

OIG FY 2003 Performance Report

This section describes OIG's accomplishments towards the three goals set forth in the OIG Performance Plan for 2003:

1. Increase OIG impact on NSF's effectiveness and efficiency.
2. Safeguard the integrity of NSF programs and resources.
3. Utilize OIG resources effectively and efficiently.

Under each of these goals, we identified several strategies for achieving the goal. For each strategy, we listed specific actions that we planned to complete during the performance period, which ran from April 1, 2003, to March 31, 2004.

Goal 1: Increase OIG Impact on NSF's Effectiveness and Efficiency

1. Identify and implement approaches to improve audit product quality and timeliness.
 - Continue to implement team-based auditing approach on high-risk audits.
 - Provide team-based audit training to audit staff and contract auditors.
 - Finalize audit guide for contract auditors; incorporate team-based auditing concepts in our contract audit guidance.
 - Finalize audit report quality standards.
 - Continue to enhance automated work-in-process audit tracking system.
 - Establish on-the-job training plan to ensure that new and existing audit staff quickly gain experience conducting audits of NSF awards and programs.
 - Develop Contracting Officer's Technical Representative procedures manual.

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- Develop audit contract monitoring procedures manual.
- Develop audit quality control standards document.
- Develop measures to assess audit product quality and timeliness.
- Develop results-based performance measures for Audit Office in 2004.

OIG made significant progress towards achieving our goal of improving audit timeliness and quality. The team-based auditing approach we have adopted calls for formal meetings between auditors and managers at key points in an audit, thereby facilitating communications that result in timelier, higher quality audit reports. During 2003, the Audit Office implemented the team-based auditing approach on high-risk audits conducted by internal audit staff as well as contractor staff. We provided comprehensive team-based audit training to OIG audit staff and representatives from CPA firms under contract with OIG in joint training sessions in August 2003. The Audit Office will complete an audit guide for use by private accounting firms under contract with OIG early in the 2004 performance period. This document will provide detailed guidance for contractors on implementing team-based auditing concepts, and it will ensure that a consistent approach to the conduct of audits is taken by both internal and contractor audit staff.

The Audit Office also made progress in developing three other policy documents focused on quality assurance procedures and standards. First, we completed two procedures manuals for OIG audit staff responsible for monitoring contract audits that is expected to improve both the quality and timeliness of these reviews. In addition, the Audit Office is continuing to develop an audit quality control policy. When complete, the policy will establish detailed standards and expectations regarding audit independence, supervision, planning, documentation, team-based auditing, and outreach activities. To complete our program of quality assurance improvements, we developed performance measures for assessing the quality and timeliness of our audits.

During the past year, we made progress towards establishing an on-the-job training program to acquaint staff with the new quality assurance practices we developed and ensure that our audit work is consistent. The new training program, which we expect to complete in 2004, will also provide staff with opportunities to cross train among the various types of audit work we perform. We believe that cross-training will not only broaden and enhance the skills of our auditors in performing their current job, but will also result in improved versatility and job satisfaction.

In 2003 we continued to use the OIG Knowledge Management System (KMS) to track audit milestones, monitor audit resolution activity, and prepare data tables required in the semiannual report to the Congress. Several enhancements were added to the audit tracking system, including an audit planning module, an outreach tracking module, and an automated process for conducting trend analysis of historic audit data.

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

- Finalize audit planning policy document.
- Finalize historical trend analysis of audit findings.
- Develop a process for conducting future automated trend analysis.
- Strengthen OIG expertise in NSF programs to assist in setting audit priorities.
- Complete agency funding analysis by program and grantee institution to assist in setting audit priorities

The Audit Office made significant progress towards finalizing an audit planning policy document. It establishes a formal methodology for analyzing and performing assessments of risk, developing audit proposals based on those assessments, ranking audit proposals, and selecting audits based on an analysis of the staff resources available. Senior audit managers have reviewed the draft document and their comments have been incorporated.

