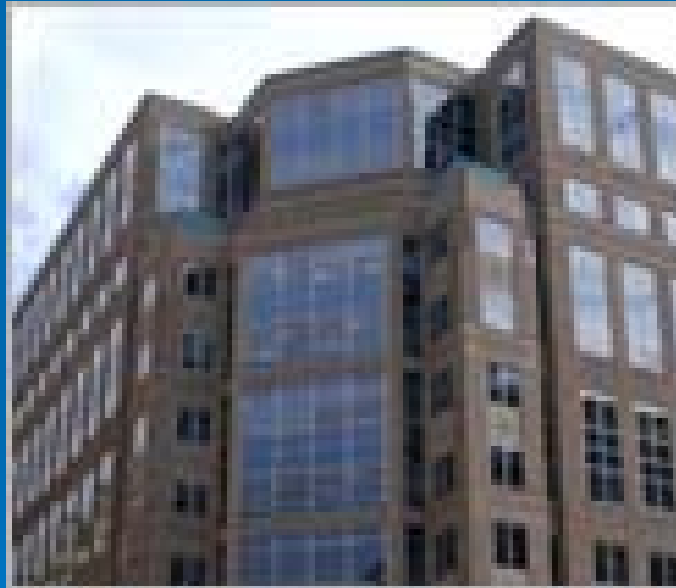


NSF Update

October 2009



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Research Development
Office of Research & Commercialization

Main Topics

- NSF Budget Overview
- FY 2009 Budget
- FY 2010 Budget
- ARRA funding
- NSF Policy Implementation & Updates

America COMPETES Act America

- Signed into law on August 9, 2007
- Focuses on three primary areas of importance:
 - Increasing research investment;
 - Strengthening educational opportunities in science, technology, engineering, and mathematics from elementary through graduate school;
 - Developing an innovation infrastructure.

