ability to detect and address improper, inappropriate, or illegal activities; and balance reactive and proactive approaches in order to achieve maximum preventive effect.

OIG engages with researchers and NSF staff to inform them about serious ethics issues to help reduce such abuses as falsification of data, plagiarism, fabrication of data, and misuse of government funds. The following performance measures and strategies describe the steps we will take to safeguard the integrity of NSF programs and resources.

Taxpayers should have confidence that NSF and the education and research communities will expend public funds and conduct funded research with the highest level of integrity. The public's trust in government and science is undermined each time that a researcher or educator misrepresents or plagiarizes their results. OIG aims to ensure that when problems of integrity occur, those responsible are held accountable in a fair and responsible manner.

#### How We Will Measure Progress

Specific strategies and performance targets (goals) associated with accomplishing this strategic goal are listed on the following page, along with performance measures, as necessary, to ensure that each action is fully implemented. The performance measures reflect how well we are safeguarding the integrity of programs and resources.

Performance targets are divided between those that are quantitative and qualitative. Quantitative targets, on their face, reflect measurable results that are capable of being met and exceeded during the twelve-month period. Qualitative targets are those that are less concrete. They reflect activities that will enhance or benefit OIG operations, but which do not lend themselves to a predetermined baseline performance level.

## STRATEGIES AND ASSOCIATED TARGETS

To achieve this goal, we plan to accomplish the following specific strategies and actions:

### 1. Detect and address improper, inappropriate, or illegal activities.

#### Quantitative

- At least 75 percent of OIG- or IPA-performed external incurred cost audits use data analytics to identify risk areas and develop audit procedures.
- As appropriate, at least 20 percent of internal performance audits use data analytic to identify risk areas and develop audit procedures.
- 20 percent of investigation include forensic analysis.
- 80 percent of investigations are opened on average within 14 days of receipt of factually sufficient allegation.
- 75 percent of all investigations are closed within established timeframes.
- At least 1 written legal, or legislative, update transmitted to staff, which discusses topics relevant to OIG operations or activities, and which is easily understood (without unnecessary jargon or legalese).

#### Qualitative

- Evaluate use of suspension and debarment for all cases, as appropriate.

We will use the following measures for assessing progress in implementing this strategy:

- Percent of OIG- or IPA-performed external incurred cost audits issued during the year that used data analytics
- Percent of internal performance audits issued during the year that used data analytics.
- Percent of investigations that incorporate forensic analysis.
- Percent of investigations opened within 14 days.
- Percent of investigations closed within established timeframes.
- Number of legal and/or legislative updates published in “plain language”.
- Consideration of administrative actions, including suspension or debarment.

### 2. Strengthen OIG proactive oversight and outreach activities.

#### Quantitative

- Investigations staff present at 80% of New Employee Orientations.

#### Qualitative

- Improve availability of whistleblower protection information through review of outreach presentations and website material.
- Improve visibility of NSF award data by utilizing business intelligence.

We will use the following measures for assessing progress in implementing this strategy:

- Percent of OI staff presenting at New Employee Orientations.
- Review of OI outreach presentations and the number of reviews of whistleblower information on website.
- Reference to internal documentation, meeting agendas, and email correspondence.

3. Refine financial investigative capabilities.

Qualitative

- Leverage existing audit and investigative information.
- Ensure timely and effective use of external forensic financial analysis.

We will use the following measures for assessing progress in implementing this strategy:

- Number of investigations in which past audits, A-133 audits, and award history were reviewed.
- Number of active FANARs during the year.

### Goal 3

#### Utilize OIG Resources Effectively and Efficiently

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The effective and efficient utilization of OIG resources requires us to: continue to strengthen our management and planning tools and techniques; fully develop, plan for, and utilize OIG personnel; ensure that managers and staff have tools and resources necessary to accomplish their duties and responsibilities; and promote effective internal and external communications.

Our success depends on our ability to pull together as an organizational unit, make effective use of our limited resources, overcome internal divisions, develop an effective infrastructure for management, draw on resources external to our own organization, and focus our efforts on issues important to NSF.

We have a diverse and talented workforce whose backgrounds and skills range beyond what one would find in a typical Office of Inspector General. To effectively capitalize on our internal diversity, we must ensure that all staff understand the organization's priorities, and that open communications both within our office and with our stakeholders is maintained.

#### How We Will Measure Progress

Specific strategies and performance targets (goals) associated with accomplishing this strategic goal are listed on the following pages, along with performance measures, as necessary, to ensure that each action is fully implemented, and that as a consequence, OIG resources are being managed effectively and efficiently.

Performance targets are divided between those that are quantitative and qualitative. Quantitative targets, on their face, reflect measurable results that are capable of being met and exceeded during the twelve-month period. Qualitative targets are those that are less concrete. They reflect activities that will enhance or benefit OIG operations, but which do not lend themselves to a predetermined baseline performance level.

## STRATEGIES AND ASSOCIATED TARGETS

To achieve this goal, we plan to accomplish the following specific strategies and actions:

1. Strengthen and utilize the professional expertise of all OIG staff.

### Quantitative

- Analyze the 2018 Federal Employee Viewpoint Survey (FEVS) results and develop plan for addressing any issues identified within 3 months.
- All staff required to meet training requirements in *Government Auditing Standards* have met them.
- Perform independent biannual review of Office of Audits continuing education records to ensure compliance with GAO requirements.
- Have 40 percent of OA professional staff professionally certified in their areas of expertise as of September 30, 2019.
- Conduct all-hands Office of Audit meetings at least bi-monthly.
- Conduct I-Group meetings at least quarterly.
- Conduct Office of Management meetings at least quarterly.
- OI staff meet FLETC and CIGIE mission-critical training requirements.
- Investigative staff complete 75 percent of approved Individual Development Plan-related training, subject to budget constraints.
- All OIG Contracting Officer's Representatives (COR) obtain required training to maintain certification.
- Conduct IT group meetings at least quarterly.
- Have two or more personnel able to perform 80% percent of major administrative functions.