A key component of the audit planning process is our strategy for using the data from past OIG audits to better manage future reviews. In 2003, the Audit Office completed a trend analysis that organized and measured the results of past audits going back to 1998 by type of finding and institution audited. This information enables us to better allocate scarce audit resources among the many organizations that receive NSF funds. We also developed a methodology that uses the KMS system to monitor the results of future audits for changes to these patterns. By the end of 2004, the historic audit data will be uploaded into our KMS system to fully integrate the trend analysis process.

We completed two strategies that will help inform the process for determining audit priorities. First, the Audit Office participated in the OIG Liaison Program, in which designated staff serve as points of contact to improve communication between NSF program staff and OIG. The Liaison Program provides an opportunity for audit staff to learn details about agency award programs and internal operations that can be used to uncover areas of risk not readily apparent. In addition, the Audit Office successfully completed an in-depth analysis of agency funding patterns by program and institution. The results will provide audit staff with additional insights into high-risk awardees and program areas.

3. Strengthen outreach regarding effectiveness and efficiency issues.

- Finalize an OIG outreach plan to support NSF's efforts to inform the awardee community about the financial and compliance standards that matter for efficiency and effectiveness.
- Conduct outreach sessions on effectiveness and efficiency issues for NSF staff and awardees at NSF, institutions, conferences, and other appropriate sites.

The Audit Office completed an outreach plan that includes three strategies:

gaining a better understanding of NSF activities and operations; monitoring audit-related changes in the professional audit and OIG communities; and educating NSF, its stakeholders, and the external community on our audit issues and activities. To facilitate formal tracking and measurement of OIG outreach activities in 2003, we developed an outreach module in the KMS system. Implementation of these actions will provide a more consistent approach to conducting, tracking, and measuring the effectiveness of outreach by audit staff in 2004.

Goal 2: Safeguard the Integrity of NSF Programs and Resources

1. Identify ways to improve case product quality and timeliness.

- Ensure investigations are consistent with PCIE/ECIE quality standards for investigations.
- Ensure consistency of investigative efforts with Investigations Manual.
- Make high-quality oral and written presentations to prosecutors or agency decision makers.
- Assess timeliness and appropriateness of case milestones.
- Ensure high-quality referral of audit issues arising from investigations.
- Maintain high-quality training for investigators.
- Assess results-based performance measures for applicability to OIG investigations activities in 2004
- Perform quality check for each investigation.

NSF OIG has assumed a co-leadership role in preparing the ECIE community for investigative peer review, a job that has also improved our own focus on quality and readiness for the peer review. We continued to improve our internal processes and procedures by issuing two updates to our Investigations Manual. We have shared our manual with other ECIE offices and engaged in discussions aimed at improving investigative processes. We spearheaded the ECIE adoption of the Qualitative Assessment Review Guidelines for Federal Offices of Investigation and developed a peer review schedule for the 17 participating ECIE offices. We are coordinating the training of ECIE staff that will participate in the peer review effort.

The Office of Investigations has significantly increased its use of contract forensic services, thereby strengthening our abilities to investigate financial fraud. We have substantially increased the number of referrals we provide to audit in connection with internal control matters arising from our cases, as we continue to refine their quality. In order to more effectively investigate instances of research misconduct, we have also increased the number of site visits made in connection with these cases. We have worked closely with prosecutors to ensure that the evidence we present is effective, and results in proportionate action being taken against the perpetrators. Our investigation and management implication reports have prompted agency officials to initiate significant actions against culpable

individuals, and in some cases to modify agency processes to avoid future wrongdoing.

Finally, we scrutinized each case closeout and investigation report to ensure that it meets standards articulated in the PCIE/ECIE Quality Standards for Investigations and to assess the potential for taking subsequent actions such as issuing management implication reports or audit referrals. Management closely monitored the timeliness of the investigative process through the milestones entered in the OIG Knowledge Management System for each project. Investigators continued to attend training to expand and hone their skills. Most notably during this period, we arranged office-wide training on forensic accounting and fraud investigations.

