Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)

Design and Development Launch Pilots

PROGRAM SOLICITATION
NSF 17-522

REPLACES DOCUMENT(S):
NSF 16-544

National Science Foundation

Directorate for Biological Sciences

Directorate for Computer & Information Science & Engineering

Directorate for Education & Human Resources
    Division of Human Resource Development

Directorate for Engineering

Directorate for Geosciences

Directorate for Mathematical & Physical Sciences

Directorate for Social, Behavioral & Economic Sciences

Office of Integrative Activities

Preliminary Proposal Due Date(s) *(required)* (due by 5 p.m. submitter's local time):

    February 14, 2017

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

    May 16, 2017

IMPORTANT INFORMATION AND REVISION NOTES

This solicitation includes an opportunity for Design and Development Launch Pilots only.

Preliminary proposals and full proposals. Submission of a preliminary proposal is required for Design and Development Launch Pilots. Full Design and Development Launch Pilot proposals may be submitted by invitation only after the review of the preliminary proposal is completed.

Lead institutions may only submit one preliminary proposal; they may participate in other preliminary proposals as collaborating institutions.

All full proposals involving multiple institutions must be submitted as a single submission from a lead institution with collaborating institutions as subawardees. A subaward should represent a transfer of effort from the lead institution to a collaborating institution. All lead and subawardee institutions must be registered in FastLane.

Preliminary and full proposals submitted in response to this solicitation should be submitted in accordance with the revised *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) (NSF 17-1), which is effective for proposals submitted, or due, on or after January 30, 2017. Please be advised that proposers who opt to submit prior to January 30, 2017, must also follow the guidelines contained in NSF 17-1.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

    Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)
    Design and Development Launch Pilots

Synopsis of Program:

Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES) is a comprehensive national initiative designed to enhance U.S. leadership in science, technology, engineering and mathematics (STEM) discoveries and innovations focused on NSF's commitment to diversity, inclusion, and broadening participation in these fields. NSF INCLUDES supports efforts to create networked relationships among organizations whose goals include developing talent from all sectors of society to build the STEM workforce. This initiative seeks to improve collaborative efforts aimed at enhancing the preparation, increasing the participation, and ensuring the contributions of individuals from groups that have traditionally been underrepresented and underserved in the STEM enterprise: women, persons with disabilities, African Americans/Blacks, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, Native Pacific Islanders, and persons from economically disadvantaged backgrounds. Significant advancement in the inclusion of these groups will result in a new generation of STEM talent and leadership to secure our nation's future and long-term economic competitiveness.

The grand challenge of broadening participation in STEM is to transform the STEM enterprise at all levels in order to fully engage the nation's talent for the ultimate improvement of the STEM enterprise. As a comprehensive national initiative, NSF INCLUDES aims to address the various complex equity and inclusion-related challenges and opportunities that characterize the nation's cultural and linguistic diversity, with a specific emphasis on the aforementioned groups. The goal is to achieve impact at the national level. Viewing inclusion as an asset and opportunity for social innovation, NSF is particularly interested in using approaches to scaling and growth, such as collective impact, networked improvement communities, and strategic partnerships. The objective is to develop networks that involve representative organizations and consortia from different sectors that are committed to a common agenda that comprehensively solves a specific STEM-inclusion problem. The long-term goal of NSF INCLUDES is to support innovative models, networks, partnerships, technical capabilities and research that will enable the U.S. science and engineering workforce to thrive by ensuring that traditionally underrepresented and underserved groups are represented in percentages comparable to their representation in the U.S. population. Researchers and practitioners at minority serving institutions are strongly encouraged to participate in this activity given their experience and expertise in broadening participation.

NSF INCLUDES is a multi-year program with three essential components currently under development:

- NSF INCLUDES Design and Development Launch Pilots: Two-year pilot projects that explore the feasibility of bold, innovative ways for solving a broadening participation challenge in STEM. Successful pilots will deliver models or prototypes, which incorporate data and measurement infrastructures, supporting collective efforts aimed at increasing the active participation of those who have been traditionally underserved and underrepresented in all STEM fields.
- NSF INCLUDES Alliances: NSF INCLUDES Alliances will leverage existing Design and Development Launch Pilots, programs, people, organizations, technologies, and institutions to catalyze NSF's broadening participation investments, with each Alliance committed to collectively solving a specific set of objectives.
- NSF INCLUDES Backbone Organization: The Backbone Organization will drive the following activities for all NSF INCLUDES Alliances over the lifecycle of the initiative: (a) providing a guiding vision and strategy; (b) developing a collaborative infrastructure to align NSF INCLUDES activities; (c) establishing shared models, measurement practices, and evaluation criteria; (d) building public will; (e) advancing policy; and (f) mobilizing funding.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- General Inquiries may be addressed to, telephone: (703) 292-7303, email: nsfincludes@nsf.gov

