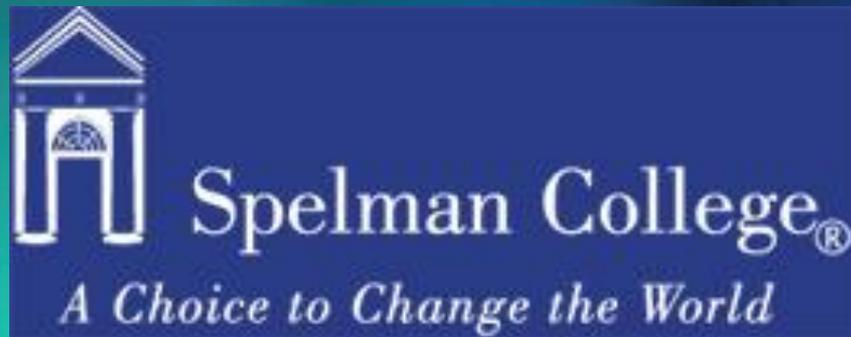


Welcome to NSF Day!



Welcome to NSF Day!

Welcome to NSF Day!



What NSF Does

NSF Vision

Advance discovery, innovation, and education
beyond the frontiers of current knowledge

Empower future generations in
science and engineering



What NSF Does

NSF Mission

- Promote the progress of science
- Advance the national health, prosperity, and welfare
- Secure the national defense; and for other purposes

***NSF will relocate to Alexandria, VA in 2018**

NSF Core Values

Accountability for Public Benefit

Scientific Excellence

Organizational Excellence

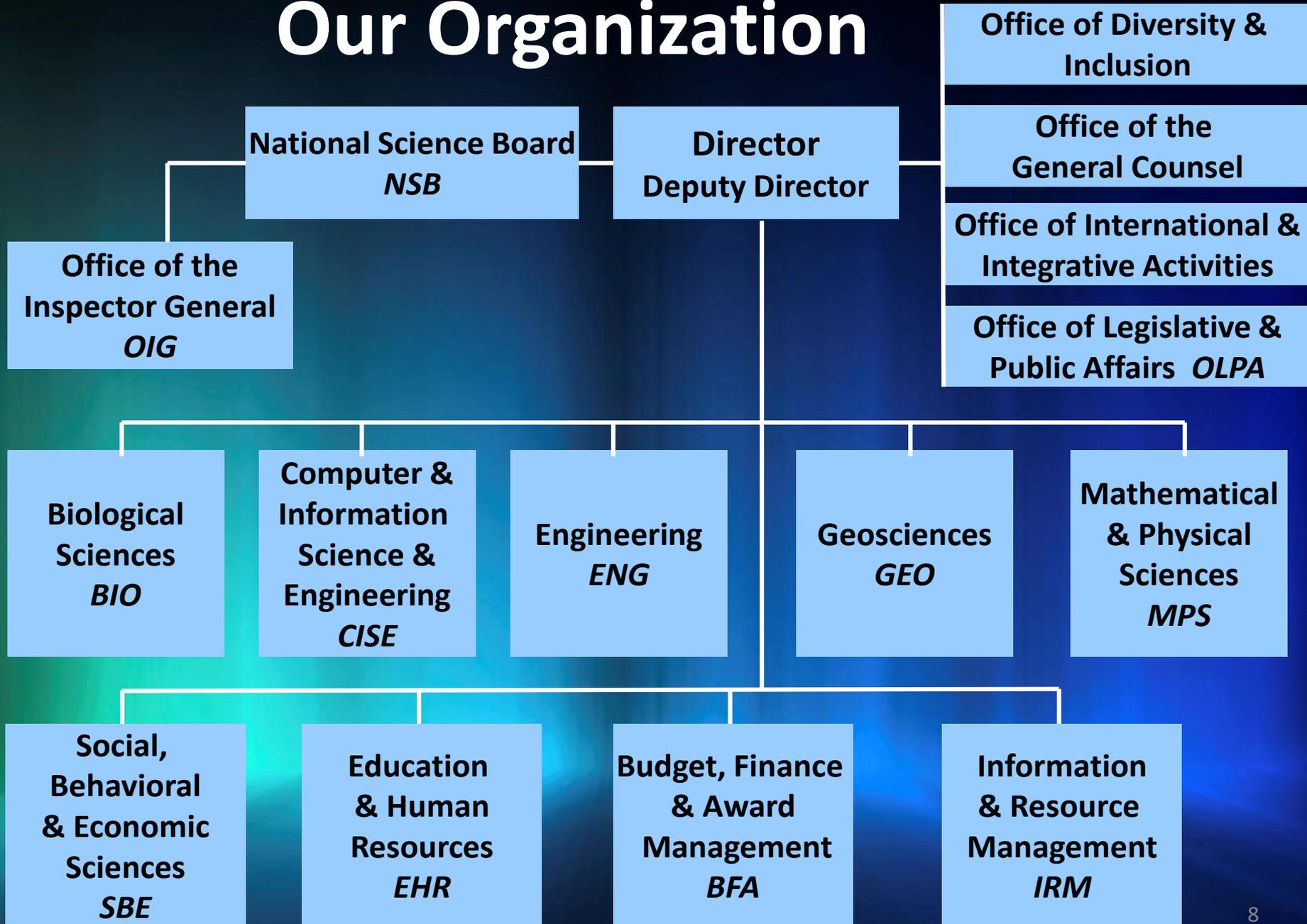
Learning

Inclusiveness

The NSF in a Nutshell

- Independent agency
- Co-led by a Director and National Science Board
- Supports basic research & education
- Uses grant mechanism through competitive merit review
- Discipline-based structure
- Cross-disciplinary mechanisms
- Use of Rotators/IPAs
- Low overhead (~6%)
- Highly automated

Our Organization



NSF by the Numbers

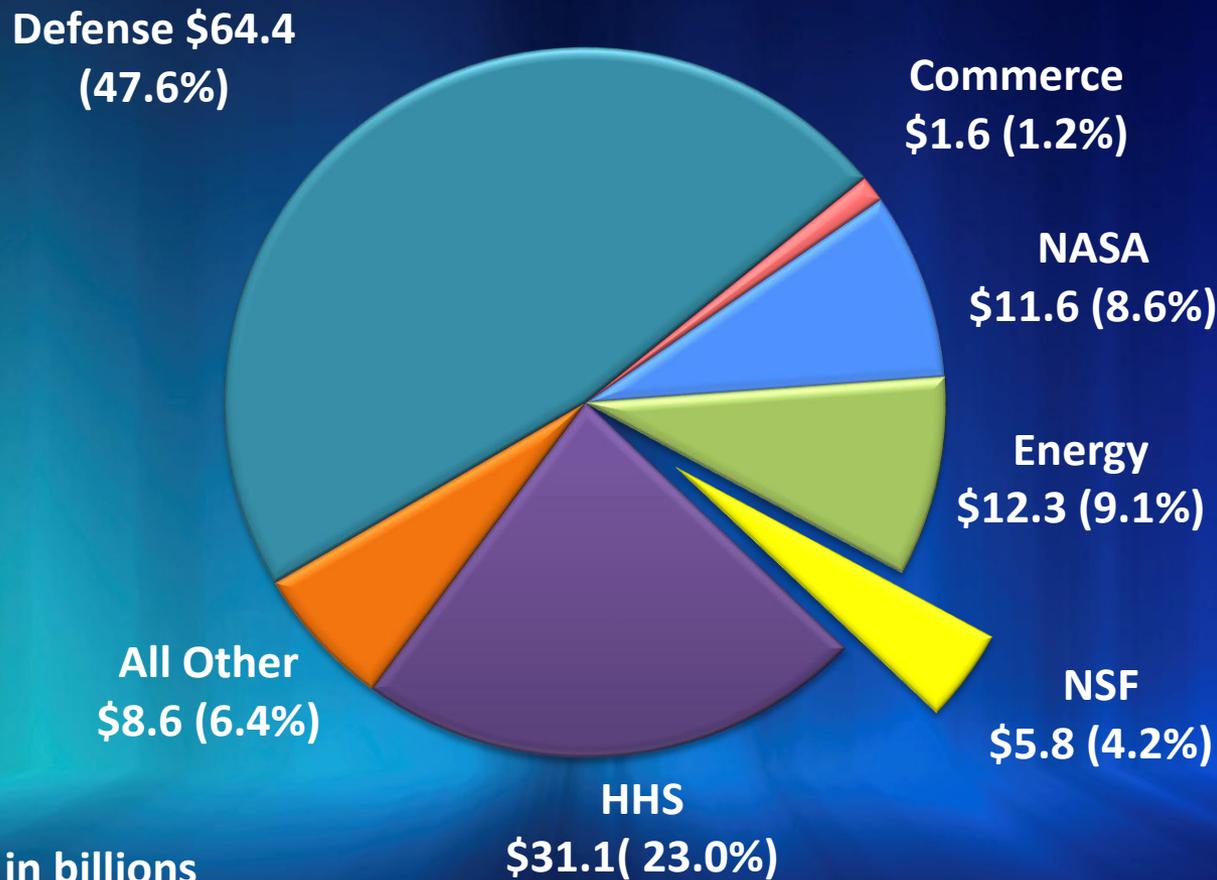
1,826	Colleges, universities, and other institutions NSF funded
11,000	Competitive awards NSF funded
49,800	Students supported by NSF Graduate Research Fellowships (since 1952)
48,000	Proposals evaluated through competitive merit review
226,000	Reviews conducted
321,000	Individuals NSF directly supported (researchers, postdocs, trainees, teachers, and students)
\$6.9 billion	FY 2013 Budget Actuals
\$7.1 billion	FY 2014 Budget Actuals
Figures represent FY 14 actuals	

NSF Budget: FY 2015 and FY 2016

(dollars in millions)		
	FY 2015 Plan	FY 2016 Request
Research & Related Activities (R&RA)	\$5,934	\$6,186
Education & Human Resources	866	963
Major Research Equipment & Facilities Construction	201	200
Agency Operations & Award Management (AOAM)	325	355
National Science Board	4	4
Office of Inspector General	14	15
Total, NSF	\$7,344	\$7,724

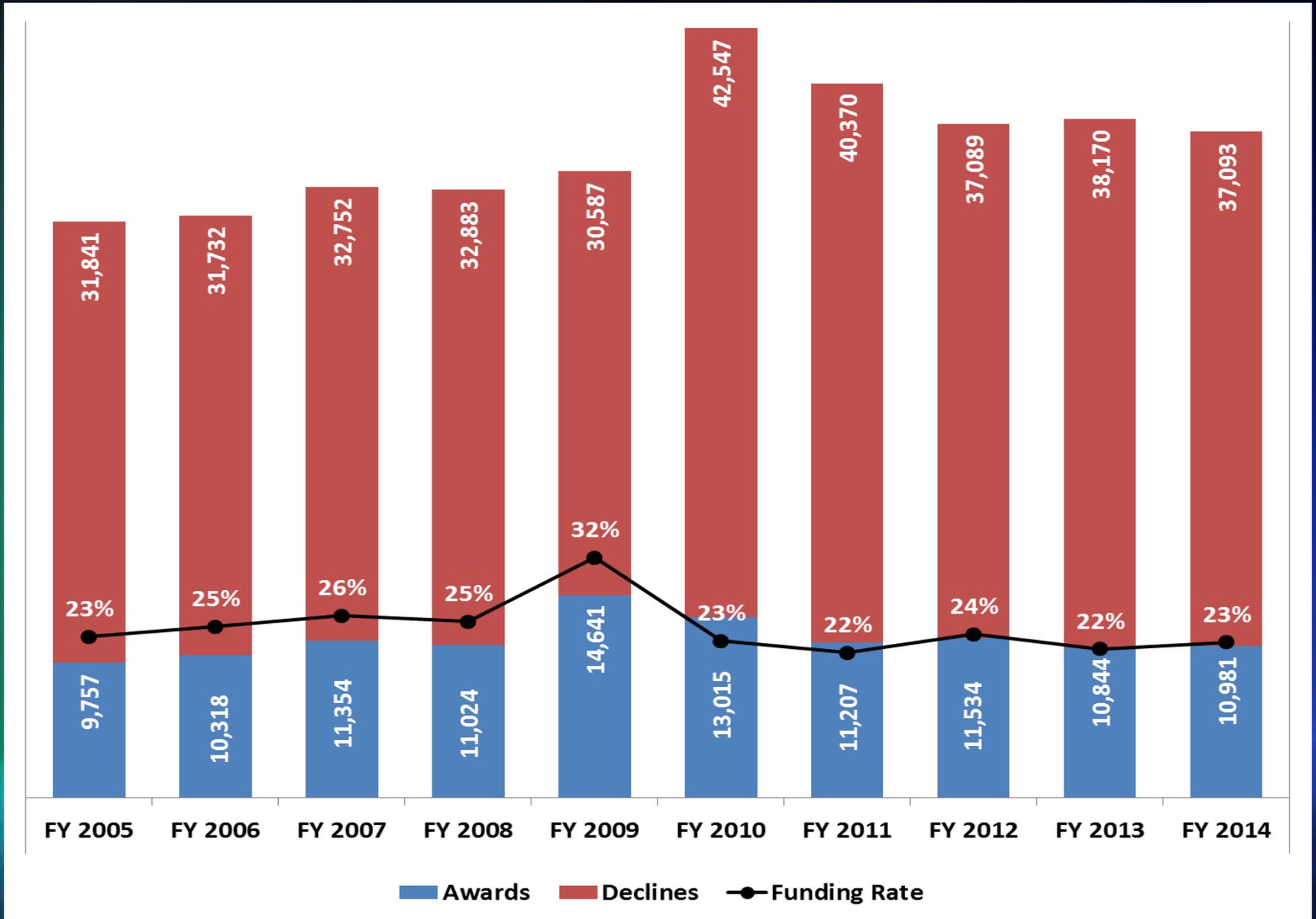
NSF in Perspective

2015 Total Federal R&D Budget for the United States (\$135.4 billion)



*Dollar Amounts in billions

NSF Competitive Awards, Declines & Funding Rates



NSF's Culture of Communication



NSF is Committed to Transparency and Accountability

Projects and the expenditure
of public funds must be
clearly described and
justified.



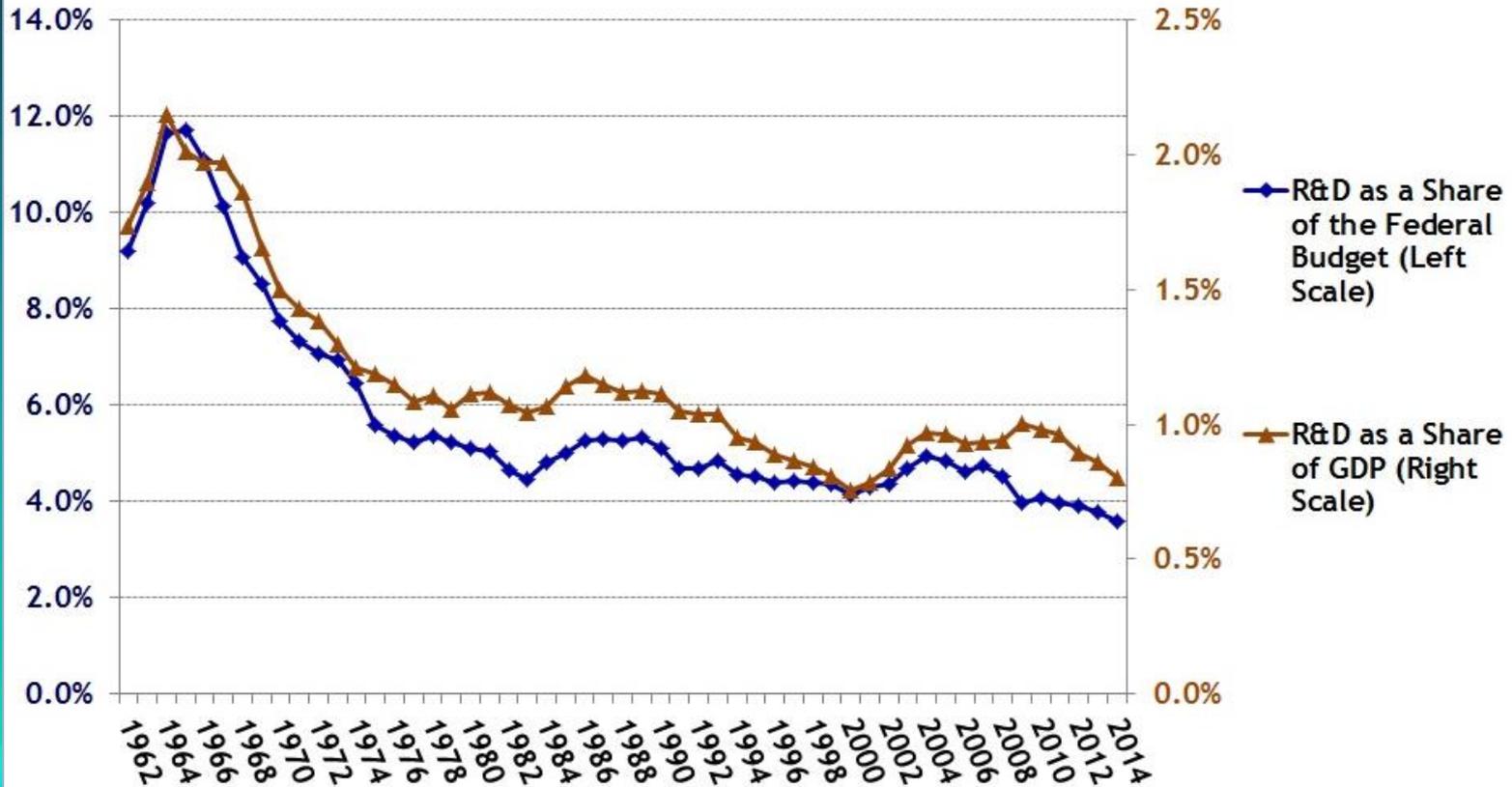
The Changing Budget Landscape

R&D as a % Federal Budget

R&D as a % GDP

Federal R&D in the Budget and the Economy

Outlays as share of total, 1962 - 2014



Source: *Budget of the United States Government, FY 2014*. FY 2013 data do not reflect sequestration. FY 2014 is the President's request.

© 2013 AAAS



Public Scrutiny of the NSF

Congressional debate over science funding draws fire from critics

Senate Moves to Limit NSF Spending on Political Science

Why is Our Government Attacking Science?

