



International Workshop on Accountability Challenges

Award Portfolio Oversight and Monitoring

**The National Science Foundation
Risk-Based Portfolio Monitoring Strategy**

A Gold Standard for Federal Post-Award Monitoring



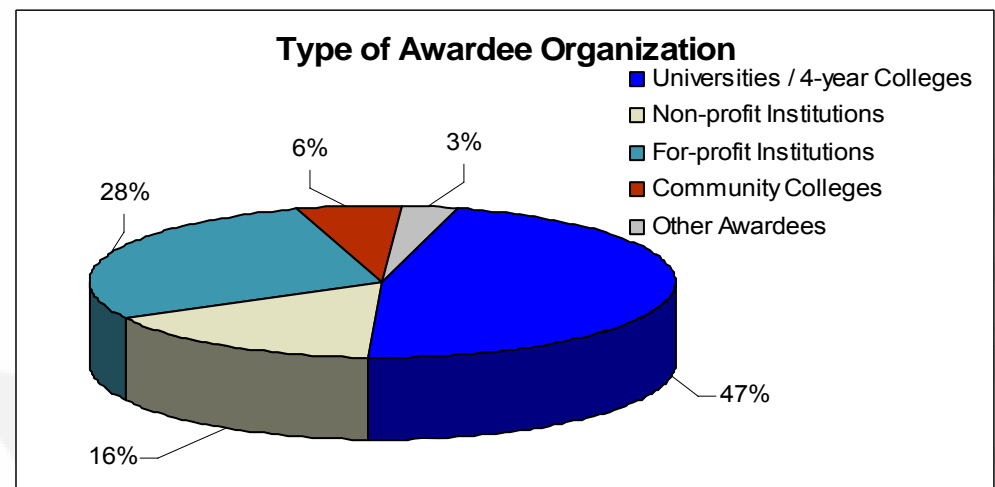
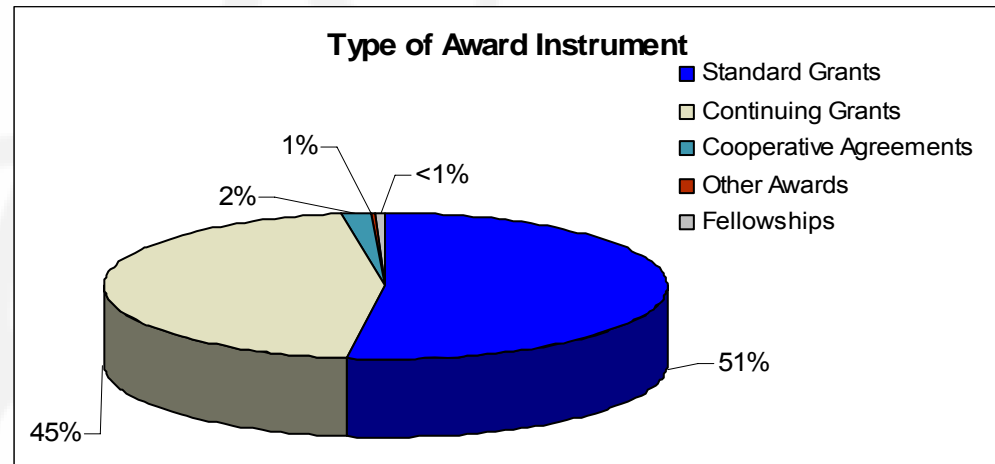
June 20, 2008
Liverpool, United Kingdom

Discussion Points

- ▶ Award portfolio overview
- ▶ Oversight and transparency
- ▶ Portfolio monitoring program
- ▶ Monitoring activities
- ▶ Risk Assessment Model
- ▶ Program accomplishments
- ▶ Looking forward

Spurred by increased funding to support research in science, engineering, and education, NSF's award portfolio has been increasing over the past decade

- ▶ \$19.7 billion in total award funding
- ▶ 34,370 active awards
 - Standard and continuing grants
 - Cooperative agreements
 - Graduate research fellowships
 - Other awards
- ▶ 2,186 awardees
 - Universities / 4-year colleges
 - Non-profit organizations
 - For-profit organizations
 - Community colleges
 - Other awardees



Award information as of June 30, 2007

Federal agencies are responding to an increased demand for award management oversight and transparency