2. Strengthen proactive activities (outreach, reviews) in integrity matters.

- Ensure information is accessible to public and NSF.
- Develop a Compliance brochure.
- Emphasize OIG liaison activity.
- Continue developing Grant Fraud Working Group.
- Monitor and assess the effect of outreach on targeted communities.
- Analyze closed cases to assess areas for proactive reviews.
- Monitor and assess the effect of proactive activities on case processing time, priorities, and allegation assessment.
- Ensure all FOIA/PA requests are responded to in a timely manner.

The Office of Investigations has emphasized both proactive and reactive capabilities to ensure that our efforts support the Inspectors General's statutory mandate to prevent and detect fraud and abuse. Our proactive data-mining efforts have produced both investigative leads that have resulted in an increased number of significant cases, as well as the discovery of management control issues that were referred to the agency in management implication reports. The serious nature of some of these cases caused us to reevaluate our outreach efforts and to focus on high impact events. Feedback we have received indicates that our presentations are effective and contain information that is both helpful and meaningful. We have updated the IG website to en-



OIG associate, Dr. Catherine Ball lecturing at Capital Science 2004 Conference.

sure the clarity and accessibility of the information. We also continue to present at NSF's conflicts of interests briefings, new program manager orientations, and regional grants seminars.

Before publishing a compliance brochure, we have decided to focus our efforts on developing a compliance initiative, from which we will develop a brochure. We published two new brochures this year: one on employee use of peer-to-peer file-sharing software and another on identity theft. Both brochures were developed in conjunction with the agency to enhance the working environment of agency employees. These brochures were introduced at the OIG Open House and are available to anyone visiting our offices or our website. Our liaisons continue to meet with their assigned NSF offices and are encouraged to use the two new brochures as focal points for their discussions. We convened one meeting of the inter-agency Grant Fraud Working Group which was attended by over 50 members of the OIG community, including criminal investigators, auditors, and senior managers from 20 different OIGs. More meetings are planned. Finally, we were able to process all of the Freedom of Information Act (FOIA) and Privacy Act requests we received within the allotted time frames.

Goal 3: Utilize OIG Resources Effectively and Efficiently

1. Utilize professional expertise and talents of all OIG staff.

- Conduct annual survey of OIG staff to obtain its views on the effectiveness of:
- OIG use of its resources in personnel, equipment, technology and contracting,
- Management planning, policies, and procedures,
- Internal communications and coordination, and
- OIG impact on NSF.
- Analyze survey results and develop corrective actions for the problems identified.
- Continue the use of the team approach in brainstorming and resolving OIG internal management issues and in developing OIG activities.
- Complete development of an integrated Knowledge Management System within the OIG.

With a response rate of just over 60 percent, our second annual survey of OIG staff revealed that progress has been made in a number of management, resource, support, and policy areas. At the same time, it also showed that there is room for improvement in others. We view this survey as an effective means for taking the measure of how well we are using staff professional expertise and whether we are providing our employees with the guidance and resources needed to do their jobs. The results conveyed strong satisfaction in several areas, including our overall mission as an office, the availability of computer and training

resources, and the support of family-friendly policies. OIG received high marks in management's support of alternative work schedules and telecommuting, and most agreed that the office provides a working environment supportive of a balance between work and personal life. There was a consensus that diversity is valued and that harassment is not tolerated in the workplace. Staff reported that they understand the goals and mission of this office. They also acknowledged the professional competence, strong ethics, and mutual respect displayed by their coworkers. The respondents believe that we treat other entities and individuals in an equitable manner.

The OIG appropriation for FY 2003 allowed sufficient resources to cover increased staffing costs, including ten new positions; all audit, investigative, and administrative contract requirements; and internal technology support. OIG continued to make substantial use of the team approach for planning office activities and resolving internal management issues. Committees and working groups were effective in planning and conducting a highly successful OIG Open House, assessing internal communications and coordination issues that were identified in last year's staff survey, planning the annual office retreat, administering and analyzing the results of this year's staff survey, refining drafts of a new policy on referrals and informal consultations within OIG, and planning for the move of three-quarters of our staff into new office space.