Rampant Waste Reported in NSF

Amendment Limiting
National Science Foundation
Research Funding Passes Senate

The Congressional War on the Social Sciences

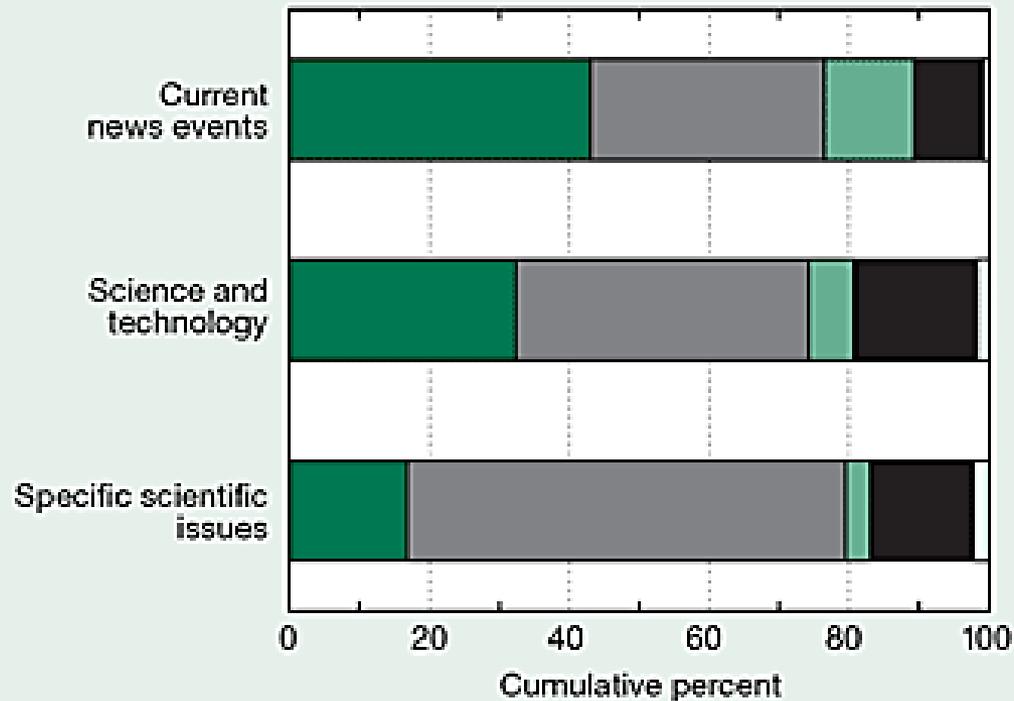
Coalition of Scientific Organizations Defend NSF Peer Review

Many Rival Nations Surge Past the U.S. in
Adding New Jobs

The Media Landscape

Primary source of information about current news events, science and technology, and specific scientific issues: 2012

Television Internet Newspapers All other Don't know



Source: Science & Engineering Indicators 2014

Society's Changing Needs



Natural hazards



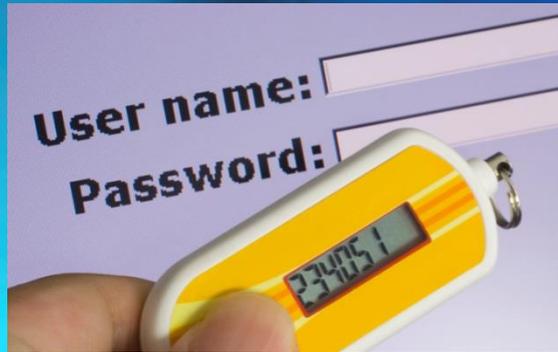
Climate change



Energy



Food and drug safety



Cybersecurity



Youth violence

NSF's Communication Strategy

Create a context and narrative for the general public and for policy makers

abc NEWS HOME VIDEO U.S. WORLD POLITICS ENTERTAINMENT TECH

NOW GRACE HOPPER • PLANE CABIN HOUSTON • GARTH BROOKS • SYSCO

WATCH LIVE: SENTENCING OF FORMER SAN DIEGO MAYOR

ADVERTISEMENT
VSP Vision Care
Prevent computer eyestrain and protect your vision.

Climate Scientist Michael Mann Interview, Part 1
"New McCarthyism" targets climate scientists, say Mann.
09:28 | 07/07/2012

abc NEWS .com

abc NEWS HOME VIDEO U.S. WORLD POLITICS ENTERTAINMENT TECH

VSP Vision Care Choose the VSP plan that's right for you. Enroll Today >

Taxpayer-Funded 'Robo-squirrel' Makes Senator's 2012 'Wastebook'

Oct. 17, 2012
by KEVIN DOLAK

SDSU Defends Robo Squirrel

GREG BLOCK, SDSU SPOKESPERSON

"We have been able to support the training and education of four graduate students and approximately thirty undergraduate students with this award."

Robo-Squirrel the Target of 'Wastebook' Spending

NEXT VIDEO
DARPA's Four-L

San Diego State University's taxpayer-funded project to invent a "robo-squirrel" has been criticized as a boondoggle by an Oklahoma senator, but the school defends the project. The grant that funded the project also helped support the education of 34 students.

Researchers at SDSU used funds from a \$325,000 grant provided by the taxpayer-funded National Science Foundation on the invention of a robotic squirrel used for research. Oklahoma Republican Senator Tom Coburn lambasted the project as a waste of taxpayer money, exemplifying what needs to be excised from government spending.

NSF Science & Engineering Messengers

From Oil Boom to Science Boom: Fueling North Dakota's Hi-Tech Economy

leave a comment >

This is a sample blog post composed for the June 25-26 "Science_Becoming the Messenger" workshop in Fargo, North Dakota.

If you read the news lately about North Dakota, you may get the impression that we're some sort of economic wonderland. The reason is that in comparison with the rest of the U.S., North Dakota has an extremely low unemployment rate—just 3.2 percent. That's the lowest in the nation, by a considerable margin. And much of it is thanks to an unfolding unconventional oil and gas boom here, which has generated a large number of jobs and considerable wealth.

Clearly, North Dakota has fared better than much of the rest of the country in weathering the Great Recession and keeping its citizens employed—at least in "old economy" industries like agriculture and fossil energy. But if you look forward to the future, we're not necessarily so well positioned. According to the Washington, D.C.-based Information Technology and Innovation Foundation, we rank 34th overall in the strength of our new economy sector. The economics of the 21st century will demand a much more tech savvy and advanced workforce, and plentiful jobs in hi tech industries—and what's more, oil booms by nature are cyclical, and there are reasons to think the current one will someday end. If we're going to continue to compete, those jobs need to be located and thriving right here in North Dakota.

So how do we ensure a future that's at least as prosperous as the present? North Dakota EPSCoB (Experimental Program to Stimulate Competitive Research) is doing its part by helping to spur innovation in sectors that you don't usually associate with a big oil state—fields such as clean energy, sustainable materials, and green chemistry. Right now, the program is nearing the completion of a 5 year, \$15 million grant that has focused on two areas in particular: Generating clean and renewable energy directly from the crops that grow so plentifully here in the Great Plains; and creating sustainable materials—including those produced through innovative "green chemistry" approaches, which use less water and leave less of an environmental mark. Looking forward, we're also pursuing a new grant to focus further on sustainable materials research, and no wonder. Already, this body of science is paying off significantly in terms of economic benefits for North Dakota.

Take our "SUNBISE" program—Sustainable Energy Research, Infrastructure, and Supporting Education—which is focused on converting oils from crops into fuels and chemicals, rather than relying on carbon intensive fossil sources. Over the course of our work here, 11 patents have been issued under this program.

Twitter Updates
Error. Twitter did not respond. Please wait a few minutes and refresh this page.

Archives

When Should You Communicate?

Before, during and after your work is NSF funded, work with:

- Your NSF program officer
- Your institution's public information officer
- Broader communities
- NSF's Office of Legislative and Public Affairs

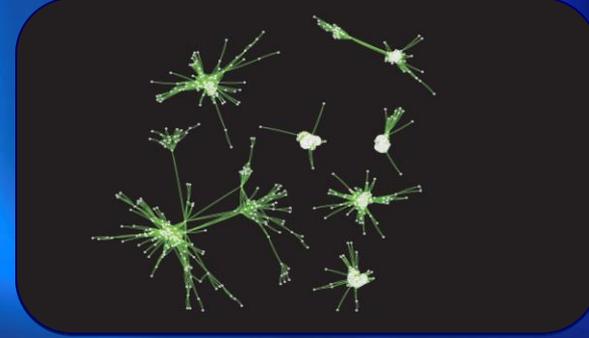
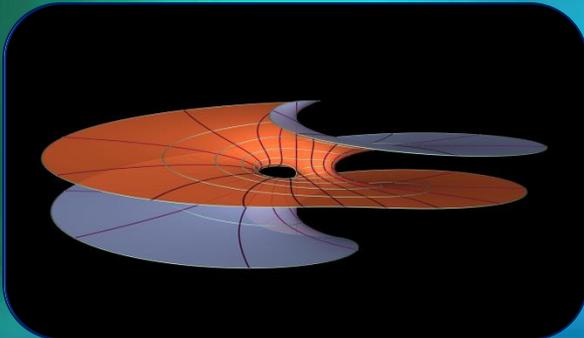
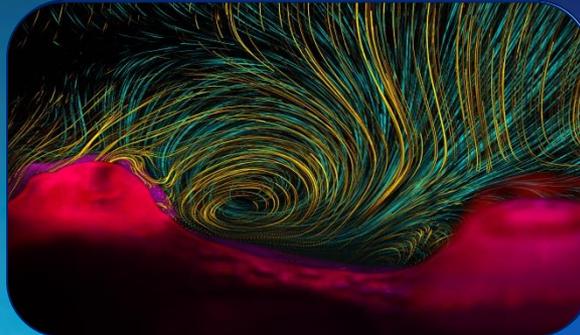


Failure to Communicate



NSF's Organization

The NSF Directorates & Offices



Biological Sciences (BIO)

Ben Holt

Division of Integrative Organismal Systems
bholt@nsf.gov



Rotating Program Officer,
Developmental Systems Cluster

Associate Professor, University of
Oklahoma

Manages programs funding for Plant,
Fungal and Microbial Development
and Evolution of Development

Biological Sciences (BIO)

James Olds, Assistant Director
Jane Silverthorne, Deputy Assistant Director

**Emerging Frontiers
(EF)**

**Division of
Biological Infrastructure
(DBI)**

James Deshler, Division Director
Anne Maglia, Deputy Division Director

**Division of Molecular and Cellular
Biosciences
(MCB)**

Linda Hyman, Division Director
Theresa Good, Deputy Division Director

**Division of
Environmental Biology
(DEB)**

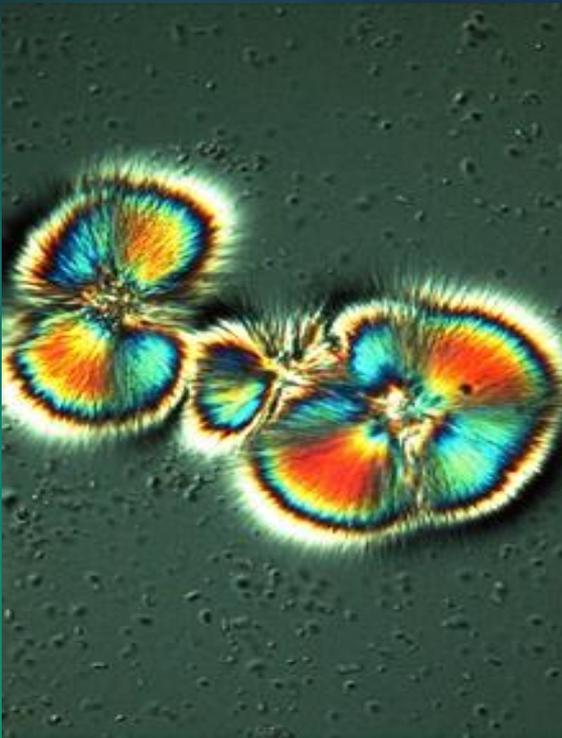
Paula Mabee, Acting Division Director
Alan Tessier, Deputy Division Director

**Division of Integrative Organismal
Systems
(IOS)**

Rob Miller, Acting Division Director
Bill Zamer, Acting Deputy Division Director

Biological Sciences (BIO)

Priorities



Investigator-driven projects in all areas of
Biological Research

Brain Research through Advancing

Innovative Neurotechnologies (BRAIN)

National Ecological Observatory Network
(NEON)

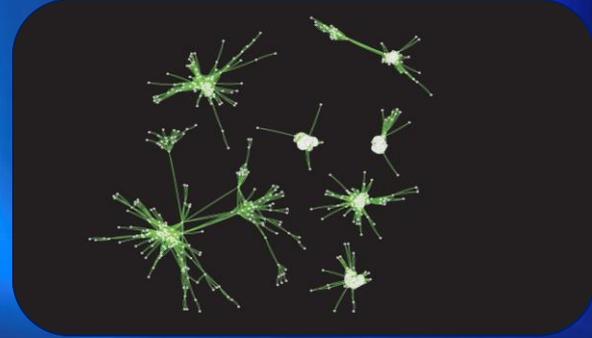
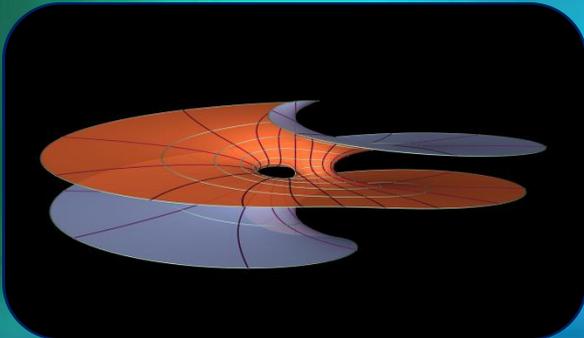
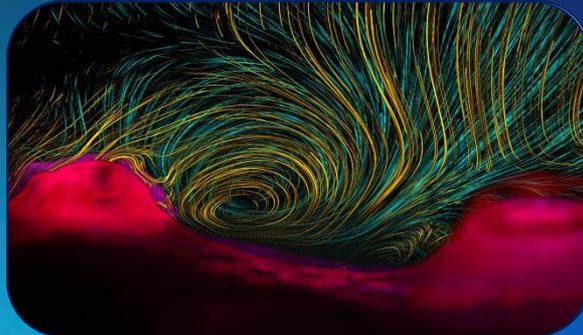
Plant Genome Research Program (PGRP)

Dimensions of Biodiversity

Projects at interface of biology,
mathematics, and engineering (BIOMAPS)

NEW: Enabling Discovery through Genomic
Tools (EDGE)

The NSF Directorates & Offices



Computer & Information Science & Engineering (CISE)



Kamau Bobb

Computer Network Systems (CNS)

kbobb@nsf.gov

STEM + Computing Partnerships
(STEM+C)

Cyberlearning and Future Learning
Technologies (Cyberlearning)

Revolutionizing Engineering and computer
science Departments (RED)



Computer & Information Science & Engineering (CISE)

James F. Kurose, Assistant Director
Erwin Gianchandani, Deputy Assistant Director (Acting)

Division of Advanced Cyberinfrastructure (ACI)

Irene M. Qualters, Division Director
Amy Apon, Deputy Division Director (Acting)

Division of Computer and Network Systems (CNS)

Peter Arzberger, Div. Director (Acting)
Phillip Regalia, Deputy Division Director (Acting)

Division of Information and Intelligent Systems (IIS)

Lynne Parker, Division Director
Deborah F. Lockhart, Deputy Division Director

Division of Computing and Communication Foundations (CCF)

S. Rao Kosaraju, Division Director
James J. Donlon, Deputy Division Director

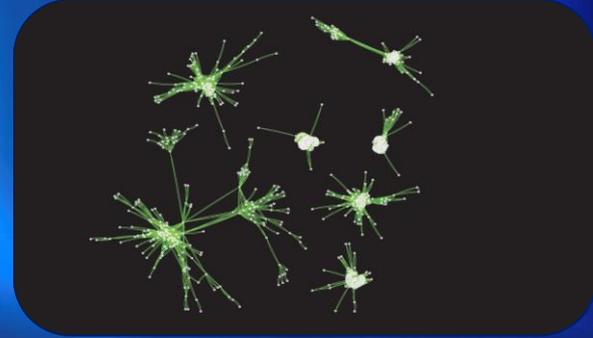
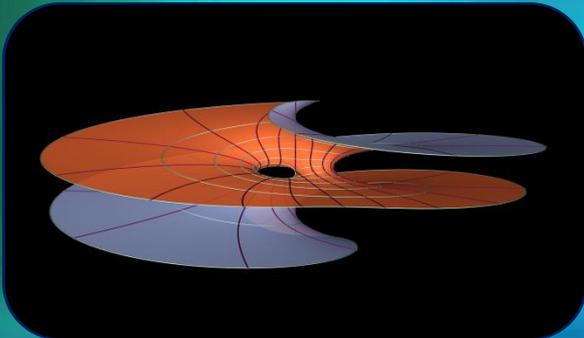
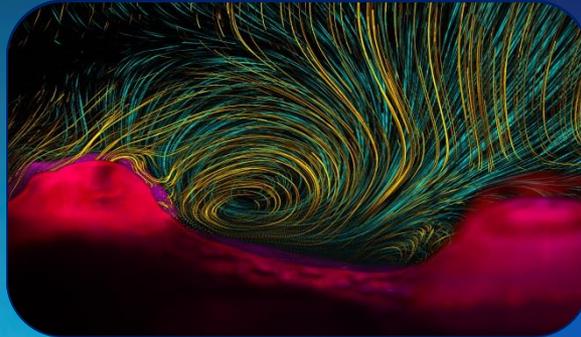
Computer & Information Science & Engineering (CISE)

Directorate Priorities

- Core research programs across computer science
- Cross-CS and cross-NSF programs (e.g., BRAIN, SaTC, NRI)
- CS education (cyberlearning)
- Building cyber infrastructure



The NSF Directorates & Offices



Education & Human Resources (EHR)

Karen King

Division of Research & Learning

kking@nsf.gov



- Lead, EHR Core and Indicators of Successful K-12 STEM initiative
- Executive Secretary, NSB's Committee on Education and Human Resources
- Director of Research, National Council of Teachers of Mathematics
- Co-editor, Disrupting Tradition: Research and Practice Pathways in Mathematics Education

Education & Human Resources (EHR)