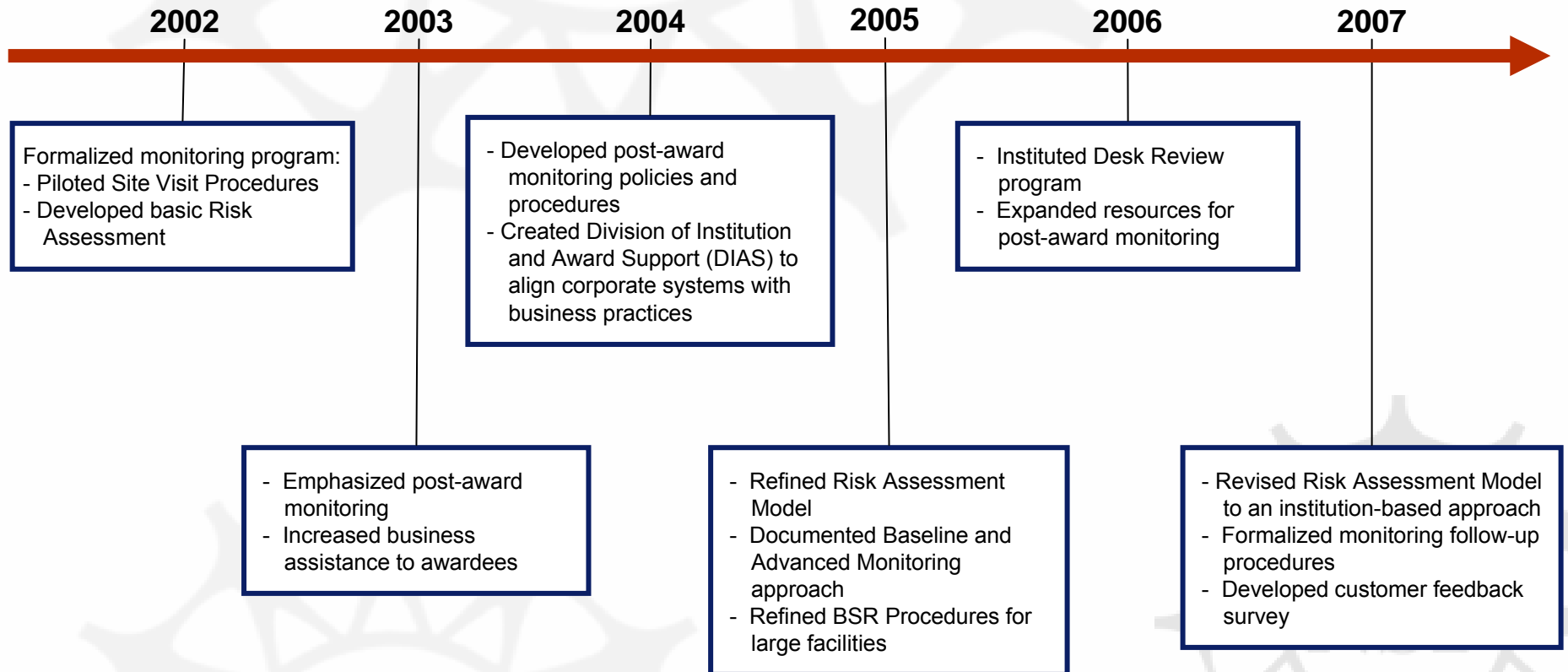
- ▶ Improving Government Accountability Act
 - Enhances independence of Inspectors General
 - Creates a Council of the Inspectors General on Integrity and Efficiency
- ▶ Government Performance Results Act (GPRA) – Agencies must
 - Develop annual strategic plans, performance plans, and performance reports
 - Link performance reports directly to agency budget requests
 - Make all plans publicly available
- ▶ OMB Circular A-123, Management’s Responsibility for Internal Control – Agencies must
 - Develop and implement appropriate, cost-effective internal controls
 - Annually assess controls for programs, operations, and financial reporting
 - Provide assurances in annual Performance and Accountability Report
- ▶ Federal Funding Accountability and Transparency Act (FFATA) – Agencies must
 - Develop federal award database (federal financial assistance and expenditures) for primary awardees and subcontracts in excess of \$25,000
 - Make data available to the public via a single, searchable Web site in “Google-like” in simplicity

NSF Management and the Office of Inspector General (OIG) have complementary roles related to award management and oversight