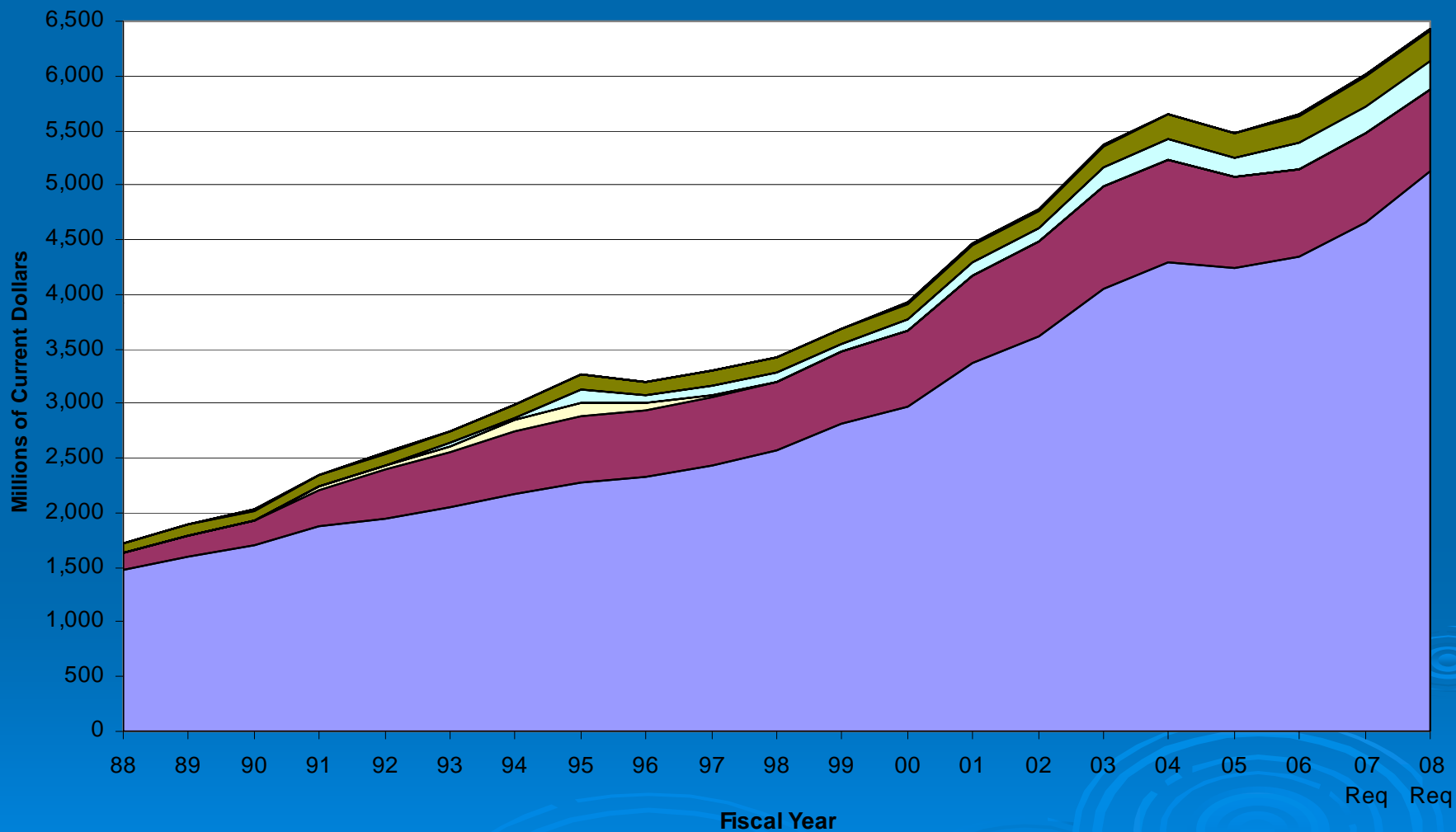
America COMPETES Act

➤ Highlights

- Doubles authorized NSF Funding from \$5.6 billion in FY2006 to \$11.2 billion in FY 2011
- Authorizes the National Institute of Standards and Technology (NIST) from approximately \$703 million in FY 2008 to approximately \$937 million in FY 2011
- Doubles Department of Energy's Office of Science authorized funding over ten years
- Innovation Acceleration Research Program directs federal agencies funding research in science and technology to set as a goal dedicating approximately 8% of their R&D budgets toward high-risk frontier research
- Directs NASA to increase funding for basic research

NSF Twenty Year Budget by Account

in Millions of Current Dollars



- Research & Related Activities
- Academic Research Infrastructure
- Agency Operations and Award Management
- National Science Board
- Education & Human Resources
- Major Research Equipment & Facilities Construction
- Office of Inspector General

NSF 2009 Appropriations/ARRA

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

Education & Human Resources Account in FY 2009

- Graduate Research Fellowships
- Robert Noyce Scholarship Program
- Louis Stokes Alliances for Minority Participation
- Historically Black Colleges and Universities Undergraduate Program
- Tribal Colleges and Universities Program
- Graduate teaching fellowship in K-12
- Math and Science Partnership program
- Climate change education program

NSF FY2009 Budget

- FY2009 Budget Request Overview- short 12 page description of research directions
- http://www.nsf.gov/about/budget/fy2009/pdf/01_fy2009.pdf
- FY2009 Budget Request & Appropriations
- <http://www.nsf.gov/about/budget/index.jsp>

FY 2010 Budget Request

Account	FY 2009	FY 2010	Increase Amount	Percent
Research & Related Activities	\$5183	\$5733	\$550.14	10.6%
Education & Human Resources	\$845	\$858	\$12.5	1.5%
Major Research Equipment & Facilities Construction	\$152	\$117	-\$34.72	-22.8%
Agency Operations & Award Management	\$294	\$318	\$24.37	8.3%
National Science Board	\$4	\$4	\$0.31	7.7%
Office of Inspector General	\$12	\$14	\$2	15.7%
Total NSF	\$6490	\$7045	\$554.60	8.5%
Totals may not add due to rounding				

FY 2010 Budget

- \$7 Billion - Increase of 16 percent over FY 2008.
- 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.
- Details on specific allocations for FY 2010 will be available when the full budget is released.

