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# Interdisciplinary Behavioral and Social Science Research (IBSS)

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## PROGRAM SOLICITATION

NSF 15-588

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### REPLACES DOCUMENT(S):

NSF 12-614

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#### National Science Foundation

Directorate for Social, Behavioral & Economic Sciences  
SBE Office of Multidisciplinary Activities  
Division of Behavioral and Cognitive Sciences  
Division of Social and Economic Sciences

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

December 01, 2015

First Tuesday in December, Annually Thereafter

All IBSS proposals must be submitted by 5:00 PM (local time of submitting organization) on the annual IBSS proposal-submission deadline, which is the first Tuesday in December.

## IMPORTANT INFORMATION AND REVISION NOTES

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This solicitation invites the submission of proposals to the Interdisciplinary Behavioral and Social Science Research (IBSS) competition. IBSS has been conducted since 2013 and is expected to be conducted annually into the future. It is managed by the NSF Directorate for Social, Behavioral, and Economic Sciences.

While the core purposes and funding mechanisms for IBSS remain largely unchanged, this solicitation includes the following changes from the previous IBSS solicitation:

- This solicitation provides new language to emphasize that the primary focus of IBSS awards is to support the conduct of research projects that integrate personnel and employ scientific theoretical approaches and methodologies from multiple social, behavioral, and economic (SBE) science disciplines. IBSS-supported research also should be likely to yield generalizable insights and to advance basic theoretical knowledge and capabilities across multiple SBE disciplinary fields.
- This solicitation states that social and behavioral science researchers are especially encouraged to submit proposals for research on one of the following three general topics: Population Change; Sources and Consequences of Disparities; and Technology, New Media, and Social Networks. The IBSS competition also will consider proposals for projects that address any topic for which the proposal makes a compelling case that the research will enhance broader theoretical understanding across multiple social and behavioral science fields about a topic having wide-ranging significance.
- This solicitation contains a change in the descriptions of the nature of the research projects that IBSS will support. The solicitation also includes a change in the maximum level of support that will be provided for smaller IBSS awards as well as language that permits any kind of IBSS award to be as long as five years in duration.
- This solicitation specifies that only academic institutions and non-profit, non-academic organizations are eligible to submit proposals for IBSS funding.
- This solicitation continues the restriction that only one proposal may be submitted for a project. If multiple organizations are participating in the project, support for secondary organizations must be made via subawards from the lead organization. Of the two types of collaborative proposal formats described in the *NSF Grant Proposal Guide*, this solicitation allows only a single proposal submission with subawards administered by that lead organization.
- This solicitation provides new guidance regarding mandatory sections for IBSS proposals and provides clarification regarding supplementary documents that may be included as well as other facets of proposal preparation.
- This solicitation identifies new IBSS-specific review criteria to be used in coordination with the standing NSF review criteria of Intellectual Merit and Broader Impacts.

Any proposal submitted in response to this solicitation should be submitted in accordance with the revised *NSF Proposal & Award Policies & Procedures Guide (PAPPG) (NSF 16-1)*, which is effective for proposals submitted, or due, on or after January 25, 2016.

## SUMMARY OF PROGRAM REQUIREMENTS

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### General Information

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#### Program Title:

Interdisciplinary Behavioral and Social Science Research (IBSS)

#### Synopsis of Program:

The Interdisciplinary Behavioral and Social Science Research (IBSS) competition promotes the conduct of interdisciplinary research by teams of investigators in the social and behavioral sciences. Emphasis is placed on support for research that involves researchers from multiple SBE disciplinary fields and that integrates scientific theoretical approaches and methodologies from multiple SBE disciplinary fields. Emphasis also is placed on the significance of expected intellectual contributions that are likely to yield generalizable insights and information that will enhance theoretical perspectives and advance basic knowledge and capabilities across multiple SBE disciplinary fields. Although the IBSS competition will consider any proposal that addresses a topic for which the proposal makes a compelling case that the research will enhance broader theoretical understanding across multiple social and behavioral science fields, social and behavioral science researchers are especially encouraged to submit proposals for research on one of the following three broadly defined topics: Population Change; Sources and Consequences of Disparities; and Technology, New Media, and Social Networks.

**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.*

- Thomas J. Baerwald, telephone: (703) 292-7301, email: [tbaerwal@nsf.gov](mailto:tbaerwal@nsf.gov)
- Jonathan Leland, telephone: (703) 292-7285, email: [jleland@nsf.gov](mailto:jleland@nsf.gov)
- Jeffrey Mantz, telephone: (703) 292-7783, email: [jmantz@nsf.gov](mailto:jmantz@nsf.gov)

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

- 47.075 --- Social Behavioral and Economic Sciences

## Award Information

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**Anticipated Type of Award:** Standard Grant or Continuing Grant

**Estimated Number of Awards:** 12 to 16

Depending on the quality of proposals for projects of different size and the availability of funds, NSF anticipates making 12 to 16 awards annually.

**Anticipated Funding Amount:** \$10,500,000

NSF expects to have at least \$10,500,000 available to support awards resulting from this competition.

## Eligibility Information

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**Who May Submit Proposals:**

Proposals may only be submitted by the following:

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

**Who May Serve as PI:**

There are no restrictions or limits.

**Limit on Number of Proposals per Organization:**

There are no restrictions or limits.

**Limit on Number of Proposals per PI or Co-PI: 1**

An individual may serve as one of the senior personnel on only one IBSS proposal submitted in response to this solicitation during a single fiscal year. This limitation applies regardless of whether a person serving as one of the senior personnel on a project is supported directly by the award or through a subaward. This limitation extends across both types of proposals. An individual therefore may be one of the senior personnel on only one IBSS Large Research Project proposal or one IBSS Small Research Project proposal. All individuals serving as one of the senior personnel on a project are required to provide signed statements as supplementary documents that specify that the proposal is the only IBSS proposal for which they are serving as one of the senior personnel.