Dr. Joan Ferrini-Mundy
Assistant Director

**Division of Graduate Education
(DGE)**

Dean Evasius
Division Director

**Division of Human Resource Development
(HRD)**

Sylvia M. James
Division Director

**Division of Research on Learning in Formal and
Informal Settings (DRL)**

Evan Heit
Division Director

**Division of Undergraduate Education
(DUE)**

Susan R. Singer
Division Director

Education & Human Resources (EHR)



Learning and learning environments

Cognitive and non-cognitive foundations of STEM

Creative uses of formal and informal STEM learning



Broadening participation in STEM

Access to and success in high quality STEM education for underrepresented groups



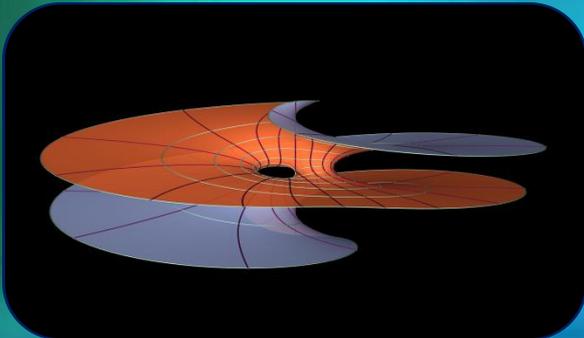
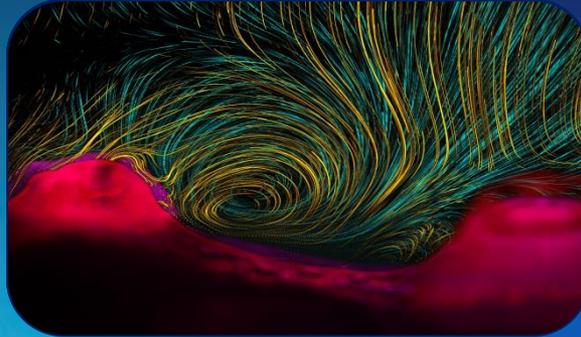
STEM professional workforce development

Capitalize on scientific advances

Address not yet imagined global, social & econ challenges



The NSF Directorates and Offices



Engineering (ENG)

Alexander Leonessa

ENG / CBET

aleoness@nsf.gov



Supervises the General and Age Related Disability Engineering (GARDE) program

Also cognizant program officer for:

Major Research Instrumentation program

National Robotic Initiative

Partnership for Innovation program

Integrative Strategies for Understanding

Neural and Cognitive Systems program

Faculty member at Virginia Tech

Former faculty member at Florida Atlantic University, University of Central Florida

Engineering (ENG)

**Emerging Frontiers in
Research and Innovation
(EFRI)**

Sohi Rastegar

Innovation Corps

Babu DasGupta

Pramod Khargonekar, Assistant Director
Grace Wang, Deputy Assistant Director

**Senior Advisor for
Nanotechnology**

Mihail Roco

**Program Director for
Strategic Operations**

Cheryl Albus

**Program Director for
Evaluation & Assessment**

Alexandra Medina-Borja

**Engineering Education and Centers
(EEC)**

Mario Rotea, Division Director

**Chemical, Bioengineering, Environmental,
and Transport Systems
(CBET)**

JoAnn Lighty, Division Director

**Civil, Mechanical, and Manufacturing
Innovation (CMMI)**

Deborah Goodings, Division Director

**Electrical, Communications, and Cyber
Systems
(ECCS)**

Samir El-Ghazaly, Division Director

**Industrial Innovation and Partnerships
(IIP)**

Barry Johnson, Division Director

ENG Initiatives and Priorities

Address National Interests

- INFEWS
- Risk and Resilience:
CRISP
- Urban Science
- Clean Energy Technology*
- Cyber-Enabled Materials, Manufacturing, and Smart Systems - Advanced Manufacturing*
- Optics and Photonics
- Understanding the Brain
- Education and Broadening Participation: INCLUDES
 - Innovation Corps
 - Emerging Frontiers in Research and Innovation
 - Research Centers
 - National Nanotechnology Initiative*
- Communications and Cyberinfrastructure

Mathematical & Physical Sciences (MPS)

Claudia Rankins

crankins@nsf.gov



Program officer for HBCU-UP program since 2008

Spent 22 years at Hampton University on the faculty and administration

Disciplinary background in theoretical elementary particle physics

Mathematical & Physical Sciences (MPS)

F. Fleming Crim, Assistant Director
Clifford Gabriel, Deputy Assistant Director
(Acting)

Office of
Multidisciplinary
Activities (OMA)

Clark Cooper

**Division of Astronomical Sciences
(AST)**

Jim Ulvestad, Division Director
Pat Knezek, Deputy Division Director

**Division of Materials Research
(DMR)**

Linda Sapochak, Division Director (Acting)
Clark Cooper, Deputy Division Director
(Acting)

**Division of Physics
(PHY)**

Denise Caldwell, Division Director
Brad Keister, Deputy Division Director

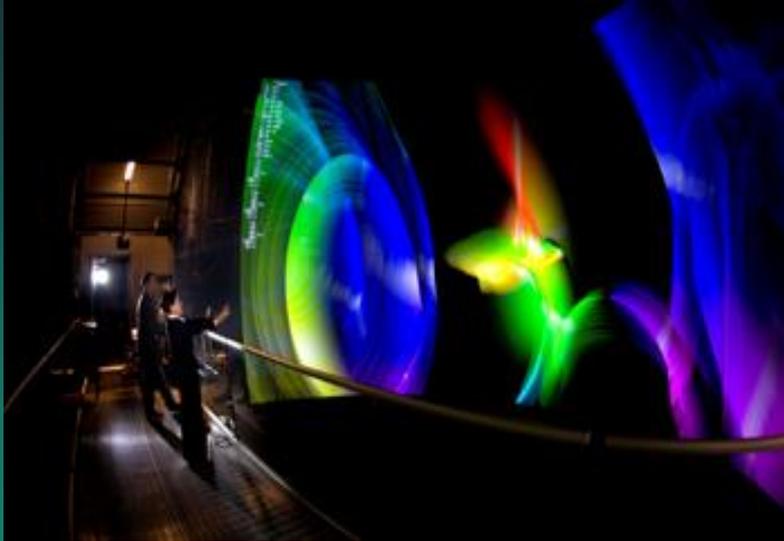
**Division of Chemistry
(CHE)**

Carol Bessel, Division Director (Acting)
Timothy Batten, Deputy Division Director
(Acting)

**Division of Mathematical Sciences
(DMS)**

Michael Vogelius, Division Director
Tie Luo, Deputy Division Director (Acting)

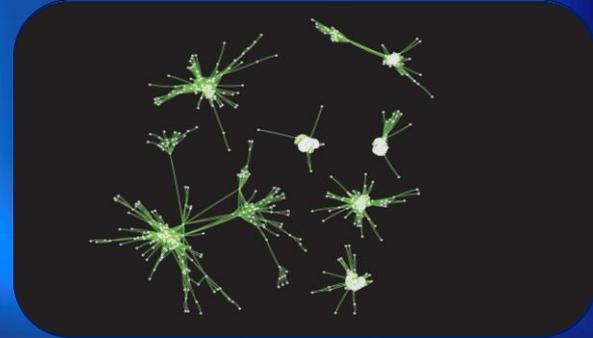
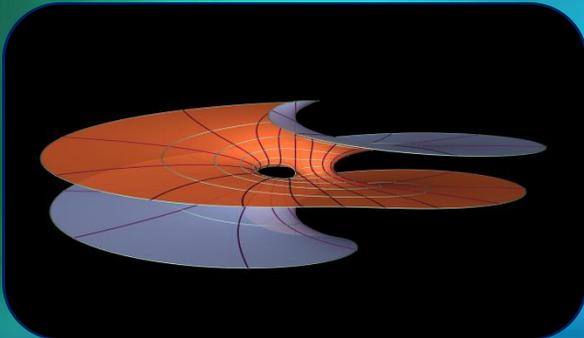
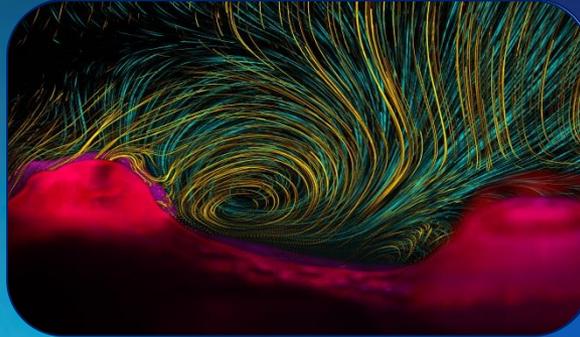
Mathematical & Physical Sciences (MPS)



Emphasis Areas

- ❖ Physical sciences at the nanoscale
- ❖ Advances in optics and photonics
 - ❖ Materials by design
 - ❖ Physics of the universe
- ❖ World-class, shared-use Facilities
- ❖ Quantum information science
 - ❖ Complex systems (multi-scale, emergent phenomena)
- ❖ Innovations at the Nexus of Food, Energy and Water Systems
 - ❖ Sustainability (energy, environment, climate)
- ❖ Interfaces between the mathematical, physical, & life sciences

The NSF Directorates and Offices



Social, Behavioral, & Economic Science (SBE)

Laura L. Namy

Division of Developmental and
Learning Sciences

lnamy@nsf.gov



NSF Representative, White House
Social & Behavioral Sciences Team

Faculty member at Emory University

- Professor in Psychology
- Core Faculty in Linguistics
- Associate Director, Center for
Mind, Brain and Culture



Social, Behavioral & Economic Sciences

Fay Lomax Cook, Assistant Director
Kellina Craig-Henderson, Deputy Assistant Director

SBE Office of Multidisciplinary Activities (SMA)

Behavioral and Cognitive Sciences (BCS)

Howard Nusbaum, Division Director
Amber Story, Deputy Division Director

Archeology and Archaeometry
Biological Anthropology
Cultural Anthropology
Geography and Spatial Sciences
Cognitive Neuroscience
Developmental and Learning Sciences
Documenting Endangered Languages
Linguistics
Perception, Action & Cognition
Social Psychology

Social and Economic Sciences (SES)

Alan Tomkins, Acting Division Director
Kay Meyer, Acting Deputy Division Director

Decision Risk and Management Sciences
Economics
Law and Social Sciences
Methodology, Measurement, and Statistics
Political Science
Science of Organizations
Science, Technology, and Society
Secure and Trustworthy Cyberspace
Sociology

National Center for Science and Engineering Statistics (NCSES)

John Gawalt, Division Director
Jeri Mulrow, Deputy Division Director

Science of Learning
Science of Science and innovation
Policy
Interdisciplinary Behavioral and Social Sciences
Resource Implementation for Data Intensive Research in SBE



SBE-Related Cross-Directorate Initiatives

Science of Broadening Participation & INCLUDES

Understanding the Brain

Forensic Sciences

Big Data

Coupled Natural and Human Systems

Interdependent Infrastructure Systems and Processes

Food, Energy and Water Systems



Budget, Finance & Award Management (BFA)

Samantha Hunter

Policy Office, Institution & Award Support

shunter@nsf.gov



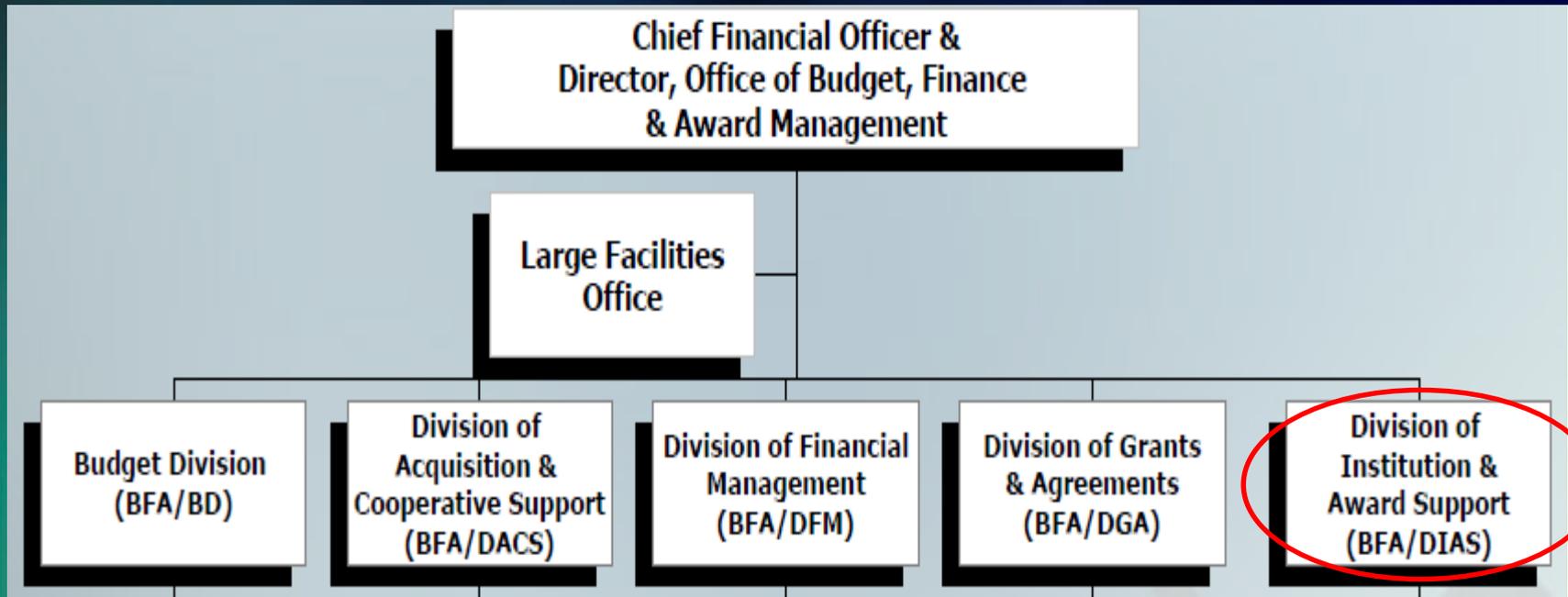
Grant Policy Specialist who interprets and communicates proposal and award policies and procedures to NSF staff and the external community

Primary responsibility for the *Award & Administration Guide* (post award section of the *Proposal & Award Policies & Procedures Guide*)

Policy Office website and sections of www.nsf.gov



Budget, Finance & Award Management (BFA)



Questions?



Break





Getting Started The Essentials

NSF National Science Foundation
WHERE DISCOVERIES BEGIN

SEARCH

HOME FUNDING AWARDS DISCOVERIES NEWS PUBLICATIONS STATISTICS ABOUT NSF FASTLANE

QUICK LINKS

SCIENCE NATION
Engineering new structures with origami
FULL STORY

Advancing the Sciences Funding & Supporting Inspiring & Educating HIDE

From the mouths of ... young fireballs
October 27, 2014

POLARBEAR detects curls in the Universe's oldest light
October 20, 2014

Crystallizing the DNA nanotechnology dream
October 19, 2014

NYU researchers break nano barrier to engineer the first protein microfiber
October 22, 2014

Facetless crystals that mimic starfish shells could advance 3-D-printing pills
October 20, 2014

NSF awards \$10.8 million in early concept grants for brain research
August 18, 2014

NSF awards \$10.8 million in early concept grants for brain research
August 18, 2014

FOLLOW

FOLLOW US

See all NSF social media

NSF Funding & Research Community

SPECIAL NOTICES

FUNDING OPPORTUNITIES

Navigating www.NSF.gov

The image shows a screenshot of the NSF.gov website. A red circle highlights the 'FUNDING' menu in the top navigation bar. The menu is open, showing a list of options: Search Funding Opportunities, Browse Opportunities A-Z, Recent Opportunities, Due Dates, Preparing Proposals, Policies & Procedures, Merit Review, Interdisciplinary Research, Transformative Research, and About Funding. The main content area features a large banner for 'Understanding Bacterial Crowdsourcing' with a 'FULL STORY' button. Below the banner is a navigation bar with 'Advancing the Sciences', 'Funding & Supporting', and 'Inspiring & Educating' sections, and a 'HIDE' button. The bottom section displays several news items with images and titles: 'VIMS Researchers Unravel Life Cycle of Blue-crab Parasite' (October 4, 2012), 'A Mammal Lung, In 3-D' (October 2, 2012), 'Home-based Assessment Tool for Dementia Screening' (October 2, 2012), 'URI Scientists: Marine Plants Can Flee to Avoid Predators' (October 1, 2012), 'White Shark Diets Vary With Age and', and 'Disappearing Act'.

SEARCH

HOME

FUNDING

AWARDS

DISCOVERIES

NEWS

PUBLICATIONS

STATISTICS

ABOUT NSF

FASTLANE

Search Funding Opportunities

Browse Opportunities A-Z

Recent Opportunities

Due Dates

Preparing Proposals

Policies & Procedures

Merit Review

Interdisciplinary Research

Transformative Research

About Funding

Understanding Bacterial Crowdsourcing

FULL STORY

Advancing the Sciences | Funding & Supporting | Inspiring & Educating

HIDE

VIMS Researchers Unravel Life Cycle of Blue-crab Parasite
October 4, 2012

A Mammal Lung, In 3-D
October 2, 2012

Home-based Assessment Tool for Dementia Screening
October 2, 2012

URI Scientists: Marine Plants Can Flee to Avoid Predators
October 1, 2012

White Shark Diets Vary With Age and

Disappearing Act

Navigating www.NSF.gov

The screenshot displays the NSF.gov website interface. At the top left is the NSF logo with the text "National Science Foundation WHERE DISCOVERIES BEGIN". To the right is a "QUICK LINKS" dropdown menu and a search box containing the word "SEARCH". A red oval highlights the search box and the "QUICK LINKS" menu, with a red arrow pointing to the search box from the right. Below the header is a navigation bar with links: HOME, FUNDING, AWARDS, DISCOVERIES, NEWS, PUBLICATIONS, STATISTICS, ABOUT NSF, and FASTLANE. Underneath this is a secondary navigation bar with links: Simple Search, Advanced Search, Popular Searches, Download Awards, Send Comments, and Award Search Help. The main content area is titled "Awards Simple Search". It features a "NEW" badge and a link "See What's New in the New Award Search". Below this is a search form with the label "Search award for:" followed by an input field and a "Search" button with a green arrow. A red arrow points from the left towards the search form. Below the input field is the instruction "Use double quotes for exact search. For example 'water vapor'." and two checkboxes: "Active Awards" (checked) and "Expired Awards" (unchecked). At the bottom of the page is a footer with links: Research.gov | USA.gov | National Science Board | Recovery Act | Budget and Performance | A Web Policies and Important Links | Privacy | FOIA | NO FEAR Act | Inspector General | Webmas, and the NSF logo.