NSF FY2010 Budget

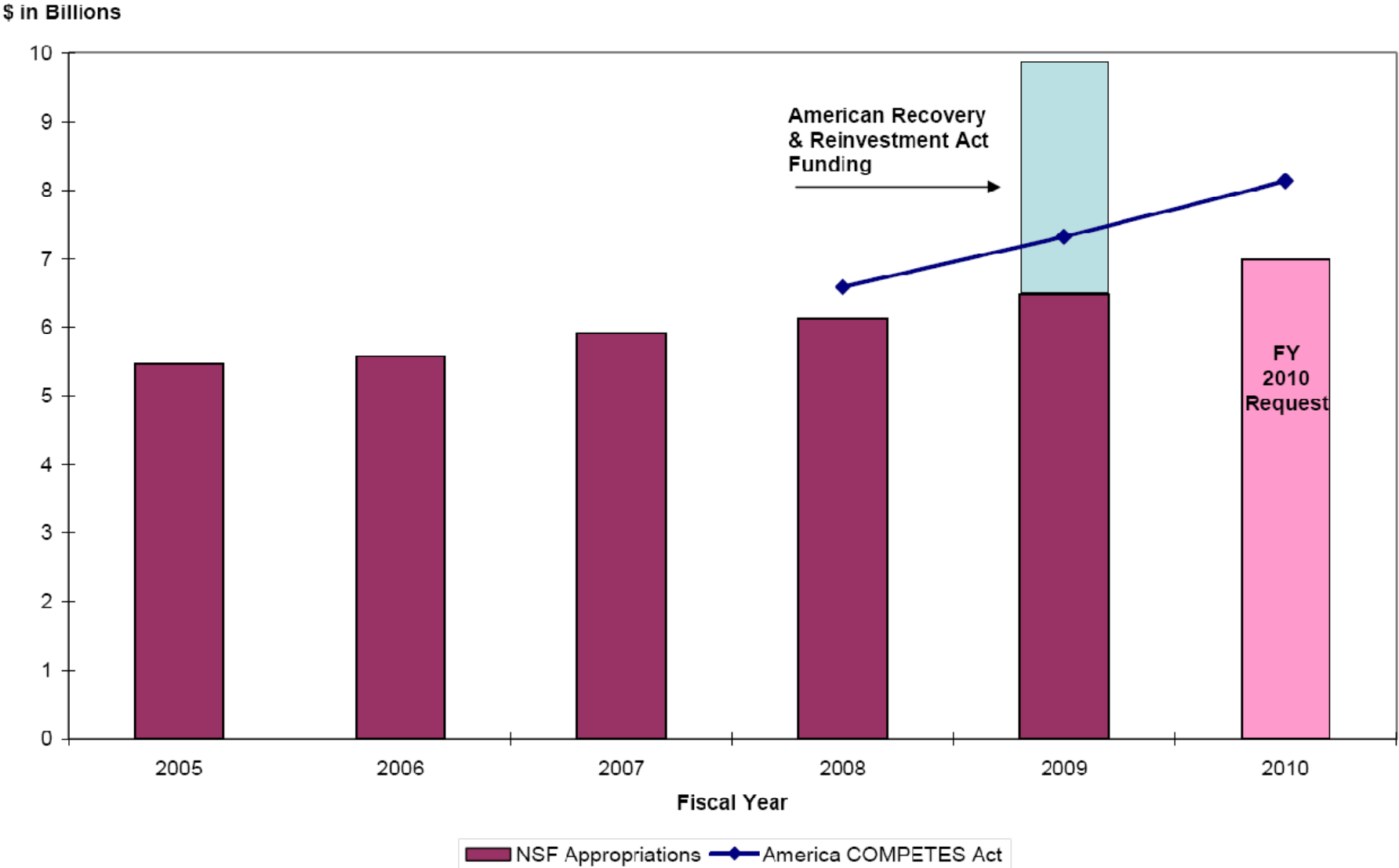
- FY2009 Budget Request Overview- short 12 page description of research directions
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- FY2010 Budget Request
- <http://www.nsf.gov/about/budget/index.jsp>

American Recovery and Reinvestment Act of 2009 - NSF

➤ Award Administration

- Standard awards only
- No new programs (except for those specifically mentioned in the Act)
- Special award conditions

Recent and Outyear Authorized NSF Funding



American Recovery and Reinvestment Act of 2009 - NSF

➤ Reversal of Declined Proposals

- Proposals that were highly rated and declined due to lack of available funding at the time the original decision was made are eligible for funding.
- NSF PO will send a notification to AOR, PI and co-PIs that NSF is considering the reversal of a decline decision.