Projects for which IBSS support is sought must include at least three individuals as members of the project's senior personnel. The three or more senior personnel must include at least two individuals from two or more distinctively different SBE disciplinary fields.

For the purposes of this solicitation, senior personnel include the Principal Investigator (PI), any co-PIs, and any other individuals who will play lead intellectual roles in the project's development and conduct. Senior personnel are expected to have already attained their terminal degree, usually a Ph.D. or the equivalent. Students or consultants who provide specific expertise on a limited portion of the project are not considered to be senior personnel.

**Proposals that do not meet these requirements will be returned without review.**

These restrictions apply to the submission of IBSS proposals in response to this solicitation only and do not restrict the submission of proposals by investigators to other NSF activities or programs.

## Proposal Preparation and Submission Instructions

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### A. Proposal Preparation Instructions

- **Letters of Intent:** Not required
- **Preliminary Proposal Submission:** Not required
- **Full Proposals:**
  - Full Proposals submitted via FastLane: NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) Guidelines apply. The complete text of the GPG is available electronically on the NSF website at: [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=gpg](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](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:**

Other budgetary limitations apply. Please see the full text of this solicitation for further information.

### C. Due Dates

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

December 01, 2015

First Tuesday in December, Annually Thereafter

All IBSS proposals must be submitted by 5:00 PM (local time of submitting organization) on the annual IBSS proposal-submission deadline, which is the first Tuesday in December.

## Proposal Review Information Criteria

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### Merit Review Criteria:

National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

## Award Administration Information

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### Award Conditions:

Standard NSF award conditions apply.

### Reporting Requirements:

Standard NSF reporting requirements apply.

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## I. INTRODUCTION

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The Interdisciplinary Behavioral and Social Science Research (IBSS) competition seeks to support research conducted by integrated teams of researchers from two or more social, behavioral, and economic (SBE) disciplines. These teams should engage in integrated research that employs methods and techniques from multiple SBE disciplines, and the results of the team's research should be likely to significantly enhance theoretical understandings or have other stimulating and/or catalytic impacts across a range of SBE disciplinary fields. Although the IBSS competition will consider any proposal that addresses a topic for which the proposal makes a compelling case that the research will enhance broader theoretical understanding across multiple social and behavioral science fields, social and behavioral science researchers are especially encouraged to submit proposals for research on one of the following three general topics: Population Change; Sources and Consequences of Disparities; and Technology, New Media, and Social Networks.

The IBSS competition invites proposals for two different kinds of projects:

1. **IBSS Large Research Projects.** Large interdisciplinary research projects may be supported by awards up to \$1,000,000.
2. **IBSS Small Research Projects.** Small interdisciplinary research projects may be supported by awards up to \$300,000.

(Amounts listed above are total budgets over the duration of the project, including both direct and indirect costs).

## II. PROGRAM DESCRIPTION

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### **Background**

The Interdisciplinary Behavioral and Social Science Research (IBSS) competition builds on the definition of interdisciplinary research presented in a [2004 National Academy of Sciences report](#):

Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.

As a central part of NSF, the Directorate for Social, Behavioral, and Economic Sciences seeks to support fundamental research and related activities in alignment with the first two strategic goals identified in the [NSF Strategic Plan for 2014-2018](#). Those strategic goals are (1) Transform the Frontiers of Science and Engineering and (2) Stimulate Innovation and Address Societal Needs through Research and Education. The strategic plan notes that in pursuit of these goals, "NSF supports fundamental, interdisciplinary, high-risk, and potentially transformative research in science and engineering." The plan also notes that its strategic objectives are aimed at developing connections between new insights and global challenges, "often involving essential interdisciplinary collaborations."

A series of recent activities and reports have called attention to the integrative and interdisciplinary nature of research problems in the social, behavioral, and economic (SBE) sciences. The Human and Social Dynamics (HSD) competitions conducted by NSF from 2004 through 2008 supported interdisciplinary projects that involved SBE scientists, often in coordination with scientists from other fields. As stated in the [solicitation for the 2008 HSD competition](#), "The Human and Social Dynamics (HSD) priority area fosters breakthroughs in understanding the dynamics of human action and development, as well as knowledge about organizational, cultural, and societal adaptation and change.... Accomplishing these goals requires multidisciplinary research teams and comprehensive, interdisciplinary approaches across the sciences, engineering, education, and humanities, as appropriate."

In a 2009 report titled [Social, Behavioral, and Economic Research in the Federal Context](#), the Subcommittee on Social, Behavioral, and Economic Sciences of the National Science and Technology Council (NSTC) observed, "SBE scientists from a broad array of fields are performing interdisciplinary research that takes advantage of a new set of tools and holds the promise of providing insights and solutions not otherwise available."

In a 2011 report titled [Rebuilding the Mosaic: Fostering Research in the Social, Behavioral, and Economic Sciences at the National Science Foundation in the Next Decade](#) that summarized a visioning exercise that involved hundreds of SBE scientists, the NSF Directorate for Social, Behavioral, and Economic Sciences concluded that "Future research [in the SBE sciences] will be interdisciplinary, data-intensive, and collaborative."

Although standing programs in the NSF Directorate for Social, Behavioral, and Economic Sciences long have engaged in co-review of proposals to help support interdisciplinary research that bridges the interests and expertise of the communities served by those programs, experience in a range of wider-ranging competitions has demonstrated that interdisciplinary activities that span multiple fields, especially fields that traditionally have not interacted with each other extensively, are more effectively evaluated through special competitions that recognize and accommodate the interdisciplinarity of the projects to be undertaken.

### **IBSS Competition**

The NSF Directorate for Social, Behavioral, and Economic Sciences established the IBSS competition in 2013 to facilitate

interdisciplinary research that integrates insights and approaches from multiple SBE disciplines in order to make significant advances in fundamental knowledge across multiple fields. This solicitation outlines plans to continue the IBSS competition in Fiscal Year 2016 and future years.

