National Science Foundation (NSF)



NCURA National Conference Washington, DC October 23, 2009

Ask Early, Ask Often

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Topics Covered



- Recent Personnel Changes
- American Recovery & Reinvestment Act (ARRA)
- 2010 Budget Update
- ARRA: NSF Award Terms & and Recipient Reporting Requirements
- America COMPETES Act (ACA) Status Update
- ERA Update
 - Grants.gov
 - Research.gov

Recent Personnel

Changes

- Dr. Cora Marrett named Acting Deputy Director
- Dr. Myron Gutmann named Assistant Director for Social, Behavioral & Economic Sciences (SBE)
- Dr. Tony Chan, Assistant Director for Mathematical & Physical Sciences (MPS) appointed President of Hong Kong University of Science & Technology
- Dr. Edward Seidel named as Acting Assistant Director for MPS
- Dr. Jose Munoz named Acting Director of the Office of Cyberinfrastructure (OCI)
- Ms. Allison Lerner appointed as Inspector General

American Recovery and Reinvestment Act of 2009 (ARRA)

"Even beyond energy, from the National Institutes of Health to the National Science Foundation, this recovery act represents the biggest increase in basic research funding in the long history of America's noble endeavor to better understand our world. Just as President Kennedy sparked an explosion of innovation when he set America's sights on the moon, I hope this investment will ignite our imagination once more, spurring new discoveries and breakthroughs that will make our economy stronger, our nation more secure, and our planet safer for our children."

President Barack Obama February 17, 2009

ARRA: NSF Budget



\$3 billion supplements FY 2009 funding:

- •\$2 billion is dedicated to research and related activities for proposals already in house that will be reviewed and/or awarded prior to September 30, 2009.
- \$ 1 billion is dedicated as specified in ARRA.

ARRA: NSF Budget Highlights

- Academic Research Infrastructure \$200 million
- Major Research Instrumentation \$300 million
- Robert Noyce Teacher Scholarships \$60 million
- Math and Science Partnerships \$25 million
- Science Masters Program \$15 million
- Alaska Region Research Vessel \$148 million
- Ocean Observatories Initiative \$106 million
- Advanced Technology Solar Telescope \$146 million

ARRA: Transparency and Accountability Requirements

- The OMB expectation is for a high level of accountability and transparency from both agencies and recipients.
- Higher scrutiny from:
 - Administration
 - Congress
 - Public
 - Recovery Act Accountability & Transparency Board
 - NSF Office of the Inspector General (OIG)

ARRA: NSF Funding Prioritization

- Recovery Act funds were to be awarded in a timely manner. NSF made 4,677 awards for \$2.48B by September 30.
- All grants were issued as standard grants with durations of up to five years.
- Funding of new PIs and high-risk, high-return research were top priorities.
- The majority of eligible proposals were already inhouse. Only four ARRA-specific solicitations were released.
- NSF considered proposals declined on or after October 1, 2008, and made 318 awards from this pool.

FY 2009 Appropriation

Appropriations Account	FY 2009 Appropriation	FY 2009 Recovery Act	Total FY 2009 Appropriations
Research & Related Activities	\$5,183	\$2,500	\$7,683
Education & Human Resources	\$845	\$100	\$945
Major Research Equipment & Facilities Construction	\$152	\$400	\$552
Agency Operations & Award Management	\$294	_	\$294
National Science Board	\$4	_	\$4
Inspector General	\$12	\$2	\$14
TOTAL	\$6,490	\$3,002	\$9,492

FY 2010 Budget Request

Appropriations Account	FY 2009 Appropriation	FY 2010 Request	Percent Change over FY 2009
Research & Related Activities	\$5,183	\$5,773	10.6%
Education & Human Resources	\$845	\$857	1.5%
Major Research Equipment & Facilities Construction	\$152	\$117	-22.8%
Agency Operations & Award Management	\$294	\$318	8.3%
National Science Board	\$4	\$4	7.7%
Inspector General	\$12	\$14	16.7%
TOTAL	\$6,490	\$7,045	8.5%

