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Academic Research Funding Strategies, LLC provides consulting services for colleges and universities on a wide range of topics related to research development and grant writing, including research development strategies, grant writing workshops and seminars, support developing center proposals, support for junior faculty, support on facilities and instrumentation grants, and complementary support services for research development and sponsored projects offices, as well as grant professionals in colleges, departments, and institutes.
Multi-institutional and multi-disciplinary partnerships for research and educational proposals have become an increasingly important and a much larger component of university external funding portfolios. Partnership proposals (aka collaborative, or team research) offer significant advantages over single PI grants or grants with a few coPIs. Most importantly, the capacity to develop successful research and educational partnerships expands your funding opportunities enormously. The trend towards team-based research solicitations has been increasing significantly at federal research agencies whose investment priorities include addressing complex problems that require transinstitutional and transdisciplinary approaches.

There are many reasons to explore and develop research partnership configurations, chief among them their potential to open up new research funding opportunities and thereby offer researchers the potential to advance their own and their colleagues’ interests. Other reasons to collaborate include:

- Collaborators may bring needed research knowledge, skills, or resources to a project requiring the integration of multiple research and/or educational strands to meet the overarching goal and multiple objectives defined in the funding solicitation.
- Collaborators may have a stronger track record or connections with an agency, or across a few agencies, that strengthen a proposal’s competitiveness.
- Collaborators may offer institutional characteristics that better suit a project for funding, e.g., partnerships with predominantly undergraduate institutions, community colleges, minority-serving institutions, tribal colleges, Hispanic-serving institutions, K-12 schools, or outreach partners such as museums, science centers, and informal learning centers that disseminate research to the public domain to promote social benefit.
- Multidisciplinary projects are becoming more common and necessary to address transformative science and engineering. These solicitations are often funded at greater dollar amounts over longer periods of time than are single PI or single institution grants, hence offering funding opportunities to a range of disciplinary areas.
- Partnership proposals often have research requirements or educational, workforce diversity, and public outreach, benefits to society beyond the core research focus of the project. These benefits can expand the research opportunities for faculty whose disciplinary expertise alone may offer fewer chances for funding outside the partnership structure.
- While perhaps not mandatory, partnerships are often essential for center and center-level proposals. As with all partnership grants, competitiveness is a function of your capacity to demonstrate a partnership with a history of research collaborations.

However, partnership grants require a much more strategic, complex, detailed, and informed research development and grant-writing process than do single institution grants or grants with only a few PI/coPIs. They clearly require an experienced development team to be
successful, and require careful attention to planning, scheduling, writing, and team dynamics. Most importantly, partnership proposals take significantly more development time, which seems to increase exponentially as a function of the number of partners and disciplines represented on the effort. Moreover, partnerships:

- Represent a much more complex and resource-intensive research development and writing effort than single PI grants, particularly when it comes to the writing of multiple research strands and their integration;
- Must address composition of leadership team and roles, including selecting the PI early on in the development process since the capacity to develop and manage a major partnership grant is one indicator of the PI’s capacity to manage a funded research grant;
- Must give clear and compelling reasons why the partnership has value-added benefits and synergy that impact the funding agency mission or strategic plan and research roadmaps;
- Must determine early on who will write the grant, who will serve as lead author on various sections of the grant, and who will act as the “integrating author,” weaving narrative sections into a seamless whole as if written by a single author;
- Must have the capacity to develop a performance-based budget and not merely a budget arrived at by “dividing the pie equally.” A total budget amount simply divided by N-partners will be the Achilles heel of a partnership effort.

**The configuration of the research partnership is key to its competitiveness.**

Consideration needs to be given to the following:

- Each collaborator must bring specific expertise to the project and take a distinct and well-defined role with clear relevance to the solicitation.
- The budget should be divided according to effort and project needs (discuss division of resources early), and tightly mapped to, as well as in balance and scale with, the research goals and objectives defined in the solicitation.
- Expected outputs must be specified when planning the project (what results do you expect over the performance period; what new knowledge will be created; what papers will you produce and who will be the authors, etc.?)
- Each member of the collaboration should benefit as well as benefit the other partners on the grant.
- Communication protocols among members of the research team must be established early on in the process to ensure team integration. Clear and consistent communication will determine the success of the proposal development process and the subsequent implementation of the research.

**A wide range of academic partnerships can be built, including, for example, the following:**

- Research
- Education
- Hybrid research and education
Research Development & Grant Writing News

- Center proposals
- Center-level proposals
- Aligned collaborative proposals building de facto center and capacity to submit a center level proposal
- Partnerships with minority-serving institutions, regional institutions, community colleges, K-12 STEM education
- Multi-institutional configurations for future initiatives

The attributes and characteristics of partnerships will determine the success of their funding. For example, characteristics of partnerships likely to be uncompetitive for funding might include:

- “Top down” administrative directives to submit a proposal for money and institutional prestige, but without a successful history of research capacities in the topic areas at the specific agency, or perhaps with only a “thin veneer” of institutional research capacities;
- Attempts to “force fit” previously disconnected researchers lacking a history of collaboration into a center-level proposal. This amounts to a research version of a shotgun marriage.
- Attempts to cobble together preexisting research partnerships that, at best, only partially meet the intent of the solicitation, followed by the forming of hasty “marriages of convenience” with other possible research partners designed to overcome significant deficits. This is the research version of speed dating.
- Poorly thought out partnership configurations, poorly managed proposal development efforts, poorly written proposals, and proposals with poorly defined visions, goals, and objectives, or proposals cobbled by poor and uncommunicative team dynamics are sure to fail and squander all the valuable time and resources put into the effort.

An informed decision to submit a partnership proposal must be grounded on a candid self-assessment of the capacity to perform and of the capacity to develop a competitive proposal in the time allotted. Partnership proposals represent a major commitment of time and resources.

By contrast, successful partnerships succeed by virtue of good team dynamics grounded on good reasons to submit, including:

- The development and writing of the proposal will serve the long-term interests of an emerging research partnership by moving it towards a more competitive configuration;
- The process will help prepare the research partnership for the possible submission of smaller, more focused research grants that will provide an important research component for the future, i.e., components required for a research center, particularly since center-level awards often are built on a strategic configuration of successful small research grants that de facto form the core research framework of a future center;
- The acknowledgement that many, if not most, funded center-level efforts are awarded on the second and third submittal, and hence the development of a center proposal will prove an important exercise for committed team members for the long term;
The recognition that developing and writing a center proposal and getting reviewer comments if it is declined holds the potential to advance the research team towards its goal of a funded center on a second or third attempt.

The foundation or underpinnings of successful team dynamics includes the following key characteristics of each team member:

- Earns trust of other team members
- Capacity to perform
- Respects team development principles
- Earns the confidence of partners
- Reliable (e.g., meets deadlines, high-quality contributions to team effort)
- Fully and consistently engaged in the research development effort
- Informed (e.g., reads the RFP and understands her or his role in it)
- Expertise brings value-added benefits to the proposal
- Good communicator
- Plays well with others...not looking for a free ride.

In addition, a partnership proposal must have a well-suited PI with relevant research credentials, management skills, and the capacity to state a clear and compelling vision for the partnership.

- The principal investigator of a major partnership proposal is, in ideal circumstances, an obvious choice. It is someone who has an established research track record in the research topic areas and a person already seen as the de facto leader of existing research collaborations in these areas.
- In some cases, there may be more than one obvious choice as PI, particularly in multidisciplinary research collaborations comprised of several research strands. However, successful leaders of center proposals possess several key attributes, among them:
  - Respected by colleagues;
  - Able to define an overarching, integrative vision
  - Possesses strong organizational skills and the capacity to communicate across participating disciplines and research teams
  - Skilled in managing team dynamics
  - Able to clearly state why the integration of the research strands proposed under a partnership structure achieves a more compelling research vision and clear synergy (value added) not possible in research strands funded as separate projects
  - Is fully engaged, passionate, and available to team members (not a PI in absentia)
  - Inspires the team with a feeling of confidence in the project’s likely success.
Once the right PI and the right team configuration is in place, the process of team-based planning, development, and writing of the proposal will likely include answers to the key questions below:

- Who is responsible for the first and subsequent drafts of the **integrative sections** of the project description section, e.g., executive summary, vision statement, rationale for the partnership or center, goals and objectives, research focus areas integration plan, benefits of the partnership or center, expected research synergies, etc.? **This is not a trivial task** and lies at the heart of the competitive research proposal.
- Are lead authors, perhaps coPIs, assigned for each of the research focus areas?
- Who are contributing authors from partner institutions?
- Who will write the management plan?
- Who will write the five-year strategic plan for goals and objectives?
- Who is best able to produce milestone charts, graphics, illustrations, tables, and other visuals that complement the text and communicate the partnership configuration?
- Who will be responsible for reading or quickly reviewing **all the documents cited by the sponsor in the solicitation**, typically by URL, as having relevance to the program, e.g., agency strategic plans, national academy reports, agency reports and workshops, etc. **This is a critical role**, since making competitive arguments for the significance of your research without being fully informed of the agency’s research vision, mission, and research investment agenda is **often a fatal flaw in the proposal narrative**.
- Research centers funded by NSF typically require an **education and outreach component**. Who will be the lead author of that section, and who will serve as contributing authors, e.g., for undergraduate research, postdoctoral mentoring, research experiences for teachers, etc.?
- Who will be responsible for **assessment and evaluation**? Does the capacity for this exist in-house or will an external evaluator have to be included in the budget to write that section of the narrative?
- If the proposal requires **institutional data**, e.g., STEM degrees granted in total and to women and minorities by academic department, who will take responsibility for gathering those data and putting them in the format specified in the solicitation? Who keeps the data? Are data kept by colleges and departments, or by an office of institutional research? Are the data accessible to queries that meet the sponsor requests? Who collects data from partner institutions and from whom?

**Visuals are key to a strong partnership proposal**

Competitive collaborative proposals need to address the integration of multiple research and educational strands, roles of multiple co-PIs and senior personnel, roles of multiple institutions, and related topics such as evaluation, dissemination, communications, outcomes, and a long-term vision based on a strategic plan—**all of which benefit greatly by complementing the narrative text with visuals**:

- Milestone charts
- Tables
Writing the management section
• Identify the multi-institutional partners and the contribution of each to the project, i.e., value added/team science
• Identify key members of the research team and what they bring to the project, i.e., value added/team science
• Make clear who is responsible for each research strand and how multiple strands are managed, particularly to gain the synergy that defines the vision of the project
• Make clear how the team members will work together, particularly communications across the partnership.

Generic strategies for partnership competitiveness
• Define your research home at the agency
• Map your research to that domain
• Learn the grant cycles
• Understand the agency mission, culture, and research priorities
• Understand the review process/role of program officers
• Talk to program officers
• Talk to colleagues funded by the agency
• Subscribe to agency RSS frees and email alerts
• Read agency strategic plans and other documents.
The old adage about “packing your own chute” is excellent advice to the researcher looking to identify funding opportunities, especially new faculty or faculty expanding into new domains. While the universe of research and educational grant opportunities from federal, state, and local agencies, foundations, professional associations, and industry is very large, it shrinks quickly when you cull out the agencies, programs, and solicitations without relevance to your research interests. Once you define your disciplinary domain of expertise and your research interests within that domain, your funding universe will become very small, very quickly, perhaps amounting to only a few agencies, a few program areas within any particular agency, and fewer solicitations within that program area.

Learning how to identify research and educational funding opportunities soon after their announcement gains you time for preparing your proposal. This added time may give you a decisive advantage in the competition for these awards. It allows you time to assess the requirements for responding to a solicitation, to make a measured decision about whether to pursue it, and to undertake your response with sufficient time remaining for a competitive submittal.

Any lost time negatively impacts your capacity to develop a competitive proposal. The goal in packing your own funding chute is to capture all the available time beginning with the day of a solicitation’s announcement until its due date to use in developing and writing a successful proposal, both as a single PI and as a proposal partner.

If you rely entirely on others to find, filter, and inform you of potential funding opportunities through database searches or other mechanisms, you may find yourself caught in a cascade of funding spam undifferentiated by any fine grain filter that intelligently reduces the very large universe of funding across all disciplines to the very small world of funding specifically of interest to you. Moreover, if some filtering does occur on grants distribution, you certainly don’t want it to occur through the repetitious forwarding of long emails following meandering electronic paths across campus and arriving in your inbox several weeks or more after the announcement date. Time lost is not found again, as the old saying goes, and in the world of competitive grants, time lost is competitive advantage lost.

This is amplified when it comes to grants that require teaming and research partnership development for submittal. The answer to putting together a successful research partnership does not lie hidden in a grants database waiting to be revealed by a query, either by you or others, but rather from a history of networking with colleagues on your campus, at other institutions, and attending conferences and workshops in your field.

Most funding for university research and educational programs will come from the below agencies listed on Grants.gov. While research offices at the college and university level may have an interest in solicitations from all of these agencies, as an individual researcher you will most likely find a research home in a few of these agencies and then in a very small subset of program areas within these agencies. Even if your research interests lie in such overarching...
topics as energy, sustainability, water, nanotechnology, genomics, health disparities, and the like, they most likely inhabit a very narrow band of research within a larger topic.

- Department of Commerce
- Department of Defense
- Department of Education
- Department of Energy
- Department of Health and Human Services
- Department of Homeland Security
- Department of Justice
- Department of Labor
- Department of State
- Department of the Interior
- Department of the Treasury
- Department of Transportation
- Environmental Protection Agencies
- National Aeronautics & Space Administration
- National Endowment for Humanities
- National Endowment for the Arts
- National Institutes of Health
- National Oceanic & Atmospheric Administration
- National Science Foundation
- Nuclear Regulatory Commission
- US Department of Agriculture
- US Dept of Housing and Urban Development

Therefore, the first step in packing your own funding chute is to set up automatic email alerts and RSS feeds from the Grants.gov site that you have filtered to exclude federal agencies and research areas not of interest to you (Notices Based on Advanced Criteria). Other notices that will complement your funding alerts can be found at Resources for Applicants, including the tutorial Finding Grant Opportunities on Grants.gov. Since your research interests will define your research domain as a very small subset of all the possible research areas at the above agencies, you will be able to use Grants.gov features like the “advanced search” criteria to delimit the funding information sent to you.

Moreover, in addition to subscribing to New Opportunities by Agency, you may also benefit by subscribing to the RSS feed Modified Opportunities by Agency. Most agencies will post modifications to some published solicitations prior to the actual due date. By subscribing to the modifications RSS feeds, you will automatically be informed as modifications occur. Information on modifications is particularly important for many of the federal mission agencies, e.g., DOD, DOE, and DARPA, that post BAA’s with open periods of one year or more. In these cases, modifications may include changes in research priorities in an open BAA that will be critical to success at the particular agency. While many modifications are small and represent minor changes in language or clarifications in an open solicitation, others are truly substantive
and critical to mapping your research to the objectives of a specific solicitation. This is another area of research funding where packing your own chute is imperative.

Many agencies that post funding announcements to Grants.gov will also post new funding announcements to FedConnect (e.g., Department of Energy) and Federal Register (e.g., Department of Education). However, in almost all cases, the link to these sites will be provided in the announcement posted to Grants.gov and you will then follow the link to download the funding solicitation file and related application information.

Using these URL links will enable you to personalize grant funding information specific to your research interests and to receive it in your email inbox or your browser’s RSS feed, or both, on the day it is published. You must decide upon the relevance and fit of specific research solicitations to your research interests and expertise. These decisions should not be farmed out to others who, at best, will have only a very general idea of your research interests rather than the nuanced understanding that only you possess.

Once you have set up RSS feeds and email alerts at Grants.gov, you may also wish to sign up for RSS feeds and email alerts from those agencies of specific interest to you. Many agencies have RSS feeds and email alert systems set up that will allow you to receive information on funding opportunities along with related information on strategic plans, reports, workshops, and conferences that may be relevant to the specific solicitation. Remember that, while the actual solicitation from the federal agency will be posted to Grants.gov, agency- and program-specific alerts hold great value for giving you a better understanding of the mission, culture, context, and research priorities that form the underpinnings of a particular solicitation. A Google search on “RSS feeds at ‘agency name’” will also identify agency and specific RSS feeds. The GrantSource Library at UNC-Chapel Hill also lists agency-specific funding alerts.

Once you have subscribed to both Grants.gov funding alerts and modifications and subscribed to email alerts and RSS feeds from a few specific agencies and programs within an agency (e.g., EERE within DOE) specific to your interests, then you are set to promptly receive notices of newly posted funding opportunities that laser in on your research interests. Moreover, you have a record of these opportunities saved in your email directory or your browser’s RSS feed, which you can set to save as many announcements as you like. You will find this helpful when you consider that many federal agency programs operate on annual or more frequent grants cycles (e.g., NIH, NSF).

As you develop a short list of agencies whose funding maps nicely to your research interests and expertise, remember that most of these agencies also fund unsolicited or investigator initiated proposals. Approximately 50% of NSF grants are unsolicited and 80% of NIH grants are investigator initiated. Along with setting up a process of personalized grant notifications through email alerts and RSS feeds, among other mechanisms, it is also important to bookmark the URL for instructions on the unsolicited proposal process at agencies of interest to you, including those program areas within an agency that do or do not accept unsolicited proposals, along with other information that will guide the writing of unsolicited proposals (e.g., Parent Announcements for Unsolicited or Investigator-Initiated NIH Applications).
A Step-by-Step Process for Packing Your Own Funding Chute

Define Your Research Interests and Expertise

- Characterize your research interests, expertise, and goals
  - Define a disciplinary domain of interest (e.g., education, engineering, science, social science, humanities, education, health and biomedical sciences, etc.);
  - Characterize the nature of the research interests within the disciplinary domain (basic, applied, applications, contract, mission agency);
  - Identify funding agencies whose mission, strategic plan, and investment priorities align with your research interests;
  - Develop research and educational partnerships and collaborations with other disciplines and institutions.
- Learn about the types of grants and agencies that fund research in your area
- Develop search protocols to fit your research interests and map them to agencies, programs, and solicitations that fund your research topic areas
- Know relevant agencies
- Learn grant cycles
- **Use agency email alerts and RSS feeds**
- **Know the process for unsolicited proposals**
  - Understand the agency’s investment priorities/mission
  - Develop a long-term strategy for funding your research
  - Talk to colleagues funded in your discipline
  - Read research publications for references to funding sources
  - Read agency abstracts of funded projects

Understand the Funder

- What kinds of research does the agency fund?
- What is their mission?
- What is their culture?
- What are they trying to accomplish with this program, or suite of related programs?
- How are proposals reviewed?
- Who makes the funding decisions?
- What is the role of the program officer in funding decisions?