We had intended to complete the new Knowledge Management System (KMS), which integrates and replaces dozens of pre-existing or outdated "stovepipe" applications, but at the end of the performance period, work was still ongoing to develop additional improvements to the system, incorporate a more effective referral process among OIG units, and resolve various issues that arose during the testing of earlier phases. Through its integration with the NSF email system, KMS now supports office-wide communications about project assignments, accomplishments, and other significant events. Over the past year, we added modules for tracking and reporting on outreach activities, FOIA requests, investigative recoveries, and staff training. We also added mechanisms for preparing and submitting audit proposals and for classifying the results of investigations. A new information technology position will be filled early in the 2004 performance period, and one of its roles will be to maintain and manage future upgrades to KMS after the contractor has finished initial development.

The staff survey revealed that we have more work to do on continuing problems in information sharing, coordination, cooperation, and communication among our OIG units. These issues are further addressed in #3 below.

2. Strengthen staff recruitment, development, and training.

- Use OIG survey results and other information to analyze OIG skill mix to determine whether it will meet future priority needs of the office.
- Assume greater responsibility within OIG for handling personnel recruitment and hiring.
- Develop an office-wide process for individual development plans.

- Provide OIG training in NSF programs and procedures, professional skills, and other subjects that have wide application within the office.
- Ensure that all OIG staff meet OIG training requirements.
- Add at least one critical element to all staff performance appraisals to tie individual performance to the OIG Performance Plan.

OIG survey results and other information were used to prepare an analysis of past and present OIG skill mixes and to determine hiring requirements for the year. While OIG continued to rely on NSF for human resource administrative support, we took several steps to facilitate the process. First, we made greater use of direct hire programs that enable expedited hiring procedures with less cumbersome administrative requirements. During the 2003 performance period, we took full advantage of the Federal Career Intern Program, Federal Cybercorp Scholarship for Service, and the Federal Scholars Program to recruit excellent staff for entry-level positions across the office. Second, we made more effective use of the agency's electronic E-Recruit system to streamline hiring outside the special federal programs. Early in the period we participated in an NSF working group charged with developing ways to improve the system, and it now provides the flexibility we need to screen applicants for our varied positions. Third, we selected a management analyst who will assume several personnel-related responsibilities, including oversight of the individual development plans, updating position descriptions, and performing liaison functions with the agency's Human Resource Management staff. Over the last 12 months, OIG hired 15 staff members, including 10 for new positions.

Student interns Chae Kim (right) and Julia Purn (below) visit with the IG and Deputy IG.



During this period we conducted a pilot program for individual development plans. It enabled employees and their supervisors to identify near-term professional development goals and the types of work assignments and training that would promote the achievement of those goals. At the midterm, employees and supervisors gauged their progress and made any adjustments, and now that we are at the end of the period, they will assess in writing how the extent to which the goals were met. We will evaluate the results of this pilot early in the 2004 performance period. We also offered telecommuting to OIG staff, and 25 have been authorized to participate in the program, most on an ad hoc basis.

Each month we held an all-staff meeting that featured an outside speaker on a program or topic of interest to OIG and presentations by OIG staff on their respective activities. We also conducted office-wide training in forensic accounting and fraud investigations, as well as training for all auditors and audit contractors on team-based auditing. Except for those most recently hired, all staff members met the OIG requirement for at least 24 hours of job-related training during the period. All performance appraisal standards were revised to include a critical element that ties individual performance to the OIG Performance Plan.

3. Improve communication and collaboration within OIG.

- Develop an intra-office referral policy.
- Provide timely information exchange and referrals between the audit and investigation units. Provide Audit Office support for financial analysis services in support of investigative activities.
- Develop indicators for deciding when it makes sense to use multi-disciplinary professional resources on OIG assignments.
- Provide opportunities for joint training and discussions of cross-cutting issues for auditors, investigators, and other OIG staff.
- Assess Grant Fraud Indicators pilot program.
- Share information about audit and investigative activities at all-staff meetings.