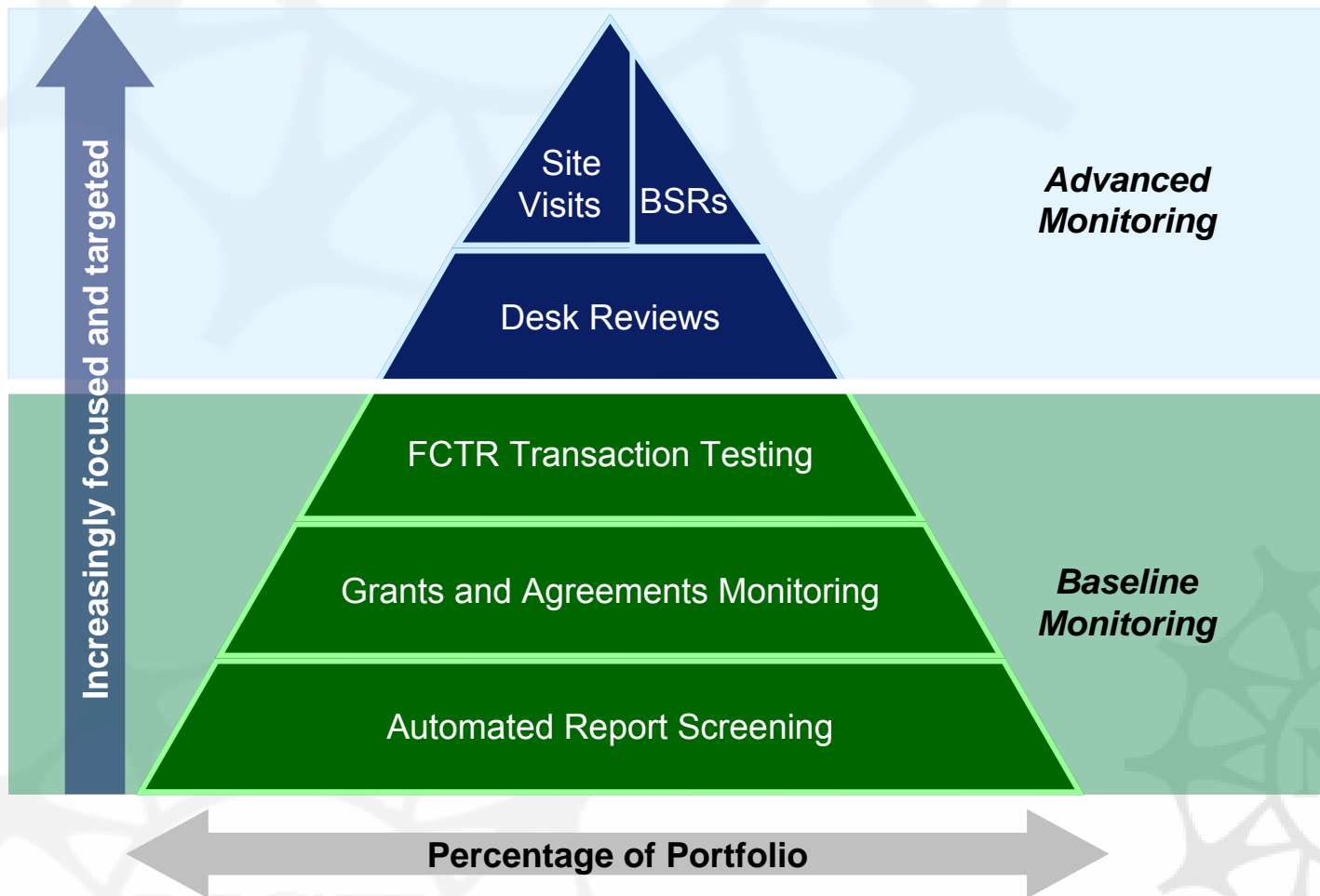
- ▶ NSF manages programs and conducts monitoring activities to ensure that awardees have systems in place for managing NSF awards in compliance with federal and NSF requirements
- ▶ OIG conducts audits, inspections, and investigations involving any NSF proposal, award, program, function, system, or operation. Through these activities, the OIG
 - Promotes economy, efficiency, and effectiveness in the administration of NSF programs and operations
 - Prevents and detects fraud, waste, abuse, and mismanagement in NSF programs and operations

NSF has transformed its organization and post-award monitoring approach to meet evolving oversight needs

