# Social, Behavioral and Economic Sciences at NSF

November 2022

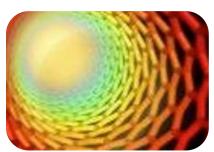
**NSF Grants Conference** 

Jeremy Koster, Ph.D.

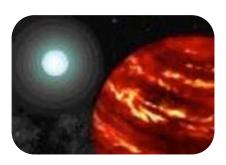
## NSF Supports Multiple STEM Fields



**Biological Sciences** 



**Engineering** 



Mathematical & Physical Sciences



Computer & Information Science & Engineering



Geosciences (including Polar Programs)



**Integrative Activities** 



Education & Human Resources



Social, Behavioral & Economic Sciences (SBE)

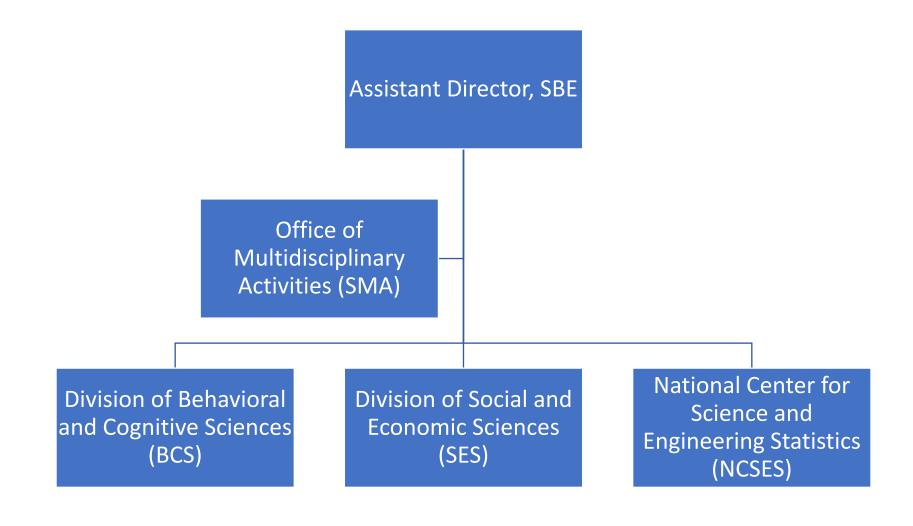


International Science and Engineering

#### What is SBE?

- NSF's Directorate for Social, Behavioral and Economic Sciences
- SBE Sciences explore human behavior, psychology, and social organizations.
- SBE scientists promote the progress of science by developing and employing rigorous methods to discover fundamental principles of human behavior and cognition at levels from cells to societies and across space and time.
- SBE is also the home of the government statistical agency that measures STEM-related outcomes in the USA:
  - National Center for Science and Engineering Statistics (NCSES)

## How SBE is Organized



## SBE By The Numbers (FY2021)

- \$254M: New Award Obligations
- 3,956: Proposal decisions made
- 918: New awards made
- 23%: Funding rate
- \$277K: Mean award size

Source: NSF By the Numbers: https://beta.nsf.gov/about/about-nsf-by-the-numbers

## SES Research Funding Programs

- Accountable Institutions and Behavior (AIB)
- Decision, Risk and Management Sciences (DRMS)\*
- Economics\*
- Law and Science
- Methodology, Measurement and Statistics (MMS)\*
- Science of Organizations (SoO)

- Science of Science: Discovery, Communication, and Impact (SoS:DCI)
- Science and Technology Studies (STS)\*
- Secure and Trustworthy Cyberspace (SaTC, joint with CISE.)
- Security and Preparedness
- Sociology

<sup>\*</sup> Programs that support Doctoral Dissertation Research Improvement (DDRI) grants

## **BCS Research Funding Programs**

- Archaeology and Archaeometry\*
- Biological Anthropology\*
- Cognitive Neuroscience
- Cultural Anthropology\*
- Developmental Sciences
- Human-Environment and Geographical Sciences (HEGS)\*
- Human Networks and Data Science (HNDS)

- Linguistics/Dynamic Language
   Infrastructure\*
- Perception, Action and Cognition (PAC)
- Science of Learning and Augmented Intelligence
- Social Psychology
- Strengthening American Infrastructure (SAI)