FY 2010 Budget Request

(dollars in millions)

				Change over					
	FY 2010	FY 2010	Request		Request		FY 2010	Request	
Account	Request	House Mark	Amount	Percent	Senate Mark	Amount	Percent		
R&RA	\$5,733	\$5,642	-\$91	-2%	\$5,618	-\$115	-2%		
EHR	\$858	\$863	\$5	1%	\$858	\$0	0%		
MREFC	\$117	\$114	-\$3	-3%	\$122	\$5	4%		
AOAM	\$318	\$300	-\$18	-6%	\$300	-\$18	-6%		
NSB	\$4	\$4	\$0	0%	\$4	\$0	0%		
OIG	\$14	\$13	-\$1	-7%	\$14	\$0	0%		
Total	\$7,045	\$6,937	-\$108	-2%	\$6,917	-\$128	-2%		

FY 2010 Budget Request



- Increased support for Graduate Research Fellowship and CAREER Programs.
- Increases support for Advanced Technological Education (ATE) Program.
- Increases support for exploratory, high risk research.
- Supports research to predict future environmental conditions and develop strategies for responding to global environmental change.

Total NSF Funding: President's Plan for Science and Innovation FY 2006-FY 2016 (dollars in billions)



The American Recovery & Reinvestment Act

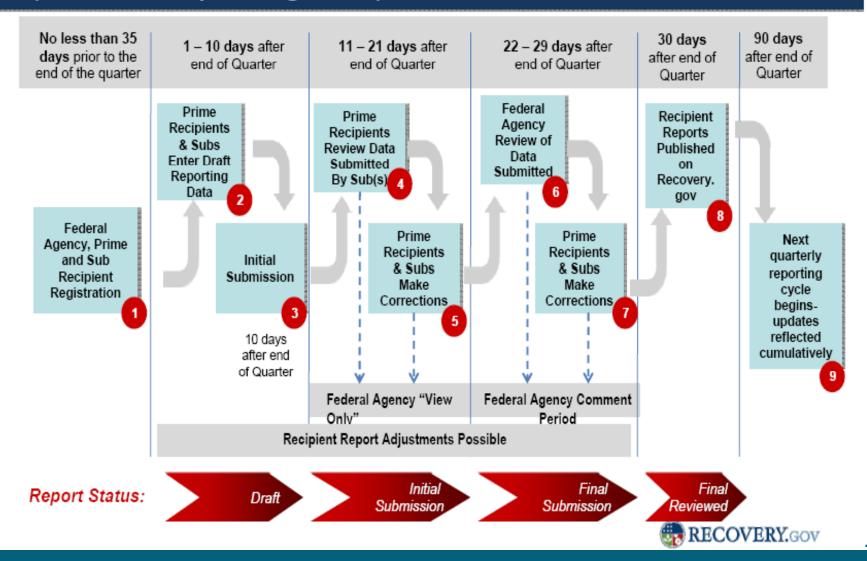


NSF Award Conditions & Recipient Reporting Basics

NSF ARRA Implementation

- Reporting and Accountability Requirements & Special Award Conditions:
 - Awards identify funding coming from ARRA and should be considered as one-time funding.
 - Within 10 days following the end of each quarter, the recipient must report in accordance with Section 1512c of the Act.
 - Funds must be separately tracked and monitored independently of non-ARRA funding.
 - •NSF will monitor ARRA funds, and, if, after 12 months, no allowable expenditures have been incurred, NSF will consider reducing or terminating the award and reallocating the funds.