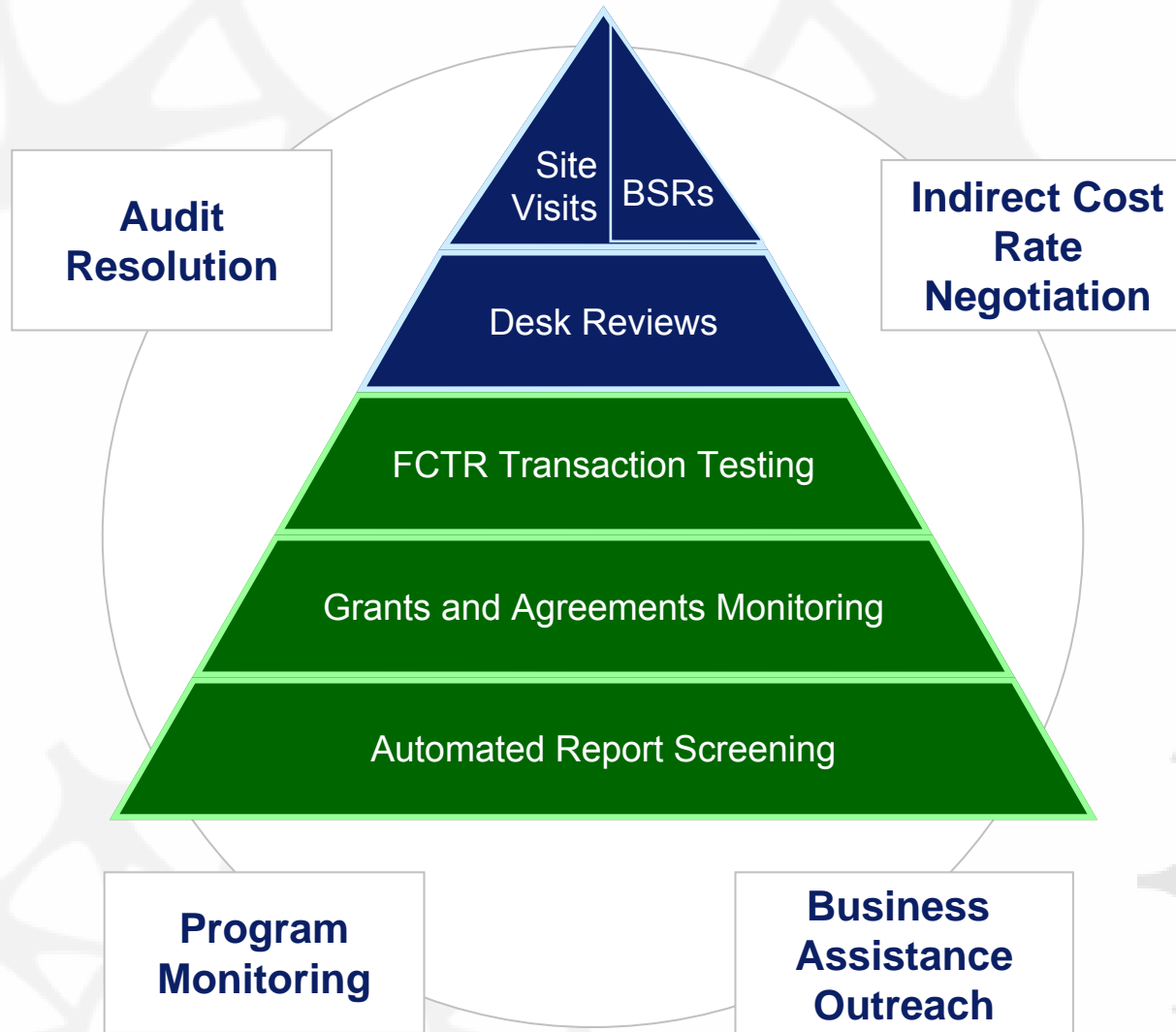
Evolution of NSF Post-Award Monitoring Processes



NSF responds to accountability challenges with a comprehensive portfolio monitoring strategy



Post-award monitoring efforts are augmented by other activities



Utilizing an automated monitoring approach, NSF's baseline monitoring activities cover NSF's entire award portfolio



- ▶ Baseline Monitoring activities consist of:
 - Automated Financial Report Screening
 - Grants and Agreements Officer Award Administration
 - FCTR Transaction Testing
- ▶ Baseline Monitoring activities are:
 - Largely streamlined or automated
 - Designed to identify exceptions and potential issues that require immediate research, resolution, or further scrutiny through advanced monitoring
 - Focused on one or more awards rather than the institution's grant management systems

Automated financial report screening identifies reporting issues that may need further scrutiny



- ▶ **Cash-on-Hand** – Institutions with end-of-period cash-on-hand balances exceeding 10% of total disbursements for the reporting period
- ▶ **Interest Income** – Institutions that report interest income in excess of the amount permitted by federal regulations
- ▶ **Program Income** – Identifies institutions that report award-related income
- ▶ **Days-on-Hand** – Institutions with more cash-on-hand than needed to meet immediate financial obligations
- ▶ **Adjustments to Closed Awards** – Institutions that report significant financial adjustments to closed awards
- ▶ **Grant Closeout and Financial Unobligated Balances** – Institutions with awards close to expiration that have unspent or unreported balances

Day-to-day award administration by Grants and Agreements Officers provide insights into actual or potential compliance issues



- ▶ **Change of Principal Investigator/Project Director (PI/PD)** – Review justification for changing the PI and new PI credentials submitted by the authorized organizational representative
- ▶ **Award Transfers** – Analysis of supporting documentation for transfer of an award from one institution to another
- ▶ **Supplements** – Review the proposed additional work and justification for need of supplemental funds for allowability, allocability, and reasonableness
- ▶ **No-Cost Extensions** – Reviews awardee’s justification for extending the award period of performance more than 12 months
- ▶ **Special Payments** – Initiate special payments provisions and controls where NSF has limited information about the financial soundness of a prospective awardee or there are other risk factors that indicate the need for added controls
- ▶ **Significant Budget Realignment** – Review budget revision requests that potentially alter the scope of the budget