- Jolene K. Jesse, EHR, telephone: (703) 292-7303, email: jjesse@nsf.gov

- Christopher R. Meyer, BIO, telephone: (703) 292-2273, email: cmeyer@nsf.gov

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- Martha L. James, EHR, telephone: (703) 292-7772, email: mjames@nsf.gov

- Mark H. Leddy, EHR, telephone: (703) 292-4655, email: mleddy@nsf.gov

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- Colleen Fitzgerald, SBE, telephone: (703) 292-4381, email: cfitzger@nsf.gov

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.041 --- Engineering
- 47.049 --- Mathematical and Physical Sciences
- 47.050 --- Geosciences
- 47.070 --- Computer and Information Science and Engineering
- 47.074 --- Biological Sciences
- 47.075 --- Social Behavioral and Economic Sciences
- 47.076 --- Education and Human Resources
- 47.083 --- Office of Integrative Activities (OIA)

Award Information

Anticipated Type of Award: Standard Grant

Estimated Number of Awards: 25

In FY 2017, up to 25 NSF INCLUDES two-year Design and Development Launch Pilot Projects awards will be made.

Anticipated Funding Amount: $7,500,000

In FY 2017, pending the availability of appropriations, approximately $7.5 million is available to fund up to 25 NSF INCLUDES two-year Design and Development Launch Pilot Projects at levels up to $300,000 each.

Eligibility Information

Who May Submit Proposals:

> The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the Grant Proposal Guide, Chapter I, Section E.

Who May Serve as PI:

> There are no restrictions or limits.

Limit on Number of Proposals per Organization: 1

> An organization may serve as the lead institution on only one Design and Development Launch Pilot preliminary or full proposal, although it may serve as a collaborating partner on other proposals.

Limit on Number of Proposals per PI or Co-PI: 2

> An individual may serve as a PI or Co-PI on only two (2) Design and Development Launch Pilot preliminary or full proposals.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Not required

- **Preliminary Proposals:** Submission of Preliminary Proposals is required. Please see the full text of this solicitation for further information.

- **Full Proposals:**

  - Full Proposals submitted via FastLane: NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) Guidelines apply. The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg.
  - Full Proposals submitted via Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov Guidelines apply (Note: The NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide)

B. Budgetary Information

- **Cost Sharing Requirements:**

  Inclusion of voluntary committed cost sharing is prohibited.

- **Indirect Cost (F&A) Limitations:**

  Not Applicable

- **Other Budgetary Limitations:**

  Not Applicable

C. Due Dates

- **Preliminary Proposal Due Date(s)** *(required)* (due by 5 p.m. submitter's local time):

  February 14, 2017

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

  May 16, 2017

Proposal Review Information Criteria

Merit Review Criteria:

National Science Board approved criteria apply.

Award Administration Information

Award Conditions:

Standard NSF award conditions apply.

Reporting Requirements:

Standard NSF reporting requirements apply.

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I. INTRODUCTION

Diversity – of thought, perspective, and experience – is essential for excellence in research and innovation in science and engineering.[1] Full participation of all of America's STEM talent is critical to the advancement of science and engineering for national security, health, and prosperity. America's STEM talent pool has a competitive advantage when it is enriched by diversity of perspectives and approaches, which in turn enriches knowledge across STEM.Women, persons with disabilities, African Americans/Blacks, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, Native Pacific Islanders, and persons from economically disadvantaged backgrounds have been historically underrepresented and underserved in various fields of science and engineering across all levels – from preK-12 to long-term workforce participation.[2],[3] Inclusion of talent from all sectors of American society is necessary for the health and vitality of the science and engineering community and its societal relevance.

NSF INCLUDES is a comprehensive initiative to enhance U.S. leadership in science and engineering discovery and innovation by seeking and effectively developing STEM talent from all sectors and groups in our society. Over several years, NSF will invest in alliances and build a national network to achieve significant impact at scale in transforming STEM education and workforce pathways so they are fully and widely inclusive and equitable opportunities for participation are provided. New networks, systems, and partnerships as well as approaches to using data for change will be hallmarks of NSF INCLUDES. The initiative will serve as a testbed in real time over the next ten years for designing, implementing, studying, and refining change models that are based on collective impact-style approaches, and on networks that support adoption and adaptation at scale. This approach is a substantial shift away from current practice, which often involves highly successful but locally focused efforts. Undertaking change through collective impact at national scale is unprecedented. Success will be evident in the formation and enactment of new policies and practices in institutions, professional societies, and scientific culture that position inclusion and equity as core values for excellence in STEM.

