The Cost Analysis and Audit Resolution (CAAR) Branch is situated within the Office of Budget, Finance & Award Management (BFA)
Discussion Points

- Overview of NSF’s Award Portfolio and Risk-Based Monitoring Strategy
- Highlights of NSF’s Annual Risk Assessment Process and Key Monitoring Approaches
- Description of Selected Advanced Monitoring Activities – Desk Reviews, Site Visits, and Virtual Visits
- Discussion of Some Common Concerns Identified During Advanced Monitoring

APPENDIX

NSF continues to update its post-award monitoring approach to meet evolving oversight requirements and expectations

Evolution of NSF Post-Award Monitoring Processes

- 2002: Formalized monitoring program
  - Developed basic Risk Assessment Model – award focused
  - Piloted site visit procedures
- 2003: Developed post-award monitoring policies and procedures
- 2004: Created the Division of Institution and Award Support
- 2005: Instituted desk review program
- 2006: Expanded resources for monitoring by contracting for post-award support
- 2007: Continued to integrate baseline and advanced monitoring activities
- 2008: Introduced flexible risk category thresholds to risk assessment module
- 2009: Refined Risk Assessment Model to an awardee-based approach
  - No post-award monitoring findings in financial statement audit report for the first time since 2001
- 2010: Increased emphasis on feedback from monitoring staff
- 2011: Added risk factors for awards with travel and consultant costs
- 2012: Began piloting virtual visit as an alternative to onsite visits; now regular part of NSF advanced monitoring approach
- 2011: Increased emphasis on feedback from monitoring staff
- 2012: Added risk factors for awards with travel and consultant costs
Spurred by increased funding to support research in science, engineering, and education, NSF’s award portfolio has been increasing over the past decade

- Over $25 billion in total award funding
- Over 40,000 active awards
  - Standard and continuing grants
  - Cooperative agreements
  - Graduate research fellowships
  - Other awards
- Over 2,000 awardees
  - Universities / 4-year colleges
  - Non-profit organizations
  - For-profit organizations
  - Community colleges
  - Other awardees (including SBIRs, STTRs)

NSF developed a risk-based portfolio monitoring strategy that integrates its monitoring activities and focuses limited monitoring resources on awardees administering higher risk awards

NSF’s portfolio monitoring strategy has three key components –

- **Annual Risk Assessment** enables NSF to focus limited advanced monitoring resources on awardees managing higher risk awards

- **Comprehensive Monitoring Activities** augment routine or automated baseline activities with focused advanced monitoring activities to provide broad coverage of the award portfolio. These activities are designed to mitigate the risk of non-compliance with federal grant management regulations (administrative regulations, cost principles, and audit requirements) and NSF award administration requirements

- **Gathering Feedback and Incorporating Monitoring Results** to enable NSF to better target business assistance activities and to make continuous improvements to the risk assessment model and monitoring procedures
Baseline monitoring activities combined with day-to-day award administration with automated monitoring provide broad coverage of the entire award portfolio

- Baseline Monitoring activities consist of:
  - **Automated financial report screening** to identify reporting issues that may need further scrutiny; these tests relate to cash-on-hand balances, interest income, program income, adjustments to closed awards, grants closeout and financial unobligated balances
  - **Grants and Agreements Officer award administration** to provide insight into actual or potential compliance issues; these activities include changes of principal investigator, award transfers, award supplements, no-cost extensions, special payments, and significant budget realignments
  - **Improper Payments - transaction testing** to verify the reasonableness, allocability, and allowability of selected award expenditures. It is also used to ensure source supporting documentation is acceptable.
Advanced monitoring focuses on award administration practices of selected awardees more in need of business assistance

- Advanced monitoring consists of:
  - Desk reviews - Assess general management environment, review selected accounting and financial management policies and procedures and obtain financial information submitted by awardees.
  - Site visits - Conduct review of selected higher risk award administration areas and follow up on desk review results as needed. Site visits may be conducted on-site or virtually.
  - Business System Reviews (BSR) - Combine desk and onsite reviews of large facility business systems to determine whether the operation of those facilities meet NSF’s expectations for business and administrative management

NSF’s monitoring activities, combined with other grant-related activities, provide comprehensive coverage of the entire portfolio.
Desk reviews enable NSF to develop reasonable assurance that awardees have the capability to manage NSF-funded grants in compliance with federal regulations

- Desk reviews enable NSF to gain an understanding of an institution’s award administration practices and alert NSF to deficiencies. Desk reviews provide a foundation for the site visit’s targeted review activities.
- NSF completes ~100+ desk reviews a year.
- NSF oversees the desk review process by selecting awardees for desk reviews, authorizing review protocols, approving workpapers and summary reports prepared by a contractor. NSF works with awardees to resolve issues identified during the desk review process.
- Analysts gather information from public sources, discussion calls, and awardee-provided documentation to assess the awardee’s capacity to manage Federal funds.
- Desk reviews provide a cost-effective monitoring alternative to resource-intensive site visits.
- A follow-up site visit or BSR may be scheduled for an awardee if the desk review demonstrates a need for additional business assistance.