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## Leveraging data and network science, including geospatial data and infrastructure

## Human Networks and Data Science (HNDS)

**View Guidelines** 

<u>22-505</u>

- Two tracks both with budgetary maximums of \$1.2 million
  - HNDS-Infrastructure development of data resources and analytic methods
  - HNDS-Research advance theory in a core SBE discipline by the application of data and network science methods.
    - "The HNDS-R program will co-review and co-fund projects with other SBE programs."
- Webinar link from last fall: <a href="https://beta.nsf.gov/funding/opportunities/human-networks-and-data-science-hnds/announcements/video-and-slides-nov-30">https://beta.nsf.gov/funding/opportunities/human-networks-and-data-science-hnds/announcements/video-and-slides-nov-30</a>

## Human-centered, interdisciplinary research on infrastructure, broadly defined

## Strengthening American Infrastructure (SAI)

View Guidelines 22-564

- "how basic knowledge of human reasoning, decision-making, governance, and social and cultural processes enables efforts to envision, build, and maintain effective infrastructure that improves lives.
- Must forefront SBE disciplinary expertise (March webinar: click <u>here</u>)
- Three tracks: Research grants (up to \$750,000), Planning grants (up to \$150,000, and Conference grants (up to \$50,000).

### SMA Research Funding Programs

- SBE Research Experience for Undergraduates (REU) Sites
- SBE Postdoctoral Research Fellowships (SPRF)
- Build and Broaden 3.0 (B2 3.0)
- Ethical and Responsible Research (ER2)

## Build and Broaden: Enhancing Social, Behavioral and Economic Science Research and Capacity at Minority-Serving Institutions (B2)

**View guidelines** 

22-638

The <u>Build and Broaden 2.0 solicitation (NSF 22-638)</u> is a funding opportunity within the National Science Foundation's Directorate for Social, Behavioral and Economic Sciences (SBE).

Build and Broaden 2.0 supports fundamental research in the SBE sciences by scholars at minority-serving institutions (MSIs). Proposals are invited from:

- Single principal investigators (PIs) based at MSIs
- Multiple co-investigators from one or more MSIs
- Principal Investigators not affiliated with MSIs, but who collaborate with PIs, co-PIs, or senior personnel from MSIs.
  - In this case, proposals must describe as a primary goal of the proposed work how the project will foster research partnerships or capacity-building with at least one MSI.

For questions regarding the Build and Broaden 2.0 solicitation, please contact <a href="mailto:sbe-buildandbroaden@nsf.gov">sbe-buildandbroaden@nsf.gov</a>

23-500

## New SBE Postdoctoral Research Fellowship Guidelines to Be Released Soon

September 16, 2022

New guidelines for SBE Postdoctoral Research Fellowships (SPRF) are in preparation and will be released soon. It is anticipated that the next full proposal deadline will be late in 2022, and that deadlines will be in November in 2023 and annually thereafter.

- The program supports supervised postdoctoral opportunities for recent doctoral graduates – must have a host-sponsor
- The program has a track for supporting broadening participation initiatives.

#### SBE in Cross-Directorate Initiatives

#### What they are:

- "Cross cutting" programs run by program director teams.
- Free-standing review processes

#### **Examples:**

- Ecology and Evolution of Infectious Diseases (EEID)
- Dynamics of Integrated Socio-Environmental Systems (DISES)
- Future of Work at the Human Technology Frontier (FW-HTF)
- Signals in the Soil
- Innovations at the Nexus of Food, Energy and Water Systems (INFEWS)
- Major Research Instrumentation

## Processes and feedbacks between human and environmental components of a system

## Dynamics of Integrated Socio-Environmental Systems (DISES)

View Guidelines

<u>20-579</u>

- Replaces the Dynamics of Coupled Natural and Human Systems program
- Budget maximum: \$1.6 million
- Commonly funded projects are composed of interdisciplinary teams that focus on complex interactions
- Also funds Research Coordination Networks (RCN)

Supports collaborative NSF-USDA research on dynamic soil processes and soil formation through advances in sensor systems and predictive, process-based and mechanistic modeling.