In-bound Recipient Reporting (FederalReporting.Gov) Timeline and Activities



NSF ARRA Reporting

Each NSF award that includes funds provided by the Recovery Act will require *the recipient* to submit quarterly reports to a central Federal website www.FederalReporting.gov by October 10th. There are 4 phases during the first 30 day period:

Phase I – Oct. 1st – 10th

Recipient enters and submits reports

Phase 2 – Oct. 11^{th} – 21^{st}

· Recipients review and revise data

Phase 3 – Oct. 22nd – 29th

 Agencies conduct data quality reviews and notify recipients of errors; recipients make corrections

Phase 4 – Oct. 30th

- Reports are published on Recovery.gov
- Agency reviews are intended to identify "material omissions and significant reporting errors" that would mislead the public.
- OMB guidance allows agencies to define their own data quality review protocol and definition of "material omissions and significant reporting errors"

Agency Responsibilities

NSF's Approach to Federal Data Quality Review

- NSF Recipient Reporting Tiger Team
- Define severity categories
 - Non Reporting = Material
 Omission reported to RATB
 - Major 1 = Significant error publicly reported on FederalReporting.gov
 - Major 2 = Awardee notified to correct next report

- Minor = Awardee notified of error
- No Action = Not material or there is not basis for evaluating data; optional element or populated element
- Define screening protocol by core of NSF tiger team (Data Match, sampling, FFR match, No action)
- Develop NSF specific reporting guidance
- Initiated ongoing outreach to support recipient reporting
- Develop and Implement a multi-step data review process
- Implement recipient notification process and maintain compliance database
- Integrate with NSF advanced monitoring (AMBAP) with appropriate actions

NSF's Review Process: Days 22-29

- "Non-Reported" Awards
 - Recipients of these awards are notified via the website and NSF e-mail of non-compliance
 - A list of these awards and recipients is sent to the Recovery Act Board
- Reported data is screened to identify Major 1 (material omissions or significant reporting) errors. 3 data elements are reviewed:
 - Number of Jobs: Threshold (exceeds budgetary personnel by factor of 5)
 - Amount of Award: Threshold (exceeds 10%)
 - Total Amount of ARRA Expenditure: Threshold (exceeds award amount)
- The status of each report in FederalReporting.gov is manually updated to reflect either "reviewed with or without material omissions or significant reporting errors"

NSF's Review Process: Days 30-90

- Agencies are required to continuously evaluate recipients for compliance with ARRA Section 1512 requirements and the OMB implementing guidance.
- Data Screening Reported data is screened for "Major" and "Minor" Issues (33 items)
- Sampling review A manual sample pool of reports will be selected to review fields that cannot be reviewed through screening
 - 3 Fields include: Award Description, Quarterly Activities/Project Description, and Description of Jobs Created/Retained
 - Program Officers are integral to the process in reviewing the Award Description, Quarterly Activities/Project Description, and Description of Jobs Created/Retained fields
- Expenditure check Reported expenditure data is compared against FFR submission for that quarter.
- Recipient notified via e-mail to make corrections next quarter

ARRA Reporting Requirements – 99 data elements

- Federal Funding Agency
- Award identification
- Recipient D-U-N-S
- Recipient CCR information
- CFDA number
- Recipient Congressional District
- Recipient account number
- Project/grant period
- Treasury Accounting Symbol
- Award type, date, description, & award amount
- Total Federal Amount of ARRA expenditures

- Quarterly activities/project description
- Project description and status
- Job narrative and number of jobs created/retained
- Infrastructure expenditures and rationale, if applicable
- Recipient primary place of performance
- Recipient area of benefit
- Recipient officer names and compensation (Top 5)
- Total number and amount of small sub-awards; less than \$25,000



Tools for Use by NSF Recipients in Meeting the ARRA Reporting Requirements

NSF Recipient Outreach Activities

- NSF Recipient Reporting Website
- NSF Recipient Reporting Instructions, crosswalk document, help sheet and Sample quarterly report
- Direct email communication to NSF ARRA recipients about reporting and to those institutions who have not registered on FederalReporting.gov
- Internal Outreach Town hall meetings, FAQ's
- External Outreach discussions at Conferences (FDP, Regional Grants Conferences, NCURA, SRA, SBIR, etc.)