The IBSS competition seeks to support research conducted by SBE scientists from multiple disciplines as collaborating members of teams that engage in integrated research employing methods and techniques from multiple disciplines and whose results are likely to enhance theories and/or methodological approaches or have other stimulating and/or catalytic impacts across a range of disciplinary fields.

There are a broad range of topics for which compelling interdisciplinary research might be conducted in the social and behavioral sciences. While willing to accept proposals for any topic, the Directorate for Social, Behavioral, and Economic Sciences especially encourages IBSS research on one of the following three general topics:

- **Population Change.** The number of people in the world continues to grow, but the changing character and distribution of people calls for research that expands far beyond traditional demography. Examples of possible issues related to population change for which interdisciplinary research in the social and behavioral sciences might be pursued are the dynamics of aging; gender roles within households, communities, and societies; implications of population change for current and future resource use and availability; migration and other factors related to the changing spatial distribution of people; and interactions among economic, social, and demographic change.
- **Sources and Consequences of Disparities.** Disparities among individuals, groups, and other organizational units long have been recognized as important lines of inquiry in the social and behavioral sciences. New perspectives may be obtained from explicitly interdisciplinary research on problems related to disparities, variability, and inequality. Examples of possible issues related to sources and consequences of disparity for which interdisciplinary research in the social and behavioral sciences might be pursued are the dynamics of economic, social, and cultural disparity within and across populations; the causes and consequences of disparity in health, education, wages, and other factors at levels ranging from the macro to the micro; the role of disparities in the processes of conflict, dissent, cooperation, or decision making; psychological, cognitive, and biological factors that affect the emergence and persistence of disparity; and geographic and temporal factors that influence the development and persistence of disparity as well as efforts to alleviate problems associated with disparities.
- **Technology, New Media, and Social Networks.** Recently developed forms of information and computational technologies have dramatically altered the ways in which people interact with each other in contemporary society. These dramatic shifts in the media used for interpersonal communication have led social and behavioral scientists to consider major new lines of inquiry that range across a diverse set of topics. Examples of possible issues related to technology, new media, and social networks for which interdisciplinary research in the social and behavioral sciences might be pursued are the processes through which new technologies are envisioned, developed, implemented, evaluated, and refined; the impacts of new forms of interpersonal communication on the ways that people and organizations function internally and with others; the ways in which cultural, social, and/or economic forces may influence the willingness of communities to adopt and use new technologies; the varying impacts of new technologies on people and organizations with capabilities as well as to different access to resources; and approaches to facilitate greater access and use of data regarding human activity that do not impinge on the confidentiality or privacy of human subjects.

Although the NSF Directorate for Social, Behavioral, and Economic Sciences extends special encouragement for proposals dealing with one of these three general topics, the IBSS competition will consider proposals for interdisciplinary research projects examining other topics if those proposals make compelling cases that the proposed research will significantly enhance broader theoretical understanding and make intellectual contributions across multiple social and behavioral science fields.

Regardless of the general topic they address, researchers seeking IBSS support are encouraged to place special emphasis on the potential intellectual merit of their activities. The potential societal benefits of a project will be considered in the evaluation of IBSS proposals, but the practical value of project findings and efforts to make them useful for specific groups and/or society as a whole will not constitute sufficient justification for IBSS support unless the project is judged to be a strong SBE interdisciplinary effort and is likely to yield significant theoretical enhancements and generalizable knowledge across a range of SBE fields.

IBSS seeks to support interdisciplinary projects that normally would not be supported by other competitions within NSF or other agencies and organizations. If a project bridges two or three closely related SBE disciplines served by standing SBE programs that frequently co-review proposals with each other, researchers should direct their proposals to those programs rather than to the IBSS competition. For example, if a project focuses primarily on addressing human health or healthcare issues and has broader theoretical implications of limited scale, the project would be more appropriate for consideration by a relevant unit of the National Institutes of Health rather than IBSS. The introduction of special competitions as part of NSF's activities in neuroscience, including its involvement in the President's BRAIN Initiative, may result in situations for which a project would be much more appropriate for consideration on one of those special competitions than in the IBSS competition. But if a basic research proposal bridges SBE disciplinary communities and does not fit with the expectations or requirements of other competitions, it could be very appropriate for IBSS consideration. For example, a team of social and behavioral scientists examining human system dynamics in response to changing environmental conditions could be suitable for IBSS consideration while it would not be appropriate for the NSF Dynamics of Coupled Natural and Human Systems (CNH) competition, because CNH requires the research team to also include natural scientists and to examine natural system dynamics and the impact of human activities on natural systems in addition to the studies focusing on human system dynamics.

Proposals submitted for IBSS funding should focus on basic research activities that will lead to theory-enhancing publications in widely disseminated, peer-reviewed journals. Other forms of dissemination of basic research results may also be appropriate. Development of new methods, collection of new databases of broader value, engagement in education and training activities, and/or other forms of infrastructural activity may be a part of the project's activities, but the project's primary emphasis should be on scientifically exploring the validity of answers to focused, theoretically based questions.

#### **Characteristics of IBSS-Supported Projects**

The IBSS competition invites proposals for two different kinds of basic research projects:

1. **IBSS Large Research Projects.** Large interdisciplinary research projects may be supported by awards up to \$1,000,000. Budgets should be developed at scales appropriate for the project to be conducted. Most projects will extend from two to five years in duration.
2. **IBSS Small Research Projects.** Small interdisciplinary research projects may be supported by awards up to \$300,000. In some cases, these smaller projects may be more appropriate for newly forming teams of researchers. Emphasis is to be placed on the conduct of research and potential outcomes, not on the preparation of plans and proposals for future research. Most exploratory projects will extend from one to two years in duration, although under special cases, they may extend for as long as five years.

(Note that the amounts listed above are total budgets over the duration of the project, including both direct and indirect costs).