In response to the findings of last year's staff survey, OIG devoted its annual retreat to examining issues on communications and coordination within the office. The staff continued to meet in small groups to brainstorm alternative courses for addressing the problems that had been identified, and OIG held a follow-up mini-retreat to discuss possible solutions in a plenary session. A Communications Committee was formed early in the period to review ideas that came out of the staff retreats and the network groups. The committee recently finished refining a draft policy, which is currently being reviewed by the senior management staff. In addition to setting forth essential principles and procedures, the policy will also establish technological processes, through the OIG Knowledge Management System, for ensuring timely information exchange and referrals among the units. It will also provide automated prompting for feedback to the staff members making referrals. We anticipate implementing a new policy early in the 2004 performance period.

A contractor provided financial analysis expertise for investigative activities, with support from the Audit Office. It has proven invaluable to investigations that involve financial complexity, and it assists investigators in identifying potential matters for referral to the Audit Office. We were unable to develop indicators for the use of multi-disciplinary resources, nor were we able to complete an assessment of the Grant Fraud Indicators pilot program. At each monthly all-staff meeting, the Audit and Investigations Offices shared information on investigative and audit activities. In addition, senior managers from both units met periodically throughout the year to discuss issues of common concern. The Audit Office provided training on the new fraud audit standard to audit and investigative staff, and the Investigations Office included auditors in the planning and execution of investigations based on Audit Office referrals.

4. Ensure effective external communications and consultation.

- Produce timely external reports on OIG results and issues.
- Provide testimony and other requested information to congressional committees.
- Provide briefings to Consult with the NSB, Congress, OMB, NSF, and others regarding OIG plans, priorities, and progress.
- Update NSF leadership regularly on OIG activities and concerns.
- Play an active role in the IG community.

All semiannual reports to the Congress, the budget submissions to the Office of Management and Budget and to the Congress, Management Letter to NSF, annual OIG performance Report, and responses to data calls from the Executive Council for Integrity and Efficiency were completed by the prescribed target dates. The IG testified twice at Congressional hearings and provided all information requested by committee members and staff concerning OIG plans and the progress and results of audits, investigations, and other reviews. Our staff presented regular briefings to the Administrative and Oversight Committee of the National Science Board on OIG activities and other matters of interest to the Board. The IG and Deputy IG had six regularly scheduled meetings with the NSF Director and Deputy Director to update them on ongoing OIG activities, and more urgent issues were brought to their attention immediately.

OIG engaged in extensive outreach efforts during the 12-month period, including presentations at 7 NSF Program Management Seminars (orientations for new program officers), over 20 briefings on conflicts of interest for NSF employees, and approximately 25 presentations to principal investigators, university faculties and administrators, students, professional associations, and other members of the research community. OIG staff also served as guest lecturers, panel members, and moderators before various government and private-sector audiences. We also consulted frequently with representatives from NSF, other federal agencies, OMB, Congressional committees, and other OIGs on matters of mutual interest.

OIG has been active in support of the President's Council on Integrity and Efficiency and the Executive Council on Integrity and Efficiency, which are composed of all federal IGs. The NSF IG continued to serve as chair of the Committee on Misconduct in Research and as a member of the Inspection and Evaluation Committee and Investigations Committee. She also served as the elected representative to the PCIE/ECIE Council. The Deputy IG served on an ad hoc committee to update the PCIE/ECIE Strategic Framework, and other OIG staff members have participated in various PCIE/ECIE initiatives, from training other OIGs in handling research misconduct investigations to developing peer review standards. We convened a meeting of the inter-agency Grant Fraud Working Group that was attended by over 50 members of the OIG community, including criminal investigators, auditors, and senior managers from 20 different IG offices.