NSF Recipient Reporting Website



Recovery Act Recipient Reporting Information

In accordance with Section 1512 of the American Recovery and Reinvestment Act of 2009 (ARRA), all awards funded by ARRA require quarterly reporting through FederalReporting.gov. This reporting system was developed to serve as a central tool that will be used by recipients to transmit information on projects and activities funded by ARRA. This tool will be used for recipient reporting only, however, reports and information submitted through FederalReporting.gov will be made available to the public on the Recovery.gov website to achieve an unprecedented level of transparency into how Federal funds are spent.

ARRA RECIPIENT REPORTING REQUIREMENTS

Section 1512 requires awardees to submit a quarterly report no later than 10 calendar days after each calendar quarter in which the recipient receives the award (Jan 10, April 10, July 10, and Oct 10). Reports are cumulative each quarter and include information such as the award number, award amount, award description, primary place of performance, project status, and number of jobs created/retained.

REGISTRATION WITH FEDERALREPORTING.GOV

Recipients must be registered as authorized parties prior to submitting reports on FederalReporting.gov. The registration function will be available no later than August 17, 2009. Thereafter, prime recipients, delegated sub-recipients and Federal agencies can register on the website. Since prime recipients must be registered in the Central Contractor Registration (CCR) database, and all reporting entities must have a DUNS number, reporting recipients who do not already meet these requirements should take **immediate steps** to prepare for registration. Registration occurs only once, prior to the first reporting cycle.

OMB GUIDANCE

On June 22, 2009, OMB issued "Implementing Guidance for the Reports on Use of Funds Pursuant to the American Recovery and Reinvestment Act of 2009" (M-09-21). The document provides government-wide guidance for carrying out the reporting requirements included in Section 1512 of the American Recovery and Reinvestment Act of 2009. In addition, to assist recipients in reporting on their expenditures of funds received under the Recovery Act, OMB created a Recipient Reporting information website which includes important information regarding recipient reporting such as the recipient reporting data model, reporting templates and recipient FAOs.

NSF GUIDANCE

NSF has developed <u>supplemental quidance</u> to that provided by OMB to assist NSF recipients in submitting consistent and quality data on a quarterly basis as required under ARRA. This guidance provides a cross-walk of the data elements listed in the Recipient Reporting Data Model issued by OMB, and is supplemented, where necessary, with additional guidance from NSF. Following this additional guidance will assist NSF in reviewing recipient reports. In addition, NSF has developed a <u>sample quarterly report</u> to assist recipients in submitting required quarterly reporting data.

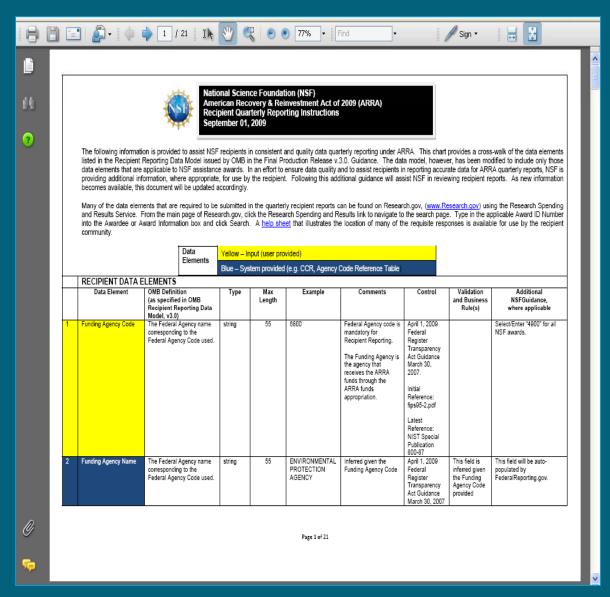
RESEARCH.GOV

Many of the data elements that are required to be submitted in the quarterly recipient reports can be found on