*Finally, see the Funding Opportunities section of this newsletter for funding links specific to research area.*
The Directorate for Science and Technology (S&T) is the primary research and development arm of DHS, and therefore of particular interest to university researchers. As defined in the S&T Directorate Strategic Plan, the core goals of DHS bear upon university researchers, specifically Goal 4 to “leverage academia to address Homeland Security needs and nurture the future technical workforce.” A review of this directorate’s strategic plan offers one starting point for mapping your research interests and expertise to the DHS research and workforce mission areas. As an agency, the DHS mission focus includes research along the entire spectrum from applications-based research and applied research to more basic research as outlined in the 2008 to 2013 DHS Strategic Plan and in the Quadrennial Homeland Security Review. Particular areas of interest to university researchers include protection from chemical, biological, and nuclear devices, critical infrastructure protection, first responder training and technologies, and workforce development and student training.

Many of the program components of DHS have mission-specific strategic plans and reports that will enable you to map more precisely your research capacities to various mission domains within DHS. Also, the AAAS Center for Science, Technology, and Security Policy addresses issues at the interface of science, technology, and security relevant to DHS. The Homeland Security Studies and Analysis Institute, another excellent source of information on the DHS mission areas, offers electronic notification of DHS news, reports, and mission interests.

In addition, potential applicants should understand DHS at all scales: mission, goals, objectives, programs, program performance goals, program performance measures, performance targets, and performance results. The more knowledgeable you are about DHS’s mission, strategic plans, culture, investment priorities, and the rationale behind them, the better able you will be to develop highly competitive responses to funding opportunities at DHS.

In this article you will find answers to the key questions below, as well as the resource links to explore them in detail. This information should allow you to determine whether or not you are competitive for funding at DHS based upon mapping your research capacities to the DHS mission interests.

• What kinds of research does DHS fund?
• What are DHS’s mission, goals, and objectives
  o Who is the audience for a proposal submitted to DHS?
  o How do you best address that audience?
  o What is a fundable idea within the context of the DHS’s research mission priorities and your research interests and expertise?
How are claims of research uniqueness, innovation, and impact on the DHS mission best supported in your proposal?

What arguments should you make in your proposal that will prove most compelling and competitive by demonstrating the impact of your research on the DHS mission?

- How well do your research interests and expertise map to and impact DHS’s research mission priorities and strategic plan, as well as major reports and mission roadmaps?
- How are the various research domains at DHS organized?
- Does DHS fund unsolicited proposals?
- How can I become a grant reviewer at DHS (a guaranteed means for gaining competitive insight into any agency)?
- How does DHS announce funding opportunities?
- What are DHS’s guidelines for submitting proposals?
- How will your proposal be reviewed at DHS?
- What is the role of the DHS program officer in the review process?

Research Funding at DHS

DHS Announces Grant Guidance for Fiscal Year (FY) 2011 Preparedness Grants (May 19, 2011)

Secretary of Homeland Security Janet Napolitano announced the release of FY 2011 grant guidance and application kits for 12 DHS grant programs totaling $2.1 billion to assist states, urban areas, tribal and territorial governments, non-profit agencies, and the private sector in strengthening our nation’s ability to prevent, protect, respond to and recover from terrorist attacks, major disasters and other emergencies.

Finding DHS Solicitations

DHS posts new funding opportunities to FedBizOpps.gov: Department of Homeland Security: Opportunities as well as to Grants.gov. You will find it helpful to sign up for automatic email notifications at Grants.gov that are specific to new funding opportunities at DHS. In particular, DHS is a mission agency that posts modifications to open solicitations to Grants.gov. These can be received automatically by signing up for the modifications RSS feed. This will ensure that you are immediately alerted to changes to open solicitations to which you may be responding, and that may require you to modify your application. You can also sign up to Get e-mail updates when this information changes from the DHS website. Additional information on DHS solicitations can be found here: Advance Acquisition Planning: Forecast of Contract Opportunities and Contracting Opportunities by Department Components.

DHS Broad Agency Announcements (BAA) Program Portal

- DHSS-TLRBAA11-03 - DHS S&T Long Range Broad Agency Announcement
- BAA 11-02 - Cyber Security Research And Development Broad Agency Announcement

(Note: in responding to above open BAAAs you may be required to follow a step-by-step process that includes developing quad charts, white papers and related preliminary
application mechanisms in discussion with program officers. Writing competitive quad charts and white papers is addressed in the October 15, 2010 issue of this newsletter: *Quad Charts, White Papers & Unsolicited Proposals: Role in Research Funding*.

**Additional information on DHS Science and Technology Opportunities can be found below.**

- Centers of Excellence
- Long-Range Broad Agency Announcement (BAA)
- Small Business Innovation Research
- Domestic Nuclear Detection Office (DNDO) Business Opportunities
- SAFECOM
- FutureTECH
- The Support Anti-terrorism by Fostering Effective Technologies Act of 2002
- System Efficacy through Commercialization, Utilization, Relevance and Evaluation (SECURE)
- S&T Tech Solutions
- Technology Transfer

**Submitting Your Science and Technology Ideas**

- If you have a great idea, DHS recommends you first visit the *Long-Range Broad Agency Announcements* site. If you are a Small Business and want to do business with the DHS, please visit *Small Business Innovation Research* for more information about available opportunities.
- If you believe you have exactly the right technology for S&T, the Office of Public-Private Partnerships offers valuable opportunities for the private sector with its *FutureTECH* and *SECURE* programs.
- If you are interested in establishing a licensing agreement with the DHS to commercialize intellectual property, the *Technology Transfer Program* may have opportunities for you.
- If you are a First Responder with a great idea for your colleagues, *TechSolutions* operates just for you, and it is funded to develop prototypes quickly and economically.

**Research Grants**

- The *Domestic Nuclear Detection Office* offers solicitations for business for nuclear detection research and development.
- The Department's *FutureTECH Program* leverages the resources of the private sector to develop technology in early stages.
- *Homeland Security Advanced Research Projects Agency* (HSARPA) focuses on homeland security research and development that could lead to significant technology breakthroughs and greatly enhance departmental operations. Solicitations for business are issued through HSARPA.
The Department’s **SECURE (System Efficacy through Commercialization, Utilization, Relevance and Education) Program** leverages the resources of the private sector to develop fully deployable technologies.

The Department’s **Small Business Innovation Research (SBIR) Program** was initiated in 2004. The Science and Technology Directorate and the Domestic Nuclear Detection Office participate in the federal program. **Solicitations are issued by both organizations** (more below).

The Science and Technology Directorate has been coordinating research and development projects to combat terrorism with the **Technical Support Working Group (TSWG)**. Several Department-funded tasks addressing Science and Technology Directorate requirements were recently funded through the Technical Support Working Group.

**Transportation Security Administration Grant Programs**

Unsolicited proposals or white papers may be submitted to the Department through the **Unsolicited Proposals** Web page.

**Preparedness (Non-Disaster) Grants**

FEMA provides state and local governments with preparedness program funding in the form of **Non-Disaster Grants** to enhance the capacity of state and local emergency responders to prevent, respond to, and recover from a weapons of mass destruction terrorism incident involving chemical, biological, radiological, nuclear, and explosive devices and cyber attacks. To apply, go to **Grants.gov**.

**List of Programs for FY 2011**

- **Assistance to Fire Fighter Grants**
- **Driver’s License Security Grant Program (DLSGP)**
- **Emergency Management Performance Grant (EMPG)**
- **Emergency Operations Center (EOC)**
- **Freight Rail Security Grant Program (FRSGP)**
- **Homeland Security Grant Program (HSGP)**
  - **State Homeland Security Program (SHSP)**
  - **Urban Areas Security Initiative (UASI)**
  - **Operation Stonegarden (OPSG)**
  - **Metropolitan Medical Response Grants (MMRS)**
  - **Citizen Corps Program (CCP)**
- **Intercity Bus Security Grant Program (IBSGP)**
- **Intercity Passenger Rail Security Grant Program (IPR)**
- **Non-Profit Security Grant Program (NSGP)**
- **Port Security Grant Program (PSGP)**
- **Regional Catastrophic Preparedness Grant Program (RCPGP)**
- **Transit Security Grant Program (TSGP)**
- **Tribal Homeland Security Grant Program (THSGP)**
DHS Small Business Innovation Research (SBIR) Program

The Department’s Small Business Innovation Research (SBIR) program was initiated in 2004. Two Departmental organizations, the Science and Technology (S&T) Directorate and the Domestic Nuclear Detection Office (DNDO), have SBIR programs. The DHS SBIR Program Office resides with the S&T Directorate. DNDO currently issues one solicitation per year. The DNDO SBIR topics are chosen to support mission objectives. Contact the program manager at dndo.sbir@dhs.gov. The S&T Directorate SBIR program issues two solicitations per year, generally in November and May. Topics for solicitations are developed by program managers in each of the S&T divisions. The annual solicitations consist of topics relevant to the following divisions:

- Borders and Maritime Security
- Chemical/Biological Defense
- Cyber Security
- Explosives
- Human Factors/Behavioral Sciences
- Infrastructure Protection and Disaster Management

SBIR topics generally address the needs of seven Department operational units: U.S. Coast Guard, Transportation Security Administration, U.S. Customs and Border Protection, Federal Emergency Management Agency, U.S. Citizenship and Immigration Services, U.S. Immigration and Customs Enforcement, and U.S. Secret Service, as well as first responders.

For more information about the SBIR Program, contact Elissa (Lisa) Sobolewski, Department of Homeland Security SBIR Program Director, at 202-254-6768 or via e-mail at elissa.sobolewski@dhs.gov. You may also contact the SBIR Program Office at stsbir.program@dhs.gov.

Understanding the DHS Mission Objectives

Available DHS RSS Feeds

- Department of Homeland Security News
- Department of Homeland Security Press Releases
- Department of Homeland Security Speeches
- Department of Homeland Security Testimony
- Department of Homeland Security Leadership Journal
- The Blog @ Homeland Security
- Department of Homeland Security Podcasts

Component Feeds

- CBP Feeds
- FEMA Feeds
- FLETC Feeds
- ICE Feeds
- TSA Feeds
- US-CERT Feeds
Submitting Unsolicited Proposals to DHS

DHS is composed of several component agencies, each of which handles different types of acquisitions. If you feel that you have a product or service which may be of interest to one or more of these component agencies, then you should do the following:

- Monitor FedBizOpps.gov, where the government publishes its notices of procurements. This site provides a wealth of information about current government requirements and offers specific guidance that will allow you to submit bids or proposals to the respective agency offices.
- Register on Central Contractor Registration, the primary vendor database for the federal government. In addition, USA.gov, a General Services Administration-based Web site, provides user-friendly service and assistance to firms that have not previously done business with the U.S. government.

In rare cases, firms have an innovative and unique product or service for which submission of an unsolicited proposal may be the right approach. Before beginning this process, however, you should:

- Carefully and objectively assess your product/service to ensure that it is, in fact, innovative and unique, and that it is not already commercially available to the government.
- Research Part 15.6 of the Federal Acquisition Regulation (FAR), which provides specific criteria that must be met before an unsolicited proposal can be submitted.

Once you have reviewed these requirements and made the determination you have a valid unsolicited proposal, then you should submit your proposal to the points of contact listed here.

FEMA Grants

FEMA provides state and local governments with preparedness program funding in the form of Non-Disaster Grants to enhance the capacity of state and local emergency responders to prevent, respond to, and recover from a weapons of mass destruction terrorism incident involving chemical, biological, radiological, nuclear, and explosive devices and cyber attacks.

List of Programs for FY 2011

- Assistance to Fire Fighter Grants
- Driver’s License Security Grant Program (DLSGP)
- Emergency Management Performance Grant (EMPG)
- Emergency Operations Center (EOC)
- Freight Rail Security Grant Program (FRSGP)
- Homeland Security Grant Program (HSGP)
- State Homeland Security Program (SHSP)
- Urban Areas Security Initiative (UASI)
- Operation Stonegarden (OPSG)
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- Metropolitan Medical Response Grants (MMRS)
- Citizen Corps Program (CCP)
- Intercity Bus Security Grant Program (IBSGP)
- Intercity Passenger Rail Security Grant Program (IPR)
- Non-Profit Security Grant Program (NSGP)
- Port Security Grant Program (PSGP)
- Regional Catastrophic Preparedness Grant Program (RCPGP)
- Transit Security Grant Program (TSGP)
- Tribal Homeland Security Grant Program (THSGP)

DHS Grant Administration Resources

- Statement Regarding Implementation of Standard Terms and Conditions for Research Grants
- Financial Management Guide
- OMB Circular A-133 Audit Guidance
- Catalog of Federal Domestic Assistance (CFDA) Crosswalk

DHS Department Components

- The Director of National Protection and Programs works to advance the Department's risk-reduction mission. Reducing risk requires an integrated approach that encompasses both physical and virtual threats and their associated human elements.
- The Director of Science and Technology is the primary research and development arm of the Department. It provides federal, state, and local officials with the technology and capabilities to protect the homeland.
- The Director of Management is responsible for Department budgets and appropriations, expenditure of funds, accounting and finance, procurement; human resources, information technology systems, facilities and equipment, and the identification and tracking of performance measurements.
- The Office of Policy is the primary policy formulation and coordination component for the Department of Homeland Security. It provides a centralized, coordinated focus to the development of Department wide, long-range planning to protect the United States.
- The Office of Health Affairs coordinates all medical activities of the Department of Homeland Security to ensure appropriate preparation for and response to incidents having medical significance.
- The Office of Intelligence and Analysis is responsible for using information and intelligence from multiple sources to identify and assess current and future threats to the United States.
- The Office of Operations Coordination and Planning is responsible for monitoring the security of the United States on a daily basis and coordinating activities within the Department and with governors, Homeland Security Advisors, law enforcement
partners, and critical infrastructure operators in all 50 states and more than 50 major urban areas nationwide.

- The **Federal Law Enforcement Training Center** provides career-long training to law enforcement professionals to help them fulfill their responsibilities safely and proficiently.
- The **Domestic Nuclear Detection Office** works to enhance the nuclear detection efforts of federal, state, territorial, tribal, and local governments, as well as the private sector to ensure a coordinated response to such threats.
- The **Transportation Security Administration (TSA)** protects the nation's transportation systems to ensure freedom of movement for people and commerce.
- **United States Customs and Border Protection (CBP)** is one of the Department of Homeland Security’s largest and most complex components, with a priority mission of keeping terrorists and their weapons out of the U.S. It also has a responsibility for securing and facilitating trade and travel while enforcing hundreds of U.S. regulations, including immigration and drug laws.
- **United States Citizenship and Immigration Services** secures America’s promise as a nation of immigrants by providing accurate and useful information to our customers, granting immigration and citizenship benefits, promoting an awareness and understanding of citizenship, and ensuring the integrity of our immigration system.
- **United States Immigration and Customs Enforcement (ICE)**, promotes homeland security and public safety through the criminal and civil enforcement of federal laws governing border control, customs, trade, and immigration.
- The **United States Coast Guard** is one of the five armed forces of the United States and the only military organization within the Department of Homeland Security. The Coast Guard protects the maritime economy and the environment, defends our maritime borders, and saves those in peril.
- The **Federal Emergency Management Agency (FEMA)** supports our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.
- The **United States Secret Service (USSS)** safeguards the nation's financial infrastructure and payment systems to preserve the integrity of the economy, and protects national leaders, visiting heads of state and government, designated sites, and National Special Security Events.

**DHS Relevant Resources**

**Resources – Government List by HSI**

- [Advice for Safeguarding Buildings Against Chemical or Biological Attack](#)
- [Agency for Toxic Substances and Disease Registry](#) (Health and Human Services)
- [Agriculture Dept. Risk Management Agency](#) (Department of Agriculture)
• **Bureau of Diplomatic Security** (Department of State)
• **Bureau of International Security and Nonproliferation** (Department of State)
• **Catalog of Federal Domestic Assistance**
• **Center for Biologics Evaluation and Research** (Food and Drug Administration)
• **Center for Domestic Preparedness (FEMA)**
• **Center for Homeland Defense and Security**
• **Center for Regional Disaster Resilience**
• **Centers for Disease Control and Prevention** (Health and Human Services)
• **Civilian Response Corps**
• **Coast Guard National Response Center for oil and chemical spills** (Department of Transportation)
• **Computer Crime and Intellectual Property Section, Justice Dept.** (Department of Justice)
• **Congressional Legislation Related to the Attack of September 11**
• **CyberCemetery**
• **Department of Veterans Affairs**
• **Disaster Resilient Structures and Communities Portal**
• **DisasterAssistance.gov**
• **Environmental Protection Agency’s Homeland Security Research**
• **More**

Resources - Academic Programs List by HSI

• **American Military University**
• **American Public University**
• **Center for Education and Research in Information Assurance and Security** (Purdue University)
• **Center for Infectious Disease Research and Policy**
• **Center for Rebuilding Sustainable Communities After Disasters**
• **Combating Terrorism Center at West Point**
• **Constitutional Rights Foundation**
• **Dartmouth College Institute for Security, Technology, and Society** (Dartmouth College)
• **Disaster Research Center** (University of Delaware)
• **George Washington University**
• **Harvard Sussex Program on Chemical and Biological Weapons**
• **Illinois State University Milner Library Government Information: Terrorism** (Illinois State University)
• **Institute of World Politics**
• James Martin Center for Nonproliferation Studies (Monterey Institute of International Studies)
• Johns Hopkins University
• Long Island University’s Homeland Security Management Institute
• Massachusetts Institute of Technology Security Studies Program
• Monterey Institute of International Studies
• National Center for Biomedical Research and Training e-Learning
• National Center for Emergency Preparedness at Vanderbilt U.
• National Defense University
• National Security Institute’s Security Resource Net
• National War College
• Our World 2.0
• Southeastern Public Safety Institute
• Texas Tech Task Force on Anti-Terrorism and Public Security (Texas Tech University)
• U.S. Army Medical Research Institute of Chemical Defense
• University of California–Los Angeles Center for Public Health and Disasters (UCLA)
• University of Pennsylvania Wharton Risk Management and Decision Processes Center (Wharton School of Business, University of Pennsylvania)
• University of Pittsburgh Graduate School of Public and International Affairs (University of Pittsburgh)

Resources - References

• Academic Info: Terrorism Studies Links & General Resources
• Advice for Safeguarding Buildings Against Chemical or Biological Attack
• American Diplomacy
• American University Library
• Babel Fish translator (Translates between languages)
• CIA World Factbook
• CIA World Leaders page
• Congressional Research Service Reports on Homeland Security
• Current Travel Warnings from the State Dept. (State Department)
• Cyber Criminals Most Wanted
• DoD Dictionary of Military Terms (Lists all military terms used by the Department of Defense)
• Domestic Per Diem Rates Travel Expenses
• EM-DAT Intl. Disaster Database
• Executive Orders
• Federal Citizen Information Center (An eclectic mix about information on government
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- FedWorld
- Find Biometrics.com
- George Washington University Libraries (George Washington University's library)
- Government Accountability Office (Gateway to government documents and publications)
- Homeland Security Digital Library
- More from HSI
The Health Resources and Services Administration (HRSA), an agency within the Department of Health and Human Services (HHS), serves as the primary federal agency for improving access to health care services for the uninsured, isolated or medically vulnerable. The agency mission is to improve health and achieve health equity through access to quality services, a skilled health workforce, and innovative programs. The agency’s four goals include: improving access to quality care and services; strengthening the health workforce; building healthy communities; and improving health equity.

