How to Get Funded

Melinda Laituri
mlaituri@nsf.gov
Tom Baerwald
tbaerwald@nsf.gov
Geography and Regional Science
National Science Foundation
Presentation Coverage

- Finding the right funding program
- Types of NSF Grants
- Developing your proposal
  - Following the rules
  - Review criteria
  - Evaluation process
- Post-decision Activities
- Tour of NSF websites
Different agencies fund different types of work

- Find the Agency’s mission: grants.gov
  - NSF
  - NIH
  - DoD
  - NIJ
  - Commerce
  - National Park Service
  - .......
FIND. APPLY. SUCCEED.

Grants.gov allows organizations to electronically find and apply for more than $400 billion in Federal grants. Grants.gov is THE single access point for over 1000 grant programs offered by all Federal grant-making agencies. The US Department of Health and Human Services is proud to be the managing partner for Grants.gov, an initiative that is having an unparalleled impact on the grant community.

Navigation of Grants.gov is simple. Use the colored tabs and/or links at the top of the screen to access primary sections of the site or the links to the left and below to access information on specific topics.

Find Grant Opportunities
- Search for Grant Opportunities
- Register for Email Notification of Grant Opportunities
- Resources for Grants
- Find Information on Government Benefits for Individuals

Apply For Grants
- Prepare to Apply for Grants Through Grants.gov
- Access Active grant application packages
- Download grant application packages
- Complete a Grant Application Package
- Submit a Completed Grant Application Package
- Check the Status of an Application Submitted via Grants.gov
About NSF

• **Mission Statement:**
  – Enabling the nation’s future through discovery, learning, and innovation.

• **Basic research**

• [http://www.nsf.gov/about/glance.jsp](http://www.nsf.gov/about/glance.jsp)
  – Who we are
  – What we do
  – How we work
NSF Is Divided into Directorates

- National Science Board
  - Director
  - Deputy Director

- Staff Offices

- Biological Sciences
- Computer and Information Science and Engineering
- Education and Human Resources
- Engineering
- Geosciences

- Mathematical and Physical Sciences
- Social, Behavioral, and Economic Sciences
- Budget, Finance, and Award Management
- Information and Resource Management
Directorates Are Divided into Divisions, and Divisions Are Divided into Programs

- Social, Behavioral, and Economic Sciences
  - Behavioral and Cognitive Sciences
  - Social and Economic Sciences
  - Science Resources Studies

- Geography and Regional Science
  - Anthropology programs
  - Psychology and linguistics programs

- Economics
  - Decision, Risk, and Mgmt Science
  - Methodology, Measurement, and Statistics
  - Sociology
  - Political Science
  - Law and Social Science
  - STS programs
Major Emphases in the NSF FY 2006 Budget Request

- Strengthening core disciplinary research.
- Providing broadly accessible cyberinfrastructure and world-class research facilities.
- Broadening participation in the science and engineering workforce.
- Sustaining organizational excellence in NSF management practices.
About Funding:
http://www.nsf.gov/funding/aboutfunding.jsp

About Funding

The National Science Foundation funds research and education in most fields of science and engineering. It does this through grants, and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the United States. The Foundation accounts for about one-fourth of federal support to academic institutions for basic research.

NSF receives approximately 40,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships.

The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Antarctic research stations. The Foundation also supports cooperative reconnaissances between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

NSF FUNDING OPPORTUNITIES/PROGRAMS

Most NSF funding opportunities are divided into broad program areas:

- Biology
- Computer and Information Sciences
- Crosscutting Programs
- Education
- Engineering
- Geosciences
- International
- Math, Physical Sciences
- Polar Research
- Science Statistics
- Social, Behavioral Sciences

Program deadline and target date information can be found on the Upcoming Due Dates list. It also appears in individual program announcements and solicitations. These publications can be found through the Funding page. To receive rapid notification of new program information, by email or via a custom Web page, you may subscribe to My.NSF.

SPECIAL PROGRAMS

Additional funding opportunities may be found in these special program areas:

- For Undergraduate Students
- For Graduate Students
- For Postdoctoral Fellows
- For K-12 Educators
- Small Business Programs
Other Programs

• Environmental Biology
  – Ecological biology
  – Ecology

• Earth Sciences
  – Hydrology sciences
  – Geomorphology and land use dynamics
Major NSF-Wide Investment Areas – Cross cutting initiatives

• Cyberinfrastructure
• Biocomplexity in the Environment
  – Coupled Natural and Human Systems
• Human and Social Dynamics
• Mathematical Sciences
• Nanoscale Science and Engineering
• Think interdisciplinary and integration
Human and Social Dynamics

- New priority area completed its first major competition in FY 2004.
- Major emphasis areas:
  - Agents of change
  - Dynamics of human behavior
  - Decision making, risk, and uncertainty
- Complementary approaches:
  - Spatial social science
  - Modeling human and social dynamics
**Geography and Regional Science**