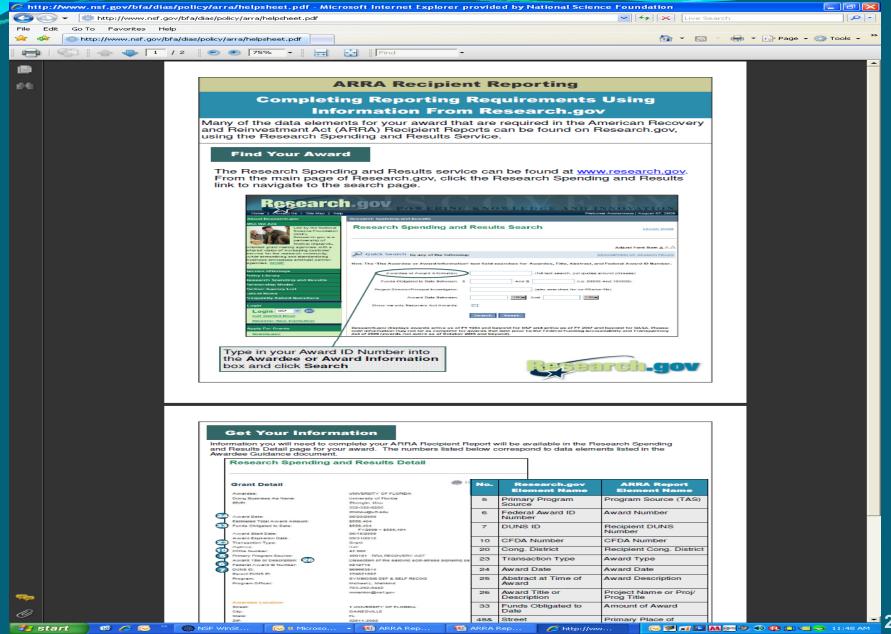
- Registration with FederalReporting.gov
- OMB Guidance
- NSF Guidance
 - http://nsf.gov/recovery/ reporting.jsp

NSF Recipient Reporting Instructions

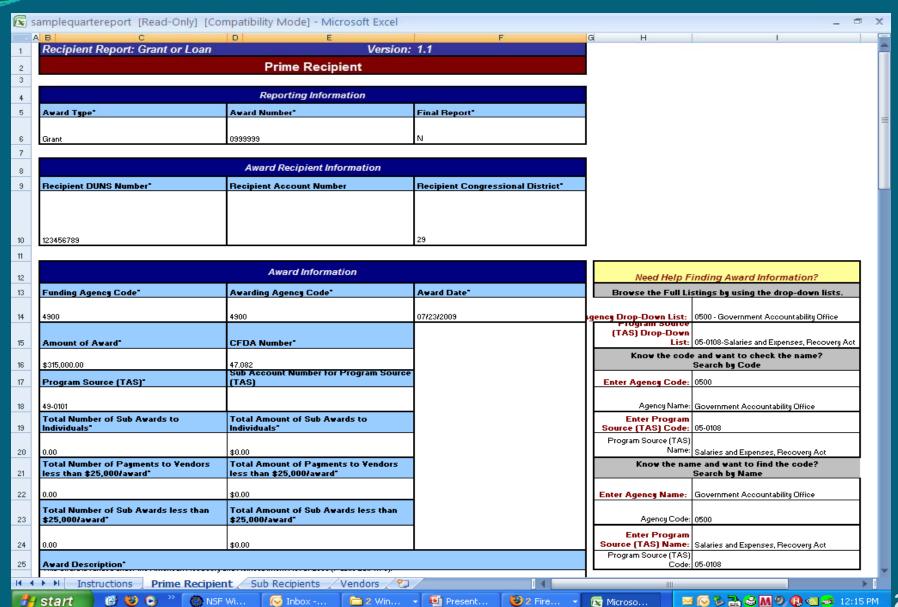
- Crosswalk of data elements provided by OMB
- Assists NSF in reviewing reports
- Research.gov –ResearchSpending &Results