To achieve these goals, **HRSA awards billions of dollars in grants that enable organizations and institutions** to help build healthy communities and healthy people. These grants will be of interest to university researchers across a range of academic disciplines, departments, colleges, and health science centers, as well as campus research centers focused on such issues as health disparities, healthy communities, and rural public health, among others.

To this end, it is important to understand the HRSA mission **at all scales**: agency, office, program, and solicitation. It’s also important to become knowledgably informed on the below questions as you look to HRSA as a potential funder of your research. The more knowledgeable you are about HRSA’s mission, strategic plans, culture, investment priorities, and the rationale behind them, the better able you will be to develop highly competitive responses to funding opportunities at HRSA. Moreover, you may want to read the article “**Funding Health Disparities Research**” published in the May 15 issue of this newsletter, given the relevance of health disparities and underserved population issues to the HRSA mission and goals, particularly the goal of health equity (**more on HRSA**).

**In this article you will learn the answers to the questions below that will allow you to determine whether or not you would be competitive for funding at HRSA.**

- What kinds of research does HRSA fund?
- What are HRSA’s mission, goals, and objectives
  - Who is the audience for a proposal submitted to HRSA?
  - How do you best address that audience?
  - **What is a fundable idea** within the context of the HRSA’s research mission priorities and your research interests and expertise?
  - How are claims of research uniqueness, innovation, and impact on the HRSA mission best supported in your proposal?
  - What arguments should your proposal make that will compellingly demonstrate the impact of your research on the HRSA mission?
- How well do your research interests and expertise map to and impact HRSA’s research mission priorities and strategic plan (see below synopsis)?
• How does HRSA organize its research domains?
• How can I become a grant reviewer at HRSA (a sure way to gain competitive insight into any agency)
• How does HRSA announce funding opportunities?
• What are HRSA’s guidelines for submitting proposals?
• How will your proposal be reviewed at HRSA?
• What is the role of the HRSA program officer in the review process?

The HRSA Strategic Plan: Vision, Mission, Goals, Subgoals & Guiding Principles

Competitive proposals to HRSA will be grounded on your understanding of the agency’s strategic plan for implementing its mission and goals. This understanding will help you demonstrate in your proposal a close agreement between your research interests and the agency’s mission. It will also help you address all the performance objectives detailed in the solicitation to which you are responding. Therefore, a first step in determining whether your research interests and expertise are likely to be competitive in responding to HRSA solicitations is to compare your research areas of interest and expertise with the interests of HRSA as defined below in the synopsis of the agency strategic plan.

A stepwise and close review of the below will allow you to determine whether and how your research fits the HRSA funding priorities defined by its overall vision of “Healthy Communities, Healthy People,” which, in turn, drives the agency mission to improve health and achieve health equity through access to services, a skilled workforce, and innovative programs. The agency’s subgoals listed below should be measured against your research capacity or capacity to address issues of the health workforce, or both combined. Moreover, when reviewing the below, keep in mind that you may need research, educational, and community partners to join with you in a collaboration to more competitively and successfully address HRSA goals.

Goal I: Improve Access to Quality Health Care and Services
Subgoals
a. Assure a medical home for populations served.
b. Expand oral health and behavioral health services and integrate into primary care settings.
c. Integrate primary care and public health.
d. Strengthen health systems to support the delivery of quality health services.
e. Increase outreach and enrollment into quality care.
f. Strengthen the financial soundness and viability of HRSA-funded health organizations.
g. Promote innovative and cost-efficient approaches to improve health.

Goal II: Strengthen the Health Workforce
Subgoals
a. Assure the health workforce is trained to provide high quality as well as culturally and linguistically appropriate care.
b. Increase the number of practicing health care providers to address shortages, and develop ongoing strategies to monitor, forecast, and meet long-term health workforce needs.

c. Align the composition and distribution of health care providers to best meet the needs of individuals, families and communities.

d. Assure a diverse health workforce.

e. Support the development of interdisciplinary health teams to improve the efficiency and effectiveness of care.

**Goal III: Build healthy communities**

**Subgoals**

a. Lead and collaborate with others to help communities strengthen resources that improve health for the population.

b. Link people to services and supports from other sectors that contribute to good health and well-being.

c. Strengthen the focus on illness prevention and health promotion across populations and communities.

**Goal IV: Improve health equity**

**Subgoals**

a. Reduce disparities in quality of care across populations and communities.

b. Monitor, identify, and advance evidence-based and promising practices to achieve health equity.

c. Leverage our programs and policies to further integrate services and address the social determinants of health.

d. Partner with diverse communities to create, develop, and disseminate innovative community-based health equity solutions, with a particular focus on populations with the greatest health disparities.

**Principles**

1. Value and strengthen the HRSA workforce and acknowledge our HRSA colleagues as the critical resource in accomplishing our mission.

2. Strengthen the organizational infrastructure, and excel as a high-performing organization.

3. Maintain strong fiscal and management systems.

4. Encourage innovation.

5. Focus on results across the population by using the best available evidence, monitoring impact, and adapting programs to improve outcomes.

6. Partner with stakeholders at all levels--from individuals, families, and communities to organizations, states, and tribal organizations.

7. Use place-based strategies to promote and improve health across communities.

8. Build integrated approaches to best meet the complex needs of the populations served.
9. Harness technology to improve health.
10. Operate on the fundamental principles of mutual respect, dedication to our mission, and the well-being of the American people as our top priority.

Consider Becoming an HRSA Grant Reviewer

If, after comparing your research expertise to the above strategic mission objectives of HRSA, you find that your research fits closely with the agency’s goals, you may want to consider gaining a deeper and much more nuanced understanding of the competitive grants process at HRSA. This should prove of enormous value to meeting your own long-term career and research goals and objectives.

HRSA is looking for doctors, dentists, nurses, pharmacists, nutritionists, medical/health educators, health researchers, psychologists, social workers, health administrators, allied health providers, economists, physician assistants, patient navigators, health facility architects and engineers, and others with experience in health care to act as reviewers. Learn more on reviewing grants for HRSA by reading the letter on reviewing for HRSA from the administrator. Reviewers use their expertise to objectively evaluate and score applications against published evaluation criteria. For their efforts, reviewers gain an understanding of the grant-making process while getting the opportunity to network with colleagues. If you have HRSA relevant expertise and are interested in becoming a HRSA grant reviewer, you can submit your application online. Start by registering and then fill out the grant reviewer application.

Finding HRSA Funding

HRSA publishes Funding Opportunity Announcements (FOA) to both Grants.gov and the HRSA website. You may also Sign up for e-mail notification each time an HRSA grant application becomes available on Grants.gov. HRSA, an agency of HHS, makes grants to organizations to improve and expand health care services for underserved people, focusing on the following program areas: Health Professions | HIV/AIDS | Maternal & Child Health | Office of the Administrator | Primary Health Care/Health Centers | Rural Health | Healthcare Systems | Organ Donation.

For example, the following table lists currently open grant opportunities at HRSA with due dates upcoming over the next six weeks. Exploring these solicitations will give you a deeper insight into how HRSA meets its mission agency through grants. Moreover, you can set up a Grants.gov email alert as above to send you new opportunities when they are announced. Complement this by bookmarking the HRSA URL for the listing of open opportunities to ensure that you are able to make a decision to pursue a specific HRSA opportunity on the day it is released. This allows you to devote the entire open period for the grant to developing and writing the application if it is something you want to pursue.
The HRSA Grants Process

Tips for Writing a Strong HRSA Grant Application

Keep your audience in mind. Reviewers will use only the information contained in the application to assess the application. Be sure the application and responses to the program requirements and expectations are complete and clearly written. Do not assume that reviewers are familiar with the applicant organization, service area, barriers to healthcare, or health care needs in your community. Keep the review criteria in mind when writing the application.

Start preparing the application early. Allow plenty of time to gather required information from various sources.

Follow the instructions in this guidance carefully. Place all information in the order requested in the guide. Avoid the disadvantage of requiring reviewers to hunt through your application for information.

Be brief, concise, and clear. Make your points understandable. Provide accurate and honest information, including candid accounts of problems and realistic plans to address them. If any required information or data is omitted, explain why. Make sure the information
provided in each table, chart, attachment, etc., is consistent with the proposal narrative and information in other tables. Your budget should reflect the proposed activities, and all forms should be filled in accurately and completely.

**Be organized and logical.** Many applications fail to receive a high score because the reviewers cannot follow the thought process of the applicant or because parts of the application do not fit together.

**Be careful in the use of attachments.** Do not use the attachments for information that is required in the body of the application. Be sure to cross-reference all tables and attachments to the appropriate text in the application. Be sure to upload the attachments in the order indicated in the forms.

**Carefully proofread the application.** Misspellings and grammatical errors will distract reviewers and impede their understanding of the application. Be sure to observe page limits. Limit the use of abbreviations and acronyms, and define each one at its first use and periodically throughout the application. Make sure you submit your application in final form, without markups.

**Print out and carefully review an electronic application to ensure accuracy and completion.** When submitting electronically, print out the application before submitting it to ensure appropriate formatting and adherence to page limit requirements.

**Check to ensure that all attachments are included before sending the application forward.** Submit all information at the same time. HRSA will not consider additional information and/or materials submitted after your initial submission, nor will we accept e-mailed applications or supplemental materials once your application has been received.

**The Pre-Award Process and Role of Program Officers at HRSA**

Program staff participate in the objective review process through the Division of Independent Review. They

- Serve as monitors
- Provide advice and clarity on budget and fiscally-related concerns
- Provide and interpret grants management policy to reviewers, as necessary and when requested, when proposed actions are in conflict with policy and procedures
- Assist applicants or potential grantees with questions related to the preparation of proposals. During the pre-award process, program staff answer questions from interested applicants related to fiscal and related matters, general information on EHB registration, and information related to Grant.gov postings on the FOA.

**How Your Proposal Is Reviewed at HRSA**

Applications go to the Division of Independent Review (DIR) and are reviewed by a review panel.

**HRSA Standard Review Criteria**

- Need
- Response
Research Development & Grant Writing News

- Impact
- Support Requested
- Evaluative Measures
- Resources/Capabilities

How applications are reviewed at HRSA:
- By outside expert reviewers
- Each HRSA application must be reviewed by three reviewers
- Each application is reviewed according to criteria set forth in the Program Guidance

Key rules for HRSA reviewers:
- Evaluate each application on its own merit
- No outside information
- No comparison of applications

Responsibilities of HRSA reviewers:
- Read and be thoroughly familiar with Program Guidance
- Read and be thoroughly familiar with assigned applications
- Develop preliminary statements of strengths and weaknesses for each assigned application.
- Independently review, evaluate, and preliminarily score each application based on the Review Criteria.
- Participate in open panel discussion
- Develop consensus of strengths and weaknesses
- Provide final score for all applications against published review criteria

Products of the HRSA Review Process:
- Rank Order List
  - List of Applicant Scores, in Rank Order, from Highest to Lowest
  - Rank is Established by Scoring Criteria, plus Priority Points and Funding Preferences (if any)
- Summary Statement
  - Developed and edited by the panel
  - Reflects the panel’s consensus
  - Gives examples, where appropriate
  - Goal is to provide constructive feedback

HRSA Grant Writing Resources
HRSA Overview
- Key Staff
  With contact and biographical information.
• **Organization Chart**  
A visual representation of the reporting structure of HRSA.

• **Bureaus & Offices**  
Programs, organization chart, and key staff.

• **Advisory Committees**  
Independent groups that provide advice and counsel to inform HRSA programs.

• **Working with HRSA**  
Job and contract opportunities and benefits of working for the U.S. government.

• **HRSA History**  
See a timeline of milestones from HRSA's beginning.

**HRSA Health Professions Open Opportunities** (see **Creating Good HRSA Grant Applications Focusing on Underserved Populations**).

**HRSA Technical Assistance Presentations**  
The following were first presented at the *Creating Good HRSA Grant Applications Focusing on Underserved Populations* workshop in Philadelphia on May 19, 2010.

• **HRSA At a Glance**
• **The HRSA Grants Process: Application, Review and Awards**
• **HRSA A-Z**
• **Tips for Writing and Submitting Good Grant Proposals**
• **Highlights of the Health Center Program**
• **Ryan White HIV/AIDS Programs**
• **Grants to Increase Organ Donation**
• **Health Equity and Patient Civil Rights: A Federal Perspective**
• **Assuring Health Equity and Patient Civil Rights Through Effective Health Communication**
• **The HRSA Strategic Plan**
• **Creating Good HRSA Grant Applications Focusing on Underserved Populations**
• **Grant Tips for Writing a Strong Grant Application**
• **Grants.gov Application Help**
• **How to Register with Grants.gov**
• **How to Apply through Grants.gov**
The format you use for your proposal has a strong influence on the reviewer’s reading experience, and you want it to be a positive one.

The most important advice to heed when preparing to format a proposal is, “Follow the rules!” Most funders have specific rules about how they want proposals formatted, and they can vary dramatically. NSF presents its rules in the Grant Proposal Guide; NIH lists its rules in the SF-424 Application Guide; and many agencies and foundations cover formatting requirements in the application instructions for a particular grant. Some funders want proposals double spaced; some want them single spaced. NSF requires 1” margins, while NIH allows ½” margins. Requirements can even vary by program. Be sure you understand and follow the formatting requirements for the funder and program to which you’re applying.

Beyond that, though, you’ll need to make many decisions regarding format. If you can choose between several fonts, which one should you use? Should you put a space between paragraphs, or should you indent? How should you format tables? What about figure captions? Should the text be right justified, or should you have a “ragged-right” margin? PIs and reviewers often argue these issues as passionately as they would deeply-held religious or political beliefs. Put an adherent of the “ragged right” margin in the same room with a “right justifier” and the discussion may come to blows. And, as with political and religious debates, there is really no objectively correct answer. However, you should consider some guiding principles when making your formatting decisions.

Keep the reviewer’s experience in mind. The reviewer will likely be reading your proposal after having read several others. It may be 2 a.m., her eyes are tired, and she may be getting a bit grumpy. Furthermore, she has several review criteria that she’s been instructed to use to rate your proposal, and she’ll need to state concisely in her review how you address these review criteria. If she’s involved in a panel review and she likes your proposal, she’ll need to “sell” it to the rest of the panel, and that may require answering specific questions about your proposed project during the panel discussion. If, for example, another member of the panel who has not read your proposal asks her how you will prepare your samples, she needs to be able to find that information quickly if she doesn’t happen to remember it.

Clarity and efficient use of space are key. Reading text is an inherently linear process: the reviewer reads one sentence, followed by another sentence, and so on. This works well for ideas that are naturally sequential, such as building a logical case for why a certain research question needs to be answered. On the other hand, many concepts are not sequential – for example, how several research strands fit together, how various tasks on a work plan will be accomplished in parallel and feed into a subsequent task, or how an apparatus will be configured. Describing these concepts can often require a sea of text that may fail to deliver
clarity. If you find yourself struggling to describe an idea or concept, think about whether it might be better described using a figure, schematic, flow chart or table.

**Your proposal should follow agency and discipline conventions.** If almost all proposals to the agency to which you’re applying use 10-point Arial font with right-justified margins, then you’ll probably want to follow that convention even if you personally prefer Times New Roman and a nonjustified right margin. You want to look like you belong to the community to which you’re applying, not like you meant to send the proposal to another agency. All of the advice given below should be tempered by this principle. For example, we discuss the use of bullets and flow charts, but the usefulness of these features for a biochemistry or electrical engineering proposal might not extend to a fellowship proposal to NEH on comparative literature or a theoretical mathematics proposal to NSF. Specific formatting tips are given below.

### Choosing a Font

Conventional wisdom has held that for body text, serif fonts (the ones with little flourishes at the end of the strokes – Times New Roman is the most common) are more legible than sans serif fonts (such as Arial and Calibri). Sans serif fonts are often recommended for use in headings and subheadings. However, many readers prefer the cleaner look of the sans serif fonts for body text, and they are generally considered easier to read on a computer screen, so use of sans serif for body text is becoming more common. It’s important to be aware, though, that MS-Word’s current default font, Calibri, is not an approved font for NSF or NIH proposals.

Font size is also an important consideration (and pitfall) for PIs. Many PIs automatically use the very smallest font size allowed (e.g., 10-pt Arial or 11-pt Times New Roman for NSF). Before making that decision, print out a page and see how it looks. A page with small type may be fine if there’s plenty of white space, but a page with uninterrupted small type arranged in a few paragraphs can inspire dread in the heart of a reviewer. Think about how you would feel while reading the page at 2 a.m.

The most legible fonts within tables and figures are sans serif fonts such as Arial. You can usually get away with using a smaller font than you would need to use in the regular text, since there are fewer words and more white space. Most funders don’t specify a minimum font size for tables or figures, but you’ll want to make sure the text is legible.

### Formatting Paragraphs

When formatting paragraphs, you have two general choices: block style paragraphs (no first-line indent and a space between paragraphs), or indented paragraphs (an indented first line and no space between paragraphs). Block style paragraphs yield more white space on the page, which can make the page easier to read, but all of those spaces between paragraphs can make it difficult to stay within your page limit. One compromise is to use the “format paragraph” function in MS-Word to control the amount of space above or below your paragraphs rather than just hitting an extra return. This allows you to cut down to 4- or 6-point spacing between your paragraphs, which still gives you white space while allowing you to fit more onto the page.
Using the first-line indent style can often yield more readable text if you include a lot of other features that introduce white space, such as bullet lists, subheadings, figures and tables. First-line indents don’t usually need to be more than 0.25” (another feature that can easily be controlled using the paragraph formatting feature), although the default is typically 0.5”.

Also remember that long, dense paragraphs can burden a tired reader. Avoiding lengthy paragraphs and signaling the transition to a new idea with the start of a new paragraph helps the reader follow your logic more easily and thereby avoids confusion.

Headings and Subheadings

Headings, subheadings, and even sub-sub-headings can be very useful in helping reviewers find important information (remember that this can be especially important when your primary reviewer is presenting your proposal to the panel). Using numbers or letters to signify the level of the heading works well, but don’t get carried away; numbering subheadings past two sublevels (for example, “2.3.2 Analysis of Task 2 Data”) is generally more confusing than helpful to the reader. Subheadings past the second sublevel can be included without numbering, using font style, size, or indenting to communicate the level of the section to the reader.

