HSI Program Network Resource Centers and Hubs (HSI-Net)

PROGRAM SOLICITATION
NSF 22-602

National Science Foundation

Directorate for STEM Education
    Division of Equity for Excellence in STEM
    Division of Undergraduate Education

Letter of Intent Due Date(s) *(required)* (due by 5 p.m. submitter's local time):

November 14, 2022

> Required for the HSI Program Network Resource Center for Community Coordination (HSI-CCC) and HSI Program Network Resource Center for Evaluation, Research and Synthesis (HSI-CERS).

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

December 15, 2022

> HSI-CCC and HSI-CERS --full proposal deadline. A letter of intent is required for proposal submission.

December 15, 2022

> HSI Program Network Resource Hubs (HSI-Hubs)

IMPORTANT INFORMATION AND REVISION NOTES

This solicitation is a distinct part of the Improving Undergraduate STEM Education: Hispanic-Serving Institutions Program (HSI Program) parent program and it does not supersede the HSI Program solicitation.

Innovating and migrating proposal preparation and submission capabilities from FastLane to Research.gov is part of the ongoing NSF information technology modernization efforts, as described in Important Notice No. 147. In support of these efforts, research proposals submitted in response to this program solicitation must be prepared and submitted via Research.gov or via Grants.gov, and may not be prepared or submitted via FastLane.

Any proposal submitted in response to this solicitation should be submitted in accordance with the revised *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) (NSF 22-1), which is effective for proposals submitted, or due, on or after October 4, 2021.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

HSI Program Network Resource Centers and Hubs (HSI-Net)

Synopsis of Program:

The National Science Foundation (NSF) established the *Improving Undergraduate STEM Education: Hispanic-Serving Institutions* (HSI Program) in 2017, as directed by Congress[1]. The goals of the HSI Program are to enhance the quality of undergraduate science, technology, engineering, and mathematics (STEM) education and to increase the recruitment, retention, and graduation rates of students pursuing associate's or baccalaureate degrees in STEM at Hispanic-Serving Institutions (HSIs). Intended outcomes of the HSI Program include broadening participation of students who are historically underrepresented in STEM, and expanding students' pathways to continued STEM education and integration into the STEM workforce.

Through this solicitation under the HSI Program, the NSF will invest in the development of infrastructure to support the HSI Program's goals. Specifically, the NSF seeks to establish the HSI Program Network Resource Centers and Hub (HSI-Net) consisting of centers and hubs. This will support:

- Up to two centers: an HSI Program Center for Community Coordination (HSI-CCC), and an HSI Center for Evaluation, Research, and Synthesis (HSI-CERS) — both awarded as cooperative agreements that are national in scope, represent the breadth of activities important to HSIs, and amplify the range of activities in the HSI Program.
- Up to five HSI Program Resource Hubs (HSI-Hubs) — awarded to serve as resources for innovative initiatives organized around key

issues that are designed to effectively serve the HSI community and its stakeholders.

Together, these Centers and Hubs will support the community of HSIs and its stakeholders which include HSI Program awardees, HSIs and their administrators, faculty, researchers, and students. The centers should include in their activities student organizations, professional societies, nonprofit organizations, and industry entities that focus in and support HSIs, advocates for HSIs, scholars/researchers on HSIs, and other scientists that promote the advancement of historically underrepresented groups in STEM — including those in HSIs that are not already supported by the NSF.

The Centers and Hubs will conduct activities designed to:

1. Build a network to establish the infrastructure that will guide the HSI communities as they work to achieve the goals of the HSI Program, incentivize institutional transformation, and support community partnerships.
2. Grow and strengthen organizational capacity at HSIs, developing structures that foster student and/or faculty development and growth, meeting the students where they are in their college careers academically, financially, and socially.
3. Promote research on and broadening participation in STEM at HSIs and topics related to the HSI Program goals.
4. Produce communication and generate collaborative programming to bring together existing and prospective PIs for purposes of building capacity, developing new knowledge about the HSI community, and reporting on and enhancing the impacts of the HSI Program.

---

[1] https://uscode.house.gov/view.xhtml?req=(title:42%20section:1862o-12%20edition:prelim)

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.