Navigating www.NSF.gov

HOME | [FUNDING](#) | [AWARDS](#) | [DISCOVERIES](#) | [NEWS](#) | [PUBLICATIONS](#) | [STATISTICS](#) | [ABOUT NSF](#) | [FASTLANE](#)

[Simple Search](#) | [Advanced Search](#) | [Popular Searches](#) | [Download Awards](#) | [Send Comments](#) | [Award Search Help](#)

Awards Advanced Search

NEW [See What's New in the New Award Search](#)

Awardee Information

Principal Investigator First Name | **Organization**

Principal Investigator Last Name | **State**

Include Co-Principal Investigator in name search | **Zip Code**

Country

Program Information

NSF Organization | **HINT:** The "Program" box searches both program element and program reference names and codes.

Element Code | **Program**

Any | **All** | **Program Officer**

Reference Code | **Any** | **All**

Additional Information

Keyword | **HINT:** Data prior to 1976 may be less complete.

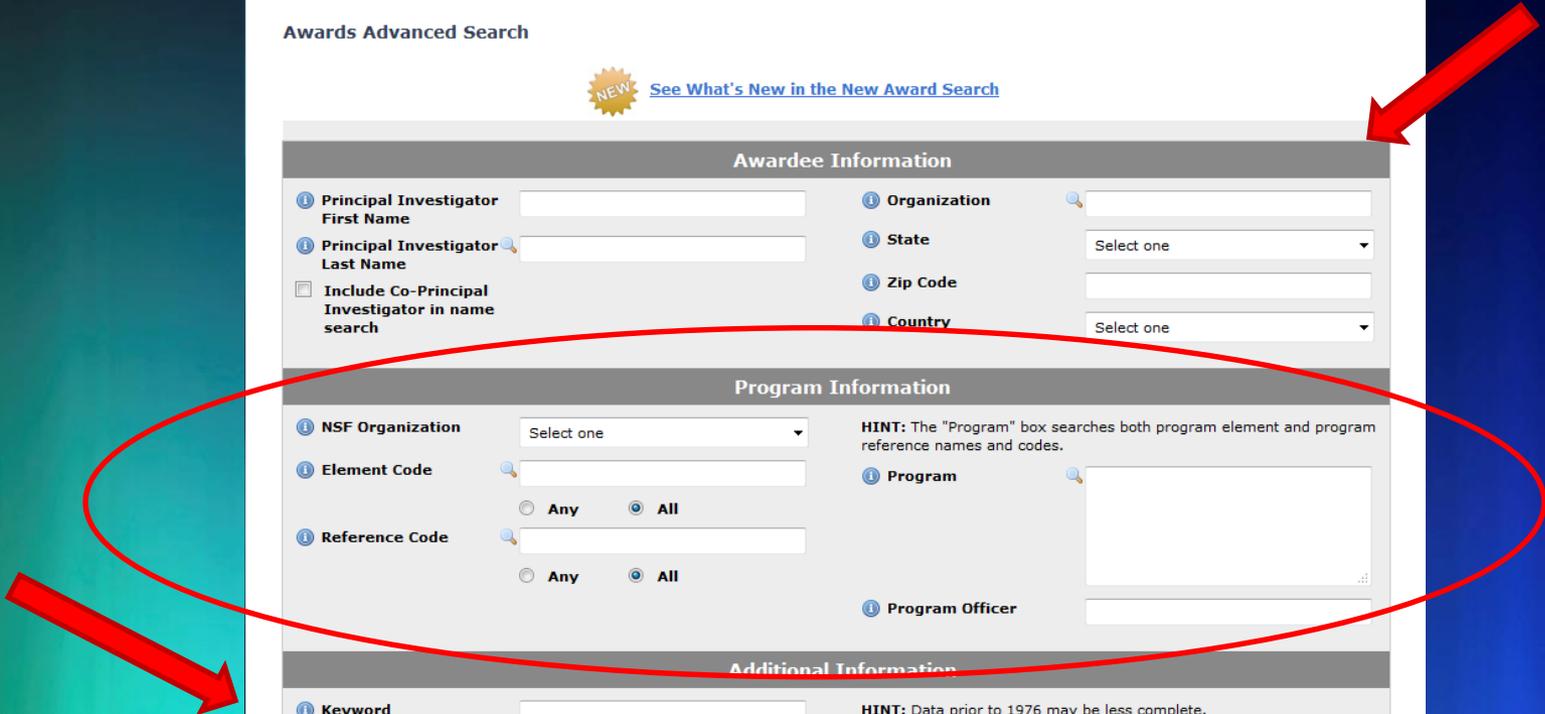
Search Award Title Only | **Active Awards** | **Expired Awards**

Award Number | **Original Award Date** **From** **To**

From **To** | **Start Date** **From** **To**

Award Amount | **Expiration Date** **From** **To**

Award Instrument



Additional Information on Resources

Join Directorate
Specific Listserves!

Use Grants.gov's
search feature

The screenshot shows the Grants.gov website interface. At the top, there is a navigation bar with links for CONTACT US, MANAGE SUBSCRIPTIONS, REGISTER, and LOGIN. A search bar is present with a dropdown menu set to 'Grant Opportunities' and a 'GO' button. Below the navigation bar is a main menu with links for HOME, ABOUT, SEARCH GRANTS, APPLICANTS, GRANTORS, SYSTEM-TO-SYSTEM, FORMS, OUTREACH, and SUPPORT.

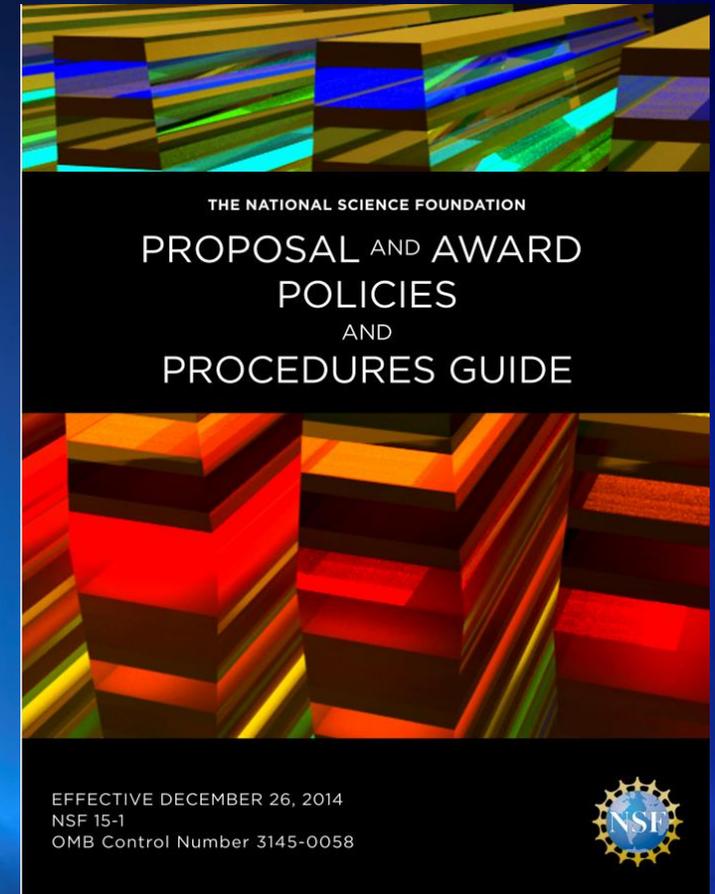
The main content area features a 'Find Grants' section with a search button and a 'Find Open Grant Opportunities' section with filters for NEWEST OPPORTUNITIES, BROWSE CATEGORIES, BROWSE AGENCIES, and BROWSE ELIGIBILITIES. A table of grant opportunities is displayed below the filters.

Funding Opportunity Number	Opportunity Title	Agency
RFA-263-14-000001	Local Scholarship Program	Egypt USAID-Cairo
NNH14ZDA001N-RST	ROSES 2014: Remote Sensing Theory for Earth Science	NASA Headquarters
CDC-RFA-DP14-1419PPHF14	PPHF 2014: Racial and Ethnic Approaches to Community Health (REACH) - financed in part by Prevention and Public Health Funding	Chronic Disease Prevention and Health Promotion
HHS-2014-ACL-CDAP-SO-0089	State Health Insurance Assistance Program Performance Improvement and Innovation Grant	Administration for Community Living
DARPA-BAA-14-46	DSO Office-Wide	DARPA - Defense Sciences

Additional content on the page includes a 'Grants.gov Updates' section with a maintenance outage notice for June 21-23, 2014, and a 'Did You Know?' section with tips on new features and SAM registration requirements.

What is the Proposal & Award Policies & Procedures Guide?

The Proposal and Award Policies and Procedures Guide (PAPPG) contains documents relating to NSF's proposal and award process. It has been designed for use by both our customer community and NSF staff and consists of two parts:



Types of Funding Opportunities

Program Descriptions

Proposals for a **Program Description** must follow the instructions in the GPG.

Program Announcements

Proposals for a **Program Announcement** must follow the instructions in the GPG.

Program Solicitations

Proposals must follow the instructions in the **Program Solicitation**; the instructions in the GPG apply unless otherwise stated in the solicitation.

Dear Colleague Letters

Dear Colleague Letters are notifications of opportunities or special competitions for supplements to existing NSF awards.

Navigating a Program Description

[Division of Mathematical Sciences](#)

Algebra and Number Theory

CONTACTS

Name	Email	Phone	Room
Tie Luo	tluo@nsf.gov	(703) 292-8448	1025 N
J. Matthew Douglass	mdouglas@nsf.gov	(703) 292-2467	1025 N
Andrew Pollington	adpollin@nsf.gov	(703) 292-4878	1025 N
Victoria Powers	vpowers@nsf.gov	(703) 292-2113	1025 N

PROGRAM GUIDELINES

Apply to PD 10-1264 as follows:

For full proposals submitted via FastLane: standard [Grant Proposal Guide](#) proposal preparation guidelines apply.
For full proposals submitted via Grants.gov: the *NSF Grants.gov Application Guide; A Guide for the Preparation and Submission of NSF Applications via Grants.gov Guidelines* applies. (Note: The *NSF Grants.gov Application Guide* is available on the Grants.gov website and on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide)

Important Information for Proposers

A revised version of the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) (NSF 15-1), is effective for proposals submitted, or due, on or after December 26, 2014. The PAPPG is consistent with, and, implements the new Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) (2 CFR § 200). Please be advised that the guidelines contained in NSF 15-1 apply to proposals submitted in response to this funding opportunity.

DUE DATES

Full Proposal Target Date: October 9, 2015
Second Friday of October
Second Friday in October, Annually Thereafter

Research proposals (as opposed to conference proposals) are expected to be submitted by the target date. An extension may be granted under unusual extenuating circumstances, provided that approval is obtained from the cognizant Program Director prior to the target date.

SYNOPSIS

The Algebra and Number Theory program supports research in algebra, algebraic and arithmetic geometry, number theory, and representation theory.

Conferences

Principal Investigators should carefully read the program solicitation "Conferences and Workshops in the Mathematical Sciences" (link below) to obtain important information regarding the substance of proposals for conferences, workshops, summer/winter schools, and similar activities.

For conference proposals with budgets not exceeding \$50,000, which in accordance with NSF policy can be reviewed internally at NSF, the following target dates are in effect: For an event that will take place at some time prior to October 1 during a given year, the proposal should be submitted in October of the previous year. For an event that will occur in the period October 1 through December 31 of a given year, the proposal should be submitted in May of that year. A conference proposal with a budget request exceeding \$50,000 should be submitted roughly seven months before the event is scheduled to take place, in order to allow time for external review.

RELATED PROGRAMS

[Focused Research Groups in the Mathematical Sciences](#)
[Research Training Groups in the Mathematical Sciences](#)
[Faculty Early Career Development Program](#)
[Mathematical Sciences Postdoctoral Research Fellowships](#)
[NSF Graduate Research Fellowship Program](#)

RELATED URLS

[Conferences and Workshops in the Mathematical Sciences](#)

THIS PROGRAM IS PART OF

Disciplinary Research Programs

[What Has Been Funded \(Recent Awards Made Through This Program, with Abstracts\)](#)

[Map of Recent Awards Made Through This Program](#)

[News](#)

Navigating a Program Solicitation

Enhancing Access to the Radio Spectrum (EARS)

PROGRAM SOLICITATION

NSF 15-550

REPLACES DOCUMENT(S):

NSF 14-529



National Science Foundation

Directorate for Mathematical & Physical Sciences
Division of Astronomical Sciences

Directorate for Engineering
Division of Electrical, Communications and Cyber Systems

Directorate for Computer & Information Science & Engineering
Division of Computer and Network Systems

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

June 02, 2015

IMPORTANT INFORMATION AND REVISION NOTES

Any proposal submitted in response to this solicitation should be submitted in accordance with the revised NSF Proposal & Award Policies & Procedures Guide (PAPPG) (NSF 15-1), which is effective for proposals submitted, or due, on or after December 26, 2014. The PAPPG is consistent with, and implements the new Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) (2 CFR § 200).

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Enhancing Access to the Radio Spectrum (EARS)
Opportunities for interdisciplinary research that increases the efficiency of the radio spectrum, expanding the access to wireless-enabled services for all Americans.

Synopsis of Program:

The National Science Foundation's Directorates for Mathematical and Physical Sciences (MPS), Engineering (ENG), and Computer and Information Science and Engineering (CISE) are coordinating efforts to identify bold new concepts with the potential to

Award Information

Anticipated Type of Award: Standard Grant

Estimated Number of Awards: 20 to 25

Each proposal may request up to \$750,000 in total funding over a period of up to three years.

Anticipated Funding Amount: \$15,000,000

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Universities and Colleges - Universities and two- and four-year colleges (including community colleges) accredited in, and having a campus located in, the US acting on behalf of their faculty members. Such organizations also are referred to as academic institutions.
- Non-profit, non-academic organizations: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

Limit on Number of Proposals per PI or Co-PI:

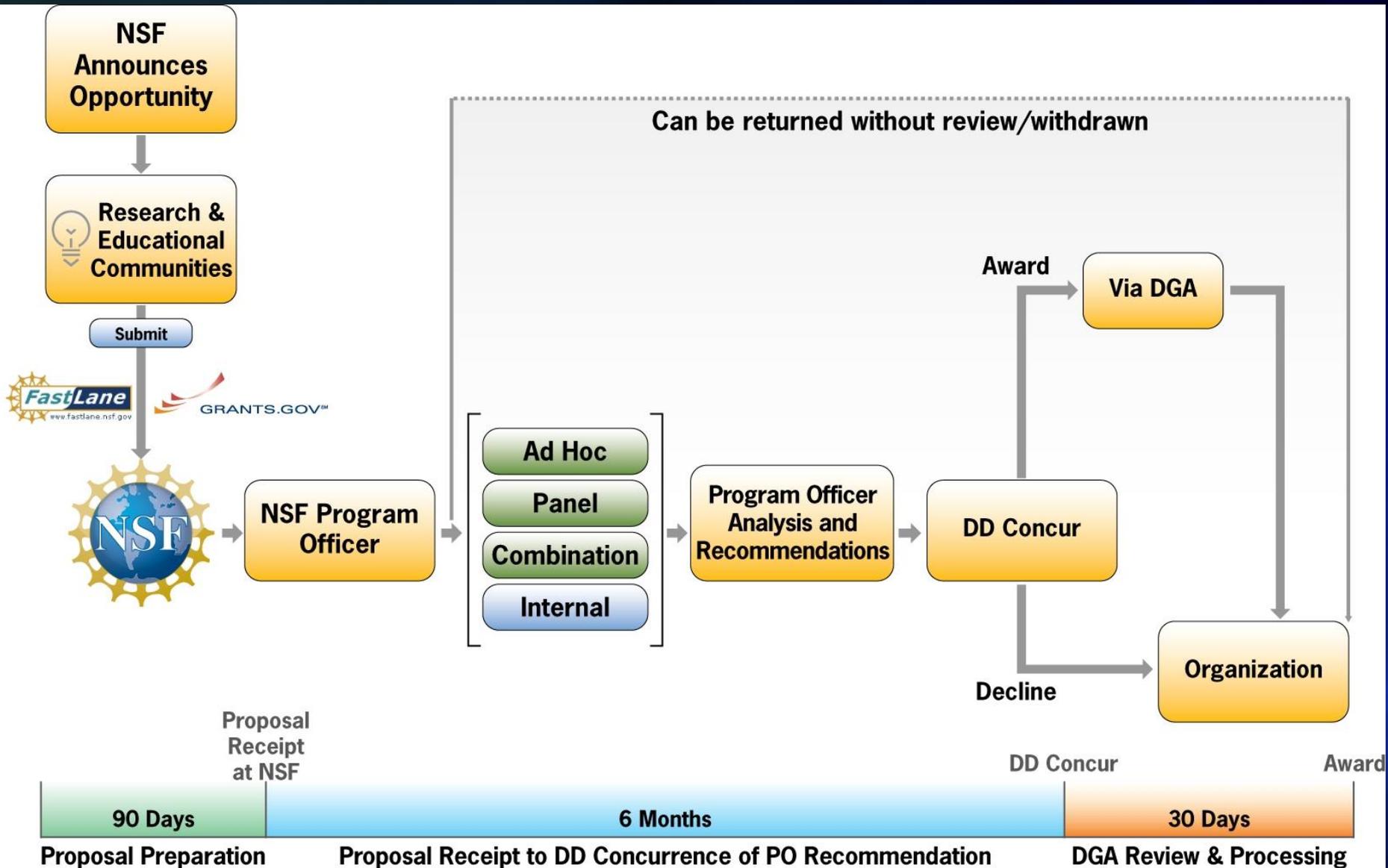
A proposer may be a Principal Investigator (PI) or co-PI on up to two proposals.