Bullets, Figures, Tables, and Charts

The best way for a PI to make his proposal more engaging and easier to understand is to skillfully use bullet lists, figures, tables, and charts. As we discussed earlier, this can be a good way to efficiently communicate complex ideas. It’s also an easy way to make your main ideas stand out on the page. For example, if your research plan involves four tasks, setting those tasks off using bullets will make them much easier for a reviewer to find. The eye is naturally drawn to bullets, figures, and tables on a page, so putting your most important ideas in bullets, a figure, or a table will ensure that your reviewers see them.

Make the most of these features by including descriptive figure captions and table titles. For example, rather than including under a flow chart the caption, “Figure 3. Research Test Plan,” use the caption to communicate the main idea that you want the reviewer to take away from the figure; for example, “Figure 3. The research test plan comprises four tasks, culminating with a data analysis phase to assess material performance compared to targets.” For many proposals, a reviewer ideally should be able to gain a general understanding of your project simply by reading your figure captions, bullets, and table titles.

In addition, including schedule and milestone charts can help reviewers quickly identify the main tasks of a project and understand how they fit together. Another useful approach, particularly for complex programs with a number of requirements and review criteria, is to include a table listing program activities and showing the requirements and criteria each activity addresses using dots or checkmarks under the appropriate columns.

One of the most common mistakes PIs make is to develop a beautiful, well-conceived figure and then shrink it to such a small size that it becomes illegible. If a figure conveys essential information, give it the space it deserves. Zoom features on your computer can deceive you in matters of legibility, so print out the page and look at the figure to make sure it is still easy to
read. Similarly, an overly complex figure, with lots of labels and arrows going in many directions will have the opposite of the intended effect. Instead of drawing the reviewer’s attention, the reviewer will ignore the figure because it would require intense study, and who wants to follow a maze of arrows around a flow chart at 2 a.m.? If a reader can’t quickly and easily understand your figure, then you may want to try another approach to communicate the information. You may need to split the information into more than one figure; you might use a table instead, or perhaps text is the best option.

**Bold, Underline, and Italic**

Using special character formatting, such as bold, underlining, or italics, to draw the reviewer’s attention to important points can be very effective when used judiciously. This approach can be especially useful in helping reviewers find concise descriptions of how you address specific review criteria. Similarly, important features, such as your goals, hypotheses, and objectives can be easier for the reviewer to find if you use bold or italicized text to draw attention to them within a paragraph (often by just bolding the word, “hypothesis,” for example). However, you should be careful not to overuse these features since it can be difficult to read a paragraph in which every other sentence is bolded. These features also lose their effectiveness when they are overused.

By using these formatting tools effectively, you can make the reader’s experience a more pleasant one, and that can translate to a better understanding of your ideas, and a more positive review.
NSF’s Research Experiences for Undergraduates Site proposals, which are due in late August this year, can provide infrastructure for addressing broader impacts in other NSF proposals.

The REU Site Program

NSF’s Research Experiences for Undergraduates Sites is a long-running, annual program with proposal due dates falling in late August through September. This year’s proposal due date occurs on August 24, 2011, except for the Office of Polar Programs (which funds research experiences in Antarctica and typically has a due date in June). The current REU solicitation covers both REU Sites and Supplements, but we’ll focus on the sites in this article.

Applicant. The purpose of the program is to fund a number of students (typically 6 to 18 each year) for research experiences (usually during the summer). The institution that will host the research experience is the awardee. It’s not required that the applicant institution be a research-intensive university, and many Predominantly Undergraduate Institutions (PUIs) have been awarded REU sites, but they must have enough research in areas of interest to NSF to provide a meaningful research experience for students.

Funding. The funding period is 1 to 5 years, but is typically 3 years; the funding amount is typically $70K - $110K per year, depending on the number of students participating and the length of the research experience. Typical total project costs are $800 - $1,000 per student per week. Most of the budget is expected to go to student stipends (typically around $500 per student per week), room and board, fees, and travel to and from the REU site. Typical additional costs include funding to support enrichment activities such as field trips, lunch-time seminars, and special training, such as a GRE prep workshop. Funding should not be used to support research beyond limited funds for laboratory use fees, materials and supplies, etc. Support for student participants (stipend, room and board, etc.) is listed in the budget under “Participant Support,” and an administrative allowance of 25% of the participant support amount is allowed in lieu of indirect costs. Most NSF units allow no more than one month summer salary for the PI, but this varies among units, so it’s a good idea to check with your Program Officer. An additional $4K per year in funding can also be requested for an optional Ethics in Science or Engineering component.

Students. Because the REU Site program seeks to provide research experiences to students with unlikely access to research, it is expected that most of the student participants will be from non-research intensive institutions. This means that typically 80% or more of students participating in an REU site at a research-intensive university will come from another institution. For non-research-intensive institutions hosting REU Sites, typically 50% of students will come from other institutions. Students supported by NSF must be US citizens or permanent residents, although many REU sites use their own funds to host additional students who may not meet these requirements.
Special Opportunities. Section II of the solicitation describes special opportunities for REU projects. These include support available from the Department of Defense and the Department of Energy’s Geothermal Technology Program to support REU Sites that provide research experiences of special interest to those agencies. You do not need to do anything special to be considered for that funding, but if your research focus fits one of these programs, be sure to discuss that explicitly in your Project Description. In addition, NSF’s Office of International Science and Engineering (OISE) cofunds international REUs. If you plan to submit an international REU, it’s a good idea to talk to OISE first. REU Sites can also be paired with Research Experiences for Teachers (RET) Sites or Supplements. This can be an effective way to develop infrastructure and connections for future outreach components for NSF proposals. Be sure to talk to your NSF program officer for guidance on including an RET component. Supplements are also available from the Directorate for Education and Human Resources to support one or two additional undergraduates who participate in evaluative research under the guidance of a professional evaluator.

Why Apply for an REU Site?

It’s obvious from the above numbers that an REU Site is not a lucrative grant, and it does require quite a bit of work, so why apply for one? Many universities have found REU sites to be an extremely useful tool for recruiting students, particularly diverse students, into their graduate programs. An REU site provides infrastructure into which faculty can connect for broader impact components of other proposals. For example, if a Computer Science Department is the host of an REU Site, faculty in that department can commit in their proposals to hosting one or two REU students for research experiences related to the proposed research. An REU Site raises the national visibility of the program and department hosting the site and also increases visibility at NSF. An REU site can also strengthen connections with other colleges and universities from which you recruit undergraduate students.

Writing the REU Site Proposal

As with any proposal, it’s important to start the process of writing an REU Site proposal by understanding the review criteria, as stated in the solicitation. In addition to the intellectual merit and broader impact criteria, six review criteria are listed:

1. Appropriateness and value of the educational experience for the student participants, particularly the appropriateness of the research project(s) for undergraduate involvement and the nature of the students’ participation in these activities.
2. Quality of the research environment, including the facilities, the preparedness of the research mentor(s) to guide undergraduate research, and professional development opportunities provided to the students.
3. Appropriateness of the student recruitment and selection plans, including those for involving students from underrepresented groups and from academic institutions with limited research opportunities.
4. Quality of plans for student preparation and for follow-through designed to promote continuation of student interest and involvement in research.

5. For REU Sites: appropriateness and cost-effectiveness of the budget, effectiveness of the plans for managing the project and evaluating the outcomes, and commitment of partners, if relevant.

6. For REU Sites that request extra funding for the supplementary "Ethics in Science or Engineering" component: appropriateness and quality of the proposed ethics activities.

The Project Description requires the following sections:
- Overview
- Nature of Student Activities
- Research Environment
- Student Recruitment and Selection
- Project Evaluation and Reporting
- Results from Prior NSF Support, if applicable

We’ll discuss each of these sections below.

**Overview**

The solicitation states that this section should include, “a brief description of the objectives of the proposed REU Site, targeted student participants, intellectual focus, organizational structure, timetable, and participating organizations’ commitment to the REU activity.” The intellectual focus may be on a specific research area either within a department or across departments (for example, a focus on nanotechnology might span research in several departments), or it may include research conducted across an entire department if the department is small. The focus should relate to research of interest to NSF. It’s nice if some of that research has been funded by NSF, but it’s not required.

**Nature of Student Activities**

In this section, you need to discuss in detail sample projects in which students might be involved. A common mistake is to provide either a very general discussion of research themes or discuss the research projects of faculty mentors without describing the specific role of the undergraduate students. Emphasize the quality of the research experience: How is the research original and significant? What will the student do? How will the student’s role be substantive? How will the student “own” the project? How will the student be kept on track? Remember that the goal of this program is to give a student a real research experience, not have them watch others do research; so you need to convince reviewers that the students will not just be “bottle washers.”

Structuring a meaningful research experience for students that will accommodate their limited experience and depth of knowledge in the topic requires some thought. Fortunately, you can rely on a growing body of literature on best practices for mentoring undergraduate research; some of these resources are listed at the end of this article. Read and cite some of this literature to show that you are aware of this body of knowledge.
In addition, you should discuss planned development activities. These may include an initial orientation, workshops, and seminars that, for example, help ramp up students’ skills in preparation for their research experience, help prepare them to apply to graduate school, or inform them about research careers. Social activities are also commonly planned to help students form a cohort and to ensure that they enjoy their experience on campus. Plans to ensure development of student-faculty and student-student communication might also include lunches to allow students and faculty to discuss their research as well as the use of social networking tools and formal mentoring plans. An end-of-session conference or poster presentation is also a common feature of REU Sites. Some sites also provide funding for students to present their work at regional disciplinary conferences.

**Research Environment**

In this section, discuss the experience of the PI and other faculty mentors in mentoring undergraduates in research. If some faculty mentors lack that experience, you might consider including training for faculty on best practices for mentoring undergraduates and perhaps a formal process to mentor the mentors and track their progress. In this way, you’re actually building your institution’s capacity to guide undergraduates in research. Diversity of the faculty mentors should also be discussed. Facilities, equipment, and labs that will be used for the proposed undergraduate research should also be described.

**Student Recruitment and Selection**

Since most of the participating students will typically come from other institutions, it’s important to have a detailed recruitment plan. Efforts to attract students from underrepresented groups should be specifically described. This recruitment plan needs to be as specific as possible and ideally should be built on existing connections. Experience has shown that just sending brochures to other universities and putting up a website doesn’t generally yield good results. More effective approaches usually involve working with faculty at target institutions who help to recommend and recruit potential participants. This is particularly the case for predominantly undergraduate institutions and community colleges, where students may not be aware of summer research opportunities. If you are able to form these kinds of recruiting partnerships, be sure to get a letter from the faculty you’ll be working with discussing how they will assist you in your recruiting efforts.

Selection criteria should also be discussed. While you’ll want good students who have the skills and motivation to succeed in their research experience, be careful not to use wording that implies that you’ll only accept top-tier, elite students. Since one of the goals of an REU is to inspire otherwise unlikely students to pursue a research career, restricting participation to star students could be considered “preaching to the converted” by the reviewers.

Similarly, REUs typically have recruited rising juniors and seniors, but NSF encourages REU Sites to consider recruiting students at earlier stages in their college experience, since they are more likely not to have decided whether to pursue research careers and may be less firmly committed to staying in a STEM major. NSF suggests partnering with community colleges as one successful strategy to do this. Of course, these first-year and second-year undergraduates may well lack a developed foundation in the discipline and in research techniques, so involving them
may require additional strategies to scope projects so that they are appropriate to the participants’ skills and to provide training.

Remember, also, that students funded by NSF must be US citizens or permanent residents.

**Project Evaluation and Reporting**

Explicitly state your specific, measurable goals and then describe how you will determine whether your project has achieved those goals. Evaluation should include both formative and summative measures. Formative evaluation is on-going assessment conducted throughout the project aimed at fine-tuning the project as it progresses. For example, questionnaires given to the participants in the first year might show that students were not happy with their dorm rooms. You might then change boarding arrangements for the second summer to address this issue. Summative evaluation is based on results at the end of the project and provides an assessment of whether the project was successful in meeting its goals. For example, if one of your goals was to inspire students to pursue graduate degrees, you might track your participants to find out whether they did go on to graduate school.

Evaluation instruments might include compiling retention and academic performance data, student and faculty surveys, study of student behaviors, focus groups and tracking of students beyond graduation. Tracking students after participation in an REU can be challenging, but it’s become easier with the advent of social networking and the tendency for students to keep their email addresses. Developing ways for students to keep in touch via chat groups or other social networking tools can not only help you track them but also aid you in future efforts to recruit them into your graduate program, if that is one of your goals. You can also include funding for an evaluator in your budget.

**Results of Prior NSF Support**

This section is required only if your institution has had a previous REU Site in the same disciplinary area. If this is the case, describe the earlier REU, the outcomes, results from project evaluation, and a list of publications and reports.

**Logistical Considerations**

Bringing 10 or 12 undergraduates in from elsewhere, housing and feeding them, and making sure they have a rich research experience as well as a good time can be a logistical challenge. If other REU Sites have been funded at your campus, talk to the PI to find out how they addressed these needs. If not, then you’ll need to think through the logistics with the help of the appropriate staff and administrators in the registrar’s office, student housing, the research office, and so on. Consider the following issues:

- Will the undergraduate participants be registered as students at your institution? Often, registering them for one credit hour will require that you budget for the appropriate tuition and fees, but it will give participants access to the dorms, library, fitness center, health center, and other on-campus amenities. Check with your institution to determine their policies on this.
• Where will the students stay? Some campuses have ample room in on-campus dorms, while others may be full due to other summer programs, and off-campus private housing may be a better choice. Again, be sure to figure this out and budget appropriately. Some universities with multiple REU Sites set aside a block of rooms so that all REU students can be housed together, thus promoting camaraderie and connections across disciplines.

• How will you handle feeding your students? Some REU Sites give students a meal plan, while others give them a food allowance that they can use anywhere.

• How often will you pay students? Students may be very low on funds when they arrive, so waiting a month to pay them may not be a practical option.

• What social events will you arrange, and how will they be paid for? NSF funds can’t be used for purely social events, but students may be willing to pay a fee to attend these events (for example, a trip to a local water park or to the movies), or your institution may be willing to host some events, particularly if they are on campus.

• How will you handle transportation to and from the airport and around town? If students arrive by plane, they will not have cars. If your town has limited public transportation, you may want to arrange regular shuttles to and from points of interest or organize car pools. Hiring a student to help with some of these tasks, such as picking students up from the airport, can help lighten the load on you and your department’s staff.

• If you’d like to hold enrichment activities, such as a GRE prep workshop, be sure to include funds for that in the budget, or leverage resources on campus. The worst thing that can happen is to commit to offering these kinds of activities in your proposal and then realize after the grant is awarded that you haven’t budgeted funds to support those activities.

• Do you have enough administrative support to ensure that your time is not consumed with all the work of processing applications, reimbursing travel expenses, and registering your students? You can put some support for staff to help you with these tasks in the budget. Providing staff to support the program is also an excellent way for your institution to show institutional support.

With careful planning, an REU Site can be an asset to your department and your institution as well as a good resource for future NSF proposals.

Undergraduate Research Resources

• CUR Series of "How to" booklets on undergraduate research
• Jeffrey E. Froyd, "Evidence for Efficacy of Student-active Learning Pedagogies," A collection of journal articles and websites on current research related to the use of student-active pedagogies.
Research Development & Grant Writing News

- Helpful website on assessment of undergraduate research
- Survey of Undergraduate Research Experiences (SURE) and HHMI Classroom Undergraduate Research Experience Survey (CURE) - David Lopatto, Grinnell
- Anne-Barrie Hunter, Sandra L. Laursen and Elaine Seymour, "Becoming a Scientist: The Role of Undergraduate Research in Students' Cognitive, Personal and Professional Development." Published online 12 Oct. 2006 in Wiley InterScience.
- Extensive Bibliography of "The Assessment and Efficacy of Undergraduate Research," by Richard H. Harrison II, provided by the Office of Undergraduate Research, University of Central Florida (http://www.our.ucf.edu/docs/CASTL%20Bibliography.pdf; Note: for some reason, this link only works if you copy and paste the url into your browser)
NSF Broader Impacts (BI) Revisited

Over the past decade or so much has been written and discussed about the NSF review criterion **Broader Impacts** (examples below), including workshops, reports, and websites specific to helping researchers develop appropriate BI activities (see below links). The **BI criterion requires your close and thoughtful attention to make sure it is appropriate by research context, your capacities, and scale.** As stated in the NSF **Grant Proposal Guide**, the BI criterion **must** be clearly addressed **in the project summary in a separate statement** that demonstrates the broader impacts resulting from the proposed activity. If the BI criterion, along with the intellectual merit criterion, is not addressed in this way in the project summary your proposal will be returned without review by NSF. Moreover, BI must also be addressed in an expanded way in the project narrative, and may also form a component of the biographical sketch (d. **Synergistic Activities**) where you provide a list of up to five examples that demonstrate the broader impact of your professional and scholarly activities that **focuses on the integration and transfer of knowledge as well as its creation.**

All this can cause some anxiety on the part of researchers who feel they do not understand the BI criterion clearly, or who feel unprepared by training and other factors to address this criterion effectively in the project narrative. The best antidote for this anxiety, particularly one offering mithridatic properties, is to **first take the time to examine the BI criterion in detail**, along with reviewing more in-depth examples of the range of BI activities so that you gain a deeper appreciation of the **intent of the BI criterion** and, hence, **thereby gain a more nuanced understanding of the how the BI criterion applies to you.** The URLs provided below will be a good entry point to this process.

There are many advantages in becoming self-sufficient or “packing your own chute” when it comes to interpreting how the BI criterion applies to you in the **context, scope, and scale** of any particular, i.e., specific, proposal you put forward to NSF. Becoming **personally knowledgeable about the BI criterion** and how you can best map your research and capacities to appropriate BI activities is just **one more competitive advantage you can gain** in the NSF merit review process.

**Proposals are won at the margins of excellence.** Everything you do right in the proposal narrative that brings you as near a perfect proposal narrative as possible will give you the accumulation of marginal advantage needed to convince reviewers and program officers to fund your effort. BI is one of many areas of competitive advantage you can gain by **taking the time to fully understand the criterion since you are the only one that can truly judge how potential BI activities fit your research context in the appropriate scope and scale and within your capacities and BI interests.**

Take the time to learn about the BI criterion in detail to gain a **nuanced understanding of its intent and purpose.** Truly understanding and appreciating the BI intent and purpose will
then allow you to develop good ideas for BI activities in your proposal as required by the specific solicitation you are responding to at NSF. Do not try to “farm out” the BI activities of your proposal to someone not knowledgeable about your research that will just offer you an “off the shelf” or “canned” BI write-up that is disconnected from and does not reflect your research context, or does not logically arise (organically) from your research scope and scale and your own BI interests and capacities. The BI activities you propose have to make sense within the overall context of your research activities, and they have to be believable to reviewers and program officers. For example, a copy and paste of BI text from a center level proposal to a small proposal with a few PIs will be out of bounds both by scope and scale.