NSF INCLUDES aims to mobilize communities concerned with both broadening participation and STEM opportunities to bring renewed focus and effective collaboration to optimizing diversity possibilities across and within STEM fields at scale. This initiative will leverage investments from NSF programs and projects focused on broadening participation and build on lessons learned, promising practices, and proven mechanisms for achieving success.[4],[5]

NSF INCLUDES intends to develop a national network of collaborative alliances spanning education levels, including public and private sector partners, and involving new connections to organizations not previously engaged in either broadening participation and/or STEM. Organizations could establish and build alliances by leveraging state-of-the-art knowledge and technologies for expanding and scaling social innovations. For example, efforts could include collective impact approaches—ones that incorporate key success determinants of common agenda, shared measurements, mutually reinforcing activities, continuous communications,

and backbone support organizations—that have the potential to yield extensive and measurable progress towards NSF INCLUDES' goals. Building on the strong knowledge base from the science of broadening participation, NSF INCLUDES Launch Pilot projects and Alliances will employ novel systems approaches and designs for achieving scale, including measurement infrastructure for achieving greater impact to advance diversity and inclusion in STEM.[6],[7], [8],[9]

NSF INCLUDES will fund new models, networks, partnerships, technical capabilities, and research that lead to measurable progress in diversity and inclusion in STEM and have the ability to expand to the national level. The multi-year strategies of NSF INCLUDES are to:

1. Develop a multi-year plan for a NSF INCLUDES National Network (NSF INCLUDES Design and Development Launch Pilots, Alliances, and a National Backbone organization[10]) by supporting partnerships and networks that may be local/regional, discipline specific or crosscutting multi-stakeholder efforts.

2. Support stakeholders, including those from specific STEM disciplines, as they identify and develop a set of shared goals and objectives, which are essential for success in achieving inclusion in high-quality opportunities that foster learning, involvement, engagement and workforce participation in STEM.

3. Support research-informed activities to synthesize and build the research base to define and measure broadening participation efforts, foster the spread and adaptation of proven effective practices, and increase the knowledge base around new and innovative strategies to engage underserved populations in STEM.

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[1] Page, S. E. (2007). The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies. *Princeton University Press*.

[2] National Academies of Sciences, Engineering, and Medicine. (2011). *Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads.* National Academies Press. Washington, DC.

[3] Malcom, S., & Feder, M. (Eds.). (2016). *Barriers and Opportunities for 2-Year and 4-Year STEM Degrees: Systemic Change to Support Students' Diverse Pathways*. National Academies Press. Washington, DC doi: 10.17226/21739.

[4] Committee on Equal Opportunities in Science and Engineering (CEOSE). (2015). *Broadening Participation in America's STEM Workforce* (p. 28). Arlington, VA.

[5] NSF Broadening Participation Portfolio. Retrieved from http://www.nsf.gov/od/broadeningparticipation/bp_portfolio_dynamic.jsp

[6] Kania, J., & Kramer, M. (2011). Collective impact. *Stanford Social Innovation Review, Winter,* 36-41. Retrieved from https://ssir.org/articles/entry/collective_impact

[7] Bryk, A. S., Gomez, L. M., & Grunow, A. (2011). Getting ideas into action: Building networked improvement communities in education. In *Frontiers in sociology of education* (pp. 127-162). Springer Netherlands.

[8] Waitzer, J. M., & Paul, R. (2011). Scaling social impact: When everybody contributes, everybody wins. *innovations*, *6*(2), 143-155. Retrieved from http://www.ashokaglobalizer.org/sites/www.ashokaglobalizer.org/files/INNOVATIONS_Mcphedran-Waitzer-Paul.pdf

[9] Committee on Equal Opportunities in Science and Engineering (CEOSE). (2013). *2011-2012 Biennial Report to Congress: Broadening Participation in America's STEM Workforce*. Arlington, VA. Retrieved from https://www.nsf.gov/od/oia/activities/ceose/reports/Full_2011-2012_CEOSE_Report_to_Congress_Final_03-04-2014.pdf

[10] Turner, S., Merchant, K., Kania, J., & Martin, E. (2012). Understanding the value of backbone organizations in collective impact: Part 1. *Stanford Social Innovation Review*, 25-32. Retrieved from http://www.leveragingourstrengths.ca/reading/Health_BackboneOrgsCollectiveImpact.pdf

II. PROGRAM DESCRIPTION

NSF INCLUDES Design & Development Launch Pilots

With this solicitation, the NSF INCLUDES initiative invites proposals for Design and Development Launch Pilots, which are pilot projects that represent bold, innovative ways to solve broadening participation challenges in STEM. Each Launch Pilot will be funded for up to two years, for a maximum of $300,000. Successful pilots will deliver models or prototypes, including measurement/data infrastructures, enabling collective efforts aimed at increasing the active participation of those who have been traditionally underserved and underrepresented in particular STEM fields or across all fields of STEM.