# Signals in the Soil View guidelines 22-550

- "Socializing Soil" pillar
- Examples include human decision making and land-use/landmanagement change; understanding how soil data is understood, interpreted, and acted upon by diverse land managers.
- May include comparisons between sensors and traditional ecological knowledge

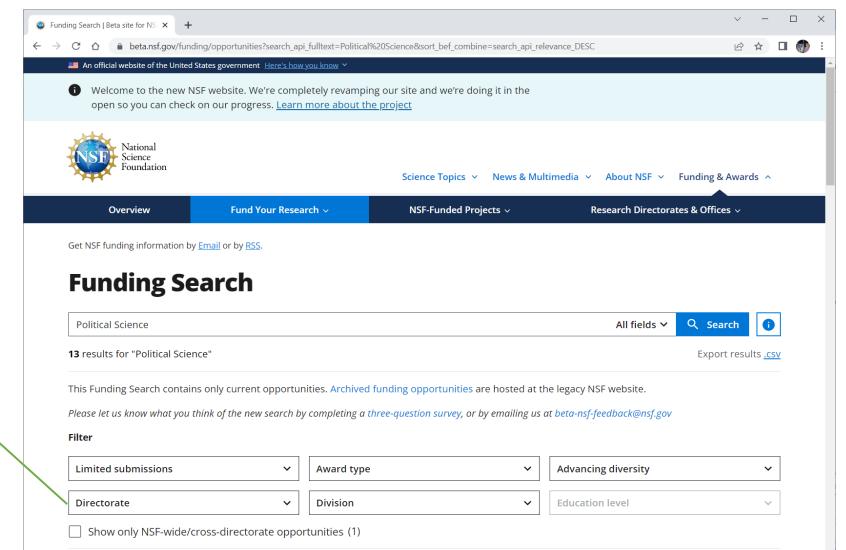
## Kinds of Awards, aka "Mechanisms"

- Doctoral Dissertation Research Improvement Grants (DDRIGs)
- EAGER (EArly-concept Grants for Exploratory Research)
- RAPID
- Conference awards
- Research Coordination Networks (RCN)
- CAREER
- Mid-Career Advancement
- Facilitating Research at Primarily Undergraduate Institutions

### How to Find Programs

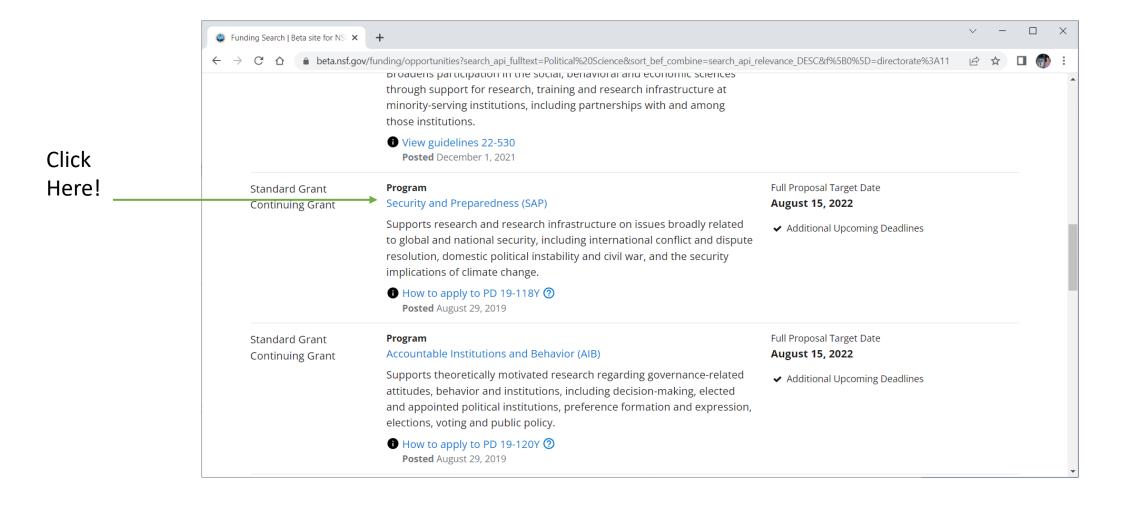
- NSF Funding Search to look for programs and their past awards.
- NSF Award Search (Simple and Advanced) to see what program funded a particular researcher and/or to search award titles and abstracts by keywords.
- NSF Announcements and Newsletters to get information on new programs and their outreach efforts like webinars.
- The SBE "Key to Funding Opportunities" page.