Moreover, proposing BI activities offered to you by someone on your campus with a collection of BI narrative text taken from multiple proposals over multiple years puts your proposal at risk. For example, perhaps by getting a “canned” BI narrative proposing to transfer your research into middle schools and impacting 500 students will likely be seen as unrealistic at best by reviewers if your have no experience working with schools in the past, or clearly do not understand the nuances of working with school districts, STEM teachers, and their students in relation to STEM standards. So it is important to learn about BI so you do not get blindsided by proposing activities that do not make sense for you or your research interests.

Start the process of “packing your own BI chute” by exploring in-depth the below links to BI resources. Also, talk to research colleagues, particularly those who have managed BI activities on proposals of various sizes and scales to get better ideas on how you can best fit NSF’s BI expectations to the context of your research.

Examples of the kinds of activity that are appropriate for BI

- **Advance discovery and understanding while promoting teaching, training, and learning**, for example, by training graduate students, mentoring postdoctoral researchers and junior faculty, involving undergraduates in research experiences, and participating in the recruitment, training, and professional development of K-12 mathematics and science teachers.
- **Broaden participation of under-represented groups**, for example, by establishing collaborations with students and faculty from institutions and organizations serving women, minorities, and other groups under-represented in the mathematical sciences.
- **Enhance infrastructure for research and education**, for example, by establishing collaborations with researchers in industry and government laboratories, developing partnerships with international academic institutions and organizations, and building networks of U.S. colleges and universities.
- **Broaden dissemination to enhance scientific and technological understanding**, for example, by presenting results of research and education projects in formats useful to students, scientists and engineers, members of Congress, teachers, and the general public.
- **Benefits to society** may occur, for example, when results of research and education projects are applied to other fields of science and technology to create startup
companies, to improve commercial technology, to inform public policy, and to enhance national security.

Links to BI Resources

- [Broader Impacts Review Criterion](#), Dear Colleague Letter
- Merit Review Broader Impacts Criterion: [Representative Activities](#) July 2007
- Merit Review Broader Impacts Criterion: [More Representative Activities](#)
- [Broader Impacts Showcase](#) - ACS Fall 2005, National Meeting & Exposition Washington, D.C.
- [OPP Office Advisory Committee: Working Group on Implementation of BI Review Criterion](#)
  - [Advice from NSF](#) about Broader Impacts Review Criteria
- [Center for the Study of Interdisciplinarity](#), University of North Texas
- [Making a Broader Impact: Geoscience Education, Public Outreach, and Criterion 2](#)
- [Broader Impacts Toolbox](#)
National Fellowship Databases

About GRAPES
The GRAPES database catalogs extramural funding opportunities of interest to prospective and current graduate students, students working on a master's thesis or doctoral dissertation, and postdoctoral scholars. It contains information on over 500 private and publicly funded awards, fellowships, and internships. Advanced search options allow users to refine their search by field, academic level, award type, award amount, and other criteria. GRAPES is maintained by the Graduate Outreach, Diversity and Fellowships Office. Access the database through the GRAPES Search Form.

Cornell Fellowships Database

Michigan State University Graduate Fellowships Database

Duke Humanities & Social Science Fellowships and Grants for Graduate and Professional Students.

Externally Funded Fellowships, University of Texas, Arlington

National Postdoctoral Association
Headquartered at AAAS; an independent voice for postdocs.

Fellowship Reports and News

“Measuring Diversity”: New Guide from NSF, AAAS, Helps Universities Evaluate Their Efforts
With many U.S. universities working to recruit and support minority graduate students, the AAAS, in partnership with the National Science Foundation, has issued a new guide offering detailed advice and practical tools to help administrators evaluate the effectiveness of their efforts. “Measuring Diversity: An Evaluation Guide for STEM Graduate Program Leaders” has a simple premise: A high rate of students from underrepresented minority groups leave graduate-level studies before completing advanced degrees, but especially at a time of rising global competition, that represents a significant and costly loss of talent and potential. “Measuring Diversity,” issued by AAAS and based on work with the National Science Foundation Alliance for Graduate Education and the Professoriate (AGEP), is available in paperback or online. The 83-page guide offers a detailed framework for evaluating graduate level programs in science, technology, engineering, and mathematics, along with practical tools that focus on key areas of evaluation. Download full report.

Postdoctoral Conference and Career Fair
The National Research Council Fellowship Program announces a Postdoctoral Conference and Career Fair for postdoctoral scientists in the science, technology, engineering, and mathematics fields. The event will occur on June 15, 2011, 8:00 am – 4:00 pm, at the Bethesda North Marriott/Montgomery County Conference Center, 5701 Marinelli Road, Rockville, MD 20852.

Upcoming (2011-2012) Fellowship Funding Opportunities

Japan Society for the Promotion of Science
JSPS offers six fellowship programs, each with different eligibility requirements.

- Postdoctoral Fellowships for Foreign Researchers (Standard)
- Postdoctoral Fellowships for Foreign Researchers (Short-term) (for researchers from North America and Europe)
- JSPS Summer Program (for young researchers from North America and Europe)
- Invitation Fellowship Program for Research in Japan
- JSPS Awards for Eminent Scientists
- Research Fellowships for Young Scientists
- Postdoctoral Fellowships for Research Abroad

HUD Doctoral Dissertation Research Grant Program
The purpose of the Doctoral Dissertation Research Grant (DDRG) program is to enable doctoral candidates enrolled at institutions of higher education accredited by a national or regional accrediting agency recognized by the U.S. Department of Education to complete their dissertations on policy-relevant housing and urban development issues. The FY 2011 DDRG program seeks to fund research studies that may impact federal problem solving and policymaking and that are relevant to HUD’s policy priorities and annual goals and objectives. Due July 14.

Research Associateship Programs
The mission of the NRC Research Associateship Programs (RAP) is to promote excellence in scientific and technological research conducted by the U.S. government through the administration of programs offering graduate, postdoctoral, and senior level research opportunities at sponsoring federal laboratories and affiliated institutions. In these programs, prospective applicants select a research project or projects from among the large group of opportunities listed on this website. Prior to completing an application, prospective applicants should contact the proposed Research Adviser to assure that funding will be available if their application is recommended by NRC panels. Once mutual interest is established between a prospective applicant and a Research Adviser, an application is submitted through the NRC WebRap system. Reviews are conducted four times each year and review results are available approximately 6-8 weeks following the application deadline. Due by
August 15. Key links below.

- **History and Objectives**
- **General Eligibility Criteria**
  - Education and Experience
  - Citizenship
  - Level
  - Prior Affiliation with Lab
  - Security Clearance
- **Stipend and Benefits**
  - Stipend
  - Insurance
  - Relocation and Travel
- **Status of a Research Associate**
  - Publications
- **The Application and Review Process**
  - Finding Research Opportunities
  - Completing an Application
  - Research Proposal
  - Laboratory Endorsement
  - Application Review
  - Notification of Review Results
  - Initiation of Tenure
  - Reaplication
- **Application Deadlines**

**SBE Doctoral Dissertation Research Improvement Grants (SBE DDRIG)**
The National Science Foundation's Division of Behavioral and Cognitive Sciences (BCS), Division of Social and Economic Sciences (SES), National Center for Science and Engineering Statistics (NCSES), and the SBE Office of Multidisciplinary Activities (SMA) award grants to doctoral students to improve the quality of dissertation research. These grants provide funds for items not normally available through the student's university. Additionally, these grants allow doctoral students to undertake significant data-gathering projects and to conduct field research in settings away from their campus that would not otherwise be possible. Proposals are judged on the basis of their scientific merit, including the theoretical importance of the research question and the appropriateness of the proposed data and methodology to be used in addressing the question. In an effort to improve the quality of dissertation research, many programs in both BCS and SES, the Research on Science and Technology Surveys and Statistics program within NCSES, and the Science of Science and Innovation Policy program in SMA accept doctoral dissertation improvement grant proposals. Requirements vary across programs, so proposers are advised to consult the relevant program's webpage for specific information.
and contact the program director if necessary. **Multiple due dates from August 16 and thereafter.**

**Fellowships at The Wilson Center 2011-2012**
The Center awards approximately 20-25 residential fellowships annually to individuals with outstanding project proposals in a broad range of the social sciences and humanities on national and/or international issues. Topics and scholarship should relate to key public policy challenges or provide the historical and/or cultural framework to illuminate policy issues of contemporary importance. **Due October 1.**

**Wenner-Gren Foundation For Anthropological Research, Individual Research Grants**

*Grants for Doctoral Students*: A variety of the Foundation’s grants support students enrolled in doctoral programs leading to a Ph.D. (or equivalent), including grants for dissertation research. There are also fellowship programs for doctoral students from countries where anthropology is underrepresented and where there are limited resources for educational training. *Grants for Post-Ph.D. Scholars*: Grants are available to scholars with a doctorate include individual research grants, a limited number of writing fellowships, training for scholars from countries where academic training in anthropology is limited and awards to encourage collaborative research between international scholars. **Due November 1.**

**US Air Force/ National Research Council, Resident Research Associateship Program**

*Finding Research Opportunities* - The first step in the application process is identifying the laboratory or laboratories to which you will apply. This may be accomplished by using the search functions on this website to identify the Research Opportunity(s) of interest to you. Shown with each Research Opportunity are the names of one or more Research Advisers who conduct or direct the work described in the opportunity. An Adviser is a scientist or engineer at the sponsoring laboratory with whom an Associate works most closely. Once you have identified a Research Adviser, it is recommended that you contact him or her to discuss your interest in applying for an NRC Research Associateship Award. Note that you may apply for up to three Research Opportunities during an application cycle. However, you may submit only one application per sponsoring federal laboratory. *Completing an Application* – You must complete the WebRAP electronic application that can be accessed through this site. This system requires uploads of your proposal and other information. After completing the WebRAP application, you must submit supporting documents by email to rap@nas.edu or by mail to the Associateship Programs office at 500 Fifth Street, NW (Keck 568), Washington, DC 20001. Please refer to the [How to Apply](#) and the [Supporting Documents](#) page for complete details. *(More) ([USAF Lab](#))*. **Submission Date: November 1, February 1, May 1, and August 1.**
June 2, 2011 – National Academies Press makes all PDF versions of Academies reports free to download; more than 4,000 titles available free to users. Read More National Academy RSS feeds.

National Academies Informational Booklets
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- The Science of Restoring the Everglades
- Critical Issues in Transportation
- Drinking Water: Understanding the Science and Policy Behind a Critical Resource
- Ocean Science Series
- New Horizons in Plant Sciences

Autism blurs distinctions between brain regions
Autism blurs the molecular differences that normally distinguish different brain regions, a new study suggests. Among more than 500 genes that are normally expressed at significantly different levels in the front versus the lower middle part of the brain’s outer mantle, or cortex, only 8 showed such differences in brains of people with autism, say researchers funded in part by the National Institutes of Health.

NIGMS issues its first strategic plan for research training
NIGMS research training programs encompass the basic biomedical sciences, some clinically related areas and the interfaces between certain fields. The institute supports nearly half of the predoctoral trainees and a quarter of all trainees who receive NIH funding.

The strategic plan has four key themes:
- Research training is a responsibility shared by NIH, academic institutions, faculty and trainees.
- Research training focuses on student development, not simply the selection of talented students.
- Breadth and flexibility enable research training to keep pace with the opportunities and demands of contemporary science and provide the foundation for a variety of career paths.
• Diversity is an indispensable component of research training excellence, and it must be advanced across the entire research enterprise.

**National Security Implications of Climate Change for U.S. Naval Forces**

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In response to the Chief of Naval Operations (CNO), the National Research Council appointed a committee operating under the auspices of the Naval Studies Board to study the national security implications of climate change for U.S. naval forces. In conducting this study, the committee found that even the most moderate current trends in climate, if continued, will present new national security challenges for the U.S. Navy, Marine Corps, and Coast Guard. While the timing, degree, and consequences of future climate change impacts remain uncertain, many changes are already underway in regions around the world, such as in the Arctic, and call for action by U.S. naval leadership in response. The committee did not address the science of climate change or challenge the scenarios on which the committee's findings and recommendations are based. *National Security Implications of Climate Change for U.S. Naval Forces* addresses both the near- and long-term implications for U.S. naval forces in each of the four areas of the TOR, and provides corresponding findings and recommendations. This report and its conclusions are organized around six discussion areas—all presented within the context of a changing climate.

**OMH's Evaluation Planning Guidelines and Evaluation Protocol**

In June 2007, as part of its efforts to foster a systematic approach to planning, performance measurement and data collection, and evaluation of Office of Minority Health-funded programmatic efforts, OMH issued its *Evaluation Planning Guidelines for OMH Grant Applicants (Evaluation Guidelines)*. These Evaluation Guidelines outline seven steps that provide guidance to OMH grant applicants on the development of their evaluation plans and the key components for identifying how proposed projects and activities will be evaluated to determine if intended results have been achieved. The Guidelines include OMH grantee-specific performance measures and have accompanied all OMH grant program announcements since their development. Subsequently, OMH also completed its *Evaluation Protocol for Systematically Evaluating Efforts to Improve Racial and Ethnic Minority Health, Reduce Health Disparities, and Effect Systems Approaches (Evaluation Protocol)*. This Evaluation Protocol is intended to be used more broadly than the Evaluation Guidelines, e.g., by non-grantees, partners, and other stakeholders in the evaluation of projects and activities targeting minority health/health disparities problems. The Evaluation Protocol contains nine steps recommended in evaluation planning and implementation, and provides more information on the first seven steps that comprise the Evaluation Guidelines. The development of both the OMH Evaluation Guidelines and the Evaluation Protocol was driven by the logic model approach presented in the *Strategic Framework* and is intended to promote more systematic and consistent processes for evaluations linked to OMH's overall approach to its mission. By supporting and conducting evaluation efforts in such a fashion, OMH expects to generate new knowledge about what works and facilitate continuous improvement.
Writing educational grants to federal agencies and foundations is helped by developing a knowledge base of proven and successful educational models and STEM standards at the K-12, community college, and university level.

The 2010 User-Friendly Handbook for Project Evaluation
"This Handbook (download pdf) was developed to provide project directors and principal investigators working with the National Science Foundation (NSF) with a basic guide for evaluating NSF's educational projects. It is aimed at people who need to learn more about both the value of evaluation and how to design and carry out an evaluation, rather than those who already have a solid base of experience in the field. It builds on firmly established principles, blending technical knowledge and common sense to meet the special needs of NSF and its stakeholders. The Handbook discusses quantitative and qualitative evaluation methods, suggesting ways in which they can be used as complements in an evaluation strategy. As a result of reading this Handbook, it is expected that principal investigators will increase their understanding of the evaluation process and NSF's requirements for evaluation, as well as gain knowledge that will help them to communicate with evaluators and obtain data that help them improve their work."

Planting the Seeds for a Diverse U.S. STEM Pipeline: A Compendium of Best Practice K-12 STEM Education Programs
"The pre-college science, technology, engineering and math (STEM) education programs showcased in this compendium share three key strengths. First, they inspire all students and grow the innate interest all kids have for these subjects, particularly girls and underrepresented minorities. Next, they provide positive, real-life individuals in STEM careers for students to get to know, and make the fields more accessible. Finally, they introduce students to the myriad career opportunities available for them in today's STEM fields. Equally important, these best practice STEM education programs demonstrate the power and effectiveness of public-private partnerships to improve education and bolster student achievement. We hope that by using this compendium as a guide, similar types of partnerships involving K-12 education, higher education, industry and government will be further explored, encouraged and expanded."

Using assessments for instructional improvement: A Literature Review
“The current educational reform policy discourse takes for granted the central role of using data to improve instruction. Yet whether and how data inform instruction depends on teachers' assessment practices, the data that are relevant and useful to them, the data they typically have access to, and their content and pedagogical knowledge. Moreover, when one considers teachers' organizational contexts, it is clear that school leadership and support for using data, capacity-building strategies, and the norms of adult learning and collaboration circumscribe opportunities to examine relevant data and to improve instructional practice in response. This
literature review examines teacher as well as organizational practices and characteristics as they pertain to formative uses of assessment. We identify opportunities for important research to illuminate how and under what conditions teachers and schools as organizations can use data to inform instruction."

**Scaling up successful strategies from a previous Targeted NSF-MSP**

STEM Faculty engage in implementing content-deepening experiences for teachers in collaboration with Teachers on Special Assignment (TOSAs) by observing, supporting, and presenting focused content and Pedagogical Content Knowledge (PCK) lessons. STEM Faculty learn strategies to use with community college and university developmental mathematics courses through this collaboration. Gradual Release of Responsibility (GRR) demo lessons, lesson design, co-planning, lesson delivery, and reflection through Professional Learning Communities (PLCs) provides an effective vehicle to support all mathematics teachers in learning content, pedagogy, and specific instructional strategies to raise achievement levels for their students. Through consistent delivery of mathematics content, student achievement will increase.

**The Condition of Education 2011**

"The Condition of Education 2011 summarizes important developments and trends in education using the latest available data. The report presents 50 indicators on the status and condition of education, in addition to a closer look at postsecondary education by institutional level and control. The indicators represent a consensus of professional judgment on the most significant national measures of the condition and progress of education for which accurate data are available. The 2011 print edition includes indicators in five main areas: (1) participation in education; (2) learner outcomes; (3) student effort and educational progress; (4) the contexts of elementary and secondary education; and (5) the contexts of postsecondary education."

*Download document.*

**The Condition of Education 2011 in Brief**

The Condition of Education 2011 in Brief contains a summary of 12 of the 50 indicators in The Condition of Education 2011. The topics covered include: enrollment trends by age; student achievement from the National Assessment of Educational Progress in reading and mathematics; international reading, mathematics, and science literacy; annual earnings of young adults; public high school graduation rates; status dropout rates; immediate transition to college; postsecondary graduation rates; students in high-poverty schools; characteristics of postsecondary institutions; and degrees earned. *Download document.*

**Learning to Teach for the Success of Underserved Students**

At the heart of teaching underserved students is getting math class to be a place where students routinely work on mathematics. More than just motivating students, this is about student identity and agency, building trust, teaching students how to learn, and instruction that delivers on its promise that work will lead to progress. We acknowledge that student
achievement is the ultimate goal, but we define success in terms of engagement in math class and we use collectively planned laboratory classes to examine how the identification of specific instructional goals and the elaboration of those goals in instructional plans can provide a valuable resource for making this component of the work of teaching more readily observable, study-able, and improvable.