Researchers who are interested in submitting proposals for IBSS funding should take special note of the special review criteria that will be used in the IBSS competition. In addition to asking reviewers to assess the intellectual merit and potential broader impacts of a project, IBSS program officers will ask reviewers to assess the breadth of disciplinary participation in the work of the project's research team and the breadth of research approaches to be used in the conduct of the project. The IBSS special review criteria also focus on the significance and breadth of the intellectual contributions of their projects. As a general principle, projects that display more breadth in terms of disciplinary composition, approaches, and intellectual impacts as well as more significance in terms of their intellectual contributions will be at a competitive advantage over more narrowly focused projects provided that the quality and significance of the research to be conducted is maintained.

Investigators submitting proposals for the IBSS competition should be aware that proposals will be evaluated by reviewers drawn from the full range of SBE disciplines. They therefore should prepare their proposals in ways that will make them readily understandable by a diverse set of reviewers.

All SBE program officers will assist in the identification of reviewers from across the full range of SBE sciences to evaluate IBSS proposals, so co-review will not be pursued between IBSS and other SBE programs and competitions.

Because NSF rules prohibit submission of multiple versions of the same substantive proposals to NSF for review at the same time, investigators should carefully consider whether to submit their project proposal to IBSS or to another competition. As noted before, projects that are more narrowly focused in terms of their research team composition, their methodological breadth, and/or their theoretical, methodological, and/or other kinds of contributions may be better suited for submission to specific competitions or for review (or co-review) by one or more other programs and competitions in NSF or in other agencies rather than to the IBSS competition.

### **Special Requirements and Restrictions**

Projects for which IBSS support is sought must include at least three individuals as members of the project's senior personnel. (Senior personnel are defined as individuals who will play lead intellectual roles in the project's development and conduct. Senior personnel are expected to have already attained their terminal degree, usually a Ph.D. or the equivalent.) The three or more senior personnel must include at least two individuals from two or more distinctively different SBE disciplinary fields. IBSS is especially interested in supporting teams that range across relevant SBE disciplines. Researchers from non-SBE disciplines may also serve as members of research teams if their expertise will help advance the conduct of the proposed research, but the emphasis in the evaluation of an IBSS proposal will be on the breadth of personnel, research approaches, and expected intellectual contributions as well as the expected theoretical significance of those findings across SBE disciplinary fields.

If the project involves collaboration with scholars in other nations, at least two of the senior personnel must hold positions in U.S. academic or non-profit organizations.

An individual may serve as one of the senior personnel on only one IBSS proposal submitted in response to this solicitation during a single fiscal year. This limitation applies regardless of whether a person serving as one of the senior personnel on a project is supported directly by the award or through a subaward. This limitation extends across both types of proposals. An individual may therefore be one of the senior personnel on only one IBSS Large Research Project proposal or one IBSS Small Research Project proposal. All individuals serving as one of the senior personnel on a project are required to provide signed statements as supplementary documents that specify that the proposal is the only IBSS proposal for which they are serving as one of the senior personnel.

If a project is being undertaken by researchers at multiple organizations, a single organization must be identified as the lead organization. A single proposal describing the entire project must be submitted by that organization with funds distributed among partner organizations via subawards from the lead organization. Direct submission of linked collaborative sets of proposals by multiple organizations is not permitted.

## **III. AWARD INFORMATION**

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Estimated program budget, number of awards and average award size/duration are subject to the availability of funds.

Project budgets should be developed at scales appropriate for the project to be conducted.

This competition will support awards of varying size. The maximum level of support for an IBSS Large Research Project will be \$1,000,000. The maximum level of support for an IBSS Small Research Project will be \$300,000. (Amounts listed above are total budgets over the duration of the project, including both direct and indirect costs.)

Projects should be for the length of time necessary to effectively conduct the project. No IBSS awards may be more than five years in duration.

## **IV. ELIGIBILITY INFORMATION**

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### **Who May Submit Proposals:**

Proposals may only be submitted by the following:

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

### **Who May Serve as PI:**

There are no restrictions or limits.

**Limit on Number of Proposals per Organization:**

There are no restrictions or limits.

**Limit on Number of Proposals per PI or Co-PI: 1**

An individual may serve as one of the senior personnel on only one IBSS proposal submitted in response to this solicitation during a single fiscal year. This limitation applies regardless of whether a person serving as one of the senior personnel on a project is supported directly by the award or through a subaward. This limitation extends across both types of proposals. An individual therefore may be one of the senior personnel on only one IBSS Large Research Project proposal or one IBSS Small Research Project proposal. All individuals serving as one of the senior personnel on a project are required to provide signed statements as supplementary documents that specify that the proposal is the only IBSS proposal for which they are serving as one of the senior personnel.

Projects for which IBSS support is sought must include at least three individuals as members of the project's senior personnel. The three or more senior personnel must include at least two individuals from two or more distinctively different SBE disciplinary fields.

For the purposes of this solicitation, senior personnel include the Principal Investigator (PI), any co-PIs, and any other individuals who will play lead intellectual roles in the project's development and conduct. Senior personnel are expected to have already attained their terminal degree, usually a Ph.D. or the equivalent. Students or consultants who provide specific expertise on a limited portion of the project are not considered to be senior personnel.

**Proposals that do not meet these requirements will be returned without review.**

These restrictions apply to the submission of IBSS proposals in response to this solicitation only and do not restrict the submission of proposals by investigators to other NSF activities or programs.

**Additional Eligibility Info:**

None.

## V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

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### A. Proposal Preparation Instructions

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**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](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](mailto: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](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](mailto:nsfpubs@nsf.gov).

#### Proposal Format

**Proposals not in conformance with the proposal-preparation requirements specified in this solicitation or with the specifications of the NSF Grant Proposal Guide or NSF Grants.gov Application Guide will be returned without review.**

Be sure to adhere to formatting requirements as specified in the *Grant Proposal Guide* or the *NSF Grants.gov Application Guide*, and be sure to number pages within each section of the proposal, especially the Project Description.