NSF ARRA Website

- Additional information, including FAQs are available on the NSF ARRA website at:
 - www.nsf.gov/recovery/

NSF Policy Implementation

America COMPETES Act Policy-related provisions of interest to the research community:

- SEC 7008: Postdoctoral Research Fellows
- SEC 7009: Responsible Conduct of Research (RCR)
- SEC 7010: Reporting of Research Results
- SEC 7013: Cost Sharing

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.”

Section 7008 Implementation

- 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.

Section 7008 Implementation

- The Return without Review section and the Proposal Preparation Checklist will emphasize that proposals that do not describe mentoring activities provided to postdoctoral researchers **will be** returned without review.
- The FastLane project reporting format is being 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

- NSF-funded workshop –*Ethics Education: What's Been Learned? What Should be Done?* held by the National Academies of Science & Engineering.
- Federal Register Notice requested public comment
- NSF is adding “the responsible and ethical conduct of research” as a Representative Activity in the listing of Broader Impacts Representative Activities

SEC 7009: Responsible Conduct of Research

➤ Proposed Implementation Plan

- Beginning **January 4, 2010**, NSF will require that at the time of proposal submission to NSF, 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

➤ Proposed Implementation Plan

- Training plans are not required to be included in submitted proposals.
- Standard Award Conditions to be modified – institutions must require RCR training.
- NSF will support the development of an online digital library containing research findings, pedagogical materials, and promising practices regarding the ethical and responsible conduct of research.

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

- Final Project Report will be modified to require 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.
- Expected implementation in Fall 2009.

SEC 7013: Cost Sharing

➤ Cost Sharing History

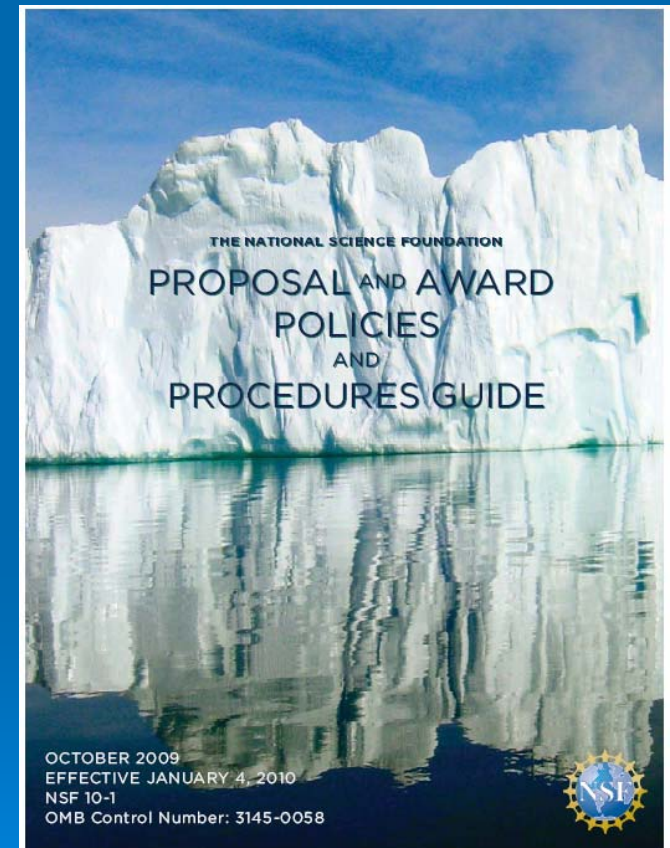
- 2004 policy eliminated cost sharing at NSF.
- ACA directed the NSB to evaluate the impact of NSF cost sharing policy.
- NSB issued preliminary report recommendations
 - Return of cost sharing to the EPSCoR program;
 - Engineering Research Centers (ERC) program; and the
 - Industry/University Cooperative Research Centers (I/UCRC) program.

SEC 7013: Cost Sharing

- NSB issued second report on cost sharing
<http://www.nsf.gov/nsb/committees/cs/index.jsp>
- Nine recommendations have two primary objectives:
 - To allow, but narrowly circumscribe, the application of mandatory cost sharing requirements in NSF Programs;
 - To prohibit voluntary committed cost sharing in NSF proposals and eliminate post-award tracking and reporting requirements.