ARRA Recipient Help Sheet



Sample Quarterly Report



Initial Results from Reporting Cycle 1

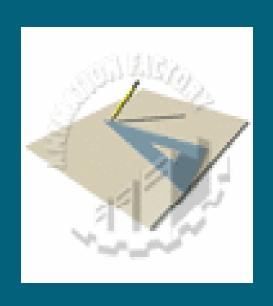
- Number of ARRA Awards Requiring Reporting: 4502
- Number of Reports Outstanding after Day 10: 300
- Number of Reports Outstanding after Day 20: 121
- Overall Submission Rate: 97.0%
- Most Frequent Issues:
 - Incorrect Award Number
 - Invalid Funding Agency Code
 - Invalid CFDA Number
 - Registration Issues



Initial Results from Reporting Cycle 1 (Cont'd)

- Most Frequently Asked Questions:
 - Treasury Accounting Symbol
 - Activity Code
 - Contracting Agency Code
 - Do I have an NSF ARRA Award?
- Recipient reports created on <u>FederalReporting.gov</u> include six static fields which, when entered by a recipient cannot be changed without first deactivating the existing report and creating a new report. Together, these static fields create a business key, which is used by the system to identify recipient reports as well as enhance security.
 - 1. Award Number
 - 2. Award Type
 - 3. Calendar Year
 - 4. Calendar Quarter
 - 5. Recipient DUNS Number
 - 6. Order Number (for Federally Awarded Contracts)

The America COMPETES Act



NSF Implementation Activities

SEC 7008: Postdoctoral Research Fellows

- "Mentoring The Director shall require that all grant applications that include funding to support postdoctoral researchers include a description of the mentoring activities that will be provided for such individuals, and shall ensure that this part of the application is evaluated under the Foundation's broader impacts merit review criterion. Mentoring activities may include career counseling, training in preparing grant applications, guidance on ways to improve teaching skills, and training in research ethics.
- Reports The Director shall require that annual reports and the final report for research grants that include funding to support postdoctoral researchers include a description of the mentoring activities provided to such researchers."

SEC 7008: Postdoctoral Research Fellows

- Section 7008 has been implemented via revisions to the relevant sections of the Grant Proposal Guide (GPG), the FastLane Project Reporting System, and the Representative Activities of Broader Impacts document that is posted on the NSF website.
 - Each proposal that contains postdoctoral researchers must include, as a supplementary document, a description of the mentoring activities that will be provided for such individuals. The mentoring plan must not exceed one page.
 - This one-page limitation also is applied to proposals with subawards, and, separately submitted collaborative proposals.

SEC 7008: Postdoctoral Research Fellows

- The Return without Review section and the Proposal Preparation Checklist emphasize that proposals that do not describe mentoring activities provided to postdoctoral researchers **will be** returned without review.
- The FastLane project reporting format has been modified to inform PIs of the requirement to report on the mentoring activities provided to postdoctoral researchers during the performance period.
 - This includes any postdoctoral researcher not identified in the original proposal submission!

SEC 7009: Responsible Conduct of Research

"The Director shall require that each institution that applies for financial assistance from the Foundation for science and engineering research or education describe in its grant proposal a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, and postdoctoral researchers participating in the proposed research project."

SEC 7009: Responsible Conduct of Research

Implementation Plan

•Effective January 4, 2010, a proposing institution's AOR must certify that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research.

SEC 7009: Responsible Conduct of Research

Implementation Plan (Cont'd):

- While training plans are not required to be included in proposals submitted, institutions are advised that they are subject to review upon request.
- •NSF will modify its standard award conditions to clearly stipulate that institutions are responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received RCR training.
- •NSF will support the development of an on-line digital library containing research findings, pedagogical materials, and promising practices regarding the ethical and responsible conduct of research.