#### Personnel Definitions

This program solicitation requests material about the personnel involved in the project. Please use the following definitions to provide the corresponding information:

- **Principal Investigators** -- Individuals who will assume responsibility for an award resulting from this competition, who will help manage the award, and who are listed on the cover sheet of the proposal.
- **Senior Personnel** -- All Principal Investigators, any other named senior personnel who will receive salary support, and any non-salaried senior investigators who will play lead roles in the conduct of the project. This group may include active participants in the research team from outside the U.S.
- **Project Participants** -- Every person involved with the research project, including students.

#### Proposal Sections to Be Prepared as Directed in the *Grant Proposal Guide* or the *NSF Grants.gov Application Guide*.

The following sections of the proposal are mandatory and should be prepared in accordance with instructions regarding those

sections in the *Grant Proposal Guide* or the *NSF Grants.gov Application Guide*:

- **Project Summary**
- **References Cited**
- **Biographical Sketches**
- **Budgets**
- **Current and Pending Support**
- **Facilities, Equipment, and Other Resources**

#### **Proposal Sections with Special Instructions for Proposals Submitted in Response to This Solicitation**

The following sections of the proposal are mandatory and should be prepared in accordance to the following supplementary instructions as well as to guidance in the *Grant Proposal Guide* or the *NSF Grants.gov Application Guide*.

##### ***Proposal Cover Sheet***

For the program solicitation number, use the number listed at the top of this solicitation. (Grants.gov users: The program solicitation number will be pre-populated by Grants.gov on the NSF Grant Application Cover Page.)

For the NSF organizational unit, select SMA-Interdiscp Behav&SocSci IBSS. If you want your proposal to be co-reviewed by other programs not in the NSF Directorate for Social, Behavioral, and Economic Sciences, you may specify one or more additional programs but please be aware that other programs are not obligated to co-review a proposal with IBSS, and SBE programs will not co-review proposals submitted to IBSS. (Grants.gov users: Refer to Section VI.1.2. of the NSF Grants.gov Application Guide for specific instructions on how to designate the NSF Unit of Consideration.)

The title of the proposal should describe the project in concise, informative language so that a scientifically or technically literate reader could understand what the project is about. The title of the proposal should specify one of the following prefixes to designate the specific kind of proposal being submitted, with the substantive title of the project following the prefix:

- **IBSS-L:** (This prefix is used for an IBSS large research project.)
- **IBSS-S:** (This prefix is used for an IBSS small research project.)

Provide complete information requested on the cover sheet for the principal investigator (PI) and for up to four co-principal investigators (co-PIs), including current contact information.

##### ***Project Description***

**The page limit for the project description of any proposal submitted for the IBSS competition is 15 pages.**

#### **1. IBSS Large Research Projects.**

With the exceptions noted below, proposers may organize the different components of the project description as they wish. **The following sections MUST be included under separate headings in the project description:**

- **Results from Prior NSF Support.** This section is required only for principal investigators and co-principal investigators who have received NSF funding in the last five years. If an individual has had more than one award during the last five years, the individual needs to comment on only one of those awards, usually the one that is most relevant to the proposed work. If multiple PIs have worked together on a project supported by an NSF award within the last five years, only one set of comments about that award needs to be provided. Be sure to consult the directions regarding this section in the NSF *Grant Proposal Guide* or the equivalent section of the *NSF Grants.gov Application Guide* regarding the information that should be provided for each award, including discussion of accomplishments under two distinct headings for Intellectual Merit and Broader Impacts. The Results from Prior NSF Support section may be up to 5 pages in length, although PIs should be aware that evaluation of the IBSS proposal will focus predominantly on plans for future interdisciplinary research, not on past accomplishments of one or more of the PIs.
- **Management Plan.** The following information should be provided: (1) a description of the management structure that will enable the team to work effectively; and (2) specification of the qualifications of each of the senior personnel as well as the contribution they are expected to make to the project. This section increases in importance as the number of senior personnel or institutions involved in the project increases. The management plan usually is between 1 and 2 pages in length.
- **Expected Project Significance.** This section should clearly specify what proposers expect will be the results and contributions of the project. The section should include two separate subsections, each of which has a separate title, to address the expected Intellectual Merit of the proposal and the expected Broader Impacts. This section should clearly specify how the proposed work will advance basic knowledge and make intellectual contributions across multiple social and behavioral science fields regarding the general topic to be addressed, regardless of whether that general topic is one of the three general topics for which this solicitation explicitly encourages submissions (Population Change; Sources and Consequences of Disparities; or Technology, New Media, and Social Networks) or another general topic. This section is usually from 1/2 page to 1 page in length. (The inclusion of the Broader Impacts subsection in this IBSS-required section fulfills the general requirement in the NSF *Grant Proposal Guide* or the equivalent section of the *NSF Grants.gov Application Guide* requiring a separate section within the project description labeled "Broader Impacts.")
- **Interdisciplinary Character of the Project.** This section should specify the disciplinary mix of the researchers undertaking this project, the disciplinary mix of the methods to be used in the conduct of the project, and the contributions that the project is expected to make to different disciplinary communities as well as to broader knowledge in the SBE sciences. This section is an ideal location for addressing the IBSS-specific special review criteria regarding the breadth of backgrounds across SBE disciplines of members of the research team as well as the breadth of methods from multiple SBE disciplines employed in the conduct of the project. This section is usually about 1/4 page to 1/2 page in length.

#### **2. IBSS Small Research Projects**

With the exceptions noted below, proposers may organize the different components of the project description as they wish. **The following sections MUST be included under separate headings in the project description:**

- **Results from Prior NSF Support.** This section is required only for principal investigators and co-principal investigators who have received NSF funding in the last five years. If an individual has had more than one award during the last five years, the individual needs to comment on only one of those awards, usually the one that is most relevant to the proposed work. If multiple PIs have worked together on a project supported by an NSF award within the last five years, only one set of comments about that award needs to be provided. Be sure to consult the directions regarding this section in the NSF *Grant Proposal Guide* or the equivalent section of the *NSF Grants.gov Application Guide* regarding the information that should be provided for each award, including discussion of accomplishments under two distinct headings for Intellectual

Merit and Broader Impacts. The Results from Prior NSF Support section may be up to 5 pages in length, although PIs should be aware that evaluation of the IBSS proposal will focus predominantly on plans for future interdisciplinary research, not on past accomplishments of one or more of the PIs.