Teams of organizations might come together locally, regionally, nationally, by disciplinary focus, or by other multisector categories. Key to a successful proposal will be the identification of a specific goal and measurable objectives, and an argument that the set of partners being assembled includes all who are needed to successfully address the objective. The plan must articulate its potential for expansion if funded as a NSF INCLUDES Alliance. (See Section V for more information about preparing NSF INCLUDES Design and Development Launch Pilot proposals.) Researchers and practitioners at minority serving institutions are strongly encouraged to participate in this activity given their experience and expertise in broadening participation.

These planning and start-up activities are aimed at engaging appropriate communities in testing the feasibility of developing and implementing a comprehensive plan and process for change, creating a support infrastructure involving shared measurement and technologies, and identifying other support mechanisms for sustaining the efforts. Early in the first year, the partners are expected to refine their collective commitment to a common set of objectives and plans to achieve them. No later than the second year, successful teams are expected to carry out and report on the results of projects to demonstrate their ability to implement a collective impact-style approach to address the selected broadening participation challenge. Successful Design & Development Launch Pilots are expected to share their goals and plans with one another, the broader community, and a NSF INCLUDES Backbone organization, enabling all to learn from their pilot project experiences. This effort will facilitate the formation of NSF INCLUDES Alliances.

III. AWARD INFORMATION

NSF INCLUDES proposals (pending availability of funds):

Design and Development Launch Pilot projects

- Number of awards: up to 25
- Project duration: Two years
- Award size: Up to $300,000
- Grant Administration: Design and Development Launch Pilot projects will be managed by NSF as standard grants

IV. ELIGIBILITY INFORMATION

Who May Submit Proposals:

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the Grant Proposal Guide, Chapter I, Section E.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization: 1

An organization may serve as the lead institution on only one Design and Development Launch Pilot preliminary or full proposal, although it may serve as a collaborating partner on other proposals.

Limit on Number of Proposals per PI or Co-PI: 2

An individual may serve as a PI or Co-PI on only two (2) Design and Development Launch Pilot preliminary or full proposals.

Additional Eligibility Info:

Submission of a preliminary proposal is required for Design and Development Launch Pilots. Full Design and Development Launch Pilot proposals may be submitted by invitation only after the review of the preliminary proposal is completed.

Proposals should include diverse teams of stakeholders and justify the role of each partner. Partnering institutions may include academic institutions, professional organizations, businesses, industry groups, government organizations, non-profit companies, community-based organizations, and science or industry-focused organizations. Institutions should show high levels of institutional commitment and support.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Preliminary Proposals *(required)*: Preliminary proposals are required and must be submitted via the NSF FastLane system, even if full proposals will be submitted via Grants.gov.

A **preliminary proposal is required for NSF INCLUDES Design and Development Launch Pilots**. All proposers must submit a preliminary proposal that outlines the major goals of the project including the components described below. Preliminary proposals will be reviewed by outside experts. The Program Directors will communicate the decision to Invite/Do Not Invite full proposals via FastLane and those decisions will be based on the panel recommendations and additional portfolio considerations. Invite/Do Not Invite decisions are binding. Preliminary proposals must be submitted via the NSF FastLane system.

The following exceptions and additions to the PAPPG guidelines apply to preliminary proposals submitted to this solicitation:

Submission of a preliminary proposal is required to be eligible for invitation for a full proposal. Preliminary proposals that are not compliant with the guidelines may be returned without review. It is the submitting organization's responsibility to ensure that the proposal is compliant with all applicable guidelines.

For proposals involving multiple institutions, a single preliminary proposal should be submitted by **ONLY** the lead institution. The collaborative partners should be indicated on the list of personnel in the project description (see below). A lead institution may submit only one preliminary proposal, although it may participate as a collaborative partner in other preliminary proposals.

Preliminary proposals must contain the items listed below and strictly adhere to the specified page limitations. No additional information may be provided as an appendix or by links to Web pages. Figures and tables must be included within the applicable page limit. All elements of the proposal, including legends and tables, must meet the formatting requirements for font size, characters per inch, margins, etc. as specified in the PAPPG.

Results from prior support are neither required in, nor excluded from preliminary proposals. It is up to the individual submitters to determine if inclusion represents an efficient use of the limited Project Description space in support of their request.

Preliminary proposals should contain an overview of the proposed Design and Development Launch Pilot plan with sufficient detail to allow assessment of the major ideas and approaches to be used. Preliminary proposals must include the following components.