**MSP LNC 2011: Paper Session Presentations**
The main meeting included presentation breakout sessions for MSP projects to share with each other what they are in the process of learning about student success, and to learn from and with each other in the context of the conference strands.

**View Paper Session Presentations by:**
- Institute Partnerships
- Targeted Partnerships
- Comprehensive Partnerships
- RETA Partnerships
- Phase II Partnerships
- MSP-Start Partnerships

**The POPS Pilot Study - Can We Encourage More Girls to Study the Physical Sciences?**
The POPS team is investigating ways to encourage middle school girls to study physics and geology to address the problem of under representation of women in these disciplines. The POPS team has developed a pilot study for a hands-on enrichment curriculum focusing on energy. The societal benefits of the physical sciences are emphasized, because the science education research literature indicates that "helping others" is an important consideration for girls in choosing a career. Pre- and post-testing of students in intervention and control groups will be used to determine the impact of this intervention on students' mastery of science content as well as changes in their science interest, science efficacy, and attitudes about the societal benefits of science.

**MiTEP List of Common Geoscience Misconceptions**
The Michigan Teacher Excellence Program (MiTEP) has developed a list of common geoscience misconceptions organized by the Earth Science Literacy Principles. Along with the list of misconceptions, MiTEP shares here a tool used to help teachers learn to identify and probe misconceptions, and how to guide students in reconstructing their knowledge. The misconceptions are grouped under the following Seven Big Ideas:

1. Earth scientists use repeatable observations and testable ideas to understand and explain our planet.
2. Earth is 4.6 billion years old.
3. Earth is a complex system of interacting rock, water, air, and life.
4. Earth is continuously changing.
5. Earth is a water planet.
6. Life evolves on a dynamic Earth and continuously modifies Earth.
7. Humans depend on Earth for resources.

**Incentives and Test-Based Accountability in Education**
National Academy Press free pdf download
In recent years there have been increasing efforts to use accountability systems based on large-scale tests of students as a mechanism for improving student achievement. The federal No Child Left Behind Act (NCLB) is a prominent example of such an effort, but it is only the continuation of a steady trend toward greater test-based accountability in education that has been going on for decades. Over time, such accountability systems included ever-stronger incentives to motivate school administrators, teachers, and students to perform better. *Incentives and Test-Based Accountability in Education* reviews and synthesizes relevant research from economics, psychology, education, and related fields about how incentives work in educational accountability systems. The book helps identify circumstances in which test-based incentives may have a positive or a negative impact on student learning and offers recommendations for how to improve current test-based accountability policies. The most important directions for further research are also highlighted. For the first time, research and theory on incentives from the fields of economics, psychology, and educational measurement have all been pulled together and synthesized. *Incentives and Test-Based Accountability in Education* will inform people about the motivation of educators and students and inform policy discussions about NCLB and state accountability systems. *Education researchers, K-12 school administrators and teachers, as well as graduate students studying education policy and educational measurement will use this book to learn more about the motivation of educators and students.*
A Turbulent Time at U.S. Research Universities
A dire political and budget climate is forcing research universities to defend time-tested practices—and to consider significant changes, experts said at the AAAS Forum on S&T Policy. Reduced financial support and rising political challenges are forcing American research universities to defend long-established practices and to consider significant and sometimes troubling changes, a trio of experts said recently at AAAS. Dramatic reductions in state funding are already forcing huge tuition increases for students and uncertainty in the federal budget is disrupting university planning, the experts said at the AAAS Forum on Science and Technology Policy. While the climate is pushing universities to operate more efficiently and effectively, the experts warned that such pressures also could undermine a system that has made U.S. universities a dominant global power in research, innovation, and economic growth. To learn more about the discussion on the future of U.S. research universities, read the full story.

The Key to Communicating Science? Connect to People’s Daily Lives, Experts Say
The 36th annual Forum, organized by AAAS Science and Policy Programs, convened nearly 500 U.S. and foreign leaders from government, education, and business to hear top policy experts talk on critical issues. This year’s event, held 5-6 May, had a strong focus on U.S. innovation and the importance of federal investment in science and technology. Rick Borchelt, a communications advisor to National Cancer Institute Director Harold Varmus, said scientists are generally good about making themselves available and getting information out. But they are cautious about going beyond those basic steps to interpret information and put it into context. He quickly reviewed how the media environment has changed. A generation ago large metropolitan newspapers and the television network evening newscasts dominated coverage. Today that paradigm has been shattered, replaced by a 24/7 news cycle that plays out across various communications platforms. “If your agency or institution is not available on a handheld device,” Borchelt warned, “then you are already a dinosaur.”

NSF Dear Colleague Letter: Supplemental Opportunity for Research Experiences for Veterans
The National Science Foundation recognizes that Veterans represent a potential underutilized workforce for America’s research and industrial communities. The Industrial Innovation and Partnerships Division of the Engineering Directorate at NSF is now accepting supplemental requests to conduct Research Experiences for Veterans (REV). The proposed REVs will afford Veterans an opportunity to intern either at an active Industry/University Cooperative Research Center (I/UCRC) university site, or at an active I/UCRC member company.

NSF Dear Colleague Letter: Announcement of Target Date for Submission of Proposals to Division of Physics for FY 2012 Funding Cycle
The target date for proposal submission to programs in the Division of Physics varies according to program. For proposals competing for FY 2012 (which begins October 1, 2011) funds, the target date for unsolicited proposals submitted to most programs is October 26, 2011 (except as noted below). Note that this date is one month later than has been the case in past years.

**Dear Colleague Letter for Biological and Computing Shared Principles (BCSP)**
The Biological Sciences (BIO) and Computer & Information Science & Engineering (CISE) Directorates invite proposals that advance research focused on principles shared between the two disciplines. Proposals that include sustained, synergistic collaborations, leading to new advances in both disciplines, will be the most competitive. Proposals should address shared principles that contribute to conceptual advances in both biology and computing. We recognize that new ideas are emerging rapidly at the crossroads of the biological sciences and computing, and we encourage investigators to pursue novel focus areas that identify shared principles.

**Panelists Discuss Need for National Innovation Strategy**
The U.S. must move quickly to develop a national innovation strategy if it is to remain competitive in the decades ahead, experts said at the AAAS Forum on S&T Policy.

**R&D Funding: Storms in the Forecast**
Conflicts over the 2011 U.S. budget were tame compared to the challenges that lie ahead, experts said at the annual AAAS Forum on Science & Technology Policy.

**NOAA, USACE, and USGS Partner to Support Water Resources Management**
The United States Army Corps of Engineers (USACE), National Oceanic and Atmospheric Administration (NOAA), and U.S. Geological Survey (USGS), signed a Memorandum of Understanding to form an innovative partnership of federal agencies to address America’s growing water resources challenges. Water resources decision makers nationwide require new and more integrated information and services to adapt to the uncertainty of future climate, land-use changes, an aging water delivery infrastructure, and an increasing demand on limited resources. These agencies, with complementary missions in water science, observation, prediction and management, have formed this partnership to unify their commitment to address the nation’s water resources information and management needs.

**Sustainable Agriculture Research and Education (SARE) launches new website**
The Sustainable Agriculture Research and Education (SARE) program has launched its newly designed website. The new site features enhanced search capabilities, seamless connection between SARE national and regional websites, and a Learning Center with free book downloads, online courses, grant information, videos and more. SARA electronic notifications for grants, reports, news, etc.

**NREL Adds Giant Wind Turbine To Research Site**
NIGMS issues its first strategic plan for research training

NIGMS research training programs encompass the basic biomedical sciences, some clinically related areas and the interfaces between certain fields. The institute supports nearly half of the predoctoral trainees and a quarter of all trainees who receive NIH funding. The strategic plan has four key themes:

- Research training is a responsibility shared by NIH, academic institutions, faculty and trainees.
- Research training focuses on student development, not simply the selection of talented students.
- Breadth and flexibility enable research training to keep pace with the opportunities and demands of contemporary science and provide the foundation for a variety of career paths.
- Diversity is an indispensable component of research training excellence, and it must be advanced across the entire research enterprise.

House Science Committee Lauds Potential of Nanotechnology
The competitiveness of proposals can be enhanced by grounding the arguments you make in the proposal narrative, as appropriate, on national reports, agency research roadmaps, and research workshops that demonstrate your understanding of the national research agenda and how your research advances and maps to that agenda.

Empowering the Nation Through Discovery and Innovation - NSF Strategic Plan for Fiscal Years (FY) 2011-2016

DOE Strategic Plan Highlights Science and Engineering, May 2011

“Maintain a vibrant U.S. effort in science and engineering as a cornerstone of our economic prosperity with clear leadership in strategic areas” is the second of four goals in the “U.S. Department of Energy Strategic Plan” that was released last month. The plan is described as “a comprehensive blueprint to guide the agency's core mission of ensuring America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions.” More at The AIP Bulletin of Science Policy News.

“Measuring Diversity”: New Guide from NSF, AAAS, Helps Universities Evaluate Their Efforts

With many U.S. universities working to recruit and support minority graduate students, the AAAS, in partnership with the National Science Foundation, has issued a new guide offering detailed advice and practical tools to help administrators evaluate the effectiveness of their efforts. “Measuring Diversity: An Evaluation Guide for STEM Graduate Program Leaders“ has a simple premise: A high rate of students from underrepresented minority groups leave graduate-level studies before completing advanced degrees, but especially at a time of rising global competition, that represents a significant and costly loss of talent and potential. “Measuring Diversity,” issued by AAAS and based on work with the National Science Foundation Alliance for Graduate Education and the Professoriate (AGEP), is available in paperback or online. The 83-page guide offers a detailed framework for evaluating graduate level programs in science, technology, engineering, and mathematics, along with practical tools that focus on key areas of evaluation. Download full report.

National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate

June 2, 2011. Freshwater resources are critical to the health of people, the environment, and the economy. Recent studies and assessments of climate change impacts, including the 2009 Global Climate Change Impacts in the US prepared by the U.S. Global Change Research Program, identify several major impacts of a changing climate on the Nation’s freshwater resources. Expected increases in air temperatures will lead to warmer waters. Rainfall amounts are expected to decline in some areas and increase in others, while the proportion of precipitation that falls as snow decreases. Rainfall and storm events are expected to be more intense. Rising sea levels are expected to result in inundation of water infrastructure, such as
water treatment facilities, and degradation of coastal groundwater resources. To accomplish this goal, the plan makes six major recommendations that are listed below. Specific actions in support of these recommendations are summarized in Table 1; more detailed information is provided in Section IV and Appendix C.

1. Establish Planning Process to Adapt Water Resources Management to Climate Change
2. Improve Water Resources and Climate Change Information for Decision-Making
3. Strengthen Assessment of Vulnerability of Water Resources to Climate Change
4. Expand Water Use Efficiency
5. Support Integrated Water Resources Management
6. Support Training and Outreach to Build Response Capability

**Renewables Could Provide almost 80% of Global Energy by 2050: UN Report**

Nearly 80% of the global energy supply could be met by renewables by 2050 if backed by the correct public policies, a new United Nations report shows. The Intergovernmental Panel on Climate Change (IPCC) report, released on May 9, indicates that the rising adoption of renewable energies could lead to cumulative greenhouse gas savings equivalent to 220-560 gigatonnes of carbon dioxide between 2010 and 2050. The upper end of the scenarios assessed, representing a cut of around a third in greenhouse gas emissions from business-as-usual projections, could assist in keeping concentrations of greenhouse gases at 450 parts per million. The report's findings are contained in a summary of the "Special Report on Renewable Energy Sources and Climate Change Mitigation." The summary is a short version of a roughly a thousand-page comprehensive assessment compiled by more than 120 leading experts from all over the world for the IPCC. The report noted that the substantial increase of renewables is very challenging technically and politically. The six renewable energy technologies reviewed included bioenergy, solar, power, geothermal power, hydropower, ocean energy, and wind energy. More than 160 existing scientific scenarios on the possible use of renewables by 2050 were reviewed.

**National Academies Informational Booklets**

Based on our expert consensus reports, these booklets are designed to improve public understanding of today's most important and complex scientific, engineering, and medical issues.

- What You Need to Know About Energy
- Understanding and Responding to Climate Change
- Understanding Stem Cells: An Overview of the Science and Issues from the National Academies
- Understanding Our Microbial Planet: The New Science of Metagenomics
- The Science of Restoring the Everglades
- Critical Issues in Transportation
- Drinking Water: Understanding the Science and Policy Behind a Critical Resource
- Ocean Science Series
- New Horizons in Plant Sciences
New Funding Opportunities

Content Order:
New Funding Posted Since May 15 Newsletter
Links to New & Open Funding Solicitations
Solicitations Remaining Open from Prior Issues of the Newsletter

New Funding Solicitations Posted Since May 15 Newsletter

FY11 Region 10 Wetland Program Development Grants
EPA is soliciting proposals from eligible applicants to build or refine State/Tribal/local government wetland programs. Due June 20.

Fiscal Year 2011 Nonprofit Security Grant Program (NSGP)
In Fiscal Year 2011, the total amount of funds distributed under NSGP will be $18,962,000. Each nonprofit organization may apply through their SAA for up to a $75,000 grant award. Fiscal Year 2011 NSGP funds will be allocated to high-risk nonprofit organizations. Due June 20.

Biodiversity Understanding in Infrastructure and Landscape Development (BUILD)
The goal of this USAID program is to maximize human and ecological outcomes by reducing the threat of infrastructure development to high-biodiversity ecosystems through effective policy, regulatory and planning approaches focused on engagement with government decision-makers, local stakeholders and civil society. USAID will support the development and testing of innovative and catalytic approaches in the policy, regulatory and planning realm to reduce the threat of infrastructure development to high-biodiversity ecosystems. BUILD will capture and disseminate best practices in order to scale-up what works. This investment will further Agency efforts to support integrated approaches to development by focusing on the nexus of conservation and infrastructure sectors. Due June 23.

Experimental Program to Stimulate Competitive Research (DOE EPSCoR) Implementation Grants
The U. S. Department of Energy's Experimental Program to Stimulate Competitive Research (DOE EPSCoR) is a federal-state partnership program designed to help the Department lead the world in meeting today's and tomorrow's energy needs by increasing the geographic diversity of competitive capability to conduct energy-related research and development. Due June 23.

Grants to Support the Historically Black Colleges and Universities Health Services
The Centers for Medicare & Medicaid Services is announcing the availability of funds under its grant program to assist Historically Black Colleges and Universities (HBCUs) in conducting health services research in Fiscal Year 2011. This announcement seeks competitive applications for
small applied research projects that relate to identifying and evaluating solutions for eliminating health disparities among the African American population. **Due June 21.**

**Environmental Impact And Mitigation Of Oil Spills**
EPA is seeking applications proposing to develop a research program, including an effective community outreach program component, to mitigate the impact of oil spills. The research program must address one or more of the following topics: (1) development of cost-effective innovative technologies to mitigate the impact of oil spills; (2) development of effective oil dispersants, surface washing agents, bioremediation agents, and other mitigation measures with low environmental impact; and (3) investigation of the effects of oil spills and application of dispersants/agents/measures on the environment. **Due June 22.**

**Grants to Support the Hispanic Health Services Research Grant Program**
The Centers for Medicare & Medicaid Services (CMS) is announcing the availability of funds under its Hispanic Health Services Research Grant Program to inform researchers of funding opportunities to conduct health services research affecting Hispanics for 2011. This announcement seeks competitive applications for small applied research projects that relate to identifying and evaluating solutions for eliminating health disparities among Hispanics. Investigators shall be associated with a university, college, community-based health organization, or a professional association that has a health services research component. **Due June 23.**

**FY11 Region 08 Wetland Program Development Grants**
EPA is soliciting proposals from eligible applicants to build or refine State/Tribal/local government wetland programs. States, Tribes, local government agencies, interstate agencies, and intertribal consortia are eligible to apply under this announcement, as further described herein. Universities that are agencies of a state government are eligible, but must include documentation demonstrating that they are chartered as part of a state government in the proposal submission. **Due June 27.**

**Integrated Research, Education, and Extension Competitive Grants Program - National Integrated Food Safety Initiative**
Supports food safety projects that demonstrate an integrated approach to solving problems in applied food safety research, education, or extension. Various models for integration of applied research, education, and extension will be considered for funding. Applications describing multi-state, multi-institutional, multidisciplinary, and multifunctional activities (and combinations thereof) are encouraged. Applicants are strongly encouraged to address at least two of the three functional areas of research, education, and extension (i.e., research and extension, research and education, or extension and education). **Due June 27.**

**Organic Transitions Program**
The overall goal of the Organic Transitions Program (ORG) is to support the development and implementation of research, extension and higher education programs to improve the competitiveness of organic livestock and crop producers, as well as those who are adopting organic practices. In FY 2011, ORG will focus on environmental services provided by organic farming systems that support soil conservation and contribute to climate change mitigation. Practices and systems to be addressed include those associated with organic crops, organic animal production (including dairy), and organic systems integrating plant and animal production. Due June 30.

**Energy and Climate Partnership of the Americas Projects in Select Countries**
Department of State, Western Hemisphere Affairs Bureau, invites organizations to submit proposals outlining program concepts and capacity to advance the Energy and Climate Partnership of the Americas (ECPA), which promotes cooperation on renewable energy, energy efficiency, cleaner fossil fuels, infrastructure, energy poverty, sustainable land use and forests, and adaptation issues in Canada, Latin America, and the Caribbean. At the 2009 Fifth Summit of the Americas in Trinidad and Tobago, President Obama invited all Western Hemisphere governments, private sector stakeholders, civil society, and international organizations to join ECPA to deepen collaboration in the Americas on energy security and climate change. For more information, please visit www.ecpamerica.org. The Bureau of Western Hemisphere Affairs objectives in supporting these efforts are to strengthen policy and regulatory frameworks in support of clean energy; accelerate the uptake and deployment of renewable and energy efficient technologies; promote regional cooperation and integration; fight energy poverty by increasing access to modern energy services; advance countries abilities to reduce emissions from deforestation and forest degradation; and promote resilience to the impacts of climate change on vulnerable countries. Selected applicants will be required to provide summaries of their activities and updates to the ECPA website at www.ecpaamericas.org, a clearinghouse managed by the Organization of American States in order to disseminate information about ECPA activities. Due July 1.

**Addressing Immunization Disparities in Minority Populations**
The purpose of the program will be to implement effective approaches for improving immunization rates among one or more minority groups for whom studies show evidence of under-immunization or other disparities in vaccine coverage. For the purpose of this project, minority groups are defined as in the 2000 census: American Indian or Alaskan Native, Asian American, Black or African American, Hispanic or Latino, and Native Hawaiian or other Pacific Islander. Due July 5.