- **Expected Project Significance.** This section should include two separate subsections, each of which has a separate title, to address the expected Intellectual Merit of the proposal and the expected Broader Impacts. This section should clearly specify how the proposed work will advance basic knowledge and make intellectual contributions across multiple social and behavioral science fields regarding the general topic to be addressed, regardless of whether that general topic is one of the three general topics for which this solicitation explicitly encourages submissions (Population Change; Sources and Consequences of Disparities; or Technology, New Media, and Social Networks) or another general topic. This section is usually from 1/2 page to 1 page in length. (The inclusion of the Broader Impacts subsection in this IBSS-required section fulfills the general requirement in the NSF Grant Proposal Guide or the equivalent section of the NSF Grants.gov Application Guide requiring a separate section within the project description labeled "Broader Impacts.")
- **Interdisciplinary Character of the Project.** This section should specify the disciplinary mix of the researchers undertaking this project, the disciplinary mix of the methods to be used in the conduct of the project, and the contributions that the project is expected to make to different disciplinary communities as well as to broader knowledge in the SBE sciences. This section is an ideal location for addressing the IBSS-specific special review criteria regarding the breadth of backgrounds across SBE disciplines of members of the research team as well as the breadth of methods from multiple SBE disciplines employed in the conduct of the project. This section is usually about 1/4 page to 1/2 page in length.

### **Facilities, Equipment, and Other Resources**

As specified in Chapter II, Section C.2.i of the NSF *Grant Proposal Guide* and the comparable section of the *NSF Grants.gov Application Guide*, a description of facilities, equipment, and other resources necessary for the conduct of the proposed work must be specified in this section. Applicants should be aware that descriptions of other resources that may assist in the conduct of the project may be identified, but these descriptions should be narrative in nature and must not include any quantifiable financial information.

This section should describe only facilities, equipment, and other resources that will be used during the conduct of the project. The section should not explain the specific ways in which resources in the project will be used. Such detailed, project-specific explanations constitute an attempt to circumvent the Project Description page limitation and would constitute grounds for returning the proposal without review. This section also should not include detailed descriptions of what project personnel will do in the conduct of the proposed project.

Note that if there are no facilities, equipment, or other resources to describe, a statement to that effect must be included in the proposal.

### **Special Information and Supplementary Documentation**

Following are supplementary documents for which special instructions are provided for proposals submitted in response to this solicitation that supplement guidance in the *Grant Proposal Guide* and the *NSF Grants.gov Application Guide*:

#### **NSF-Required Supplementary Documentation**

##### **Data-Management Plan**

All proposals must include a plan for data management and sharing the products of research. The data management plan must be no longer than 2 pages in length and must be included as a supplementary document.

The data-management plans must address all five of the points specified in Chapter II, Section C.2.j of the NSF *Grant Proposal Guide* and the comparable section of the *NSF Grants.gov Application Guide*. Proposers are especially encouraged to specify how they intend to make data, software, and other products of the research readily available to potential users through institutionally based archives, repositories, or distribution networks so that the products may be easily accessed by others over long time periods.

##### **Post-Doctoral Mentoring Plan**

As specified in the NSF *Grant Proposal Guide* and the comparable section of the *NSF Grants.gov Application Guide*, a post-doctoral mentoring plan must be provided if any funding is requested to support one or more post-doctoral researchers in the proposal budget. This is required whether the funding for the post-doctoral researcher(s) is requested in the lead institution's budget or through a subaward. The post-doctoral mentoring plan must be no longer than one (1) page in length for the project as a whole and must be included as a supplementary document.

IBSS does not permit the inclusion of a graduate or undergraduate student mentoring plan as a supplementary document. Proposals may include such plans in the project description.

#### **IBSS-Required Supplementary Documentation**

##### **Confirmation Statements from All Senior Personnel**

Because an individual may serve as one of the senior personnel on only one IBSS proposal submitted in response to this solicitation during a single fiscal year, each person who will serve as the senior personnel for a project described in a proposal must include a statement that confirms their participation in this project and that specifies that they are not participating as a PI, co-PI, or member of the senior personnel on any other project seeking IBSS support this fiscal year.

**The following statement from each individual serving as a member of the senior personnel on a project must be included as a supplementary document in the proposal.** (This statement may be in the form of a signed statement or a statement sent by e-mail to the PI.)

To: NSF Interdisciplinary Behavioral and Social Science Research (IBSS) Competition

From: \_\_\_\_\_  
(Printed name of the individual collaborator or name of the organization and name and position of the official submitting this memo)

By signing or transmitting this message electronically, I acknowledge that I am a PI, co-PI, or other member of the senior personnel for the project outlined in the proposal titled "\_\_\_\_\_(proposal title)\_\_\_\_\_" with \_\_\_\_\_(PI name)\_\_\_\_\_ as the Principal Investigator.

In addition, I confirm that I am not a PI, co-PI, or other member of the senior personnel for any other project submitted for the IBSS competition this fiscal year.

Signed: \_\_\_\_\_

Organization: \_\_\_\_\_

Date: \_\_\_\_\_

**If an individual is involved as PI, co-PI, or other member of the senior personnel on two or more IBSS proposals submitted during this fiscal year, all proposals with which that person is associated will be returned without review.**

#### **Other Allowable Types of Supplementary Documentation**

The following kinds of documentation may be included as supplementary documentation in an IBSS proposal.

#### **Letters of Collaboration**

Brief statements, whether written as letters or as free-standing e-mail messages from individuals and/or organizations that will work with the PIs and/or provide assistance for the proposed project, may be included as supplementary documents. Such letters are not needed from individuals included as senior personnel on a project or from subawardee organizations because their involvement in the project is affirmed by the inclusion of their biographical sketches and/or subaward budgets.