Site visits provide a detailed review of selected aspects of the institution’s award management practices

- Site visits assess the extent to which an awardee’s grant management systems enable efficient and effective performance of NSF awards and ensure compliance with federal regulations.
- NSF completes ~30 site visits a year.
- Reviewers assess whether the awardee’s financial management system accurately discloses the financial results of NSF awards and if awardee systems maintain effective control over and accountability for all funds, property, and other assets.
- Through site visits, NSF extends business assistance by offering award administration best practices and answering questions related to NSF expectations and federal award administration policies.

**Core Functional Review Areas**

- General Management Survey
  - Grants management roles and responsibilities
  - Budgetary revisions and expenditure approvals
  - Expenditure monitoring
  - Cost transfers
- Accounting and Financial Management Review
  - Accounting policies and procedures documentation
  - OMB A-133 audit review
  - Project accounting
  - Identification and accounting for unallowable costs
- ACM5 Reconciliation (Pilot area)
- ARRA Accounting and Reporting Review

**Targeted Review Areas**

- Time and Effort
- Fringe Benefits
- Travel
- Consultants
- Cost Sharing
- Participant Support Costs
- Indirect Costs
- Procurement
- Subawards & Subrecipient Monitoring
- Property and Equipment
- Program Income

Awardees with significant deficiencies may be scheduled for follow-up site visits.
Virtual visits as an alternative to on-site monitoring visits with advances in Technology

- Virtual site visits are now a regular part of NSF’s site visit protocol. Conducting site visits virtually reduces travel time and cost to NSF as well as reduces the administrative burden on the awardee.
- “Virtual Sessions” are held using WebEx’s integrated audio, video, chat tools, and desktop sharing capabilities; documents were uploaded by NSF or the awardee on a SharePoint site for review.
- Virtual site visits will typically occur through a series of 60-120 minute sessions held over the course of a week.
- Virtual visits are based upon the proven and tested Advanced Monitoring site visit approach with core review areas and selected targeted review areas adapted to the virtual visit approach.

<table>
<thead>
<tr>
<th>Site Visits</th>
<th>Virtual Site Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-depth review of award administration practices in 3 - 4 Core Review Areas and 4 - 6 Targeted Review Areas</td>
<td>In-depth review of award administration practices in 3 - 4 Core Review Areas and 4 - 6 Targeted Review Areas adapted for virtual visit methodology</td>
</tr>
<tr>
<td>3 - 4 days of intense meetings</td>
<td>Several virtual sessions scheduled over a week</td>
</tr>
<tr>
<td>Interact in-person with awardees to gather information about grants management policies and procedures</td>
<td>Use virtual collaboration tools to simulate real-time “face-to-face” interactions with awardees</td>
</tr>
<tr>
<td>Limited access to subject matter experts (SMEs) during the visit may require follow-up after the site visit team returns to NSF</td>
<td>Greater flexibility in scheduling individual sessions enables the awardee and CAAR team to consult with experts, research issues, and follow up during a subsequent session</td>
</tr>
<tr>
<td>Staff travel is resource intensive and both weather and schedule dependent</td>
<td>Greater flexibility in scheduling</td>
</tr>
<tr>
<td>Budget and staffing constraints may limit the number of reviews scheduled</td>
<td>Virtual sessions enable greater participation for staff from multiple sites</td>
</tr>
<tr>
<td></td>
<td>Fewer on-site visits reduce travel fatigue and increase staff utilization</td>
</tr>
<tr>
<td></td>
<td>Reduced travel costs and staff travel time optimizes limited monitoring resources</td>
</tr>
</tbody>
</table>
The incidence of targeted review areas with concerns appears to be trending downward across most review areas; concerns are trending higher in General Management, and Acct. and Financial Note: *Because less than five reviews were completed of these review areas, additional reviews may be necessary to validate these results.