## Using NSF's new Funding Search Tool: beta.nsf.gov/funding/opportunities



Filter for SBE

### The Results Include:



### Using the Program Page

When is the proposal due?

Who are the program directors?

Click Here!

Awards made through this program

Security and Preparedness (SAP) × +

**Synopsis** 

implications of climate change.

**Program contacts** 

**Paul Huth** 

**Program Director** 

Program Director

Mauricia Barnett

Program Specialist

Social Scientist

Linh Nguyen

Lee D. Walker

← → C ♠ beta.nsf.gov/funding/opportunities/security-and-preparedness-sap

resolution, domestic political instability and civil war, and the security

The Security and Preparedness (SAP) Program supports basic scientific research that advances

knowledge and understanding of issues broadly related to global and national security. Research proposals are evaluated on the criteria of intellectual merit and broader impacts; the proposed projects are expected to be theoretically motivated, conceptually precise, methodologically rigorous, and empirically oriented. Substantive areas include (but are not limited to) international relations,

global and national security, human security, political violence, state stability, conflict processes,

regime transition, international and comparative political economy, and peace science. Moreover, the Program supports research experiences for undergraduate students and infrastructural activities,

including methodological innovations. The Program does not fund applied research. In addition, we

(703) 292-2802

(703) 292-8760

(703) 292-7309

(703) 292-7270

SBE/SES

SBE/SES

SBE/SES

SBE/SES

encourage you to examine the websites for the National Science Foundation's Accountable

Institutions and Behavior (AIB) and Law and Science (LS) programs.

phuth@nsf.gov

lwalker@nsf.gov

mbarnett@nsf.gov

linguyen@nsf.gov

Browse projects funded by this program

August 15 - Target date C August 15, Annually Thereafte

2023

January 15 - Target date C January 15, Annually The eafter

#### Program guidelines

Apply to **PD 19-118Y** as follows:

Full proposals submitted via FastLane or Research.gov: NSF Proposal & Award Policies & Procedures Guide proposal preparation guidelines apply.

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.

Alert: Many NSF programs are only accepting proposals in Research.gov or Grants.gov. FastLane may no longer be a submission option. For more information, please visit Program Descriptions that Require Proposal Preparation and Submission in Research.gov or Grants.gov.