Proposal Preparation and Submission Instructions

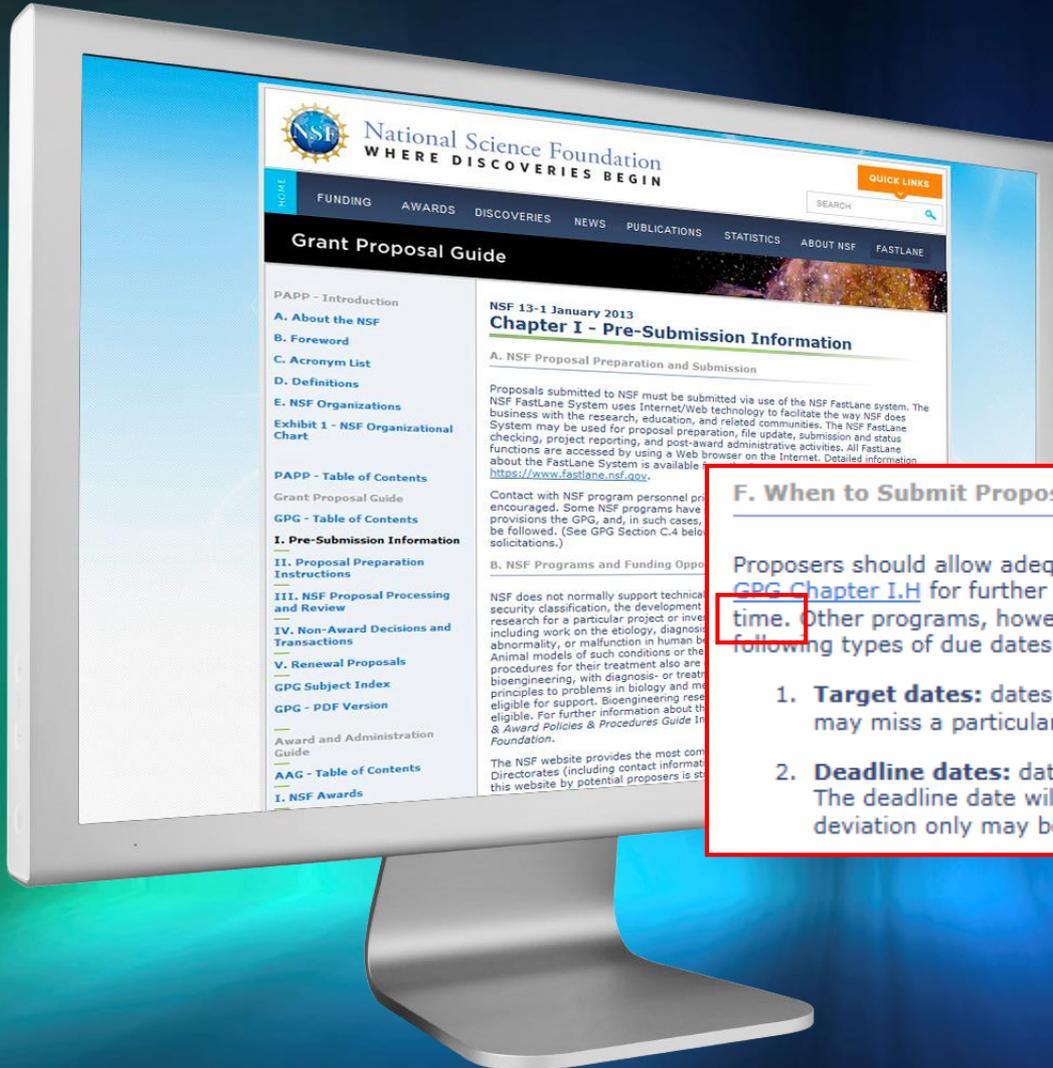
A. Proposal Preparation Instructions

- **Letters of Intent:** Not required
- **Preliminary Proposal Submission:** Not required
- **Full Proposals:**
 - Full Proposals submitted via FastLane: NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) Guidelines apply. The complete

NSF Proposal & Award Process Timeline



Types of Proposal Submissions



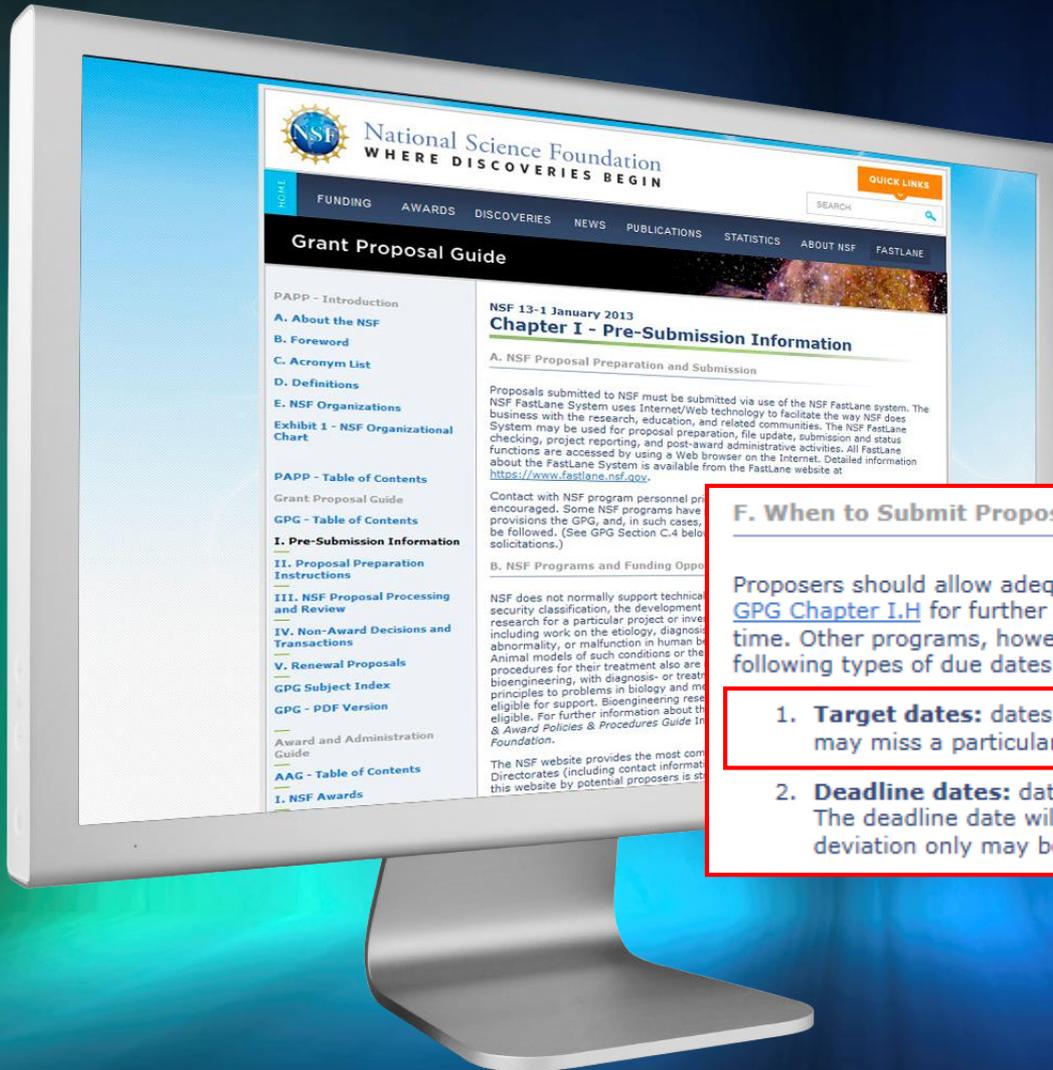
No Deadlines – Proposals may be submitted at any time

F. When to Submit Proposals

Proposers should allow adequate time for NSF review and processing of proposals (see [GPG Chapter I.H](#) for further information). Many NSF programs accept proposals at any time. Other programs, however, establish due dates for submission of proposals. The following types of due dates are utilized by NSF:

1. **Target dates:** dates after which proposals will still be accepted, although they may miss a particular panel or committee meeting.
2. **Deadline dates:** dates after which proposals be returned without review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation only may be authorized in accordance with [GPG Chapter II.A](#).

Types of Proposal Submissions



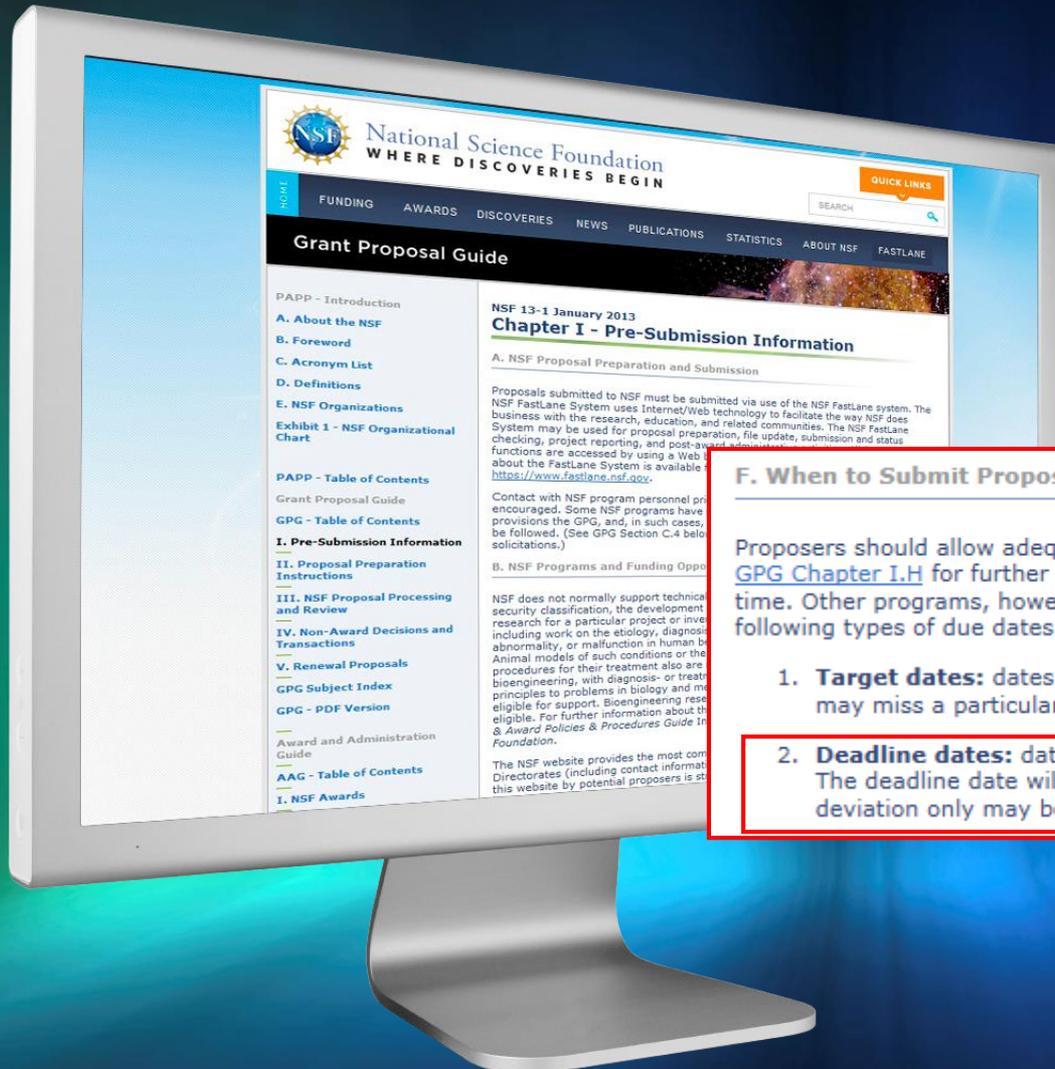
Target Dates –
Talk to the Program Office
if you think you might miss
the date

F. When to Submit Proposals

Proposers should allow adequate time for NSF review and processing of proposals (see [GPG Chapter I.H](#) for further information). Many NSF programs accept proposals at any time. Other programs, however, establish due dates for submission of proposals. The following types of due dates are utilized by NSF:

1. **Target dates:** dates after which proposals will still be accepted, although they may miss a particular panel or committee meeting.
2. **Deadline dates:** dates after which proposals be returned without review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation only may be authorized in accordance with [GPG Chapter II.A](#).

Types of Proposal Submissions



Deadline Dates –
Proposals will not be accepted after this date and time (5 pm submitter's local time)

F. When to Submit Proposals

Proposers should allow adequate time for NSF review and processing of proposals (see [GPG Chapter I.H](#) for further information). Many NSF programs accept proposals at any time. Other programs, however, establish due dates for submission of proposals. The following types of due dates are utilized by NSF:

1. **Target dates:** dates after which proposals will still be accepted, although they may miss a particular panel or committee meeting.
2. **Deadline dates:** dates after which proposals be returned without review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation only may be authorized in accordance with [GPG Chapter II.A](#).

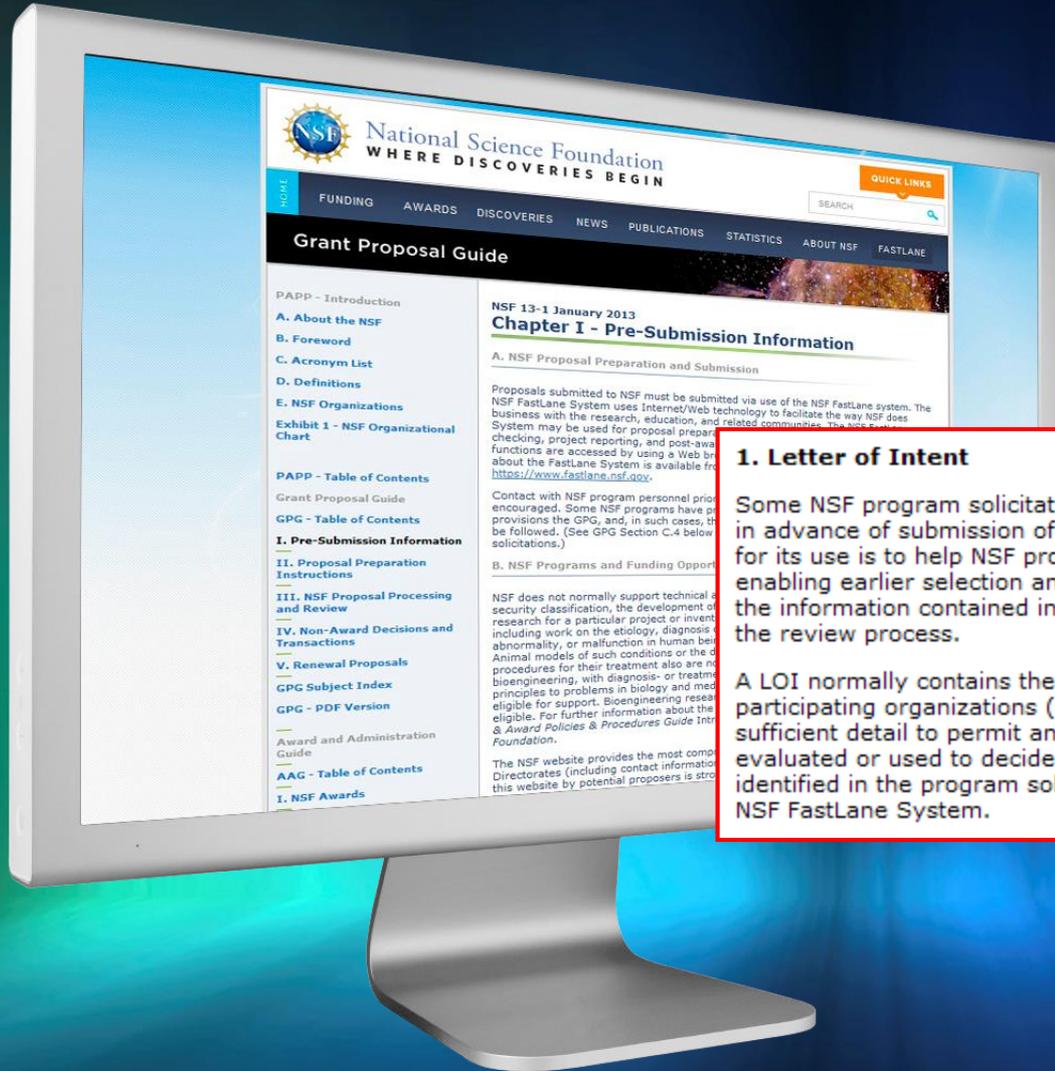
Types of Proposal Submissions



Submission Windows –
Closing date converts to a
deadline date

3. Submission windows: designated periods of time during which proposals will be accepted for review by NSF. It is NSF's policy that the end date of a submission window converts to, and is subject to, the same policies as a deadline date.