**Scientific Cooperation Research Program**
The Scientific Cooperation Research Program supports joint research, extension, and education projects—lasting up to two years—among domestic and international agricultural professionals. These projects address issues including agricultural trade and market access, animal and plant health, biotechnology, food safety and security, and sustainable natural
resource management in the United States and internationally. Since 1980, the program has supported more than 400 projects with approximately 95 partnering countries, enhancing the technical skills of more than 1,000 agricultural professionals. **Due July 5.**

**Rangeland Research Program**
The goal of RRP is to contribute to the improvement of U.S. rangeland resources and the ecosystem services they provide by supporting the development of new and emerging rangeland science methodologies which specifically address the interrelationships between multiple disciplines. The primary purpose of RRP is to provide U.S. agricultural producers, rural landowners, and land managers with integrated science strategies to make informed land management decisions with an emphasis on enhancing the restoration and sustainable integrity of U.S. rangelands. **Due July 6.**

**Use of Microalgae Feedstocks in the Joint Development and Validation of a Novel Algal Lipids Extraction Technology**
The United States Air Force Academy is soliciting white papers/proposals for research under Section 1 - Funding Opportunity Description (a)(4), Bioenergy of the Broad Agency Announcement USAFA-BAA-2009-1 posted on 30 September 2009 specifically for Use of Microalgae Feedstocks in the Joint Development and Validation of a Novel Algal Lipids Extraction Technology. The Life Sciences Research Center (LSRC) at the United States Air Force Academy (USAFA) is seeking white papers involving algae to biofuels research. Specifically, the center is looking for research assistance in screening, environmentally manipulating, and cultivating select algae species. The LSRC is also interested in better understanding algal carbon partitioning pathways and plan to incorporate both lipidomics and proteomics in our investigations. **Due July 6.**

**The William T. Grant Scholars Program**
Supports promising early-career researchers from diverse disciplines, who have demonstrated success in conducting high-quality research and are seeking to further develop and broaden their expertise. Candidates are nominated by a supporting institution and must submit five-year research plans that demonstrate creativity, intellectual rigor, and a commitment to continued professional development (more). The **2011-12 Scholars Brochure** is now available. The deadline for applications 2011-2012 cycle is **July 6, 2011.**

**Capacity Building for Sustainable Communities**
This NOFA is part of a cross-agency collaboration between HUD, the U.S. Department of Transportation (DOT), and the U.S. Environmental Protection Agency (EPA), known as the Partnership for Sustainable Communities. HUD confers regularly with these partners. The Capacity Building for Sustainable Communities Program (Program), through this NOFA, will identify intermediary organizations that can provide capacity building support for communities engaged in planning efforts that support community involvement and integrate housing, land use, land cleanup and preparation for reuse, economic and workforce development,
transportation, and infrastructure investments. Each grantee will be expected to deliver capacity building support to communities across the United States. The first purpose of the Program is to assemble a collection of capacity building service providers to work directly with the FY2010 and FY 2011 HUD Sustainable Communities Regional Planning and Community Challenge grant recipients, HUD Preferred Sustainability Status Communities, and EPA Sustainable Community Technical Assistance recipients and Brownfield Area Wide Planning grant recipients (collectively Sustainable Communities Grantees), and enable them to fulfill their anticipated outcomes. Due July 8.

**Pre-Doctoral Training in Primary Care**
This announcement solicits Fiscal Year (FY) 2011 applications for the Primary Care Training and Enhancement (PCTE) Predoctoral Training in Primary Care Program. The purpose of the program is to support projects that plan, develop, and operate a program to train medical students for careers in family medicine, general internal medicine, and general pediatrics, including combined internal medicine and pediatrics. Due by July 11.

**HUD Doctoral Dissertation Research Grant Program**
The purpose of the Doctoral Dissertation Research Grant (DDRG) program is to enable doctoral candidates enrolled at institutions of higher education accredited by a national or regional accrediting agency recognized by the U.S. Department of Education to complete their dissertations on policy-relevant housing and urban development issues. The FY 2011 DDRG program seeks to fund research studies that may impact federal problem solving and policymaking and that are relevant to HUD’s policy priorities and annual goals and objectives. Due July 14.

**Gaining Early Awareness and Readiness for Undergraduate Programs**
The GEAR UP program is a discretionary grant program that provides financial support for academic and related support services that eligible low-income students, including students with disabilities, need to enable them to obtain a secondary school diploma and to prepare for and succeed in postsecondary education. Due July 14.

**National Integrated Water Quality Program**
The goal of the National Integrated Water Quality Program is to contribute to the improvement of the quality of our Nation’s surface water and groundwater resources through research, education, and extension activities. Projects funded through this program will work to solve water resource problems by advancing and disseminating the knowledge base available to agricultural, rural, and urbanizing communities. Funded projects should lead to science-based decision making and management practices that improve the quality of the Nation’s surface water and groundwater resources in agricultural, rural, and urbanizing watersheds. Due July 15.

**Smart Grid Capable Electric Vehicle Supply Equipment (EVSE)**
The Office of Electricity Delivery and Energy Reliability is focused on the development of electric vehicle supply equipment that are capable of implementing smart charging of electric vehicles (EVs), referred to as smart grid-capable EVSE. A goal of the OE Smart Grid R&D Program is to develop and implement smart grid to support transportation electrification. A near-term objective of the program is to reduce electric charging infrastructure cost. Due July 18.

**Establish a Poverty Research Center Program**

ASPE plans to fund up to three (3) Poverty Research Centers. The Poverty Research Center grants are for qualified institutions to provide a focused national and regional and/or state agenda expanding our understanding of the causes, consequences and effects of inequality and poverty and policies and programs to remediate and alleviate poverty, inequality and their affects. It is anticipated that investigators supported under the Poverty Research Center will benefit from the opportunity to conduct independent research; that the grantee institution will benefit from participation in the diverse extramural programs of HHS and other federal agencies; and that students will benefit from exposure to and participation in research and be encouraged to pursue graduate studies and careers in the social and behavioral sciences with a focus on poverty and inequality. Due July 20.

**Enhancing Capacity for Environmental/Public Health Surveillance Unregulated Drinking Water**

The purpose of the program is to build the capacity of state health departments, U.S. Territories, and Native American Tribal Health agencies to monitor and describe unregulated drinking water sources (UDWS) by identifying and developing access to data sets that describe UDWS characteristics and using these datasets to provide information in support of actions that improve the health of communities served by UDWS. Due July 21.

**DOE Industrial Assessment Centers**

This FOA will result in the selection of 20 to 30 universities as Industrial Assessment Centers (IACs) based on a competitive selection process. The IAC program is a major workforce development initiative aimed at creating the next generation energy engineers possessing a unique mixture of engineering and energy management expertise, combined with hands-on experience obtained by working directly with small and medium sized industrial and manufacturing facilities across the country. Each IAC will provide extensive training for undergraduate and graduate engineering students in industrial processes, energy assessment procedures, and energy management principles. Led by IAC-related faculty and staff, these IAC students will perform energy assessments for small and medium sized manufacturers in their geographic region, which will result in energy savings, waste reduction, and sustainability and productivity improvements for the manufacturers and real-world experience for the students. Moreover, the students will interact with plant and corporate management; prepare executive-level briefings and plant-specific reports containing detailed recommendations for operational and energy management improvement; and through follow-on activities, facilitate continuous improvement in energy management at these facilities. Due August 2.
Investing in Innovation Fund - Scale-up grants CFDA 84.411A
The Investing in Innovation Fund, established under section 4007 of the American Recovery and Reinvestment Act of 2009 (ARRA), provides funding to support (1) local educational agencies (LEAs), and (2) nonprofit organizations in partnership with (a) one or more LEAs or (b) a consortium of schools. The purpose of this program is to provide competitive grants to applicants with a record of improving student achievement and attainment in order to expand the implementation of, and investment in, innovative practices that are demonstrated to have an impact on improving student achievement or student growth (as defined in this notice), closing achievement gaps, decreasing dropout rates, increasing high school graduation rates, or increasing college enrollment and completion rates. Due August 2.

Investing in Innovation Fund - Validation grants CDFA 84.411B
The Investing in Innovation Fund, established under section 14007 of the American Recovery and Reinvestment Act of 2009 (ARRA), provides funding to support (1) Local educational agencies (LEAs), and (2) nonprofit organizations in partnership with (a) one or more LEAs or (b) a consortium of schools. The purpose of this program is to provide competitive grants to applicants with a record of improving student achievement and attainment in order to expand the implementation of, and investment in, innovative practices that are demonstrated to have an impact on improving student achievement or student growth (as defined in this notice), closing achievement gaps, decreasing dropout rates, increasing high school graduation rates, or increasing college enrollment and completion rates. Due August 2.

Limited Competition: NIMHD Revision Applications to Support Environmental Health Disparities Research (P60)
The National Institute on Minority Health and Health Disparities (NIMHD) announces the availability of funds for environmental health disparities research projects in U.S. communities. This perspective includes the social, psychosocial, economic, physical, chemical and biological determinants that may contribute to disproportionately high and adverse human health or environmental impacts on the various populations in the U.S. Due August 3.

Air Force Fiscal Year 2012 Young Investigator Research Program
The AFOSR's Young Investigator Research Program (YIP) is to support scientists and engineers who have received Ph.D. or equivalent degrees in the last five years (on or after 1 May 2006) and who show exceptional ability and promise for conducting basic research. Due August 11.

DARPA Binary Executable Transforms
DARPA is soliciting proposals for innovative research in computer program analysis. The proposed research should investigate new approaches in binary executable program analysis, particularly identifying program functional components and automatically extracting them. Specifically excluded is research that results primarily in evolutionary improvements to the existing state of practice. Further detail is provided in the attached announcement. Due August 15.
U.S.-India Joint Clean Energy Research and Development Center
Energy cooperation is a central element of the U.S.-India Strategic Partnership. During President Obama’s November 2010 head of state visit to India, the U.S. Department of Energy (DOE) and the Government of India signed an Agreement to Establish a Joint Clean Energy Research and Development Center (JCERDC) designed to promote clean energy innovation by teams of scientists and engineers from India and the United States. Priority areas for cooperation include solar energy, energy efficiency, smart grid, unconventional natural gas, and second-generation biofuels technologies. DOE and the Government of India intend to make funding awards under this Funding Opportunity Announcement (FOA) in three initial priority areas: 1. Energy efficiency of buildings; 2. Second-generation biofuels; 3. Solar energy.
The work of the Center will be initiated by U.S.-India consortia with the knowledge and experience to undertake first-rate collaborative research programs. These consortia will help bring together top talent from both countries and are expected to generate key technological advancement through genuine collaboration between U.S. and Indian researchers. Funding will be competitively awarded on the basis of a joint U.S.-India merit review of the applications to ensure genuine collaboration and partnership of the awardees (MORE). Due August 16.

High-End Instrumentation Grant Program (S10)
The NCRR High-End Instrumentation Grant (HEI) program encourages applications from groups of NIH-supported investigators to purchase a single major item of equipment to be used for biomedical research that costs at least $750,000. The maximum award is $2,000,000. Instruments in this category include, but are not limited to, structural and functional imaging systems, macromolecular NMR spectrometers, high-resolution mass spectrometers, cryoelectron microscopes and supercomputers. Due August 19.

NEH RFP: Bridging Cultures at Community Colleges
NEH invites proposals for a cooperative agreement to develop and administer a nationwide project to advance the role of the humanities at community colleges through curriculum and faculty development focused on the theme of Bridging Cultures. NEH Bridging Cultures at Community Colleges projects must draw on sound humanities scholarship related to the theme of Bridging Cultures, engage participating faculty in shared readings of important humanities texts, involve appropriate humanities scholars, result in demonstrable and measurable improvements in the quality of humanities course offerings at the participating institutions, and serve as national models of excellence in addressing needs that are widely shared. August 23.

Center for Sponsored Coastal Ocean Research, Fiscal Year 2012, National Competitive Harmful Algal Bloom (HAB) Programs
The purpose of this document is to advise the public that NOAA/NOS/NCCOS/CSCOR is soliciting proposals for the Ecology and Oceanography of Harmful Algal Blooms Program, the Monitoring and Event Response for Harmful Algal Blooms Program and the Prevention, Control and
Mitigation of Harmful Algal Blooms Program. Background information about the NCCOS/CSCOR efforts can be found at www.cop.noaa.gov. DOC/NOAA supports cultural and gender diversity and encourages women and minority individuals and groups to submit applications to the CSCOR programs. In addition, DOC/NOAA is strongly committed to broadening the participation of historically black colleges and universities, Hispanic serving institutions, tribal colleges and universities, and institutions that work in underserved areas. DOC/NOAA encourages proposals involving any of the above institutions to apply. Due August 24.

**ROSES 11: New (Early Career) Investigator Program in Earth Science**
This NASA Research Announcement (NRA) solicits proposals for supporting basic and applied research and technology across a broad range of Earth and space science program elements relevant to NASA Research Programs. Due starting August 29.

**University Center of Excellence: High-Rate Deformation Physics of Heterogeneous Materials**
This is a special BAA in support of the AFRL's University Center of Excellence for High-Rate Deformation Physics of Heterogeneous Materials. In collaboration with AFRL Munitions Directorate (Eglin AFB, FL), AFOSR invites proposals for research. The schedule for this announcement is given in Section II, Award Information. This research effort will consist of interdisciplinary teams of researchers with the skills needed to address the relevant research challenges necessary to meet the program goals. Multi investigator teaming is encouraged but not required. It is expected that proposals will describe cutting-edge efforts on basic scientific problems. Optional white papers due June 30. Due August 31.

**Subsurface Biogeochemical Research**
The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S. Department of Energy (DOE), hereby announces interest in receiving applications for research grants for Subsurface Biogeochemical Research (SBR). The SBR program is part of the Climate and Environmental Sciences Division (CESD) in BER. The SBR program seeks to advance fundamental science to understand, predict and mitigate the impacts of environmental contamination from past nuclear weapons production and a scientific basis for the long term stewardship of nuclear waste disposal. The activity supports an integrated portfolio of research ranging from molecular to field scales with emphasis on the use of advanced computer models and multidisciplinary, iterative experimentation to understand and predict contaminant transport in complex subsurface environments. The goal of this Funding Opportunity Announcement (FOA) is to support fundamental research to investigate the key physical, chemical, and biological processes affecting the form and mobility of subsurface contaminants found at DOE sites. Research projects should be based on critical knowledge gaps and be hypothesis driven, with an aim to provide the scientific basis for the long term stewardship of contaminated sites across the DOE complex and the development of new remediation concepts and strategies. More at FedConnect. Due Sept. 19.
International Research in Homeland Security Science & Technology Mission Areas

The Department of Homeland Security (DHS) Science and Technology (S&T) Directorate is soliciting applications for international research projects aligned with the mission and requirements of DHS S&T. These projects should be designed to augment and complement, through international research and collaboration, the depth and breadth of homeland security science and technology research being managed by the DHS S&T Directorate. Specifically, the S&T Directorate seeks proposals that will contribute to homeland security science and technology, including but not limited to: Evaluation of novel tools for or approaches to confronting homeland security challenges; Basic research to provide data, understandings, or models that support S&T efforts or policy decisions; and S&T and operations research evaluations to support revolutionary improvements in DHSs mission and its component agencies operations. **Due September 22.**

The 2012 Beckman Scholars Program

The purpose of the Beckman Scholars Program is to help stimulate, encourage and support research activities by exceptionally talented, full-time undergraduate students who are pursuing their studies at accredited four-year colleges and universities located in the United States of America. These research activities shall be centered in either chemistry, biochemistry, the biological and medical sciences or some combination of these subjects. Candidates for Beckman Scholars must be full-time students throughout the duration of the award. **Due prior to September 30.**

Links to New & Open Funding Solicitations

- [CDMRP FY 2011 Funding Announcements](#)
- [Office of Minority Health](#)
- [Department of Justice Open Solicitations](#)
- [DOE/EERE Funding Opportunity Exchange](#)
- [HHS/Administration for Children and Families Funding Opportunities](#)
- [New Posting of Funds Available at HUD (more)](#)
- [New Funding Opportunities at NIEHS (NIH)](#)
- [National Human Genome Research Institute Funding Opportunities](#)
- [Army Research Laboratory Open Broad Agency Announcements (BAA)](#)
- [Institute of Education Sciences FY 2012 Opened Funding Opportunities](#)
- [SBIR Gateway to Funding](#)
- [Water Research Funding](#)
- [Fellowship and Grant Opportunities for Faculty Humanities and Social Sciences](#)
- [Humanities Funding Sources A-to-Z](#)
- [DARPA Current Solicitations](#)
- [Office of Naval Research Currently Active BAAs](#)
Research Interests of the Air Force Office of Scientific Research
AFOSR solicits proposals for basic research through this general Broad Agency Announcement (BAA). This BAA outlines the Air Force Defense Research Sciences Program. AFOSR invites proposals for research in many broad areas. These areas are described in detail in Section I, Funding Opportunity Description. AFOSR is seeking unclassified, white papers and proposals that do not contain proprietary information. We expect our research to be fundamental. Open until superseded.

2011 Broad Agency Announcement
The U.S. Army Engineer Research and Development Center (ERDC) has issued a BAA for various research and development topic areas, including hydraulics, dredging, coastal engineering, instrumentation, oceanography, remote sensing, geotechnical engineering, earthquake engineering, soil effects, vehicle mobility, self-contained munitions, military engineering, geophysics, pavements, protective structures, aquatic plants, water quality, dredged material, treatment of hazardous waste, wetlands, physical/mechanical/chemical properties of snow and other frozen precipitation, infrastructure and environmental issues for installations, computer science, telecommunications management, energy, facilities maintenance, materials and structures, engineering processes, environmental processes, land and heritage conservation, and ecological processes. Open until January 1, 2012.

FY2011 – 2016 Basic Research for Combating Weapons of Mass Destruction (C-WMD) Broad Agency Announcement (BAA)
This BAA is focused on soliciting basic research projects that support the DTRA mission to safeguard America and its allies from WMD (e.g., chemical, biological, radiological, nuclear, and high-yield explosives) by providing capabilities to reduce, eliminate, and counter the threat and mitigate its effects.

**DARPA-BAA-10-83 Strategic Technologies**

Posted 8 September 2010—Open to Sept. 8, 2011

The Defense Advanced Research Projects Agency’s (DARPA) Strategic Technology Office (STO) is soliciting innovative proposals under this BAA for the performance of research, development, design, and testing that directly supports Strategic Technology Office (STO). This includes Communications, Networks and Electronic Warfare; Cyber; Energy and Self-Sufficient Operations; Finding Difficult Targets; Recapturing Surprise; and Core Strategic Technologies.