FCTR/FFR transaction testing verifies reasonableness, allowability, and allocability of award expenditures



- ▶ Transaction testing is conducted for all high-risk awards and a statistically valid sampling of low/medium risk awards
- ▶ Selected expenditures are analyzed for compliance with the applicable federal cost principles, NSF policies, and award terms and conditions. Questionable transactions are researched and resolved by NSF management
- ▶ Through the sampling process, an FCTR/FFR error rate is calculated and extrapolated across the total portfolio. Historically, the error rate has been significantly less than 1%

Note:

- FCTR – Federal Cash Transaction Report
- FFR – Federal Financial Report

Advanced monitoring focuses on award administration practices of selected awardees managing higher risk awards



- ▶ Advanced monitoring consists of:
 - AMBAP Desk Reviews
 - AMBAP Site Visits
 - Business Systems Reviews
- ▶ Advanced Monitoring activities are:
 - Designed to develop reasonable assurance that these institutions possess adequate policies, processes, and systems to properly manage federal awards
 - Focused on grant administration and accounting practices
 - Intended to provide value-added business assistance to NSF awardees (programmatic and technical assistance is provided by NSF's program directorates)

Desk Reviews provide a cost-effective alternative to Site Visits



- ▶ Desk Reviews enable NSF to quickly obtain key information about an institution's award administration practices
- ▶ Information is gathered through public sources, discussion calls, and documentation provided by an awardee to assess financial and administrative capacity to manage federal funds
- ▶ Desk Reviews provide value-added business assistance to an awardee
- ▶ A Site Visit or BSR may be scheduled for an awardee if the Desk Review demonstrates a need for additional business assistance

Core Functional Review Areas

General Management Survey

Accounting and Financial Management Review

FCTR Reconciliation

Site Visits provide a detailed review of selected aspects of the institution's award management practices



- ▶ Site Visits assess awardee capability, performance, and compliance in relation to the applicable elements that comprise each award
- ▶ Review activities are designed to assess the extent to which established systems enable efficient and effective performance of NSF awards and ensure compliance with federal regulations and requirements
- ▶ Reviewers determine if the awardee's financial management system accurately and completely discloses the financial results of NSF awards and has effective control over and accountability for all funds, property, and other assets
- ▶ Site Visits extend business assistance to an awardee by offering award administration best practices and answering questions or concerns regarding grant financial and administrative compliance and NSF policies

Core Functional Review Areas

General Management Survey

Accounting and Financial Management Review

FCTR Reconciliation

Targeted Review Areas

Time and Effort

Fringe Benefits

Travel

Consultants

Cost Sharing

Participant Support Costs

Indirect Costs

Procurement

Subawards and Subrecipient Monitoring

Property and Equipment

Program Income

Business System Reviews provide a comprehensive view of Large Facilities Operations



In FY 2007, NSF provided more than \$1 billion of construction and operation funding for 22 large facilities

- ▶ Include both desk and onsite review components
- ▶ Assess compliance and provide business assistance to awardees and large facilities
- ▶ Assess whether awardees are operating facilities in accordance with NSF expectations
- ▶ Enable NSF to focus awardees' and large facilities' attention on the importance of administrative and financial compliance through the exchange of information and ideas
- ▶ Result in reports identifying compliance issues, areas of strength, recommendations for improvement, and best business practices for managing large facilities