#### Share



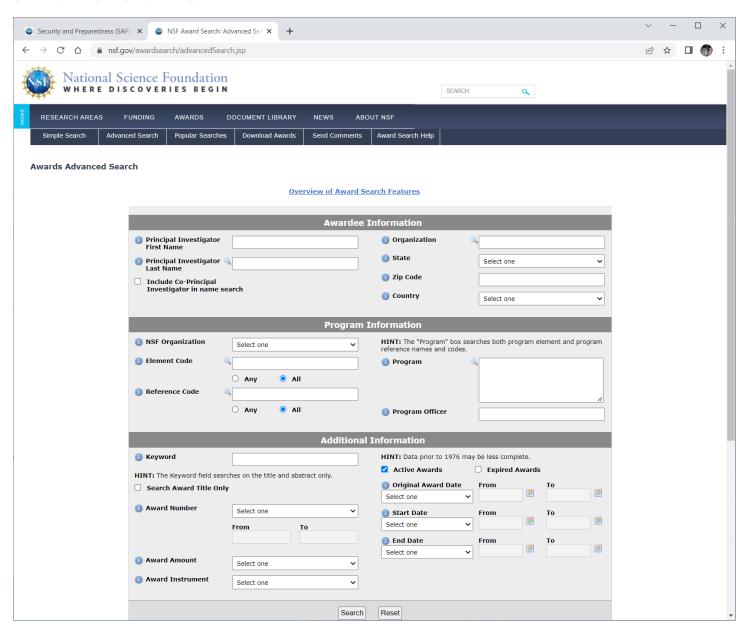




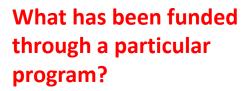
Published: August 29, 2019



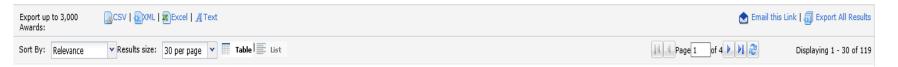
#### **Advanced Award Search**



#### **Award Search Results**



### Click on a title to get the abstract



#### Adolescent Information Management with Parents and Siblings

Award Number:1451757; Principal Investigator:Nicole Campione Barr; Co-Principal Investigator:David Schramm, Sarah Killoren; Organization:University of Missouri-Columbia; NSF Organization:BCS Start Date:07/01/2015; Award Amount:\$273,098.00; Relevance:48.0;

#### Collaborative Research: Stress, Academic Outcomes, and Health Outcomes among Language Brokers

Award Number:1651128; Principal Investigator:Su Yeong Kim; Co-Principal Investigator:Belem Lopez; Organization:University of Texas at Austin;NSF Organization:BCS Start Date:06/15/2017; Award Amount:\$505,844.00; Relevance:48.0;

#### Collaborative Research: Stress, Academic Outcomes, and Health Outcomes among Language Brokers

Award Number:1651138; Principal Investigator:Katharine Zeiders; Co-Principal Investigator:; Organization:University of Arizona; NSF Organization:BCS Start Date:06/15/2017; Award Amount:\$34,053.00; Relevance:48.0;

#### Expanding access to webcam-based online data collection for developmental research

Award Number: 1823919; Principal Investigator: Kimberly Scott; Co-Principal Investigator: Laura Schulz: Organization: Massachusetts Institute of Technology: NSF Organization: BCS Start Date: 09/01/2018; Award Amount: \$584,445.00; Relevance: 48.0;

#### CAREER: Discovering the Underpinnings of Statistical Language Learning in Infants

Award Number: 1352443; Principal Investigator: Jill Lany; Co-Principal Investigator:; Organization: University of Notre Dame; NSF Organization: BCS Start Date: 03/01/2014; Award Amount: \$765,239.00; Relevance: 48.0;

#### Neural measures of social reward and information value in infants

Award Number:1627068; Principal Investigator:Rebecca Saxe; Co-Principal Investigator:, Organization:Massachusetts Institute of Technology;NSF Organization:BCS Start Date:07/15/2016; Award Amount:\$600,000.00; Relevance:48.0;

#### Exploring the relation between non-spatial skills and mental rotation from infancy to preK

Award Number:1823489; Principal Investigator:Marianella Casasola; Co-Principal Investigator:Lisa Oakes, Vanessa LoBue, Felix Thoemmes; Organization:Cornell University;NSF Organization:BCS Start Date:09/01/2018; Award Amount:\$756,655.00; Relevance:48.0;

#### A Lifespan Conceptual Model of Ethnic-Racial Identity

Award Number:1729711; Principal Investigator:Esther Calzada; Co-Principal Investigator:Adriana Umana-Taylor; Organization:University of Texas at Austin; NSF Organization:BCS Start Date:10/01/2017; Award Amount:\$24,369.00; Relevance:48.0;

#### After-School Activities: Identifying Risk and Protective Factors for Community Violence Exposure

Award Number: 1348957; Principal Investigator: Rosario Ceballo; Co-Principal Investigator: Jacquelynne Eccles; Organization: University of Michigan Ann Arbor: NSF Organization: BCS Start Date: 09/01/2014; Award Amount: \$474,997.00; Relevance: 48.0;

#### The Development of Relational Processing in Infancy

Award Number: 1729720; Principal Investigator: Susan Hespos; Co-Principal Investigator: Dedre Gentner, Kenneth Forbus; Organization: Northwestern University; NSF Organization: BCS Start Date: 08/15/2017; Award Amount: \$596,080.00; Relevance: 48.0;

#### SBE-RCUK: CompCog: Modeling the Development of Phonetic Representations

Award Number:1734245; Principal Investigator:Naomi Feldman; Co-Principal Investigator:; Organization:University of Maryland College Park;NSF Organization:BCS Start Date:09/01/2017; Award Amount:\$520,058.00; Relevance:48.0;