**$800 million for all DOE Office of Science new, renewal, and supplemental grants FY2011**

This FOA will remain open until September 30, 2011 or until replaced by a successor FOA. Applications may be submitted any time during this period. Grants support of work in the following program areas: Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, Nuclear Physics, and Workforce Development for Teachers and Scientists.

**Environmental Impact And Mitigation Of Oil Spills**

Applicants must also submit a community outreach program plan, the objective of which is to help impacted Gulf Coast communities effectively participate in the study and use its results. To achieve this objective, the applicant should work collaboratively with affected communities to identify significant risks posed by oil spills to human health and the environment, obtain their input in the design of a study to help the communities address these challenges, and provide technical assistance to them so that they can use the results of the study. Due June 22

**Integrated Research, Education, and Extension Competitive Grants Program - Methyl Bromide Transitions**

This RFA solicits applications for the Integrated Research, Education, and Extension Competitive Grants Program, Methyl Bromide Transitions (MBT). The MBT seeks to solve critical agricultural issues, priorities, or problems through the integration of research, education, and extension activities. It is designed to address immediate needs that result from the loss of availability of methyl bromide, a pest and disease control tactic that has been critical to agricultural, industrial, natural resource or urban pest management systems. Due June 22.

**DOE Experimental Program to Stimulate Competitive Research Implementation Grants**

The U. S. Department of Energy’s Experimental Program to Stimulate Competitive Research (DOE EPSCoR) is a federal-state partnership program designed to help the Department lead the world in meeting today’s and tomorrow’s energy needs by increasing the geographic diversity of competitive capability to conduct energy-related research and development. Due June 23.
Institute of Education Sciences: Education Research Program
FY 2012 competitions for grants support education research and special education research. Due June 23.

Foundational Program to Advance Cell Efficiency (F-PACE)
The U.S. Department of Energy (DOE) seeks to fund applied scientific research that provides the technical foundation for significant increases in solar photovoltaic (PV) cell efficiency, to enable commercial and near-commercial PV technologies to achieve one dollar per watt installed system cost targets by the end of the decade. Combined with the technical and funding resources from the National Science Foundation (NSF), this joint Funding Opportunity Announcement (FOA) for the Foundational Program to Advance Cell Efficiency (F-PACE) will identify and fund solar device physics and photovoltaic technology research and development that will improve PV cell performance and reduce module cost for grid-scale commercial applications. See the full solicitation. Due June 23.

Solar Energy Grid Integration Systems - Advanced Concepts
The DOE has identified several major areas where significant cost reductions in power electronics can be made including:
1. economies of scale;
2. advanced components;
3. reliability;
4. smart grid integration; and
5. understanding of system implications.
There will be two topics to which an application may be submitted under this FOA:
- Topic 1: Smart-Grid Functionality
- Topic 2: Using Power Electronics to Address Balance of System Costs
For more information, see the full solicitation. Due June 23.

Computational Methods for Decision Making – Resource Optimization, Image Understanding, Information Integration, and Cyber Security
The program will pursue a wide variety of approaches that enable automated systems to, within the context of a mission, automatically analyze multiple sources of data supporting interpretation of the data; combine data and interpretations from multiple data sources to provide understanding of the battle space; provide management of sensor and other resources to maintain and improve the battle space picture; and enable and build high performance software systems that are defect free and trustworthy to implement these algorithms, methods, techniques, and strategies. Due June 28.

2011 Competitive Program for Science and Museums and Planetariums Plus Opportunities for NASA Visitor Centers and Other Informal Education Institutions (CP4SMP+)
This NRA or solicitation seeks projects featuring NASA-themed content in space exploration, aeronautics, space science, Earth science, or microgravity, or a combination of these topics to support NASA education outcomes. The Mission Directorates (Science, Exploration Systems, Space Operations, and Aeronautics Research) cooperating with this NRA have identified content priorities as described in aligned with the NASA Strategic Plan. **Due June 29.**

**NIDDK Short-Term Education Program for Underrepresented Persons (STEP-UP) (R25)**
This Funding Opportunity Announcement (FOA) invites applications from institutions to implement and evaluate the NIDDK Short-Term Education Program for Underrepresented Persons (STEP-UP). STEP-UP is a national program designed to provide ten to twelve weeks of summer research education and training for high school and undergraduate students from diverse backgrounds underrepresented in the NIDDK mission areas including diabetes, endocrinology, metabolism, nutrition, obesity, and digestive, liver, urologic, kidney, and hematologic diseases. **LOI June 29; full July 29.**

**FY 2011 University Center Economic Development Program Competition**
This FFO announces the availability of funding for EDA’s FY 2011 University Center Economic Development Program Competition. EDA solicits competitive applications from accredited institutions of higher education and from consortia of accredited institutions of higher education in, and programs targeting, only the following geographic areas served by EDA’s Chicago and Philadelphia Regional Offices. **Due June 30.**

**Integrative Graduate Education and Research Traineeship Program (IGERT)**
The Integrative Graduate Education and Research Traineeship (IGERT) program has been developed to meet the challenges of educating U.S. Ph.D. scientists and engineers with interdisciplinary backgrounds, deep knowledge in chosen disciplines, and technical, professional, and personal skills. The program is intended to establish new models for graduate education and training in a fertile environment for collaborative research that transcends traditional disciplinary boundaries. **Due July 1.**

**Rural Health and Safety Education Competitive Grants Program**
For FY 2011, the Rural Health and Safety Education Programs will focus on issues related to individual and family health in one or more of the following areas: 1) Analysis or education regarding the impact of societal factors (e.g., income, education, unemployment/employment security, social exclusion, food security/insecurity, housing quality, health insurance coverage) on health among rural and farm families; 2) Analysis or education regarding health literacy or **health disparities** in access and usage of health services or of health conditions and their respective impact on health status of rural and farm families; and/or 3) Related issues of health promotion and health care to rural individuals and families. **Due July 1.**

**National Center on Health**
The Administration for Children and Families (ACF), Office of Head Start (OHS) announces the availability of $3,000,000 to be competitively awarded for a National Center on Health (the
Center). The goal of the Center is to provide a vehicle for the dissemination of a clear, consistent message from OHS about its priorities for Head Start and Early Head Start programs and their partners to develop and implement effective practices in the areas of health; nutrition; health promotion; disease prevention; access to medical and dental care; mental wellness for staff, children, and families; safe environments; health literacy; emergency preparedness; oral health; and obesity prevention. Due July 6.

**NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)**
This program makes grants to institutions of higher education to support scholarships for academically talented, financially needy students, enabling them to enter the workforce following completion of an associate; baccalaureate; or graduate-level degree in science and engineering disciplines. Grantee institutions are responsible for selecting scholarship recipients, reporting demographic information about student scholars, and managing the S-STEM project at the institution. Due July 13.

**Engineering Research Centers**
The National Nanotechnology Initiative (NNI), a federal interagency research and development venture, was launched in FY 2001. Over the last decade, there has been considerable investment in fundamental research - from nanostructured materials to devices and manufacturing processes - that has revealed new phenomena and resulted in a plethora of important advances. More information can be found at [http://www.nsf.gov/nano/](http://www.nsf.gov/nano/). (MORE) LOI July 15; full September 16.

**NSF EarthScope**
EarthScope is an Earth science program to explore the 4-dimensional structure of the North American continent. The EarthScope Program provides a framework for broad, integrated studies across the Earth sciences, including research on fault properties and the earthquake process, strain transfer, magmatic and hydrous fluids in the crust and mantle, plate boundary processes, large-scale continental deformation, continental structure and evolution, and composition and structure of the deep Earth. Due July 16.

**Software Infrastructure for Sustained Innovation (SI²)**
SI² is a long-term investment focused on catalyzing new thinking, paradigms, and practices in developing and using software to understand natural, human, and engineered systems. SI²'s intent is to foster a pervasive cyberinfrastructure to help researchers address problems of unprecedented scale, complexity, resolution, and accuracy by integrating computation, data, networking, observations and experiments in novel ways. Due July 18.

**Research Training Groups in the Mathematical Sciences (RTG)**
The long-range goal of the Division of Mathematical Sciences (DMS) Workforce program is to increase the number of well-prepared U.S. citizens, nationals, and permanent residents who pursue careers in the mathematical sciences and in other NSF-supported disciplines. The
Research Training Groups in the Mathematical Sciences (RTG) activity is a part of the Workforce program. RTG supports education through research involvement in groups centered on a common research interest that span the entire spectrum of educational levels from undergraduates through postdoctoral associates. Due July 19.

**Mentoring Through Critical Transition Points in the Mathematical Sciences (MCTP)**
This solicitation is one of two updates to the program solicitation NSF 05-595, "Enhancing the Mathematical Sciences Workforce in the 21st Century (EMSW21)." The EMSW21 program formerly comprised three components:

1. Vertical Integration of Research and Education in the Mathematical Sciences (VIGRE)
2. Research Training Groups in the Mathematical Sciences (RTG)
3. Mentoring Through Critical Transition Points in the Mathematical Sciences (MCTP)

The VIGRE component has been discontinued. Updated solicitations for the RTG and MCTP components of EMSW21 are being issued separately. Due July 20.

**NEH Humanities Collections and Reference Resources**
The Humanities Collections and Reference Resources program supports projects that provide an essential foundation for scholarship, education, and public programming in the humanities. Thousands of libraries, archives, museums, and historical organizations across the country maintain important collections of books and manuscripts, photographs, sound recordings and moving images, archaeological and ethnographic artifacts, art and material culture, and digital objects. Due July 20.

**NSF Tribal Colleges and Universities Program**
The Tribal Colleges and Universities Program (TCUP) provides awards to Tribal Colleges and Universities, Alaska Native-serving institutions, and Native Hawaiian-serving institutions to promote high quality science, technology, engineering and mathematics (STEM) education, research, and outreach. TCUP-eligible institutions are predominantly two-year and community colleges. Support is available to TCUP-eligible institutions for Planning Grants, Initiation Projects, Broadening Participation Research in STEM Education (BPR) Projects, Targeted STEM Infusion Projects (TSIP), and Research Initiation Awards (RIA). Due July 21 and August 4.

**Faculty Early Career Development (CAREER) Program**
Integration of Research and Education - *All CAREER proposals must have an integrated research and education plan at their core.* Proposers are encouraged to communicate with the CAREER contact or cognizant Program Officer in the Division closest to their area of research to discuss the expectations and approaches that are most appropriate for that area (see [http://www.nsf.gov/crssprgm/career/contacts.jsp](http://www.nsf.gov/crssprgm/career/contacts.jsp) for a list of CAREER contacts by division). Due dates July 22-27.

**Earth Sciences: Instrumentation and Facilities**
The Instrumentation and Facilities Program in the Division of Earth Sciences (EAR/IF) supports meritorious requests for infrastructure that promotes research and education in areas supported by the Division. **Due July 26.**

**Louis Stokes Alliances for Minority Participation (LSAMP)**
Funding Opportunities for: LSAMP Alliances, Bridge to the Doctorate (BD) Activity, Pilot Regional LSAMP Centers of Excellence in Broadening Participation, Broadening Participation Research in STEM Education (BPR). The Louis Stokes Alliances for Minority Participation (LSAMP) program provides funding for new, mid-level and senior-level alliances, the Bridge to the Doctorate (LSAMP-BD) Activity, and knowledge generation activities in broadening participation, e.g., research on topics in STEM education related to retention and persistence of students from populations underrepresented in STEM majors and careers. **Due dates starting July 28.**

**SBIR E-learning for HAZMAT and Emergency Response (SBIR [R43/R44])**
The major objective of the NIEHS/WETP is to prevent work related harm by assisting in the training of workers in how best to protect themselves and their communities from exposure to hazardous materials. **Due July 28.**

**NIH Summer Research Experience Programs (R25)**
The purpose of the National Institutes of Health (NIH) Summer Research Experience Program (referred to as the Summer Research Program) is to provide a high-quality research experience for high school and college students and for science teachers during the summer academic break. **Due August 1.**

**United States-Israel Educational Foundation, Fulbright Israel Post-Doctoral Fellowships**
The United States-Israel Educational Foundation, the Fulbright commission for Israel, offers eight fellowships to American postdoctoral researchers in support of work to be carried out at Israeli universities during the course of the 2012-13 and the 2013-14 academic years. **Due August 1.**

**Broad Operational Language Translation (BOLT)**
The goal of the BOLT program is to create technology capable of translating multiple foreign languages in all genres, retrieve information from the translated material, and enable bilingual communication via speech or text. Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice (MORE). **Due August 2.**

**Air Force Fiscal Year 2012 Young Investigator Research Program**
The AFOSR's Young Investigator Research Program (YIP) is to support scientists and engineers who have received Ph.D. or equivalent degrees in the last five years (on or after 1 May 2006)
and who show exceptional ability and promise for conducting basic research. The objective of this program is to foster creative basic research in science and engineering, enhance early career development of outstanding young investigators, and increase opportunities for the young investigators to recognize Air Force mission and the related challenges in science and engineering. Proposals addressing the research areas of interest for the Air Force Research Laboratory will be considered. **Due August 11.**

**NSF Informal Science Education (ISE)**
The ISE program supports innovation in anywhere, anytime, lifelong learning, through investments in research, development, infrastructure, and capacity-building for STEM learning outside formal school settings. **Optional preliminary proposal due August 12.**

**NEH Grants for Fellowship Programs at Independent Research Institutions**
Grants for Fellowship Programs at Independent Research Institutions support fellowships at institutions devoted to advanced study and research in the humanities. NEH fellowships provide scholars with research time and access to resources that might not be available at their home institutions. Fellowship programs may be administered by independent centers for advanced study, libraries, and museums in the United States; American overseas research centers; and American organizations that have expertise in promoting research on foreign cultures. Individual scholars must apply directly to the institutions themselves. **Due August 17.**

**Research Training Groups in the Mathematical Sciences (RTG)**
This program solicitation is one of two updates to the program solicitation NSF 05-595, "Enhancing the Mathematical Sciences Workforce in the 21st Century (EMSW21)." The long-range goal of the Division of Mathematical Sciences (DMS) Workforce program is to increase the number of well-prepared U.S. citizens, nationals, and permanent residents who pursue careers in the mathematical sciences and in other NSF-supported disciplines. **Due August 19.**

**Division of Molecular and Cellular Biosciences: Investigator-initiated research projects (MCB)**
The Division of Molecular and Cellular Biosciences (MCB) supports fundamental research and related activities designed to promote understanding of complex living systems at the molecular, subcellular, and cellular levels. **Due September 6.**

**DOE Terrestrial Ecosystem Science**
The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving applications for terrestrial ecosystem science that will improve the understanding of the role of terrestrial ecosystems in climate forcing related to a changing climate. BER’s Terrestrial Ecosystem Science (TES) program is the result of the consolidation of its former Terrestrial Carbon Processes (TCP) program and Program in Ecological Research (PER). **Due September 12.**

**Institute of Education Sciences: Education Research and Development Centers**
The central purpose of the Institute’s research grant programs is to provide parents, educators, students, researchers, policymakers, and the general public with reliable and valid information about education practices that support learning and improve academic achievement and access to education opportunities for all students. In carrying out its grant programs, the Institute provides support for programs of research in areas of demonstrated national need. Due September 22.

**NEH Summer Stipends**
Summer Stipends support individuals pursuing advanced research that is of value to humanities scholars, general audiences, or both. Recipients usually produce articles, monographs, books, digital materials, archaeological site reports, translations, editions, or other scholarly resources. Summer Stipends support full-time continuous work on a humanities project for a period of two months. Posted May 2. Applications accepted through September 29.

**NSF Education and Interdisciplinary Research (EIR)**
The program also supports activities that seek to improve the education and training of physics students (both undergraduate and graduate), such as curriculum development or physics education research directed towards upper-level or graduate physics courses, and activities that are not included in specific programs elsewhere within NSF. The program supports research at the interface between physics and other disciplines and extending to emerging areas. Broadening activities related to research at the interface with other fields, possibly not normally associated with physics, also may be considered. Due September 28.

**CISE Computing Research Infrastructure**
The CISE Computing Research Infrastructure (CRI) program drives discovery and learning in the computing disciplines by supporting the creation, enhancement and operation of world-class computing research infrastructure. Further, through the CRI program CISE seeks to ensure that individuals from a diverse range of academic institutions, including minority-serving and predominantly undergraduate institutions, have access to such infrastructure. Due October 25.

**Advanced Technological Education (ATE)**
The program involves partnerships between academic institutions and employers to promote improvement in the education of science and engineering technicians at the undergraduate and secondary school levels. The ATE program supports curriculum development; professional development of college faculty and secondary school teachers; career pathways to two-year colleges from secondary schools and from two-year colleges to four-year institutions; and other activities. Another goal is articulation between two-year and four-year programs for K-12 prospective teachers that focus on technological education. The program also invites proposals focusing on research to advance the knowledge base related to technician education. Due October 20.

**Mathematical Sciences Postdoctoral Research Fellowships (MSPRF)**
The purpose of the Mathematical Sciences Postdoctoral Research Fellowships (MSPRF) is to support future leaders in the mathematical sciences by facilitating their participation in postdoctoral research environments that will have maximal impact on their future scientific development. There are two options for awardees: Research Fellowship and Research Instructorship. Awards will support research in areas of the mathematical sciences, including applications to other disciplines. Due October 19.
What We Do--
We provide consulting for colleges and universities on a wide range of topics related to research development and grant writing, including:

- **Strategic Planning** - Assistance in formulating research development strategies and building institutional infrastructure for research development (including special strategies for Predominantly Undergraduate Institutions and Minority Serving Institutions)

- **Training for Faculty** - Workshops, seminars and webinars on how to find and compete for research funding from NSF, NIH, DoE and other government agencies as well as foundations. Proposal development retreats for new faculty.

- **Large proposals** - Assistance in planning and developing institutional and center-level proposals (e.g., NSF ERC, STC, IGERT, STEP, Dept of Ed GAANN, DoD MURI, etc.)

- **Assistance for new and junior faculty** - help in identifying funding opportunities and developing competitive research proposals, particularly to NSF CAREER, DoD Young Investigator and other junior investigator programs

- **Facilities and Instrumentation** - Assistance in identifying and competing for grants to fund facilities and instrumentation

- **Training for Staff** - Professional Development for research office and sponsored projects staff

*Note to Potential Contributors*
If you have an idea for an article related to academic research development and grant writing you would like to write for Research Development & Grant Writing News email co-publisher Lucy Deckard with a query proposal of up to ~75 words. Our goal is to publish two articles each issue from faculty, researchers, STEM educators, and research development professionals, among others, to gain a diversity of perspectives related to all areas of academic grant writing.

$100 honorarium paid for published articles