Core Functional Review Areas

Award Management

General Management

Planning and Budget

Financial Management

Financial Reporting

Procurement

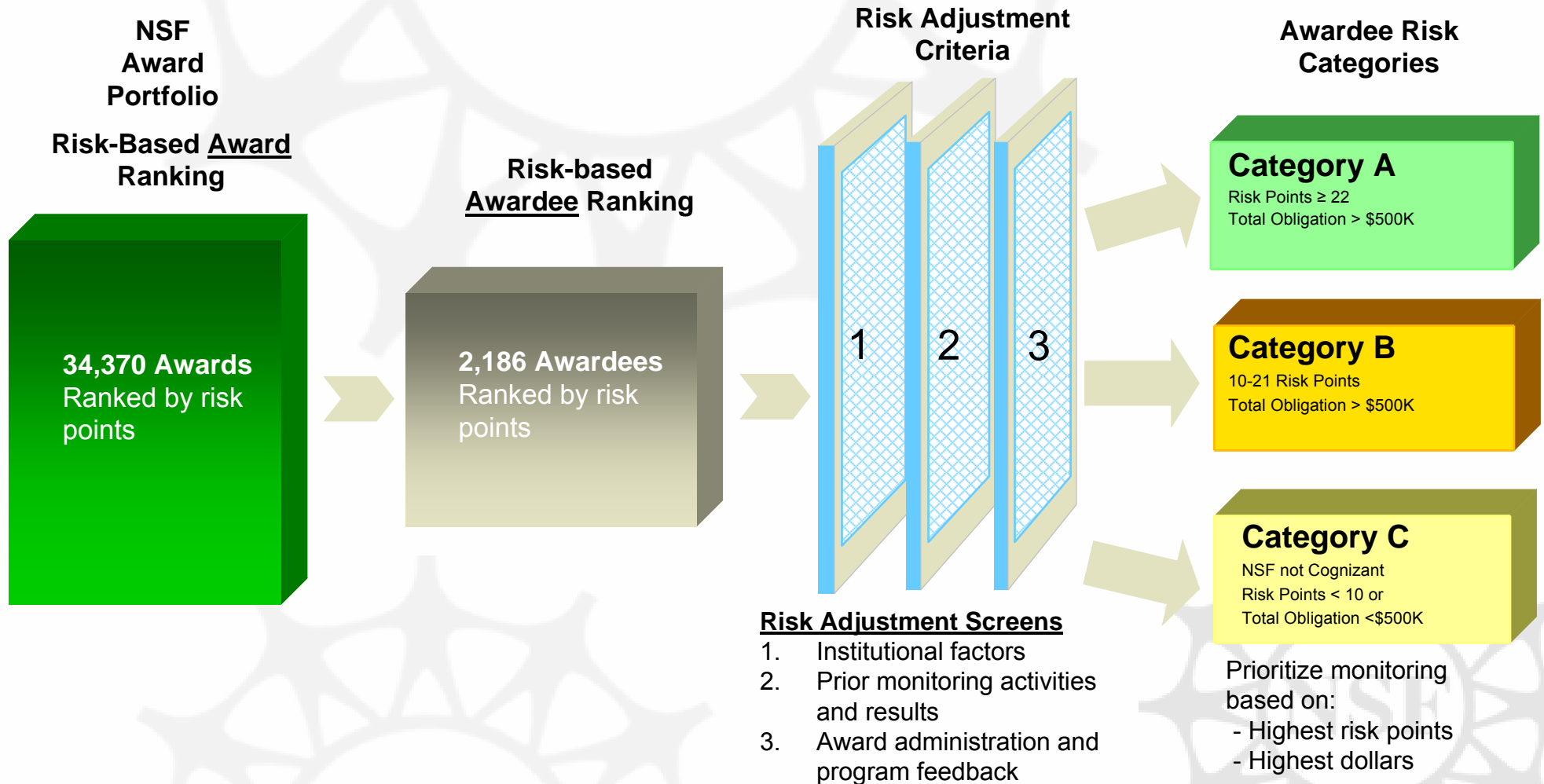
Property and Equipment

Human Resources

NSF's risk-based portfolio management strategy integrates monitoring activities and focuses limited resources on institutions administering higher risk awards

- ▶ Risk Assessment Model assesses the comparative risk of both individual awards and the institutions implementing them
- ▶ The annual risk assessment process is used to select awardees for advanced monitoring activities
- ▶ The risk assessment process maximizes the impact of limited advanced monitoring resources

NSF conducts an annual risk assessment of the awards and awardee institutions within its award portfolio to determine monitoring priority for each awardee



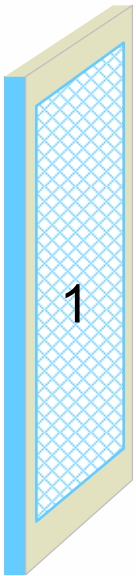
From Awards To Awardees

Each award is ranked by a variety of risk factors... some awards are inherently more risky than others

34,370 Awards
Ranked by risk
points

- ▶ **Award Size** – Larger awards have a greater potential for loss
- ▶ **Award Complexity** – Some awards, such as cooperative agreements, require more sophisticated award administration practices
- ▶ **High-Risk Expenditures** – Awards with certain expenditures (e.g. cost sharing, subawards, participant support costs, and equipment) have historically had more compliance issues
- ▶ **Fiscal Year-End Awards** – Awards issued at the end of the fiscal year tend to have greater compliance issues

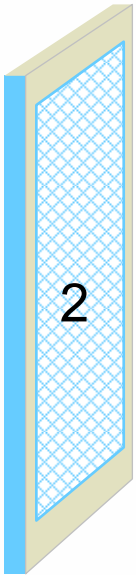
Institutional Risk Assessment Adjustment Screen: Institutional Factors