Types of Proposal Submissions



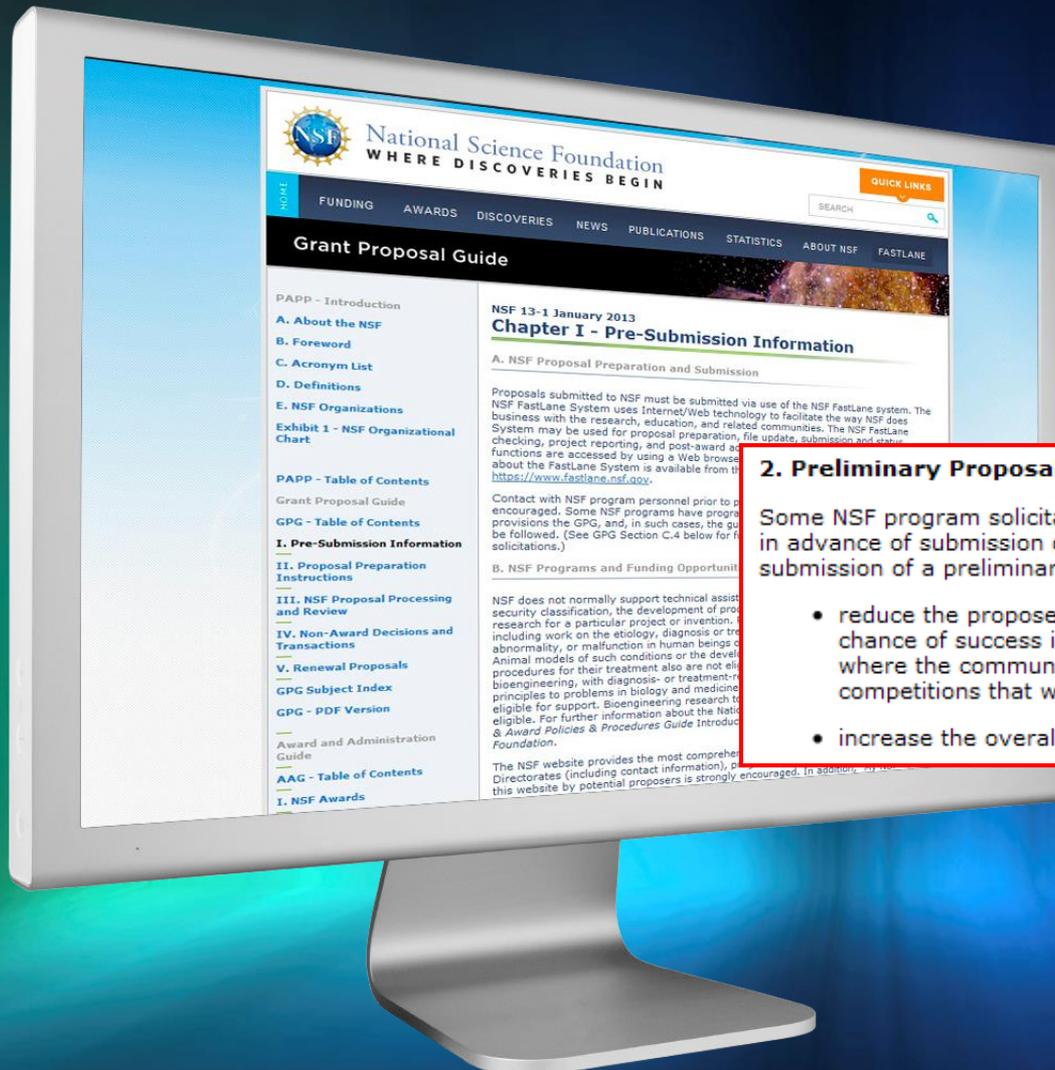
Letters of Intent –
Enables better management of reviewers and panelists

1. Letter of Intent

Some NSF program solicitations require or request submission of a letter of intent (LOI) in advance of submission of a full proposal. A LOI is not binding. The predominant reason for its use is to help NSF program staff to gauge the size and range of the competition, enabling earlier selection and better management of reviewers and panelists. In addition, the information contained in a LOI is used to help avoid potential conflicts of interest in the review process.

A LOI normally contains the PI's and co-PI's names, a proposed title, a list of possible participating organizations (if applicable), and a synopsis that describes the work in sufficient detail to permit an appropriate selection of reviewers. A LOI is not externally evaluated or used to decide on funding. The requirement to submit a LOI will be identified in the program solicitation, and such letters are submitted electronically via the NSF FastLane System.

Types of Proposal Submissions



Preliminary Proposals –
Sometimes required,
sometimes optional

2. Preliminary Proposal

Some NSF program solicitations require or request submission of a preliminary proposal in advance of submission of a full proposal. The two predominant reasons for requiring submission of a preliminary proposal are to:

- reduce the proposers' unnecessary effort in proposal preparation when the chance of success is very small. This is particularly true of exploratory initiatives where the community senses that a major new direction is being identified, or competitions that will result in a small number of actual awards; and
- increase the overall quality of the full submission.

Questions on Funding Opportunities?



Contact your NSF Program Officer

Work with your organization's
sponsored projects office

Ask Early, Ask Often
policy@nsf.gov





Things to Consider Before Applying...

Five Key Elements



1. Great idea
2. Fit with current research expertise and career development plans
3. Ability to devise a strategy including benchmarks, timelines, and metrics
4. Adequate resources to accomplish your project
5. Assessment Plan

Developing your Proposal

Key Questions for Prospective Investigators

- What has already been done?
- What do you intend to do?
- Why is the work important?
- How is the work unique or cutting edge?
- How are you going to do the work?
- Do you have the right team?

Proposal Development Strategies:

What Do You Need Besides \$???

- Prepare to do the project
 - Realistically assess needs
 - Determine available resources
 - Develop preliminary data
 - Present to colleagues/mentors/students
- Determine possible funding sources
(NSF may not be the right or the only one)



Proposal Development Strategies:

What details should you glean from the solicitation?



- Overall scope and mission
- Instructions (deviations from the GPG)
- How your proposed project fits with the solicitation
- Review procedures and criteria
- Deadlines

Proposal Development Strategies:

Who Should You Talk To? How Should You Contact Them?

NSF Program Officer

- Your proposed project
- Clarifications on specific program requirements/limitations
- Current program patterns

Your organization's sponsored projects office

- University guidelines for applications
- Institutional Review Board "IRB" Approvals
(IACUC approvals, etc.)



So You Want to Write a Proposal...

What to Look for in a Program Announcement or Solicitation

- **Goals**
- **Eligibility Requirements**
- **Special proposal preparation and/or award requirements**
- **Review Criteria**



Sample Cover Page of a Solicitation

Louis Stokes Alliances for Minority Participation (LSAMP)

PROGRAM SOLICITATION
NSF 12-564

REPLACES DOCUMENT(S):
NSF 11-543

 **National Science Foundation**
Directorate for Education & Human Resources
Division of Human Resource Development

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

- August 28, 2012
Bridge to the Doctorate
- October 05, 2012
First Friday in October, Annually Thereafter
Bridge to the Doctorate

**Program
Solicitation
Number**

**NSF Directorates
and Offices
providing funding
for this
opportunity**

Sample Cover Page of a Solicitation

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant or Cooperative Agreement

Estimated Number of Awards: 60



Up to 60 awards will be made across fiscal 2012 and 2013.

In FY 2012, up to 20 Bridge to the Doctorate (BD) grants will be made.

In FY2013, 20 Alliance grants (this includes 5 B2B), up to 15 Bridge to the Doctorate (BD) grants and up to 5 Broadening Participation Research (BPR) in STEM Education grants.

Anticipated Funding Amount: \$20,000,000



\$20,000,000 across fiscal years 2012 and 2013; Subject to the availability of funds.

**Expected number
of awards funded
by the program
per year**

**Expected funds
available to the
program per year**

Sample Cover Page of a Solicitation

Eligibility Information

Organization Limit:

Proposals may only be submitted by the following:

- Universities and Colleges - Universities and two- and four-year colleges (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Such organizations also are referred to as academic institutions.

PI Limit:

Alliance (including the B2B) and BD: To promote institutional commitments to increase the quality and quantity of under-represented minorities in STEM disciplines, the President or Provost of the lead institution should serve as the Principal Investigator. A full explanation should be provided for a PI designation in variance with this requirement. Co-principal investigators from partner institutions may be designated, as appropriate, for the project.

Broadening Participation Research in STEM Education: Eligible PI/co-PI(s) for proposals applying for educational research or evaluation support should be the individual conducting or responsible for the research or evaluation project. Other potential co-Principal Investigators include collaborators on the research project. At least one of the PI's must have experience in educational research.

Limit on Number of Proposals per Organization:

Alliances (including B2B) and BD: 1

Broadening Participation Research in STEM Education: No limit.

Limit on Number of Proposals per PI:

Alliances (including B2B): 1

Bridge to the Doctorate: 1

Broadening Participation Research in STEM Education: No limit

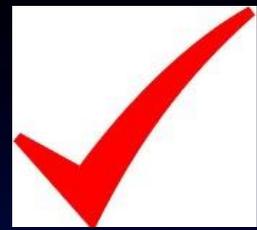
Eligibility
information for
institutions/PIs
submitting
proposals



Parts of a Proposal

NSF PROPOSAL INGREDIENTS

- Cover Page
- Project Summary (1 page)
- Table of Contents (auto-generated)
- Project Description (15 pages)
- References Cited
- Biographical Sketches (for all senior personnel)
- Budget
- Current and Pending Support
- Facilities, Equipment, and Other Resources
- Post-doctoral mentoring plan (if applicable)
- Data management plan
- Supplementary Documentation (if applicable)



Parts of an NSF Proposal

Cover Sheet

Many of the boxes on the cover sheet are electronically prefilled as part of the FastLane login process.

COVER SHEET FOR PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION					
PROGRAM ANNOUNCEMENT/SOLICITATION NO./CLOSING DATE (if not in response to a program announcement/solicitation enter NSF 14-1)					FOR NSF USE ONLY
NSF 14-1					NSF PROPOSAL NUMBER
FOR CONSIDERATION BY NSF ORGANIZATION UNIT(S) (indicate the most specific unit known, i.e. program, division, etc.)					1509402
PHY - ASTROPHYSICS & COSMOLOGY THEOR					
DATE RECEIVED	NUMBER OF COPIES	DIVISION ASSIGNED	FUND CODE	DUNS# (Data Universal Numbering System)	FILE LOCATION
11/03/2014	1	03010000 PHY	1288	084184116521	11/03/2014 8:29pm
EMPLOYER IDENTIFICATION NUMBER (EIN) OR TAXPAYER IDENTIFICATION NUMBER (TIN)		SHOW PREVIOUS AWARD NO. IF THIS IS <input type="checkbox"/> A RENEWAL <input type="checkbox"/> AN ACCOMPLISHMENT-BASED RENEWAL		IS THIS PROPOSAL BEING SUBMITTED TO ANOTHER FEDERAL AGENCY? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> IF YES, LIST ACRONYM(S)	
NAME OF ORGANIZATION TO WHICH AWARD SHOULD BE MADE NSF			ADDRESS OF AWARDEE ORGANIZATION, INCLUDING 9 DIGIT ZIP CODE Arlington, VA 222000000		
AWARDEE ORGANIZATION CODE (IF KNOWN) 4102852000			US		
NAME OF PRIMARY PLACE OF PERF			ADDRESS OF PRIMARY PLACE OF PERF, INCLUDING 9 DIGIT ZIP CODE		
IS AWARDEE ORGANIZATION (Check All That Apply) (See GPG II.C For Definitions)					
<input type="checkbox"/> SMALL BUSINESS		<input type="checkbox"/> MINORITY BUSINESS		<input type="checkbox"/> IF THIS IS A PRELIMINARY PROPOSAL THEN CHECK HERE	
<input type="checkbox"/> FOR-PROFIT ORGANIZATION		<input type="checkbox"/> WOMAN-OWNED BUSINESS			
TITLE OF PROPOSED PROJECT International Conference Cosmical Magnetic Fields					
REQUESTED AMOUNT	PROPOSED DURATION (1-60 MONTHS)	REQUESTED STARTING DATE	SHOW RELATED PRELIMINARY PROPOSAL NO. IF APPLICABLE		
\$ 30,000	0 months				
THIS PROPOSAL INCLUDES ANY OF THE ITEMS LISTED BELOW					
<input type="checkbox"/> BEGINNING INVESTIGATOR (GPG I.G.2)					
<input type="checkbox"/> DISCLOSURE OF LOBBYING ACTIVITIES (GPG II.C.1.e)					
<input type="checkbox"/> PROPRIETARY & PRIVILEGED INFORMATION (GPG I.D., II.C.1.d)					
<input type="checkbox"/> HISTORIC PLACES (GPG II.C.2.j)					
<input type="checkbox"/> VERTEBRATE ANIMALS (GPG II.D.6) IACUC App. Date _____					
PHS Animal Welfare Assurance Number _____					
<input checked="" type="checkbox"/> FUNDING MECHANISM Conference, Symposium, Workshop					
<input type="checkbox"/> HUMAN SUBJECTS (GPG II.D.7) Human Subjects Assurance Number _____			Exemption Subsection _____ or IRB App. Date _____		
<input type="checkbox"/> INTERNATIONAL ACTIVITIES: COUNTRY/COUNTRIES INVOLVED (GPG II.C.2.i)					
<input checked="" type="checkbox"/> COLLABORATIVE STATUS Not a collaborative proposal					
PI/ID DEPARTMENT Physics		PI/ID POSTAL ADDRESS 4201 WILSON BLVD			
PI/ID FAX NUMBER		ARLINGTON, VA 222300000			
		United States			
NAMES (TYPED)	High Degree	Yr of Degree	Telephone Number	Email Address	
PI/ID NAME Terry Demo	DSc	1999	703-292-9000	td@nsf.gov	
CO-PI/ID					

Parts of an NSF Proposal

Project Summary Requirements:

Overview

Statement on Intellectual Merit

Statement of Broader Impacts

Special characters (e.g., formulas) may be uploaded as a PDF

Project Description Addresses:

What you want to do

Why you want to do it

How you plan to do it

How you measure success

What are the benefits

Results from prior NSF support



Parts of an NSF Proposal

A separate section,
Broader Impacts of the Proposal Work,
must be completed



Budgetary Guidelines

Amounts should be:

- Realistic and reasonable
- Well-justified and should establish need
- Consistent w/program guidelines in solicitation, GPG, and in Award and Administration Guide (AAG)

Eligible costs consist of:

- Personnel
- Equipment
- Travel
- Participant support
- Other (e.g., subawards, consultant and computer services, publications costs)
- Indirect costs (as appropriate)



NSF Cost Sharing Policy

Inclusion of *voluntary committed* cost sharing is prohibited in the budget of solicited & unsolicited proposals.

Organizations may, at their own discretion, continue to contribute voluntary uncommitted cost sharing to NSF-sponsored projects as part of the section for Facilities, Equipment, and Other Resources.



Sections of an NSF Proposal

Facilities, Equipment, and Other Resources

Used to assess the adequacy of the organizational resources available to perform the effort proposed. Should not contain quantifiable financial information.

Current and Pending Support

This section of the proposal requires reporting on all current and pending support for ongoing projects and proposals from any funding source.



Special Information and Supplementary Documentation

Letters of support versus letters of commitment

Postdoctoral mentoring plans

Data management plans

You should alert NSF officials to unusual circumstances that require special handling (i.e. proprietary information)

Solicitations may specify what is and is not allowed to be submitted



Mentoring for Postdoctoral Researchers

- **Explicit description of the mentoring activities**
- **Must include a mentoring plan as a supplementary document (maximum one-page)**
- **For collaborative proposals, lead organization must submit a single mentoring plan for all postdoctoral researchers supported under the entire project.**



Data Management Plan Requirements

Requirements by Directorate, Office, Division, Program, or other NSF Unit

Links to data management requirements and plans relevant to specific Directorates, Offices, Divisions, Programs, or other NSF units, are provided below. If guidance specific to the program is not provided, then the requirements established in [Grant Proposal Guide, Chapter II.C.2.j](#) apply.

Please note that if a specific program solicitation provides guidance on preparation of data management plans, such guidance must be followed.

- Engineering Directorate (ENG)
 - [Directorate-wide Guidance](#)

- Geological Sciences Directorate (GEO)
 - [Division of Earth Sciences](#)
 - [Integrated Ocean Drilling Program](#)
 - [Division of Ocean Sciences](#)

- Mathematical and Physical Sciences Directorate (MPS)
 - [Division of Astronomical Sciences](#)
 - [Division of Chemistry](#)
 - [Division of Materials Research](#)
 - [Division of Mathematical Sciences](#)
 - [Division of Physics](#)

- Social, Behavioral and Economic Sciences Directorate (SBE)
 - [Directorate-wide Guidance](#)

[Data Management & Sharing Frequently Asked Questions \(FAQs\)](#) - updated November 30, 2010

Requirements
may vary by
Directorate or
Office

nsf.gov/bfa/dias/policy/dmp.jsp

Questions?



Crosscutting & NSF-wide Opportunities



What Is meant by crosscutting?

Sponsored by >1 NSF unit....

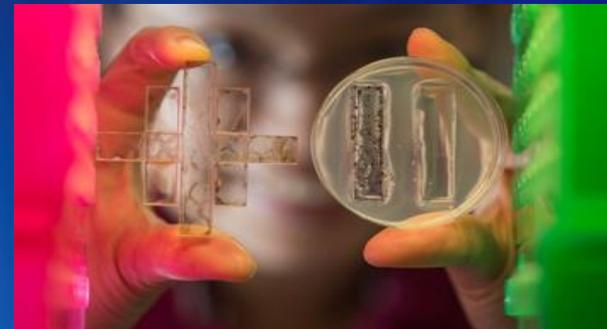
Cuts across NSF in different ways...

Collaborative with other
U.S. government agencies...



Types of Crosscutting Activities

- International
- Interdisciplinary research – theme-based (e.g., Designing Materials, Hazards and Disasters)
- People-oriented (e.g., ADVANCE, CAREER, REU, Work-Life Balance)
- Infrastructure (e.g., MRI)
- Translational (ICorps, SBIR)
- Institutional, Centers (e.g., IUCRC, STC)



Find Funding for NSFwide and Crosscutting Opportunities

Go to: www.nsf.gov/funding/pgm.list.jsp?type=xcut

National Science Foundation
WHERE DISCOVERIES BEGIN

QUICK LINKS

SEARCH

HOME FUNDING AWARDS DISCOVERIES NEWS PUBLICATIONS STATISTICS ABOUT NSF FASTLANE

Funding

Find Funding
A-Z Index of Funding Opportunities
Recent Funding Opportunities
Upcoming Due Dates
Advanced Funding Search
Interdisciplinary Research
How to Prepare Your Proposal
About Funding

Proposals and Awards
Proposal and Award Policies and Procedures Guide
Introduction
Proposal Preparation and Submission
• Grant Proposal Guide
• Grants.gov Application Guide
Award and Administration
• Award and Administration Guide
Award Conditions
Other Types of Proposals
Merit Review
NSF Outreach

Email Print Share

Crosscutting and NSF-wide Active Funding Opportunities

This site provides program information for activities sponsored by more than one NSF organization. In addition, all NSF organizations accept proposals that cut across organizational and programmatic boundaries. We suggest that those seeking support for interdisciplinary work not described here consult the NSF program site(s) closest to the science, engineering or education focus of the planned work and contact relevant program officers to discuss submission of a proposal.

Org: Status:

Get Crosscutting Program Announcements & Info Updates by Email | RSS

Sorted by Title. Click column headings to sort.