**CONTACTS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thomas J. Baerwal</td>
<td><a href="mailto:tbaerwal@nsf.gov">tbaerwal@nsf.gov</a></td>
<td>(703) 292-7301</td>
<td>995 N</td>
</tr>
<tr>
<td>Melinda Laituri</td>
<td><a href="mailto:mlaituri@nsf.gov">mlaituri@nsf.gov</a></td>
<td>(703) 292-4995</td>
<td>995 N</td>
</tr>
</tbody>
</table>

**PROGRAM GUIDELINES**

Apply to PD 98-1352 in FastLane. (standard [Grant Proposal Guidelines](http://www.nsf.gov/pubs/gpg/nsf04_23/) apply.)

**DUE DATES**

- **Full Proposal Deadline Date:** February 15, 2006
  - Doctoral Dissertation Research Improvement proposals
- **Full Proposal Target Date:** August 15, 2006
  - Regular research proposals
- **Full Proposal Deadline Date:** October 15, 2006
  - Doctoral Dissertation Research Improvement proposals
- **Full Proposal Target Date:** January 15, 2007
  - Regular research proposals

- [Grant Proposal Guidelines](http://www.nsf.gov/pubs/gpg/nsf04_23/)

**Program Guidelines**

- [06-509](http://www.nsf.gov/pubs/gpg/nsf04_23/) Solicitation

- Scroll to bottom of page:

  [Abstracts of Recent Awards Made Through This Program](http://www.nsf.gov/pubs/gpg/nsf04_23/)

- [Abstracts of Recent Awards Made Through This Program](http://www.nsf.gov/pubs/gpg/nsf04_23/)
NSF goals in supporting the Social, Behavioral, and Economic Sciences

- Increase fundamental understanding of human behavior and society by supporting *basic research, infrastructure, and education* in the SBE sciences

- Provide understanding relevant to *critical national problems* such as education, globalization, economic well-being, risk mitigation, and diversity
Behavioral & Cognitive Sciences Target Dates

• December 1 & July 1
  – Archaeology & Archaeometry
  – Physical Anthropology

• January 1 & August 1
  – Cultural Anthropology

• January 15 & July 15
  – Cognitive Neuroscience
  – Developmental & Learning Sciences
  – Perception, Action, & Cognition
  – Linguistics
  – Social Psychology

• January 15 & August 15
  – Geography & Regional Science
Geography and Regional Science

• Supports research on human, physical, and biotic systems on the Earth’s surface, as well as their related subfields

• Investigations into the nature, causes, and consequences of human activity within particular “places and spaces” are encouraged

• Both international & domestic projects which may contribute to related fields are also funded
  – Program officers: Tom Baerwald and Melinda Laituri
Types of NSF Solicitations

- Regular target dates in standing programs
- Special solicitation deadlines
- SGERs
  - Small Grants for Exploratory Research
- Programs for particular groups of researchers
- Alternative models for managing research and education
Regular target dates

• Identify the best research program area(s)
• Understand the review/panel process
• Follow the Grant Proposal Guide
• Good examples: Physics, SBE
Special solicitations

• Pay close attention to the goals stated in the solicitation

• Pay close attention to special requirements in the solicitation

• Good examples: Human and Social Dynamics, Tools for Shared Cyberinfrastructure
SGERs: Small Grants for Exploratory Research

- Internal review only
  - Time sensitivity
  - Path-breaking research
- Can be submitted at any time
- Contact your program officer
For particular groups

- **CAREER**: Faculty Early Career Development Program
- **ADVANCE**: Increasing Participation and Advancement of Women in Science and Engineering
- Minority Research Planning Grants
- Dissertation Improvement Grants
- Graduate Fellowship Program
CAREER Grants

• NSF's most prestigious awards for new faculty members

• Proposal special characteristics:
  – Integration of Research and Education
  – Integrating Diversity into NSF Programs, Projects, and Activities
  – CAREER development plan
Graduate opportunities

• Regular NSF grants that provide graduate support
• Dissertation Improvement Grants
• NSF Graduate Fellowships
• IGERT: Integrative Graduate Education and Research Traineeship
Doctoral Dissertation Improvement Grants

- Up to $12,000 for doctoral students for dissertation research
- Funds for field, lab, and/or data-collection expenses not normally underwritten by the host institution
- Student stipends, tuition expenses, assistantships, and doctoral advisor’s travel expenses are not eligible
New funding models

- **STC**: Science and Technology Centers
- Major Research Instrumentation
- **GK-12**: NSF Graduate Teaching Fellows in K-12 Education
- **Other examples**: Information Technology Research, Digital Libraries, National Nanotechnology Initiative, Cyberinfrastructure
How to develop a proposal