- **Cover Sheet:** Check the box indicated for the preliminary proposal. Entries on the Cover Sheet are limited to the Principal Investigator and a maximum of four co-Principal Investigators. Beginning Investigators (individuals who have not been a Principal Investigator [PI] or co-Principal Investigator [co-PI] on a Federally-funded award with the exception of doctoral dissertation, postdoctoral fellowship or research planning grants) listed as Lead PI must check the box for "Beginning Investigator" on the proposal Cover Sheet. Place a zero (0) in the Requested Amount block and leave blank the fields for Requested Duration and Start Date for the grant. For more FastLane instructions, see section V.D. below.

- **Title of Proposed Project:** Title should begin with the prefix: "Preliminary Proposal NSF INCLUDES."

- **Project Summary (1 page):** Provide an overview of the proposed Design and Development Launch Project, addressing separately the intellectual merit and broader impacts. The summary should be written in the third person, informative to those working in the same or related field(s), and understandable to a scientifically or technically literate reader. **Preliminary proposals that do not contain the Project Summary, including an overview and separate statements on intellectual merit and broader impacts, will not be accepted or will be returned without review**. Note: Project Summaries entered in the FastLane form are displayed with standardized formatting and subject to a one-page limit for the three sections.

- **Project Description.** Maximum 5 pages total, containing the two following sections:
  - **Personnel (This section is limited to one page. Any remaining space should be left blank.)** Provide a list of project personnel plus each person's institutional affiliation, and a brief description of that person's role(s) in the project. The description of role(s) should be concise and may not include external links. Divide the list into two sections. The first section of the list must contain all PI(s), co-PI(s), and sub-award lead senior investigators, including those from all parts of a collaborative proposal. This constitutes the list of key personnel subject to the submission cap for PIs and Co-PIs. The second section of the list should contain other senior personnel. Any individual for whom a biographical sketch is included in the preliminary proposal must be on one of these lists. You should not list undergraduate or graduate students, technicians, or other participants.

  - **Project (This section is limited to four pages and must address separately both the intellectual merit and broader impacts.)**

The most competitive preliminary proposal project narratives will address the following questions:

1. Vision: What broadening participation challenge(s) will be addressed and what is the broader vision of the partnership, network, or alliance for effecting change? What innovative strategies will be used? How do those strategies build upon previous efforts? How are the strategies unique from what was done in the past by the participating organizations?
2. Partnerships: Which institutions are the proposed partners and what is the evidence that the partnership will be able to use social innovation frameworks such as collective impact to achieve the goals of the project? What expertise do the partnering organizations bring to the effort?
3. Goals and Metrics: What is the preliminary strategic plan to address the broadening participation challenge(s) identified above, including goals and measurable objectives? Which specific objectives will be addressed by the pilot, and why will successfully addressing these objectives position the PIs to launch a successful, expanded NSF INCLUDES Alliance? What types of data will be collected and how will data be used?
4. Leadership and Communication: How will the collaboration build capacity for leadership among all partnering organizations? How will the network provide for collective leadership among the partnering organizations? How will project activities and outcomes be broadly shared with the communities of interest?
5. Potential for Expansion, Impact and Scale: How will the pilot project's activities contribute to next steps for a research agenda and development plan to expand the network of organizations and activities into a broader alliance? What strategies will be used to getting the project to scale? What will be the overall contribution to broadening participation in the nation's scientific workforce?

- **References Cited** are limited to 3 pages, see PAPPG for format.
- **Biographical Sketches** (2-page limit for each) should be included for each person listed on the Personnel page. It should **follow the format described in the PAPPG**.
- **Collaborators and Other Affiliations Information** must be separately provided for each individual identified as senior project personnel as a Single Copy Document as per the PAPPG.
- **No budget should be submitted**; No budget justification should be submitted; please place a zero (0) in the Requested Amount box and leave blank the fields for Requested Duration and Start Date on the FastLane Cover Sheet.

Applicants must include the above documents (prepared in accordance with standard NSF formatting guidelines).

No other items, appendices or supplementary documents are permitted for preliminary proposals.

Preliminary Proposal Checklist for Compliance

Prior to submission, please review your preliminary proposal against this checklist to ensure that it is fully compliant with the guidelines provided in this solicitation:

- On the Cover Page, zero (0) is entered in the Requested Amount box, and nothing is entered into the Expected Duration or Start Date boxes; the Beginning Investigator box is checked if applicable. Be sure to check the box indicated for preliminary proposal.
- The Title begins with the prefix "Preliminary Proposal: NSF INCLUDES."
- The Project Summary is limited to 1 page and includes as separate sections an Overview, the Intellectual Merit, and the Broader Impacts of the proposed activity.
- The Project Description is limited to 5 pages. It addresses both the Intellectual Merit and Broader Impacts of the proposed research as separate sections. The first page contains only a list of project personnel, including institution, planned status (e.g., PI, co-PI, subaward lead, other senior personnel), and a concise description of role(s) in the project.
- The rest of the project description (4 pages) addresses the questions outlined above.
- The References Cited section is limited to 3 pages and conforms to the PAPPG format.
- Ensure the final submitted PDF conforms to the typeface size limits, line spacing maximum and margins specified in the PAPPG.