New Proposal & Awards Policies & Procedures Guide Implementation

- Posted on the NSF website
- Effective date is January 4, 2010



Other Significant PAPPG Changes

- Faculty Salary Clarification
- RAPID & EAGER Funding Mechanisms

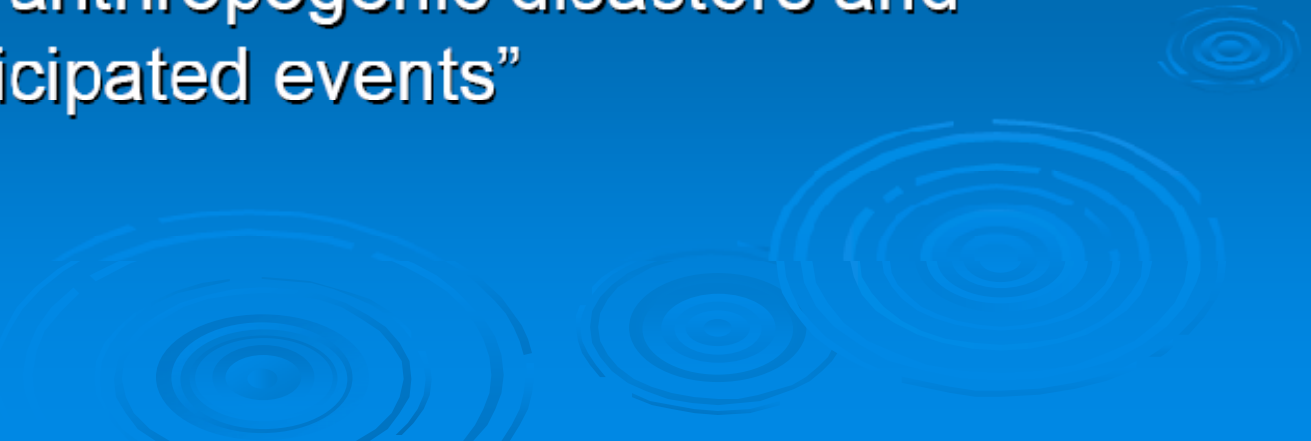
Revised Faculty Salary Policy

- Limits salary compensation for senior project personnel to no more than two months of their regular salary in any one year:
 - The limit includes salary compensation received from all NSF-funded awards.
 - Broadens the previous policy away from the concept of “two summer months” and allows senior project personnel to schedule work when appropriate throughout the year.
 - Any compensation in excess of two months must be specifically justified in the proposal, and if approved by NSF, will be included in the award budget.

Grants for Rapid Response Research (RAPID)

The RAPID funding mechanism is for projects having a:

“severe urgency with regard to availability of, or access to data, facilities or specialized equipment, including quick-response research on natural or anthropogenic disasters and similar unanticipated events”



Grants for Rapid Response Research (RAPID)

- Requests may be for up to \$200K and of one year duration but award size should be consistent with:
 - project scope; and
 - grants of a comparable size in similar areas.
- Project description is brief (two to five pages).
- Only internal review required (external review in rare cases, permissible with notification to PI).
- No cost extensions and supplements will use existing NSF policies.
- Follow-on full proposals – “RAPID renewals” – externally reviewed.

EARLY-concept Grants for Exploratory Research (EAGER)

- Exploratory work on *potentially transformative* untested/ novel research ideas or approaches *in their early stages*.
- “High risk-high payoff” projects that:
 - Involve radically different approaches;
 - Apply new expertise; or
 - Engage novel disciplinary or interdisciplinary perspectives.

EARLY-concept Grants for Exploratory Research (EAGER)

- Requests may be for up to \$300K and up to two years duration, but award size should be consistent with:
 - project scope; and
 - grants of a comparable size in similar areas
- Review process, no cost extensions, supplements, and follow-on proposals similar to RAPID

Second Annual NSF Regional Grants Conference

- Held in Cleveland, OH, Case Western Reserve University - March 22-23, 2010
- For new faculty, researchers and administrators
- Highlights include:
 - New programs and initiatives;
 - Future directions and strategies for national science policy;
 - Proposal preparation;
 - NSF's merit review process;
 - Cross-disciplinary and special interest programs;
 - Conflict of interest policies; and
 - Breakout sessions by discipline

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