• Determine the best possible funding sources
• TIME
• Understand the ground rules
  – Read announcements and instructions carefully
  – Read the *Grants Proposal Guidelines*
  – Make sure your project really fits the program scope
  – Look over prior award *abstracts*
  – Ascertain evaluation procedures and criteria (*see the solicitation*)
  – Talk with NSF Program Officer about specific questions
• Coordinate with your chair and research office
• Ask PIs for copies of proposals
Support in Proposal Writing

- NSF Publications
  - Additional Program Web Pages
  - Reports, Special Publications
- Other publications
  - “How to write proposals” manuals

- Program Officers
  - Former “Rotators”
- Mentors
- Previous Panelists
- Serve as a reviewer
Sections of an NSF proposal

- Cover sheet
- Project Summary (one page)
- Table of Contents
- Project Description (15 pages max)
- References cited
- Biographical Sketch(es)
- Budget
- Budget Justification
- Current & Pending Support
- Facilities, Equipment, & Other Resources
- Special Information & Supplementary Documentation
CAUTION: NSF is a Bureaucracy

- Do not violate the 15-page rule (without PO approval)
- Do not violate typeface, other GPG strictures (some programs will give you no second chance)
- Do not submit the same proposal to two programs (instead: ask for co-reviews)
Budgetary guidelines

• Amounts
  – Reasonable for work – Realistic
  – Well justified – Needs established
  – In-line with program guidelines

• Eligible costs
  – Personnel
  – Equipment
  – Travel
  – Participant support
  – Other direct costs (including subawards, consultant services, computer services, publication costs)
Valuing Partnerships

• Funding from NSF no longer requires cost sharing from the institution
• However, a strong basis for the researcher at the host institution is generally good for the PI and the research team
• Collaboration and “in kind” support
• Supporting letters or documentation from partners
Types of reviews

- Outside reviewers plus panel review
- Panel review
- Internal review only (Panel or less formal)
- Sources of reviewers:
  - Program Officer’s knowledge
  - References in proposal
  - Web of Science, Google Scholar
  - Reviewer recommendations
  - Investigator’s suggestions
NSF Standard Merit Criteria

• **Intellectual merit**
  – Importance
  – Creativity and originality
  – Conception and organization
  – Achievability (access to resources, record of achievement)

• **Broader impacts**
  – Training
  – Diversity
  – Infrastructure
  – Dissemination/Public Awareness
  – Societal Benefits (of the findings)
Intellectual Merit

• Potential Considerations:
  – Will the proposed activity advance knowledge and understanding within its own field or across different fields?
  – Is the project likely to be successful:
    • Qualifications of the proposer/team
    • Sufficient access to resources
  – To what extent does the proposed activity explore creative and original concepts?
  – How well conceived and organized is the proposed activity?
Broader Impacts

- Promote teaching, training, learning
- Broaden the participation of under-represented groups (e.g., gender, ethnicity, disability, geographic, etc.)
- Enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships
- Disseminate results broadly to enhance scientific and technological understanding
- Benefit society
What makes a proposal competitive?

- Likely high impact
- New and original ideas
- Succinct, focused project plan
- Knowledge of subject area or published, relevant work
- Experience in essential methodology
- Clarity concerning future direction
- Realistic amount of work
- Sufficient detail
- Critical approach
Reasons for funding a competitive proposal

- Significant contributions to general scientific understandings
- PI Career point (tenured/”established”/”young”)  
  - “launching vs. maintaining”
- Place in Program Portfolio  
  - Special programmatic considerations
- Broader impacts, such as enhanced education, greater diversity, improved infrastructure or methods, and beneficial applications
- Dissemination of results, especially in refereed, widely disseminated publications
Positive funding decisions

• Program Officer decision
• Feedback to PI
• Scope of work and budget discussions
  – Revised budget
  – Budget impact statement
  – Revised scope of work
Negative funding decisions

• Remember that we decline 70 – 80%
• Don’t be rash….
• Go over the reviews, panel summaries, and other materials
• Read your panel summary for clues
• Revise and resubmit
  – Get used to rejection
• Never give up
  – Think other opportunities
Reasons for declinations

• “Trust me” proposal
• Not feasible
  – Expertise gaps
  – Too ambitious
• Incremental contribution
• “Bad luck”
  – Not enough money in the fiscal year
  – Portfolio objectives in a given fiscal year
Now the you are funded…

- Abstract
- Human subjects
- Annual reports
- Final report
- Think “Nuggets”
  - This is how we get more attention for science and more money for science
Visiting the NSF Website

• http://www.nsf.gov/
  – Contains information on
    • Programs and solicitations
    • Grant Proposal Guide (GPG)
    • Contact information
    • Dates

• https://www.fastlane.nsf.gov
  – Contains information on
    • Proposal submission and follow up
    • Panel and reviewer information
Contact information:
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- Melinda Laituri, Program Officer
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  (703) 292-4995
- Tom Baerwald, Program Office
  tbaerwal@nsf.gov
  (703) 292-7301