### Incidence of Concerns per Review Area

<table>
<thead>
<tr>
<th>Review Area</th>
<th>FY13</th>
<th>FY12</th>
<th>FY11</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Management</td>
<td>75%</td>
<td>70%</td>
<td>65%</td>
</tr>
<tr>
<td>Acct. and Financial System</td>
<td>80%</td>
<td>75%</td>
<td>70%</td>
</tr>
<tr>
<td>Time and Effort</td>
<td>65%</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>Foreign Benefits</td>
<td>70%</td>
<td>65%</td>
<td>60%</td>
</tr>
<tr>
<td>Travel</td>
<td>50%</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Consultants</td>
<td>80%</td>
<td>75%</td>
<td>70%</td>
</tr>
<tr>
<td>Cost Sharing</td>
<td>65%</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>Participant Support</td>
<td>60%</td>
<td>55%</td>
<td>50%</td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>85%</td>
<td>80%</td>
<td>75%</td>
</tr>
<tr>
<td>Procurement</td>
<td>70%</td>
<td>65%</td>
<td>60%</td>
</tr>
<tr>
<td>Property and Equipment</td>
<td>50%</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Program Income</td>
<td>65%</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>ARRA Accounting and Reporting</td>
<td>80%</td>
<td>75%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Note: No lack of policy and procedure issues were found for FFR, Indirect Costs, Procurement, Property and Equipment or ARRA Accounting and Reporting.

While concerns and results may be significantly different from prior years, the lack of written policies and procedures appears to be a relatively persistent issue.
Site visit reports noted a high frequency of concerns in General Management, Participant Support, Time and Effort, and Subaward Monitoring.

<table>
<thead>
<tr>
<th>Concerns Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Management – 15 total concerns (from 25 reviews)</td>
</tr>
<tr>
<td>The awardee has described good practices but has not prepared written policies or procedures to support those practices (6)</td>
</tr>
<tr>
<td>The awardee has described good practices but written policies or procedures have not been fully/adequately documented (2)</td>
</tr>
<tr>
<td>Miscellaneous (7)</td>
</tr>
<tr>
<td>Participant Support – 14 total concerns (from 20 reviews)</td>
</tr>
<tr>
<td>Lack of written policies and procedures (13)</td>
</tr>
<tr>
<td>Participant support costs are not tracked in separate general ledger accounts, sub-accounts, sub-task, or sub-ledgers (4)</td>
</tr>
<tr>
<td>Miscellaneous (3)</td>
</tr>
<tr>
<td>Time and Effort – 14 total concerns (from 28 reviews)</td>
</tr>
<tr>
<td>Lack of written policies and procedures (3)</td>
</tr>
<tr>
<td>The awardee has not developed a time and effort documentation system that complies with federal regulations (2)</td>
</tr>
<tr>
<td>Miscellaneous (11)</td>
</tr>
<tr>
<td>Subaward Monitoring - 11 total concerns (from 18 reviews)</td>
</tr>
<tr>
<td>Lack of written policies and procedures (5)</td>
</tr>
<tr>
<td>The awardee did not verify that the subawardee had the capability to manage the subaward prior to making a substantial subaward (4)</td>
</tr>
<tr>
<td>Miscellaneous (2)</td>
</tr>
</tbody>
</table>

FY 2013 Site Visits and Desk Reviews Results Key Observations

- Awardees managing between $2 million and $15 million of NSF funding consistently had the most review areas with concerns, while awardees managing more than $15 million had the least review areas with concerns.
- Many concerns continued to identify a lack of written policies and procedures – Can always write additional policies and procedures.
- For-profit organizations averaged a higher number of review areas with concerns than other organization types – Limited number of reviews.
- Reviews of general management, time and effort, subaward monitoring, and participant support resulted in a comparatively high incidence of concerns.
- This year, core review areas tended to have a higher incidence of concerns than targeted review areas – 1) The increase in core area reviews vs. targeted review areas 2) Many of the issues appear to relate to missing or inadequately documented policies and procedures.
Keys to Success for Awardees

- Focus on the objectives of the project/program
- Understand the requirements and expectations (award letter, award terms and conditions, OMB Circulars)
- Develop good accounting practices – accumulation and segregation of costs
- Document policies and procedures in writing
- Document approvals and conversations between the awardee and NSF
- *Ask Early and Ask Often!*

Where can I get information on-line?

- Division of Institution & Award Support:
- Cost Analysis & Audit Resolution Branch (Check out our new material):
- Policy Office:
- General:
Our Contact Information

Charles Zelgler
Special Assistant – Team Lead Indirect Costs, Preaward Review and SBIR Phase II
Cost Analysis and Audit Resolution Branch
National Science Foundation

(703) 292-4478
czelgler@nsf.gov

Thank You!!