Items that should NOT be included in a Preliminary Proposal:

Budget, Budget Justification, Facilities, Equipment and Other Resources, Current and Pending Support, Letters of Collaboration, Data Management Plan, Postdoctoral Mentoring Plan, or any other Supplementary Documents.

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Grants.gov or via the NSF FastLane system.

- Full proposals submitted via FastLane: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF Grant Proposal Guide (GPG). The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov. Proposers are reminded to identify this program solicitation number in the program solicitation block on the NSF Cover Sheet For Proposal to the National Science Foundation. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: (http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov.

See Chapter II.C.2 of the GPG for guidance on the required sections of a full research proposal submitted to NSF. Please note that the proposal preparation instructions provided in this program solicitation may deviate from the GPG instructions.

Full proposals may be submitted by invitation only. They can be submitted via the NSF FastLane system or Grants.gov. The following instructions supplement guidance in the PAPPG or NSF Grants.gov Application Guide.

- **Cover Sheet:** Entries on the Cover Sheet are described in the NSF Proposal and Award Policies and Procedures Guide (PAPPG) (https://www.nsf.gov/pubs/policydocs/pappg17_1/index.jsp). Projects are limited to one Principal Investigator and a maximum of four co-Principal Investigators. Beginning Investigators (individuals who have not been a Principal Investigator [PI] or co-Principal Investigator [co-PI] on a Federally-funded award with the exception of doctoral dissertation, postdoctoral fellowship or research planning grants) listed as Lead PI must check the box for "Beginning Investigator" on the proposal Cover Sheet. For more FastLane instructions, see section V.D. below.
- **Title of Proposed Project:** The title of the proposed project should begin with the prefix: "NSF INCLUDES DDLP:"
- **Project Summary (1 page):** Provide an overview of the proposed Design and Development Launch Project, addressing separately the intellectual merit and broader impacts. The summary should be written in the third person, informative to those working in the same or related field(s), and understandable to a scientifically or technically literate reader. **Proposals that do not contain the Project Summary, including an overview and separate statements on intellectual merit and broader impacts will not be accepted or will be returned without review**. Note: Project Summaries entered in the FastLane form are displayed with standardized formatting and subject to a one-page limit for the three sections.
- **Project Description.** The project description should provide a clear statement of the work to be undertaken and must include the objectives for the period of the proposed work and expected significance. Invited full proposals should build on the ideas presented in the preliminary proposal and discuss (1) objectives and significance of the proposed activity; (2) the suitability of the methods to be used; (3) the qualifications of the investigators and the participating organizations; (4) the effect of the effort on collaborative infrastructure for broadening participation; and (5) the amount of funding required. Project descriptions are a maximum of 15 pages and must contain as separate sections within the narrative labeled "Intellectual Merit" and "Broader Impacts." The most competitive full proposals will also address the following:

1. **Vision**: What broadening participation challenge(s) will be addressed and what is the broader vision of the partnership, network, or alliance for effecting change? What innovative strategies will be used? How do those strategies build upon previous efforts? How are the strategies unique from what was done in the past by the participating organizations?
    - Identify a common agenda that reflects a collective understanding of the broadening participation challenge and links to existing research, promising practices and/or to the previous and ongoing activities of partnering organizations. Discuss results of prior NSF support if applicable (see PAPPG for guidelines).
    - Develop an integrated and coordinated strategic plan to address the broadening participation challenges, including technical infrastructure, which facilitates the accomplishment and implementation of a set of specified activities and targeted outcomes.
2. **Partnerships**: Which institutions are the proposed partners and what is the evidence that the partnership will be able to use social innovation frameworks such as collective impact to achieve the goals of the project? What expertise do the partnering organizations bring to the effort?
    - Describe the set of partners that will participate in the project; teams might come together locally, regionally, nationally, by disciplinary focus, or by other multisector categories. Explain why this set of partners is the right set to undertake the collective activities.
    - Identify the leading partners (organizations and leaders) who have the demonstrated capacity and vision to develop, manage, and lead the collective effort. Describe these organizations' long-term commitment to the Launch Pilot effort, including the commitment of organizational leaders.
    - Describe a management plan that includes the project personnel, each person's institutional affiliation, and a brief description of that person's role(s) in the project.
3. **Goals and Metrics**: What is the preliminary strategic plan to address the broadening participation challenge(s) identified above, including goals and measurable objectives? Which specific objectives will be addressed by the pilot, and why will successfully addressing these objectives position the PIs to launch a successful, expanded NSF INCLUDES Alliance? What types of data will be collected and how will data be used?
    - Define goals, mutually reinforcing activities, and measurable objectives and outcomes including progress indicators.
    - Describe agreed-upon ways to measure and report success, including the selection of an external evaluator.
    - Include a description of an evaluation plan that uses benchmarks, indicators, logic models, road maps, or other evaluative methods to document progress toward goals, objectives, and outcomes defined in the proposal.
    - Include a plan to use technology for data and information sharing.
4. **Leadership and Communication**: How will the collaboration build capacity for leadership among all partnering organizations? How will the network provide for collective leadership among the partnering organizations? How will project activities and outcomes be broadly shared with the communities of interest?
    - Describe a strategy for engaging participating organizations in change management.
    - Describe a strategy for engaging these organizations in a larger network leading to a comprehensive movement for change.
    - Explain how the network will leverage technology to facilitate connectivity among the partners.