SEC 7009: Responsible Conduct of Research

- Federal Register Notice announcing NSF's final implementation published on August 20, 2009
 - http://edocket.access.gpo.gov/2009/E9-19930.htm
- Implementation dates:
 - Revised Proposal & Award Policies & ProceduresGuide:
 - Issuance: October 2009
 - Implementation: Proposals submitted on or after January 4, 2010, are subject to the new RCR requirement

SEC 7010: Reporting of Research Results

Section 7010 requires that all final project reports and citations of published research documents resulting from research funded, in whole or in part, by the Foundation, are made available to the public in a timely manner and in electronic form through the Foundation's Website.

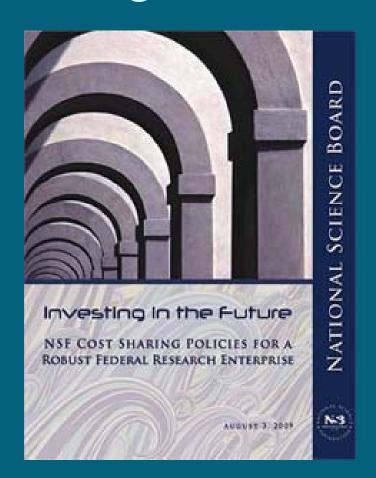
SEC 7010: Reporting of Research Results

- □ A new report will be developed in Research.gov that requires PIs to prepare a summary – specifically for the public – on the nature and outcomes of the award.
- FastLane Project Reports system will be modified to incorporate this requirement.
- Will be implemented via revisions to the NSF Agency Specific Requirements to the Research Terms and Conditions and the Grant General Conditions
- Expected implementation: Effective January 4, 2010, new awards and funding increments to existing awards will incorporate the new requirement.

Section 7013: Cost Sharing

NSB Cost Sharing Report

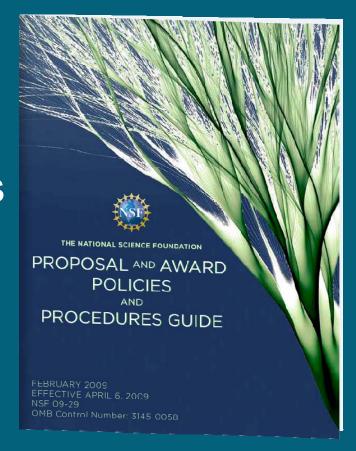
- ACA directed NSB to evaluate decision to eliminate cost sharing
- This is a second comprehensive report and recommendations
- NSF will be reviewing the recommendations over the coming weeks and developing an appropriate implementation strategy



ACA: For More Information

See: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=papp

Look for further developments in the Proposal & Award Policies & Procedures Guide (PAPPG) as ACA is implemented.



Government-Wide Streamlining and NSF

- NSF's strong presence at the table benefits the research community
 - Proven success with FastLane and IT infrastructure
 - Research community involvement in helping to shape and guide external-facing IT systems
 - Leadership in development of government-wide grants policy

Grants.gov – Update

- NSF has, and continues to be, fully in compliance with OMB standards regarding use of Grants.gov
- NSF has continued to post information about available funding opportunities to Grants.gov FIND
- As announced on May 21st, proposers were required to prepare and submit proposals to the National Science Foundation (NSF) using the NSF FastLane system at http://www.fastlane.nsf.gov/. This approach was taken to support efficient Grants.gov operations during this busy workload period and in response to OMB direction guidance issued March 9, 2009.

Grants.gov – Update (Cont'd)

■ NSF is working with Grants.gov to resume optional use of Grants.gov for submission of proposals to NSF.

Estimated date package will again authorize Grants.gov use: December 1, 2009.

What is Research.gov?