Risk points given for –

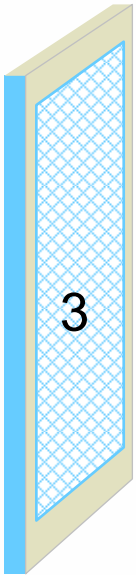
- ▶ **Awardee Type** - Certain types of organizations tend to have higher performance risk
- ▶ **NSF Cognizance** - Awardees for which NSF is the cognizant federal agency require additional oversight responsibilities
- ▶ **New Awardee** - New awardees may not be familiar with NSF financial and administrative requirements
- ▶ **Number of High-Risk Awards** – Awardees with many high-risk awards need sophisticated systems to manage those awards effectively
- ▶ **Total Obligation** - Awardees receiving a large amount of funding from NSF should be more closely monitored

Institutional Risk Assessment Screen: Prior Monitoring Activities and Results



- ▶ **Recent Monitoring Activity** - Risk scores are reduced for awardees with recent NSF monitoring activity to reflect the improved award management resulting from that participation
- ▶ **Results of Past Monitoring** - Risk scores are increased to reflect issues (or lack thereof) identified during NSF monitoring activities
- ▶ **Risk Scores are Weighted** - Adjustments are weighted so that more recent monitoring activity factors more heavily

Institutional Risk Assessment Screen: Award Administration and Program Feedback



- ▶ **Internal Feedback** – NSF incorporates awardee-related feedback from Grants and Agreements Officers, Program Officers, and Finance Officers
- ▶ **Final Adjustments** – Risk scores are increased if awardees have requested a significant number of financial adjustments to closed awards
- ▶ **Special Payments** – Risk scores are increased for awardees subject to special payments provisions
- ▶ **Final Project Reporting** – Risk scores are increased for awardees that fail to submit timely final project reports

By focusing on the 29% of the awardees administering higher risk awards, NSF can target advanced monitoring activities on 93% of the funding

Category	Awardees	%	Obligations	%	Awards	%
A	159	7%	\$12,556,038,145	64%	18,048	53%
B	479	22%	\$5,751,193,468	29%	11,779	34%
C	<u>1,548</u>	71%	<u>\$1,385,474,168</u>	7%	<u>4,543</u>	13%
Total	2,186		\$19,692,705,781		34,370	

* as of June 30, 2007

Category A - Generally consists of institutions managing at least one high risk award, scoring more than 22 points, and having an award portfolio exceeding \$500,000.

Category B - Generally consists of institutions managing at least one medium risk award, scoring between 10-21 points, and having an award portfolio exceeding \$500,000.

Category C - Generally consists of institutions for which NSF is not the cognizant agency, scoring less than 10 points, or having an award portfolio less than \$500,000.

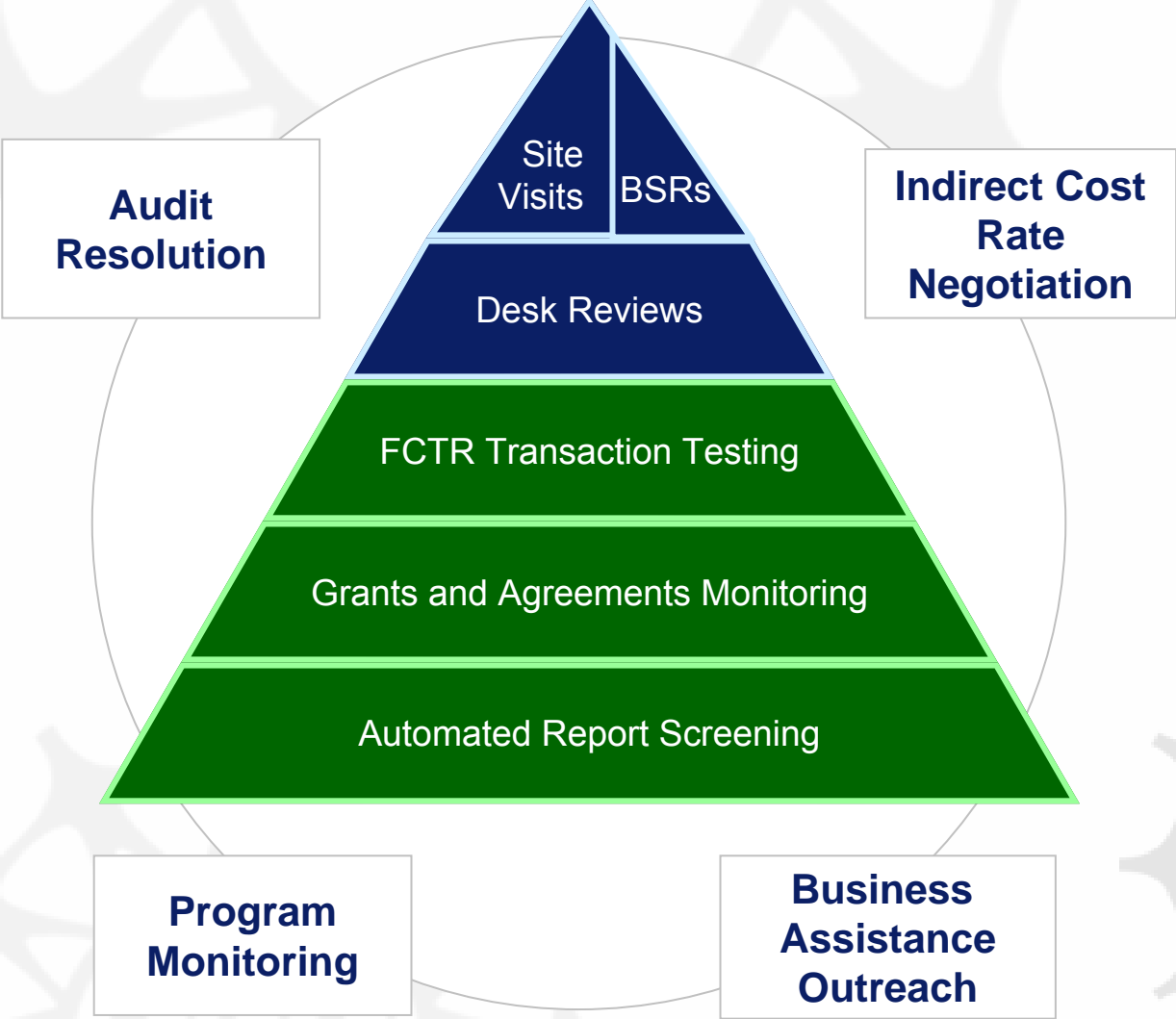
* Although Category A includes more than half of the total awards and nearly 2/3 of the award funding, the amount of high risk awards included in those figures is comparatively small. Category A includes 137 awardees administering 235 high-risk awards totaling \$4.417B