#### Motor Exploration and Motor Learning During Child Development

Award Number: 1654929; Principal Investigator: Mei-Hua Lee; Co-Principal Investigator: Ferdinando Mussa-Ivaldi; Organization: Michigan State University; NSF Organization: BCS Start Date: 03/01/2017; Award Amount: \$349,106.00; Relevance: 48.0;

#### Collaborative Research: Science of Learning Center: Visual Language and Visual Learning (VL2)

Award Number:1041725; Principal Investigator:Thomas Allen; Co-Principal Investigator:Laura-Ann Petitto; Organization:Gallaudet University;NSF Organization:SMA Start Date:10/01/2011; Award Amount:\$8,864,066.00; Relevance:48.0;

#### RR: Collaborative: Origins of Intergroup Perceptions and Attitudes Across Diverse Contexts

Award Number:1728300; Principal Investigator: Kristin Pauker; Co-Principal Investigator:; Organization: University of Hawaii; NSF Organization: BCS Start Date:08/01/2017; Award Amount: \$90,121.00; Relevance: 48.0;

#### Supporting Undergraduate Participation at the International Conference on Infant Studies; 2016-2020

Award Number:1551122; Principal Investigator:Martha Arterberry; Co-Principal Investigator:Samuel Putnam; Organization:Colby College;NSF Organization:BCS Start Date:03/01/2016; Award Amount:\$22,500.00; Relevance:48.0;

## Find the Right Program: Abstracts of Awards

You can review the abstracts of awards made through a particular program.

Recently Made

Program Manager:	Chalandra Bryant BCS Division Of Behavioral and Cognitive Sci SBE Direct For Social, Behav & Economic Scie
Start Date:	September 1, 2018
End Date:	August 31, 2021 (Estimated)
Awarded Amount to Date:	\$756,655.00
Investigator(s):	Marianella Casasola mc272@cornell.edu (Principal Investigator) Lisa Oakes (Co-Principal Investigator) Vanessa LoBue (Co-Principal Investigator) Felix Thoemmes (Co-Principal Investigator)
Sponsor:	Cornell University 373 Pine Tree Road Ithaca, NY 14850-2820 (607)255-5014
NSF Program(s):	DS - Developmental Sciences
Program Reference Code(s):	1698
Program Element Code(s):	1698

#### ABSTRACT

Mental rotation, the ability to mentally manipulate a visual representation of an object and recognize its appearance from a different orientation, shows stability from infancy through preschool. This ability predicts mathematical achievement in kindergarten and beyond as well as entry into the Science, Technology, Engineering, and Mathematics (STEM) fields. The present work focuses on identifying how non-spatial processes contribute to mental rotation abilities. Findings will help identify ideal time points for intervention, advance understanding of the factors that contribute to mental rotation, and address how individual differences in mental rotation during infancy predict later abilities. This work will involve the creation and refinement of measures that can be used to trace the development of mental rotation from infancy into preschool; thereby, not only contributing new tools to the field, but also yielding insights that can inform current theoretical conceptions of mental rotation and its relation to non-spatial processes.

The critical research question is as follows: What are the non-spatial processes that contribute to mental rotation abilities and their development? Associations between mental rotation, object features, processing bias, and motor experience will be examined using a cross-sequential design with overlapping age cohorts. The investigators will recruit an infant cohort at 8 months, a toddler cohort at 20 months, and a preschool cohort at 3 years. Each cohort will be assessed at three time points -- every six months for infants (i.e., 8, 14, and 20 months), every 8 months for toddlers (i.e., 20, 28, and 36 months), and every year for preschoolers (3, 4, and 5 years). When examined at a specific age, the sample will provide a snapshot into the association between mental rotation and non-spatial skills (i.e., object features, processing bias, and motor experience). The longitudinal design will allow the investigators to follow participants across infancy, toddlerhood, or the preschool years. This approach provides an opportunity to understand how non-spatial skills, such as more precocious motor skills during infancy, may shape mental rotation over time. Such findings are central to bolstering understanding of the possible mechanisms by which particular types of