Outline a plan for providing new and creative ways to tell the story of the progress being made and how results will be shared with research communities.

5. **Potential for Expansion, Impact and Scale**: How will the pilot project's activities contribute to next steps for a research agenda and development plan to expand the network of organizations and activities into a broader alliance? What strategies will be used to getting the project to scale? What will be the overall contribution to broadening participation in the nation's scientific workforce?

- **References Cited:** All references cited in the Project Summary and Project Description should be listed in this section.
- **Biosketches:** Biosketches for the PI, Co-PI(s) and senior project personnel are required. Biosketches **MUST** follow the NSF guidelines outlined in the NSF PAPPG or NSF Grants.gov Application Guide and may not be longer than 2 pages.
- **Budget and Budget Justification:** Budgets should be in NSF format and include up to three pages of budget justification. The budget justification should be in narrative form and include detailed explanations for each line item with budget resources listed in the budget. Information about what may or may not be included in the budget or budget justification is outlined in the NSF PAPPG or NSF Grants.gov Application Guide.

  Funds should be budgeted for the principal investigator or a project member to attend a two-day grantees' meeting in the Washington, D.C. area each award year.

  All full proposals involving multiple institutions must be submitted as a single submission from a lead institution with collaborating institutions as subawardees. A subaward should represent a transfer of effort from the lead institution to a collaborating institution. All lead and subawardee institutions must be registered in FastLane.

- **Facilities, Equipment and Other Resources:** A list of current facilities and equipment to be used in the implementation of the project activities should be included in this section. Further information is available in the NSF PAPPG or NSF Grants.gov Application Guide. In this section, institutions may list other partnering organizations that are not receiving substantial funds in the project budget but will be contributing to project activities.
- **Collaborators and Other Affiliations Information** must be separately provided for each individual identified as senior project personnel as a Single Copy Document as per the PAPPG.
- **Supplementary Documents:** Only those supplementary documents listed in the PAPPG or NSF Grants.gov Application Guide are allowed to be appended in the Supplementary Document section. Additional project description, evaluation plans, past PI efforts, or other project-related materials are **NOT ALLOWED**. The inclusion of Letters of Commitment from participating organizations is strongly encouraged. Any biosketches included in the Supplementary Document section must conform to NSF guidelines and may be only 2 pages in length.

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

C. Due Dates

- **Preliminary Proposal Due Date(s)** *(required)* (due by 5 p.m. submitter's local time):

  February 14, 2017

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

  May 16, 2017

D. FastLane/Grants.gov Requirements

For Proposals Submitted Via FastLane:

To prepare and submit a proposal via FastLane, see detailed technical instructions available at: https://www.fastlane.nsf.gov/a1/newstan.htm. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: http://www.grants.gov/web/grants/applicants.html. In addition, the NSF Grants.gov Application Guide (see link in Section V.A) provides instructions regarding the technical preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

Submitting the Proposal: Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

Proposers that submitted via FastLane are strongly encouraged to use FastLane to verify the status of their submission to NSF. For

proposers that submitted via Grants.gov, until an application has been received and validated by NSF, the Authorized Organizational Representative may check the status of an application on Grants.gov. After proposers have received an e-mail notification from NSF, Research.gov should be used to check the status of an application.

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program for acknowledgement and, if they meet NSF requirements, for review. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF either as *ad hoc* reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in the GPG as Exhibit III-1.

A comprehensive description of the Foundation's merit review process is available on the NSF website at: http://www.nsf.gov/bfa/dias/policy/merit_review/.

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF's mission, as articulated in *Investing in Science, Engineering, and Education for the Nation's Future: NSF Strategic Plan for 2014-2018*. These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the strategic objectives in support of NSF's mission is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions must recruit, train, and prepare a diverse STEM workforce to advance the frontiers of science and participate in the U.S. technology-based economy. NSF's contribution to the national innovation ecosystem is to provide cutting-edge research under the guidance of the Nation's most creative scientists and engineers. NSF also supports development of a strong science, technology, engineering, and mathematics (STEM) workforce by investing in building the knowledge that informs improvements in STEM teaching and learning.