Over the past four years, NSF's advanced monitoring activities covered 87% of all funds awarded

	PREVIOUS FY ACTIVITY									CURRENT FY ACTIVITY						TOTAL COVERAGE		
	FY 2005			FY 2006			FY 2007			FY 2008 Completed			FY 2008 In Progress			Cumulative Coverage		
	Awardees	Awards	\$M	Awardees	Awards	\$M	Awardees	Awards	\$M	Awardees	Awards	\$M	Awardees	Awards	\$M	Awardees	Awards	\$M
Site Visits	20	2,943	\$ 1,542	26	1,349	\$ 980	26	1,828	\$ 1,142	25	1,511	\$ 1,276	10	1,263	\$ 694	107	8,894	\$ 5,634
Desk Reviews	0	0	\$ -	11	1,876	\$ 1,102	136	11,931	\$ 6,174	60	2,254	\$ 971	78	1,167	\$ 606	285	17,228	\$ 8,853
BSRs	0	0	\$ -	2	21	\$ 464	2	219	\$ 843	1	43	\$ 90	1	287	\$ 225	6	570	\$ 1,622
Total	20	2,943	\$ 1,542	39	3,246	\$ 2,546	164	13,978	\$ 8,159	86	3,808	\$ 2,337	89	2,717	\$ 1,525	398	26,692	\$ 16,109
																18%	81%	87%

- Amounts for BSRs, Site Visits, and Desk Reviews were adjusted to avoid double counting of awardees for whom multiple monitoring efforts were undertaken
- Totals are adjusted for awardees which were audited by NSF OIG

Together, NSF's combination of baseline monitoring, advanced monitoring, and augmenting activities provide robust coverage of the entire portfolio



Through the strategic deployment of limited monitoring resources, NSF has achieved comprehensive and cost-effective monitoring coverage of its award portfolio

- ▶ NSF has established a gold standard system generating significant interest from other federal agencies, e.g. State Department, Department of Homeland Security, Department of Education, and General Services Administration
- ▶ NSF has completed current advanced monitoring for 81% of all awardees
- ▶ NSF has completed current advanced monitoring of 97% of funding for institutions administering high risk awards (Category A)
- ▶ The FY 2007 Financial Statement Audit Report, for the first time since FY 2001, did not include any findings related to NSF's post-award monitoring practices

Looking to the future, NSF will continue to strengthen the effectiveness of its gold standard monitoring system

- ▶ Meet the challenges of a growing and diversified award portfolio
- ▶ Maintain comprehensive coverage across the entire award portfolio
- ▶ Make continuous improvements to the effectiveness of monitoring and business assistance
- ▶ Further integrate post-award monitoring activities
- ▶ Explore potential synergies with other NSF processes
- ▶ Enhance management systems to better track award monitoring data
- ▶ Develop a knowledge base of lessons learned to improve performance of NSF staff and the awardee community
- ▶ Share best practices with other agencies