- Enables institutions and grantees to:
 - Access a menu of grants management and information services for multiple federal agencies in one place
- Modernizes FastLane by providing services:
 - Tailored to meeting the unique needs of the research community
 - Aimed at easing the grants administrative burden
- Increases transparency and public access to information about federal research spending and outcomes

Research.gov Partnerships

- Research.gov simplifies the research community's access to information and grant services for multiple federal agencies
 - National Science Foundation (Lead)
 - National Aeronautics and Space Administration (Partner)
 - Department of Defense Research (Partner)
 - USDA's Cooperative State Research, Education, and Extension Service (Partner)









Current Research.gov Services

Launched in December 2007, current offerings include:

- Public-facing Services
 - Research Spending & Results
 - Search Recovery Act Awards
 - Policy Library (Government-wide)
 - Research Headlines
- Research Community Services:
 - View the status of grant applications
 - Principal Investigators
 - Sponsored Projects Offices
 - Submit Federal Financial Reports
 - Manage institution and user accounts



Research Spending and Results

Search for federal research award information, including award abstracts and publication citations.



Now Available! Find NSF Recovery Act Funded Awards

Policy Library

Find Federal and agency-specific policies, guidelines and procedures, including:



- Laws
- Regulations
- OMB circulars
- Agency Policies
- Draft Policies
- Terms & Conditions
- FDP Repository
- Specialized Topics
- OSTP links
- Science & Engineering Stats
- Other Resources

Research News and Events

Get the latest news and events for the research community and multiple federal agencies, including:

Headlines

July 29, 2009

View All Headlines



NSF Selects University of Michigan Historian to Head Social, Behavioral and Economic Sciences

July 24, 2009 - The National Science Foundation (NSF) has selected University of Michigan historian Myron Gutmann, director of the Inter-University Consortium for Political and Social Research, to head its directorate for Social, Behavioral and Economic Sciences (SBE). More



Warmed Up and Ready to Go

July 27, 2009 - NASA's Spitzer Space Telescope has put its infrared eyes back on the sky to observe the cold and dusty universe. More



Agriculture Secretary Vilsack Announces More Than \$3
Million to Enhance International Science and Education

July 27, 2009 - Agriculture Secretary Tom Vilsack today announced more than \$3.3 million in grants to 23 institutions in 19 states to enhance their international research and teaching capabilities. More

- NSF
- NASA
- USDA/CSREES

Research.gov gives you access to all of this information in one place

Federal Financial Report (FFR)

Complete and submit grant financial reports to NSF using the new government-wide standard form.

Status of the FFR Capability:

- Available now on Research.gov.
- Has been used by over 100 organizations to submit FFRs to NSF.
- By fiscal year 2010, Research.gov will be the standard mechanism for submitting financial reports.

Grants Application Status

- As a researcher or sponsored program office, you can view the status of proposals submitted to:
 - NSF
 - USDA/CSREES
 - DoD/ARO
- Status of the Grants Application Status:
 - Available now on Research.gov
 - Has already been used by hundreds of organizations to check status for NSF, USDA/CSREES, and DoD/ARO applications

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 - Research Performance Progress Reports (new government-wide standard)

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Welcome to Research.gov. Below is a list of services that we offer. Select a service from below to find out more.

Research Spending and Results

Now Available! Find Recovery Act Awards made by NSF. Here you can also find information about how NSF and NASA grant award dollars are being spent, what research is being performed, and how the outcomes of the research are beneftling society.



Policy Library

An electronic library that consolidates Federal and agency-specific policies, guidelines and procedures for use by Federal agencies and the awardee community. Agency-specific documents are included only for Research.gov partner agencies.



Grants Application Status

Principal Investigators and Sponsored Projects Office staff can check the status of grant applications, from submission to decision, submitted to NSF, USDA/CSREES, and DoD/ARO. Account Required.



Institution and User Management

Institution Administrators can manage profiles and permissions for their institutions and users. Account Required.

Events

August 5 - 6, 2009

August 10 - 11, 2009

National Science Board Meeting
NSB meeting

Center for Computational Materials

Design (CCMD) Semi-Annual

Partnership meeting

August 11 - 12, 2009

EPSCoR 2009 COV Meeting

Committee of visitor

View All Events

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http://www.nsf.gov/staff

http://www.nsf.gov/staff/orglist.jsp