### Qualitative/Other

- Conduct IT training, as necessary.
- Provide prompt, effective responses to requests for IT support.
- Identify and replace outdated computers, servers, mobile phones, and related equipment as needed.
- Develop and deploy an in-house digital forensics capability to support the acquisition, identification, and analysis of evidence relating to OIG investigations subject to budget availability.
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- Conduct exit surveys with all departing staff to obtain feedback on any issues and areas for office improvement.

We will use the following measures for assessing progress in implementing this strategy:

- Analysis of FY 2018 FEVS results as they pertain to OIG.
- Percent of staff required to meet training requirement in *Government Auditing Standards* have met them, as verified through independent biannual review of Office of Audits continuing education records.
- Performance of independent biannual review of OA's continuing education requirements.

- Percent of OA staff with applicable professional certifications as of September 30, 2019.
- Number of all-hands audit staff meetings.
- Number, timing of I-Group meetings held.
- Number, timing of OM meetings.
- Percent of investigative staff completing FLETC and CIGIE training.
- Percent of OI approved Individual Development Plan-related training completed, subject to budget constraints.
- Percent of CORs maintaining certification.
- Number, timing of IT group meetings.
- Percent of major administrative responsibilities that two or more employees are cross-trained.
- Delivery of training in the use of IT systems and software deemed appropriate.
- Increase in level of staff satisfaction with IT support, as reflected in the new employee survey.
- Replacement of outdated equipment as funds allow; level of satisfaction with office equipment in survey.
- Full deployment of in-house investigative digital forensics capability or progress toward that end.
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- Percent of exiting staff with whom exit survey was conducted.

## 2. Improve communication and collaboration within OIG.

### Qualitative

- Ensure information exchange and referrals between the audit, investigation, and support units.
- Enhance collaboration between Office of Management and other OIG offices/units.
- Office of Management briefs all hands meeting, as needed
- Use office-wide committees for completion of various OIG projects and activities.
- Provide updates on significant cases/issues at OI meetings.
- Review all OIG policies and update as needed.
- Utilize collaborative software to improve communication and efficiency within OI.

We will use the following measures for assessing progress in implementing this strategy:

- Frequency of meetings between the AIGA and AIGI.
- Number of referrals among operating units of OIG, as appropriate, as documented by internal records.
- Frequency of collaborations between the Office of Management and other OIG offices/units
- Number of Office of Management briefings at all-hands.
- Number of cross-organizational committees, as needed, and their effectiveness.

- Percentage of OI meetings that offer updates on significant cases/issues.
- Number of office-wide policies reviewed and updated.
- Use of collaborative software to improve communications and efficiency within OIG.

3. Ensure effective external communications and consultation with our stakeholders.

Quantitative

- Redact audit reports in accordance with Freedom of Information Act and other legal authority pertaining to information disclosure and post on OIG's website within 3 working days of issuance 80 percent of the time.
- Provide complete and accurate responses to requests for information within established timeliness guidelines and FOIA/PA provisions 75 percent of the time.
- Provide testimonies to congressional committees timely.
- Complete and accurate responses to media inquiries within 15 business days of receipt or by other agreed upon date 50 percent of the time in order to advance public transparency.
- Complete and accurate responses to congressional inquiries within 15 business days of receipt or by other agreed upon date 50 percent of the time in order to advance public transparency and meet congressional stakeholder needs.
- Provide briefings to the National Science Board (NSB), Congress, Office of Management and Budget (OMB) NSF, the research community, the IG community, and others regarding OIG plans, priorities, and progress.
- 50 percent of OI staff participate in outreach activities to NSF (including presentations at liaison briefings, new employee orientations, and program management seminars) or to external stakeholders and partners (such as the research community and the federal law enforcement community) in order to communicate OIG's message and to receive input that informs OI operations
- Collaborate with other Federal and international agencies in joint training and projects, and the development of policies and procedures to advance common audit, investigative, and management goals
- Provide leadership and active participation in activities within the IG community.

Qualitative

- Prepare timely OIG budget requests.
- Update NSF leadership regularly on OIG activities and concerns.
- Review OIG website for necessary modifications and enhancements.

We will use the following measures for assessing progress in implementing this strategy:

- Percent of audit reports redacted (as necessary) and posted on the OIG website within 3 days of issuance.
- Percent of complete and accurate responses for information within established timelines, guidelines and FOIA/PA provisions.

- Number and timing of testimonies provided at the request of congressional committees.
- Percent of media inquiries that have been responded to within applicable time frames.
- Percent of congressional inquiries that have responded to within applicable timeframes.
- Number of briefings to NSB members/committees, Congress (staff or members), OMB staff, NSF staff, the research community, the IG community, and others.
- Percent of OI staff participating in outreach activities to NSF or to external stakeholders.
- Number of events with other Federal and international agencies in joint training, collaborative projects, and the development of policies and procedures to advance common audit, investigative, and management goals.
- Percent of OIG staff who participate in activities within the IG community, particularly the number of committees and task forces on which OIG staff were leaders or otherwise served.
- Completion of budget requests in compliance with established deadlines.
- Number of update meetings with the NSF Director and Deputy Director.
- Completion of OIG website review and improvements made, as needed.