[Note that in the previous IBSS solicitation, separate kinds of letters were described as letters of collaborations (for individuals who were collaborating in some way in the research activities) and letters of commitment (for individuals or organizations who would be providing some type of assistance to the researchers). In accordance with new provisions of the NSF *Grant Proposal Guide* and the *NSF Grants.gov Application Guide*, any kind of arrangement in which an individual or group will provide assistance for a project now is considered a collaboration.]

Letters of collaboration should focus on the willingness of the letter's author to collaborate or provide assistance for the project in ways that have been outlined in the proposal. Such letters should not argue for support of the project by articulating in greater detail what activities the collaborator will undertake and/or by elaborating reasons for supporting the project. Such additional text may be included in the project description of the proposal but is not permitted in a supplementary document.

The IBSS program directors strongly recommend the use of a template like the following for letters of collaboration. If this template or very similar text is not used, the text provided by the letter's author must be equally brief and to the point. Inclusion of longer letters may result in the PIs being forced to remove such letters (with no other changes to the proposal permitted) or in NSF's returning the proposal without review.

*Suggested template for a letter of collaboration.* (This statement may be in the form of a signed statement or a statement sent by e-mail to the PI.)

To: NSF Interdisciplinary Behavioral and Social Science Research (IBSS) Competition

From: \_\_\_\_\_ [Insert the name of the individual collaborator or insert the name of the organization and the name and position of the official submitting this statement]

By signing below or by transmitting this message electronically, I acknowledge that I/my organization [Choose appropriate text] will collaborate in and/or assist with the conduct of the project described in the proposal titled "\_\_\_\_\_" [Insert proposal title] with \_\_\_\_\_ [Insert the PI's name] as the Principal Investigator

I/My organization [Choose appropriate text] will provide assistance as described in the project description of this proposal.

Signed: \_\_\_\_\_

Organization: \_\_\_\_\_

Date: \_\_\_\_\_

#### **IRB and/or IACUC Certifications**

If the submitting organization's Institutional Review Board (IRB) has approved plans for research involving human subjects or the Institutional Animal Care and Use Committee (IACUC) has approved research involving vertebrate animals, certification of that may be included on appropriate sections of the cover sheet. Documentation of the certification may be included as a supplementary document, but that is not required if sufficient information is provided by the sponsored projects office on the cover sheet of the proposal. If such documentation from an IRB or an IACUC is included, it should only be the certification statement. Documents submitted to the IRB or IACUC to obtain approval should not be included, because such documentation will include material appropriate for inclusion in the Project Description but not as a supplementary document.

If the IRB and/or IACUC have not approved the research plans when the proposal is submitted, the appropriate box(es) should be checked on the cover sheet and "Pending" should be listed on the line that follows. If IRB or IACUC approval is granted while the proposal is under review at NSF, certification of the approval should be sent to the IBSS program directors. If the IRB or IACUC asks that plans be forwarded to it for approval, have the application ready to go, because notification from the program director that she/he would like to recommend the proposal for an award may come with a very brief time period during which necessary materials (including the IRB or IACUC certification) must be obtained. If the required certifications cannot be supplied within two weeks, IBSS program directors may have to turn their attention to other meritorious projects that can be funded right away.

Most IRB or IACUC approvals are valid for specific time periods. If the expiration of the current approval will occur before or soon after the possible start date for an award, the PI should request renewed approval from the IRB or IACUC so that certification of extended approval can be provided if the PI is informed by NSF program officers that the proposal will be recommended for funding. Once received from the IRB or IACUC, the approval should be forwarded to the managing NSF program officer of your proposal.

#### **Research Permits**

Permits that demonstrate that permission has been granted to work at a specific study site, to have access to specific collections or other resources, or other such forms of documentation may be included as supplementary documents. As is true with letters of collaboration, however, the text in such documents must be straightforward and direct and not include additional comments arguing for support of the project or describing how research will be conducted. Such additional text, while appropriate in the project description, is not permissible in a supplementary document.

#### **Research in Undergraduate Institutions (RUI) Supplementary Documentation**

If the IBSS proposal is being submitted from a primarily undergraduate institution, the two supplementary documents described in the [Facilitating Research at Primarily Undergraduate Institutions: Research in Undergraduate Institutions \(RUI\) and Research Opportunity Awards \(ROA\) solicitation](#) are permissible in proposals submitted to IBSS. Those supplementary documents are a certification of RUI eligibility and a separate RUI impact statement. Prepare these documents in accordance with instructions in the RUI/ROA solicitation.

Note that the RUI/ROA solicitation includes instructions that specify that if a predominantly undergraduate institution is submitting an RUI proposal for the IBSS competition, it should select the number of the RUI/ROA solicitation for the cover sheet, but it should then select the SMA-Interdisc Behav&SocSci IBSS program as the NSF unit to consider the proposal, and it should include reference to the proposal being submitted for the IBSS competition in the first sentence of the project summary. Although the proposal may be formally submitted in response to the RUI/ROA solicitation, the proposal must otherwise be compliant with all requirements in the IBSS solicitation.

### **Supplementary Documentation NOT Allowed in IBSS Proposals**

#### **Letters of Support**

As specified in Chapter II, Section C.2.j of the NSF *Grant Proposal Guide* and the comparable section in the *NSF Grants.gov Application Guide*, letters of support are not permitted in NSF proposals unless specifically authorized in a solicitation. The IBSS solicitation does **NOT** allow the submission of letters of support as supplementary documents. Letters from others that expound on and/or articulate in detail what activities a collaborator may undertake and/or that provide arguments for support of a project may be included in the project description, although inclusion of such letters must be accommodated within the 15 pages permitted for the project description.