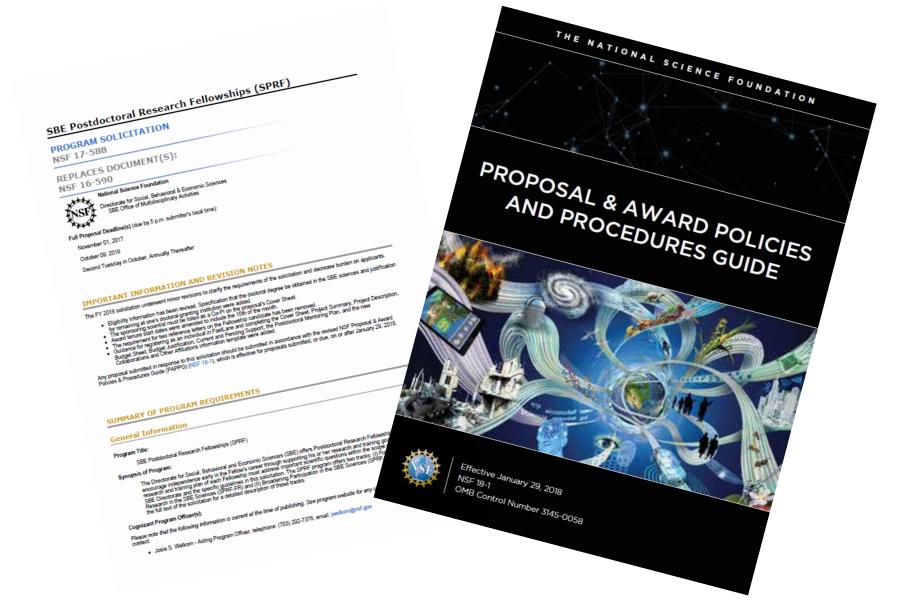
#### Note:

- Program Manager
- Duration
- Awarded amount
- Co-funded?
- Topic area

### Co-review?

- Submit one proposal to multiple programs (Note: some programs do not co-review)
- Choose programs on the Cover Page
- Will go to more than one review panel
- Possible outcomes:
  - Both programs fund
  - Neither program funds
  - One program funds
- Reviews from multiple perspectives lead to better science.

## Before you apply... READ!!!



## Next Steps: Tips for Contact

After you have narrowed down to programs that match your area of research and you have read the program page and (solicitation):

Reach out to the Program Director by EMAILING a 1 or 2 page summary of your planned research project (IM and BI). Get feedback about project fit with program goals and ask any specific questions you have.

Email ALL relevant programs and program directors in a SINGLE email. This is common for correspondence with NSF programs.

Follow up if you haven't heard back in a week.

Programs may offer Zoom appointments, office hours, or webinars as well.

## Common Pitfalls to Avoid in SBE **Proposals**

Overlooking key aspects of the program announcement and requirements.

Relying on advice from people who work only with other Directorates.

Lacking specificity about methods and how hypotheses relate to relevant theory.

Underdeveloped or vague data analysis plan.

Disconnect between framing/motivation and proposed activity.

Failing to establish feasibility.

Not tailoring your proposal to the appropriate audience (disciplinary vs. multidisciplinary panel).

#### NSF Merit Review Criteria

NSF 21-059

#### Dear Colleague Letter: A Broader Impacts Framework for Proposals Submitted to NSF's Social, Behavioral, and Economic Sciences Directorate

March 18, 2021

Dear Colleagues:

The National Science Foundation (NSF) supports fundamental research in the social, behavioral, and economic (SBE) sciences. This research empowers our Nation to address great challenges and seize transformative opportunities. Through scientific advances and subsequent applications of these advances, SBE-supported research strengthens security and preparedness, creates jobs, spurs innovation, and improves quality of life for people across the country and around the world.

### Thank You! Questions?

- It may be helpful if you start by telling me who you are and what your role is:
  - Political science faculty member at xxxxx.
  - Ph.D. student in Business Information Systems at xxxx.
  - I work in the Economics Department at zzzz and I help the faculty with grants.
  - I'm in the sponsored research office at yyyy.
  - I'm an Associate Provost for Research.
- Email address for follow-up correspondence: jkoster@nsf.gov