Key: Crosscutting | NSF-wide | Grants.gov submission required

Title	Program Guidelines	Due Dates
Academic Research Infrastructure Program: Recovery and Reinvestment (ARI-R2)	09-562	Current but no longer receiving proposals
ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers	14-573	Letter of Intent: August 11, 2014 Letter of Intent: August 20, 2014 Full Proposal: September 22, 2014 Full Proposal: October 3, 2014
Algorithms for Threat Detection (ATD)	12-502	Waiting for new publication

Historically Black Colleges and Universities Undergraduate Program (HBCU-UP)



Committed to enhancing the quality of undergraduate STEM education and research at HBCUs in order to broaden participation in the nation's STEM workforce and STEM graduate programs

HBCU - UP

HBCU-UP makes awards in the following tracks:

**Research Initiation
Awards**

< 3 years, < \$300K

**Broadening Participation
Research Projects**

< 3 years, < \$350K

< 3 years, < \$350K



HBCU - UP



PROJECT

DURATION

AMOUNT

Targeted Infusion

≤ 3 years

< \$400 K

Implementation
Achieving Competitive
Excellence (ACE)
Implementation

≤ 5 years

< \$2 million

≤ 5 years

< \$3 million

New:

Broadening Participation
Research Centers

≤ 5 years

< \$9 million

RAPID/ EAGER

Grants for Rapid Response Research (RAPID)

Severe Urgency

Up to \$200K/one year

Brief project description

Internal review



EARly-concept Grants for Exploratory Research (EAGER)

Potentially transformative

Up to \$300K/one year

"High risk-high payoff"

Internal review

Rare but occasional external review

NSF Research Traineeship (NRT) Program

Encouraging the development and implementation of bold, new, potentially transformative, and scalable models for STEM graduate training

Traineeship Track

\$3,000,000 for up to 5 years



Innovations in Graduate Education (IGE) Track

\$300,000 - \$500,000 for 2-3 years



Application Deadline : 5/6/2015

ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers

Goals:

Systemic approaches to increase the representation and advancement of women in academic STEM careers.

Contribute to and inform the general knowledge base on gender equity in the academic STEM disciplines.



ADVANCE: Three types of awards



Institutional Transformation

Letter of Intent Date: November 5, 2015

Full Proposal Due: January , 2016

Institutional Transformation Catalyst

Partnership for Learning and Adaptation Networks

Graduate Research Fellowship Program



Goals:

- Select, recognize, and financially support early in their careers individuals with the demonstrated potential to be high achieving scientists and engineers
- Broaden participation in science and engineering of underrepresented groups, including women, minorities, persons with disabilities, and veterans





5 Year Award = \$138,000

\$34,000/year for 3 years +

+

**\$12,000 Educational allowance
to institution**

Professional Development Opportunities:

GROW: International Research

GRIP: Internships

Supercomputer access: XSEDE

Career Life Balance (family leave)





RESOURCES:

Solicitation and links

www.nsf.gov/grfp

NSF GRFP FastLane Website

www.fastlane.nsf.gov/grfp

Application, guides, announcements

GRFP Website, www.nsfgrfp.org

Current & former Fellows

866-NSF-GRFP, info@nsfgrfp.org



Major Research Instrumentation (MRI)

Goals:

- Support acquisition of major state-of-the-art instrumentation
- Foster development of the next generation of major instrumentation
- Integrate research with education
- Use, advance, expand the nation's cyber-infrastructure and/or high performance computing capability
- Promote academic & private sector instrument development partnerships

The screenshot displays the NSF website's 'Major Research Instrumentation Program (MRI)' page. The header includes the NSF logo and the tagline 'WHERE DISCOVERIES BEGIN'. A search bar and 'QUICK LINKS' button are in the top right. A navigation menu lists 'HOME', 'FUNDING', 'AWARDS', 'DISCOVERIES', 'NEWS', 'PUBLICATIONS', 'STATISTICS', 'ABOUT NSF', and 'FASTLANE'. The main content area features a 'Funding' section with a search bar and social media icons. Below this, there are sections for 'MRI ANNOUNCEMENTS', 'FREQUENTLY ASKED QUESTIONS POSTED', and 'CONTACTS'. A table lists contact information for Dr. Randy L. Phelps, including his email (mri@nsf.gov), phone number (703) 292-8040, and room number. The page also includes a 'PROGRAM GUIDELINES' section with a link to Solicitation 13-517 and an 'Important Notice to Proposers' regarding a revised version of the NSF Proposal & Award Policies & Procedures Guide (PAPPG), NSF 13-1, issued on October 4, 2012.

National Science Foundation
WHERE DISCOVERIES BEGIN

SEARCH

QUICK LINKS

HOME FUNDING AWARDS DISCOVERIES NEWS PUBLICATIONS STATISTICS ABOUT NSF FASTLANE

Funding

Find Funding
A-Z Index of Funding Opportunities
Recent Funding Opportunities
Upcoming Due Dates
Advanced Funding Search
Interdisciplinary Research
How to Prepare Your Proposal
About Funding

Proposals and Awards
Proposal and Award Policies and Procedures Guide
Introduction
Proposal Preparation and Submission
• Grant Proposal Guide
• Grants.gov Application Guide
Award and Administration
• Award and Administration Guide
Award Conditions
Other Types of Proposals
Merit Review
NSF Outreach

NSF-wide
Major Research Instrumentation Program (MRI)

MRI ANNOUNCEMENTS

FREQUENTLY ASKED QUESTIONS POSTED
FAQs have been added for MRI Solicitation 11-503. To view the FAQs page click [here](#).

CONTACTS

Name	Email	Phone	Room
Dr. Randy L. Phelps	mri@nsf.gov	(703) 292-8040	

Additional contact information for NSF's Major Research Instrumentation Program is as follows:
Office of Integrative Activities
Major Research Instrumentation Program
National Science Foundation, Room 935
4201 Wilson Boulevard
Arlington, VA 22230
(703) 292-8040
E-Mail: mri@nsf.gov
Website: <http://www.nsf.gov/od/oia/programs/mri>

PROGRAM GUIDELINES
Solicitation [13-517](#)

Important Notice to Proposers
A revised version of the NSF Proposal & Award Policies & Procedures Guide (PAPPG), **NSF 13-1**, was issued on October 4, 2012 and is effective for proposals submitted, or due, on or after January 14, 2013. Please be advised that, depending on the specified due date, the guidelines contained in **NSF 13-1** may apply to proposals submitted in response to this funding opportunity.

Support for Undergraduates

RUI, ROA for PUIs



RUIs and ROAs support research by faculty members at PUIs.

PUIs = accredited institutions that award Associate's, Bachelor's, and/or Master's degrees but have not awarded > 20 Ph.D./D.Sci. degrees in all NSF-supported fields during the combined previous two academic years.

ALL NSF directorates evaluate and fund RUIs and ROAs

They are funded within R & E program allocations

Research Experiences for Undergraduates

REU Goals:

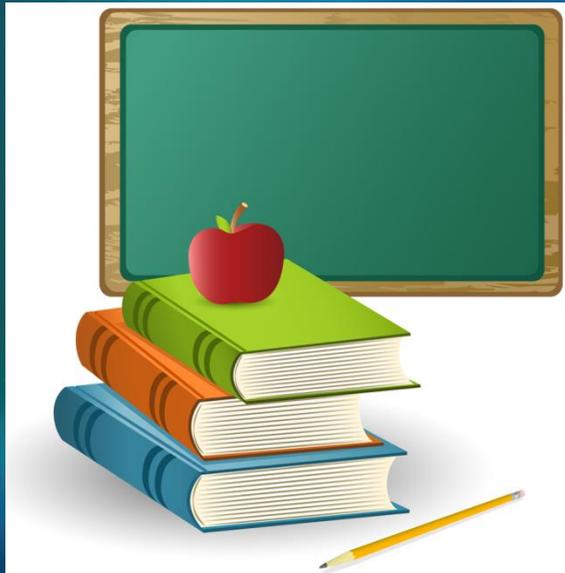
- Initiate and conduct projects that engage a number of undergraduate students in research.
- Involve in research students who might not otherwise have the opportunity, particularly those from academic institutions where research programs are limited.

The screenshot displays the NSF website's interface for the Research Experiences for Undergraduates (REU) program. At the top, the NSF logo and tagline "WHERE DISCOVERIES BEGIN" are visible, along with a search bar and a "QUICK LINKS" button. The navigation menu includes "HOME", "FUNDING", "AWARDS", "DISCOVERIES", "NEWS", "PUBLICATIONS", "STATISTICS", "ABOUT NSF", and "FASTLANE". The main content area features a "Funding" sidebar with links like "Find Funding", "A-Z Index of Funding Opportunities", and "Recent Funding Opportunities". The central text area is titled "NSF-wide Research Experiences for Undergraduates (REU)" and includes a "NOTE ON THE PROPOSAL DEADLINE FOR REU SITES" section. This note states: "Two due dates are listed for REU Site proposals each year. The May deadline applies only to REU Site proposals that require access to Antarctica, which must be submitted to one of the Antarctic Sciences Division (ANT) research programs in the Office of Polar Programs (OPP). The fall deadline (which is September 12 in 2012, and the fourth Wednesday in August in 2013 and beyond) applies to all other REU Site proposals." Below this, there are sections for "CONTACTS" (with a link to "NSF REU Site Contacts"), "PROGRAM GUIDELINES", and "DUE DATES". The "DUE DATES" section lists two deadlines: "Full Proposal Deadline Date: August 27, 2014" and "Full Proposal Deadline Date: May 22, 2015", with detailed instructions for each regarding access to Antarctica and submission dates.

Research Experiences for Teachers

RET Goals:

Enable K-12 teachers and community college faculty to engage in STEM research and then adapt knowledge into their teaching



- RET Sites and Supplements
- May be included in REU proposals
- Check Directorates for specific mechanisms

Questions?



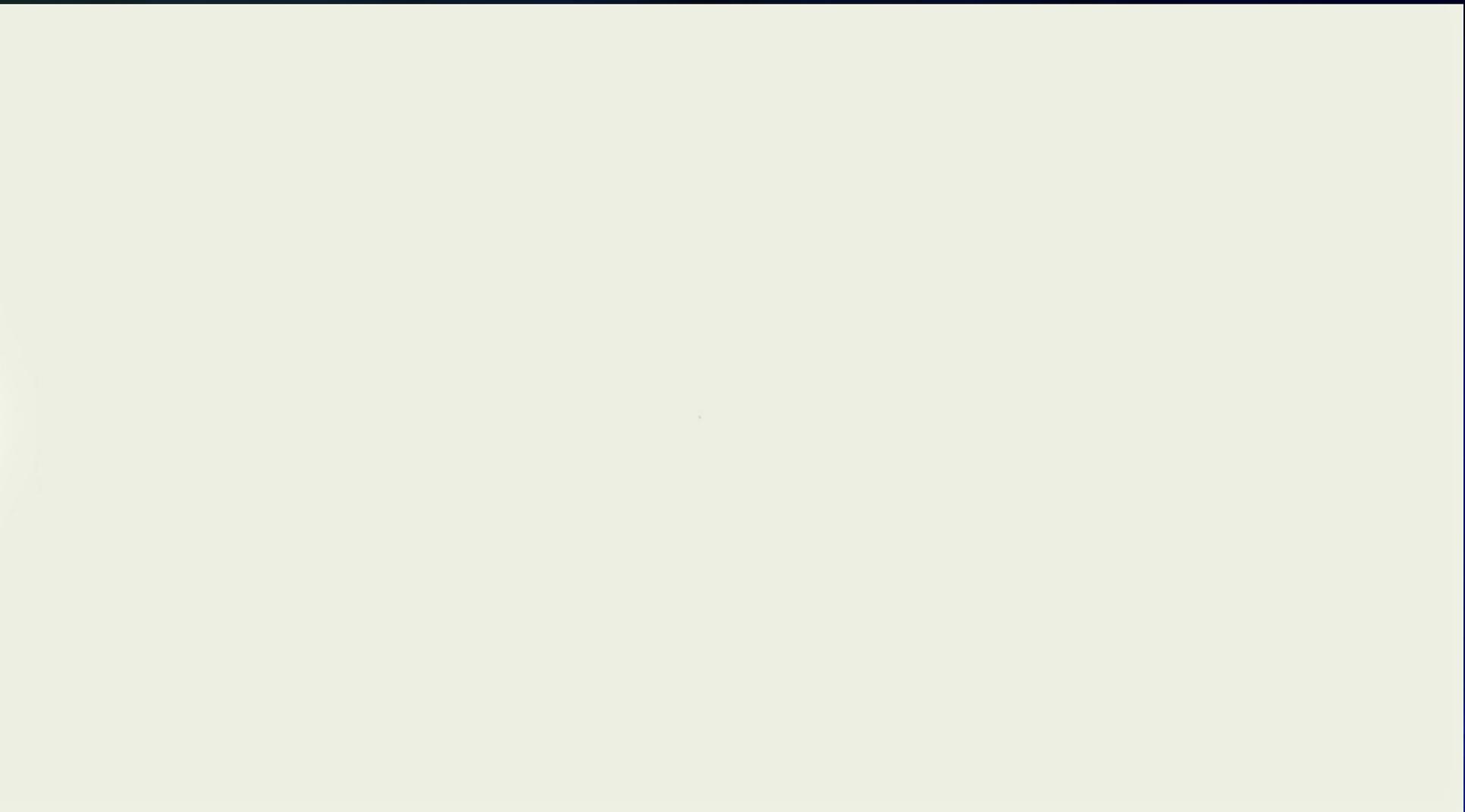
Lunch



The Merit Review Process



Video



NSF's Proposal & Award Process Timeline

Black Box?

MERIT REVIEW CRITERIA

Intellectual Merit:

the potential to advance knowledge

Broader Impacts:

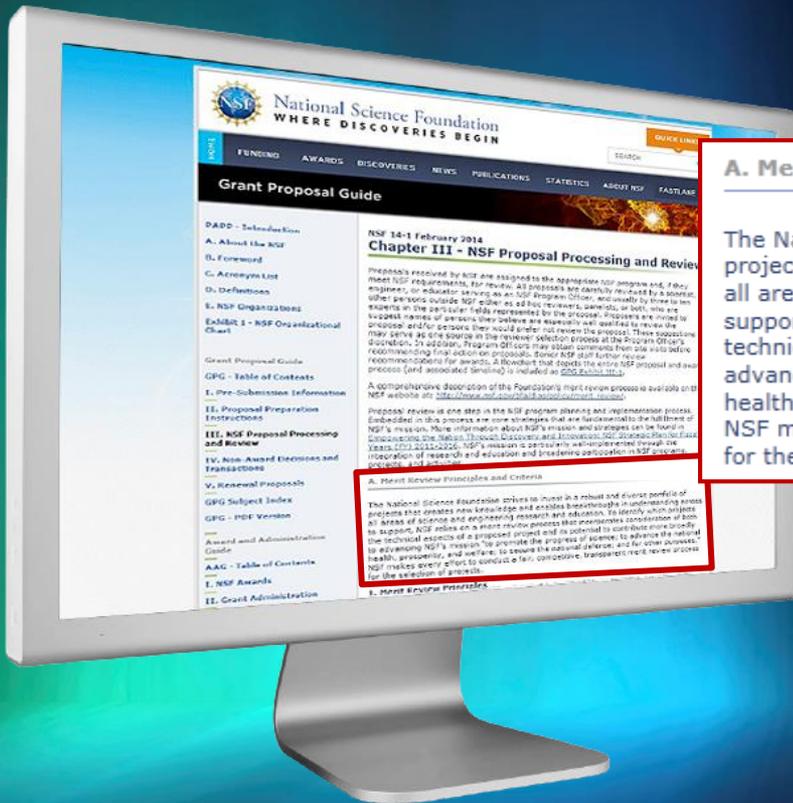
the potential to benefit society and contribute to the achievement of specific, desired societal outcomes

When Preparing Proposals

- Read the funding opportunity; ask a Program Officer for clarifications if needed
- Address all the proposal review criteria
- Understand the NSF merit review process
- Avoid omissions and mistakes
- Check your proposal to verify that it is complete!
- Double Check that the proposal NSF receives is the one you intended to send

Merit Review Guiding Principles & Criteria

The Grant Proposal Guide (GPG) contains a description of the Merit Review Criteria



A. Merit Review Principles and Criteria

The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

A. Merit Review Principles and Criteria

The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

Review Format in FastLane

- Reviewers provide feedback to NSF based on the Review Criteria and the Review Elements
- Review Criteria and Elements are available as reviewers provide feedback

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to
 - a. advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
 - b. benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or institution to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home institution or through collaborations) to carry out the proposed activities?

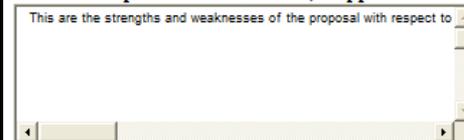
In the context of the five review elements, please evaluate the strengths and weaknesses of the proposal with respect to intellectual merit.

A large, empty rectangular text box with a light beige background and a thin border. It has a scroll bar on the right side, indicating it is a multi-line text area.

In the context of the five review elements, please evaluate the strengths and weaknesses of the proposal with respect to broader impacts.

A rectangular text box with a light beige background and a thin border. It contains the text "r impacts." at the top left. It has a scroll bar on the right side.

Please evaluate the strengths and weaknesses of the proposal with respect to any additional solicitation-specific review criteria, if applicable.

A rectangular text box with a light beige background and a thin border. It contains the text "This are the strengths and weaknesses of the proposal with respect to" at the top left. It has a scroll bar on the right side.

Over 2,000 proposals were RWR in FY 2014

6 most common reasons why

1. Not responsive to the GPG or program announcement/solicitation (960)
2. Does not meet an announced proposal deadline date and time (171)
3. It is inappropriate for NSF funding (74)
4. Duplicative or substantially similar to a proposal already under consideration (66)
5. Not substantively revised from a proposal that was previously reviewed and declined (37)
6. Duplicates another proposal that was already awarded (24)



Types of Reviews

- Ad Hoc
 - Proposals are sent out for review
- Panel
 - Face-to-Face sessions conducted with reviewers. Held at NSF, or virtually via assistive technologies such as WebEx or BlueJeans
- Combination
 - Some proposals may undergo supplemental ad hoc reviews before or after a panel review
- Internal
 - Reviewed by NSF Program Officers



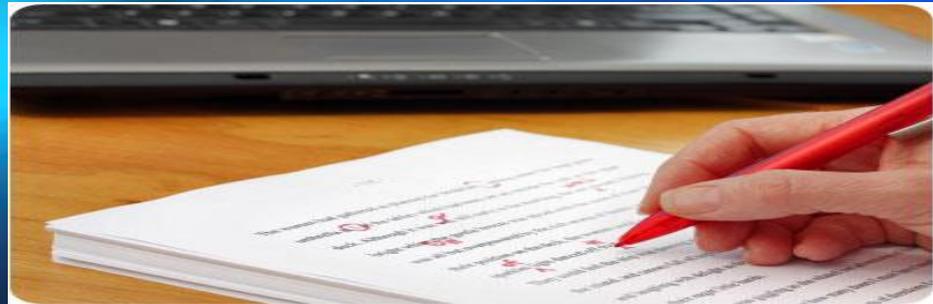
How are Reviewers Selected?