#### **Research Instruments, Data, Publications, and Other Nonpermissible Supplementary Documentation**

Documentation that elaborates on how research will be conducted is not permitted as supplementary documentation. Survey or interview protocols, lists of data to be examined or already collected, graphics related to the project, and other such documentation may be included within the 15 pages permitted for the project description, but they may not be included as supplementary documents.

Reprints of publications or other materials that provide additional evidence of the past work of the researchers are not permitted as supplementary documents.

If a principal investigator has any uncertainty regarding the possible appropriateness of any document to be included as supplementary documentation, the investigator should contact the IBSS program officers, usually well in advance of the proposal-submission deadline.

#### **Appendices**

No appendices are permitted.

#### **Other Issues to Address When Preparing a Proposal for This Solicitation**

##### **Proposals Involving Multiple Organizations**

**In the case of proposals involving multiple organizations, a single organization must be identified as the lead, and a single proposal describing the entire project must be submitted by that organization.** Funds may be distributed among partner organizations via subawards from the lead organization. A budget on the standard NSF budget form should be submitted for each subawardee. The requirement for a single organization to submit the sole proposal for a project is designed to facilitate effective coordination among participating organizations and to avoid difficulties that ensue in funded projects when individuals change organizations and/or cease to fulfill project responsibilities.

Of the two types of collaborative proposal formats described in the NSF Grant Proposal Guide, this solicitation allows only a single proposal submission with subawards administered by that lead organization. Direct submission of linked collaborative sets of proposals by multiple organizations is not permitted.

##### **Proposals Involving Collaborators at Foreign Organizations**

As a general principle, NSF expects to support the U.S. side of a research and education collaboration. International collaborators should normally seek funding from their own funding sources. In special cases, however, a foreign institution may receive limited funding through a subaward, if this is the most effective way to accomplish the proposed research and if the foreign partner is making a substantive contribution to the project.

A subaward to a foreign organization may not include infrastructure or major equipment, and IBSS will not provide salary support for senior investigators based in other countries except under unusual and well-justified cases. In accordance with new provisions specified in Chapter II, Section 2.g.viii of the NSF Grant Proposal Guide and the comparable section of the NSF Grants.gov Application Guide, unless a foreign organization has a current U.S. federally negotiated indirect cost rate, it may not apply an indirect cost rate recovery that exceeds 10% of modified total direct costs.

Proposers are reminded they must provide biographical sketches of all senior project personnel, including those associated with foreign organizations. Such biographical sketches should be prepared in conformance with the instructions in the NSF *Grant Proposal Guide* and the comparable section in the *NSF Grants.gov Application Guide*. Letters of collaboration should be provided as supplementary documents from organizations that will not be supported through subawards.

#### **Subawards**

In accordance with the applicable award terms and conditions, proposers are reminded of their responsibilities with regard to subawardees. Should an award be made, the prime awardee is responsible for flowing down the appropriate terms and conditions to, as well as management and oversight of, any subawardees on the project, including any foreign subawardees.

## **B. Budgetary Information**

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#### **Cost Sharing:**

Inclusion of voluntary committed cost sharing is prohibited.

#### Other Budgetary Limitations:

NSF intends to make awards across a range of sizes as specified for the following types of awards:

- IBSS Large Research Projects may be supported by awards up to \$1,000,000 over the duration of the project.
- IBSS Small Research Projects may be supported by awards up to \$300,000 over the duration of the project.

Budgets should be developed at scales appropriate for the project to be conducted.

#### Budget Preparation Instructions:

All subaward budgets with narrative justification should be submitted following the budget and narrative justification from the submitting organization. Submitting organizations should make sure that all subawardees are registered in FastLane and have valid DUNS numbers.

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### C. Due Dates

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

December 01, 2015

First Tuesday in December, Annually Thereafter

All IBSS proposals must be submitted by 5:00 PM (local time of submitting organization) on the annual IBSS proposal-submission deadline, which is the first Tuesday in December.

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### 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](mailto: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](mailto: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.

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## 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/](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

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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.

#### **Additional Solicitation Specific Review Criteria**

In addition to considering the intellectual merit and broader impacts of a proposed project, IBSS proposals will be judged with respect to following additional criteria:

- The **interdisciplinarity of the research team and research approaches**, with emphasis placed on the breadth of the SBE disciplinary communities from which team members are drawn, the degree and ways in which they will work together in an integrated way rather than working independently, and the breadth and effectiveness of the research plan in drawing from different kinds of methods from different SBE disciplines.
- The **significance and breadth of the expected intellectual contributions** likely to result from the projects, with special emphasis on theory-enhancing contributions that will benefit multiple SBE disciplines.

***As a general principle, projects that display more breadth in terms of disciplinary composition, approaches, and intellectual impacts as well as more significance in terms of their intellectual contributions will be at a competitive advantage over projects that are more narrowly focused.***

Investigators are encouraged to directly address the first IBSS-specific review criterion (the interdisciplinarity of the research team and research approaches) in the "Interdisciplinary Character of the Project" section of the project description, and they are encouraged to directly address the second IBSS-specific review criterion (the significance and breadth of the expected intellectual contributions) in the "Expected Project Significance" section of the project description.

## **B. Review and Selection Process**

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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**

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### **A. Notification of the Award**

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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**

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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](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](mailto: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](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag).

## C. Reporting Requirements

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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](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag).

## VIII. AGENCY CONTACTS

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*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:

- Thomas J. Baerwald, telephone: (703) 292-7301, email: [tbaerwal@nsf.gov](mailto:tbaerwal@nsf.gov)
- Jonathan Leland, telephone: (703) 292-7285, email: [jleland@nsf.gov](mailto:jleland@nsf.gov)
- Jeffrey Mantz, telephone: (703) 292-7783, email: [jmantz@nsf.gov](mailto:jmantz@nsf.gov)

For questions related to the use of FastLane, contact:

- FastLane Help Desk, telephone: 1-800-673-6188; e-mail: [fastlane@nsf.gov](mailto: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](mailto:support@grants.gov).

## IX. OTHER INFORMATION

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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

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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](mailto: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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