NSF's mission calls for the broadening of opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

A. Merit Review Principles and Criteria

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

1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These "Broader Impacts" may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. **Both** criteria are to be given **full consideration** during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (GPG Chapter II.C.2.d.i. contains additional information for use by proposers in development of the Project Description

section of the proposal.) Reviewers are strongly encouraged to review the criteria, including GPG Chapter II.C.2.d.i., prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

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

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

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management Plan and the Postdoctoral Researcher Mentoring Plan, as appropriate.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or Panel Review.

Reviewers will be asked to evaluate proposals using two National Science Board approved merit review criteria and, if applicable, additional program specific criteria. A summary rating and accompanying narrative will generally be completed and submitted by each reviewer and/or panel. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF strives to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. Large or particularly complex proposals or proposals from new awardees may require additional review and processing time. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director acts upon the Program Officer's recommendation.

After programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications. After an administrative review has occurred, Grants and Agreements Officers perform the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

Once an award or declination decision has been made, Principal Investigators are provided feedback about their proposals. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers or any reviewer-identifying information, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

Notification of the award is made to *the submitting organization* by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process).

B. Award Conditions

An NSF award consists of: (1) the award notice, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award notice; (4) the applicable award conditions, such as Grant General Conditions (GC-1)*; or Research Terms and Conditions* and (5) any announcement or other NSF issuance that may be incorporated by reference in the award notice. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Award & Administration Guide* (AAG) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer no later than 90 days prior to the end of the current budget period. (Some programs or awards require submission of more frequent project reports). No later than 120 days following expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report, will delay NSF review and processing of any future funding increments as well as any pending proposals for all identified PIs and co-PIs on a given award. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project-reporting system, available through Research.gov, for preparation and submission of annual and final project reports. Such reports provide information on accomplishments, project participants (individual and organizational), publications, and other specific products and impacts of the project. Submission of the report via Research.gov constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report also must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

More comprehensive information on NSF Reporting Requirements and other important information on the administration of NSF awards is contained in the NSF *Award & Administration Guide* (AAG) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag.

VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- General Inquiries may be addressed to, telephone: (703) 292-7303, email: nsfincludes@nsf.gov

- Jolene K. Jesse, EHR, telephone: (703) 292-7303, email: jjesse@nsf.gov

- Christopher R. Meyer, BIO, telephone: (703) 292-2273, email: cmeyer@nsf.gov

- Kamau Bobb, CISE, telephone: (703) 292-4291, email: kbobb@nsf.gov

- Martha L. James, EHR, telephone: (703) 292-7772, email: mjames@nsf.gov

- Mark H. Leddy, EHR, telephone: (703) 292-4655, email: mleddy@nsf.gov

- Julio E. Lopez-Ferrao, EHR, telephone: (703) 292- 5183, email: jlopezfe@nsf.gov

- Monya A. Ruffin, EHR, telephone: (703) 292-4635, email: mruffin@nsf.gov

- James L. Moore, ENG, telephone: (703) 292-7082, email: jamoore@nsf.gov

- Richard F. Yuretich, GEO, telephone: (703) 292-4744, email: ryuretic@nsf.gov

- Bernice T. Anderson, OIA, telephone: (703) 292-5151, email: banderso@nsf.gov

- J. Matthew Douglass, MPS, telephone: (703) 292-2467, email: mdouglas@nsf.gov

- Wenda Bauchspies, SBE, telephone: (703) 292-5026, email: wbauchsp@nsf.gov

- Colleen Fitzgerald, SBE, telephone: (703) 292-4381, email: cfitzger@nsf.gov

For questions related to the use of FastLane, contact:

- FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation

message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

IX. OTHER INFORMATION

The NSF website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this website by potential proposers is strongly encouraged. In addition, "NSF Update" is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Grants Conferences. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. "NSF Update" also is available on NSF's website.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this mechanism. Further information on Grants.gov may be obtained at http://www.grants.gov.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

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

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See Grant Proposal Guide Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at http://www.nsf.gov

- **Location:** 4201 Wilson Blvd. Arlington, VA 22230

- **For General Information** (NSF Information Center)**:** (703) 292-5111

- **TDD (for the hearing-impaired):** (703) 292-5090

- **To Order Publications or Forms:**

    Send an e-mail to: nsfpubs@nsf.gov

    or telephone: (703) 292-7827

- **To Locate NSF Employees:** (703) 292-5111

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete

assigned work; to other government agencies or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004), and NSF-51, "Reviewer/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton
Reports Clearance Officer
Office of the General Counsel
National Science Foundation
Arlington, VA 22230

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