- **Three or more external reviewers per proposal are selected**
- **Types of Reviewers Recruited**
 - Specific content expertise
 - General science or education expertise
- **Sources of Reviewers**
 - Former reviewers
 - Program Officer's knowledge of the research area
 - References listed in proposal
 - Recent professional society programs
 - S&E journal articles related to the proposal
 - Reviewer recommendations included in proposal



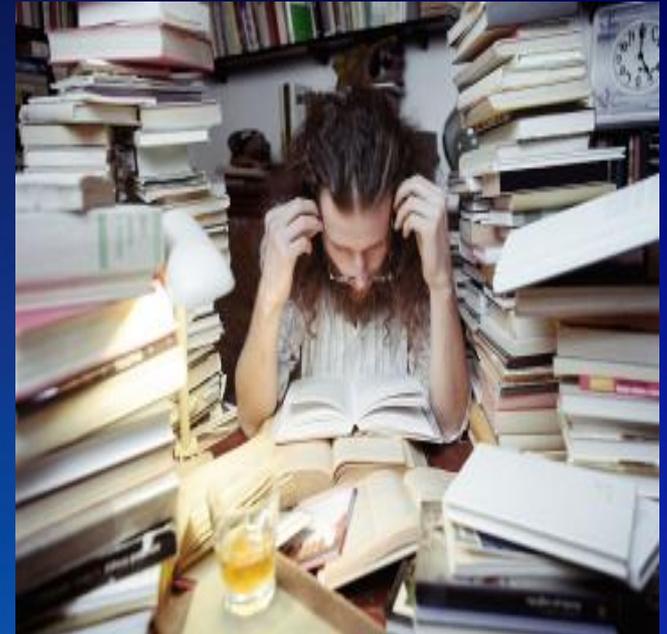
What is the Role of the Reviewer?

- **Review all proposal material and consider**
 - The two NSF merit review criteria and any program specific criteria
 - Adequacy of the proposed project plan- including the budget, resources, and timeline
 - Priorities of the scientific field and of the NSF program
 - Potential risks and benefits of the project
- **Make independent written comments on the quality of the proposal content**



What is the Role of the Review Panel?

- Discuss the merits of the proposal with the other panelists with the other panelists
- Write a summary based on that discussion
- Provide some indication of the relative merits of different proposals considered



Why Serve on an NSF Panel?

- Gain first-hand knowledge of the merit review process
- Learn about common problems with proposals



- Discover proposal writing strategies
- Meet colleagues and NSF Program Officers managing the programs related to your research

How Do I Become a Reviewer?

Contact the NSF Program Officer(s) of the program(s) that fit your expertise

- Introduce yourself as a strong potential reviewer based on your research experience
- Offer to send a 2-page CV with current contact information
- Stay in touch if you don't hear back right away



Conflicts of Interest (COI)

What is a COI?

How we address conflict of interest

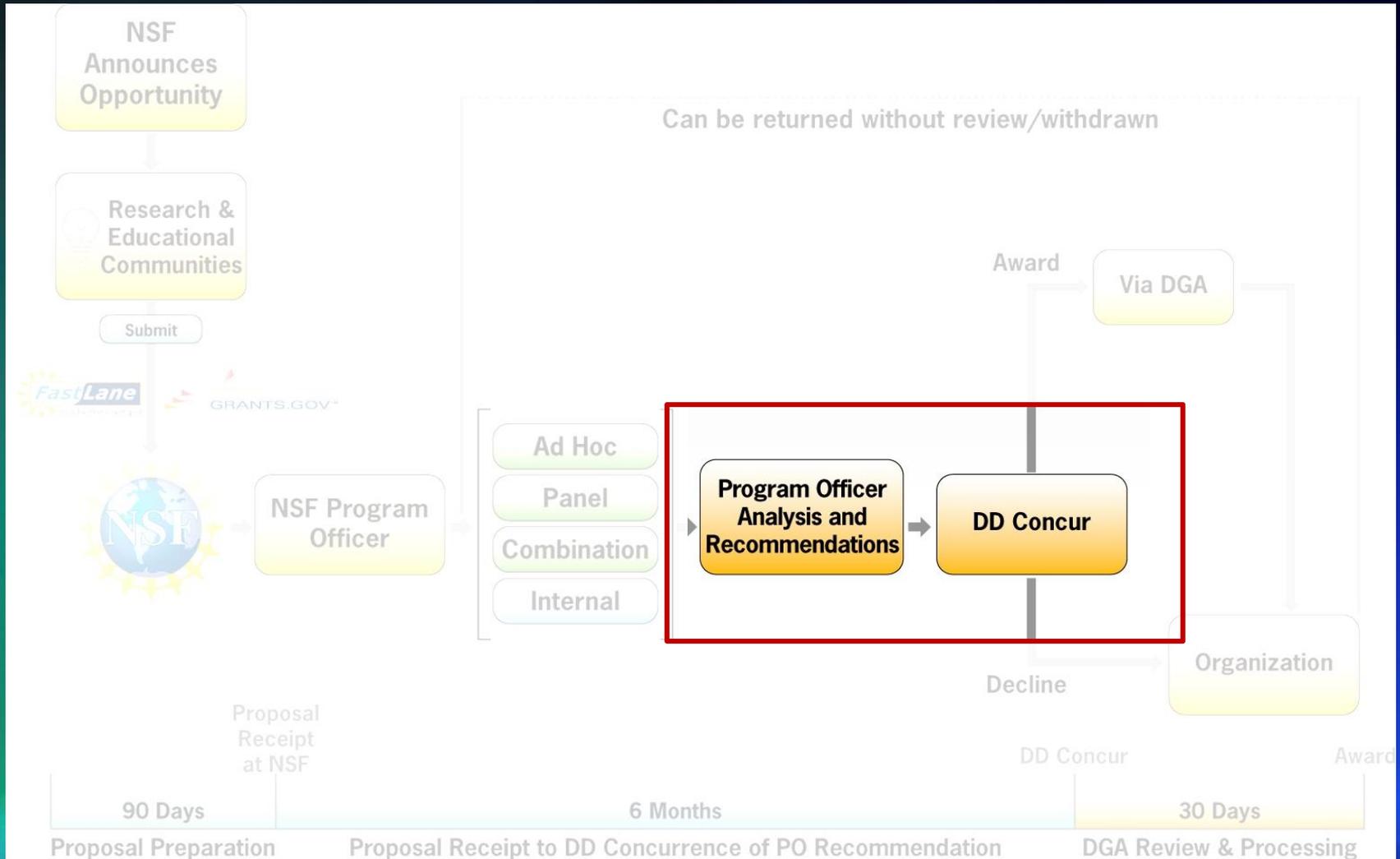
NSF checks and avoids COIs in the review process

Institutional COIs

Personal COIs



Proposal Review and Processing



Funding Decisions

Reviews are Advisory to NSF

- **The merit review process provides:**
 - Review of the proposal and a recommendation on funding.
 - Feedback (strengths and weaknesses) to the proposers.
- **NSF Program Officers make funding recommendations guided by program goals and portfolio considerations.**
- **NSF Division Directors either concur or reject the Program Officers' funding recommendations.**

Feedback from Merit Review

- Reviewer ratings (such as: E, V, G, F, P)
- Analysis of how well proposal addresses both review criteria: Intellectual Merit and Broader Impacts
- Proposal strengths and weaknesses
- Reasons for decline (if applicable)
- If you have any questions, contact the cognizant Program Officer.



Examples of Reasons for Declines

- **Not considered competitive based on merit review criteria and program office concurrence**
- **Flaws or issues identified by the Program Officer**
- **Funds were not adequate to fund all competitive proposals**



Revisions and Resubmissions

- Do the reviewers and the NSF Program Officer identify significant strengths in your proposal?
- Can you address the identified weaknesses?
- Can the proposal be **significantly** revised?
- Are there other ways your colleagues or you think a resubmission can be strengthened?



Questions?

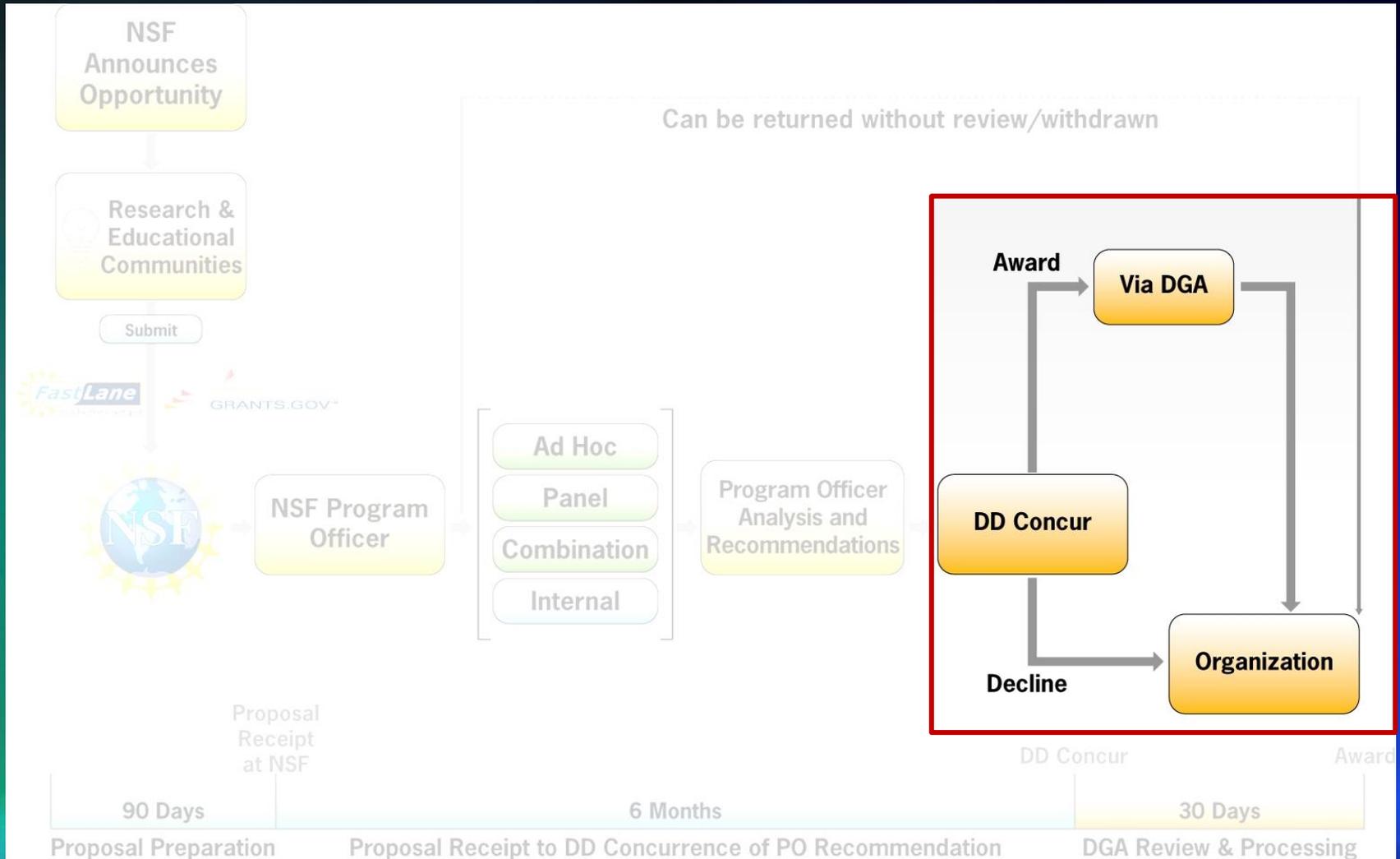
Contact your cognizant Program Officer!

Possible Considerations for Funding a Competitive Proposal

- Addresses all review criteria
- Likely high impact
- Broadening participation
- Educational impact
- Impact on institution/state
- Special programmatic considerations (e.g. CAREER/RUI/EPSCoR)
- Other support for PI
- “Launching” versus “Maintaining”
- Portfolio balance



Proposal Review and Processing



For More Information

Go to NSF's Home Page (<http://www.nsf.gov>)

HOME FUNDING AWARDS DISCOVERIES NEWS PUBLICATIONS STATISTICS ABOUT NSF FASTLANE

Merit Review

Merit Review Home

NOTICE: Effective January 14, 2013, the National Science Foundation implemented revised merit review criteria based on the National Science Board (NSB) report, National Science Foundation's Merit Review Criteria: Review and Revisions. While the two merit review criteria remain unchanged (Intellectual Merit and Broader Impacts), guidance has been provided to clarify and improve the function of the criteria. Revisions based on the NSB report have been incorporated into the Foundation's policies and procedures manuals, websites, and systems. Proposers should familiarize themselves with the Merit Review Principles and Criteria described in [GPG Chapter III.A](#). For comprehensive outreach and training materials visit the [Revised Merit Review Criteria Resource site](#).

Phase I: Proposal Preparation and Submission

Phase II: Proposal Review and Processing

Phase III: Award Processing

Non-Award Decisions and Transactions

Merit Review Facts

Why You Should Volunteer to Serve as an NSF Reviewer

Additional Resources

Contact Us

Proposals and Awards

Proposal and Award Policies and Procedures Guide

Introduction

Proposal Preparation and Submission

- Grant Proposal Guide
- Grants.gov Application Guide
- Award and Administration
- Award and Administration Guide

Award Conditions

Other Types of Proposals

PHASE I

An overview of the text in the

Download a p

Through its merit review process, the National Science Foundation (NSF) ensures that proposals submitted are reviewed in a fair, competitive, transparent, and in-depth manner. The merit review process is described in detail in Part I of the NSF [Proposal & Award Policies & Procedures Guide \(PAPPG\)](#); the [Grant Proposal Guide \(GPG\)](#). The GPG provides guidance for the preparation and submission of proposals to NSF.

The goal of this Merit Review website is to help you better understand the NSF merit review process as well as identify resources for additional information (including applicable chapters in the GPG). Sections of this website include:

- [Phase I: Proposal Preparation and Submission](#)
- [Phase II: Proposal Review and Processing](#)
- [Phase III: Award Processing](#)
- [Non-Award Decisions and Transactions](#)
- [Merit Review Facts](#)
- [Why You Should Volunteer to Serve As An NSF Reviewer](#)
- [Merit Review FAQs](#)
- [Additional Resources](#)
- [Contact Us](#)

Ask Early, Ask Often!

Contact the cognizant Program Officer



Faculty Early Career Development program (CAREER)



<http://www.nsf.gov/career>

CAREER Awards

Solicitation 15-555

Due Dates:	July 21, 2015	BIO, CISE, EHR
	July 22, 2015	ENG
	July 23, 2015	GEO, MPS, SBE

CAREER Awards

Foundation wide

Supports junior faculty

Research and education integration

PECASE *(Presidential Early Career Award for Scientists and Engineers)*

eligibility



CAREER Awards

Stable support for 5 years

NSF wide: 400 per year

> \$400K – CISE, EHR, MPS, SBE

> \$500K - ENG, BIO, GEO/PLR



CAREER Eligible Investigators Must:



Hold PhD (by proposal deadline)

Be employed in a tenure-track (or equivalent) position at an eligible institution as an Assistant Professor (until Oct 1st following deadline)

An Eligible Institution Must be:

An academic institution in the U.S., its territories or possessions, and the Commonwealth of Puerto Rico that award degrees in fields supported by NSF.



An eligible institution may also be:



Non-profit, non-degree-granting (e.g. a museum, observatory or lab) if the eligibility requirements of the PI are satisfied.

NSF encourages proposals from different institutional types, including minority serving and undergraduate institutions



CAREER Eligible Investigators May **NOT**:

- Receive tenure before Oct 1st following proposal deadline
- Have previously received a CAREER award
- Have had more than two CAREER proposals reviewed
- Be an untenured associate professor

CAREER Varies across NSF

- Number of submitted CAREER proposals
- Review and Funding methods
- Other Proposals with which CAREERs compete



**NSF CAREER
Coordinating Committee
Sets NSF-wide goals**

CAREER Proposals

Contact program manager liaison* and ask about:

- Expectations for scope of research and education
- Assessment of 2-page departmental letter
- Funding rate trend for regular proposals in the program of interest

* see

<http://www.nsf.gov/crssprgm/career/contacts.jsp>

Are CAREER Awards Right for you?



Yes, if:

Your proposed research is innovative, ambitious and within NSF's the purview of research and education supported

You have support from your department/
organization, mentors.

You are at the right stage of your career.

CAREER Personnel and Budgets

YES

**Consultants, subawards,
unpaid collaborators**

**Academic year buyouts
for teaching intensive institutions**

NO

**Co-PI, senior
personnel**



CAREER Departmental 2 Page Letter

- **Statement of PI CAREER program eligibility**
- **Support for PI's s proposed research and education activities**
- **Description of how the PIs career goals and responsibilities mesh with that of the organization and department**
- **Commitment to support professional development and mentoring of the PI**
- **NOT a letter of recommendation or endorsement of the PI or the research project**

CAREER Awards Urban Myths

“You cannot apply because you have another NSF award. . .”

“It is an entry program, so you must first apply to CAREER. . .”

“I need to see a successful proposal to write a successful proposal. . .”

“You have no chance, if you are not from a research intensive institution..”

“CAREER proposals are more portable than other NSF funding.”

“The education component does not matter.

“I read on the web that to succeed, I have to....”



Traits of a Successful CAREER Proposal



High quality -- This is a highly competitive program!

Matches disciplinary program expectations

Includes an appropriate scope of activities for a 5-year plan, not one's whole life!

Goes outside the education box of regular research proposals in the field

Strikes a balance between doable research activities and more risky pursuits

**PECASE:
Presidential Early Career Awards for
Science and Engineering
April 18, 2014**



CAREER Awards Resources:

- Program Solicitation - NSF 15-555
- Frequently Asked Questions - NSF 15-057
- CAREER Directorate/Division Contacts
 - <http://www.nsf.gov/crssprgm/career/contacts.jsp>
- Links to recent CAREER and PECASE awards
- Deadlines for 2015
 - July , 2015 - BIO, CISE, EHR
 - July 22, 2015 - ENG
 - July 23, 2015 - GEO, MPS, SBE

Questions?



Break



Directorate Sessions



**Thank you for
Attending!**



**Please Complete
Your Evaluation!**