- James Alvarez, telephone: (703) 292-2323, email: jalvarez@nsf.gov
- Michael Davis, telephone: (703) 292-7166, email: mdavis@nsf.gov
- Mary Crowe, telephone: (703) 292-7177, email: mcrowe@nsf.gov
- Luis A. Cubano, telephone: (703) 292-7941, email: lcubano@nsf.gov
- Michael J. Ferrara, telephone: (703) 292-2635, email: mferrara@nsf.gov
- Elsa Gonzalez, telephone: (703) 292-4690, email: elgonzal@nsf.gov
- Sonja Montas-Hunter, telephone: (703) 292-7404, email: smontash@nsf.gov
- Julio G. Soto, telephone: (703) 292-4649, email: jgsoto@nsf.gov

For general inquiries contact, telephone: (703)292-4649, email: NSF-EHR-HSI@nsf.gov

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

- 47.076 --- STEM Education

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant or Cooperative Agreement

Estimated Number of Awards: 2 to 7

One award for the HSI-CCC in FY 2023.

- Up to $7,000,000
- Cooperative agreement
- Six-years-long project

One award for the HSI-CERS in FY 2023.

- Up to $7,000,000
- Cooperative agreement
- Six-years-long project

Up to five awards for the HSI-Hubs in FY 2023.

- Up to $3,000,000 per project
- Continuing or standard grants
- Up to five-years-long projects

Number of awards are subject to the availability of funds. NSF anticipates that approximately up to $29,000,000 will be available for continuing or standard awards in response to this solicitation. In FY 2023, the HSI Program expects to fund new centers totaling up to $14,000,000 and new hubs totaling up to $15,000,000.

Anticipated Funding Amount: $14,000,000 to $29,000,000

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Eligible institution must:
  a. Be an accredited institution of higher education.
  b. Offer undergraduate STEM educational programs that result in certificates or degrees.
  c. Satisfy the definition of an HSI as specified in section 502 of the Higher Education Act of 1965 (20 U.S.C.1101a). The HSI Certification Form is required with submission of the proposal. (See section V of the solicitation.) Institutions should review the legislation before certifying their eligibility for this program at https://www.govinfo.gov/content/pkg/USCODE-2011-title20/html/USCODE-2011-title20-chap28-subchapV-partA-sec1101a.htm.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

An eligible institution may submit as lead for one HSI-CCC proposal and one HSI-CERS proposal.

An eligible institution may submit as lead for one HSI-Hub.

Limit on Number of Proposals per PI or co-PI:

For each of the proposal categories centers or hubs (HSI-CCC, HSI-CERS, and HSI-Hubs), an individual may serve as PI or Co-PI of only one proposal in each of the given categories.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Submission of Letters of Intent is required. Please see the full text of this solicitation for further information.
- **Preliminary Proposal Submission:** Not required
- **Full Proposals:**
  - Full Proposals submitted via Research.gov: *NSF Proposal and Award Policies and Procedures Guide* (PAPPG) guidelines apply. The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.
  - 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: https://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

- **Letter of Intent Due Date(s)** *(required)* (due by 5 p.m. submitter's local time):

  November 14, 2022

    Required for the HSI Program Network Resource Center for Community Coordination (HSI-CCC) and HSI Program Network Resource Center for Evaluation, Research and Synthesis (HSI-CERS).

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

  December 15, 2022

    HSI-CCC and HSI-CERS --full proposal deadline. A letter of intent is required for proposal submission.

  December 15, 2022

    HSI Program Network Resource Hubs (HSI-Hubs)

Proposal Review Information Criteria

Merit Review Criteria:

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

Award Administration Information

Award Conditions:

Additional award conditions apply. Please see the full text of this solicitation for further information.

Reporting Requirements:

Additional reporting requirements apply. Please see the full text of this solicitation for further information.

TABLE OF CONTENTS

I. INTRODUCTION

The National Science Foundation (NSF) seeks to foster the HSI Program Network Resource Centers and Hubs (HSI-Net). With this investment, the NSF will further develop the infrastructure needed to generate and disseminate new knowledge, successful practices, and effective design principles arising from research on and work at HSIs. This HSI-Net solicitation is part of the HSI Program that funds projects and conferences.

The HSI-Net will support the entire community of HSIs, which includes those currently with and without NSF support. The HSI-Net will serve as an intellectual partner to NSF and the HSI community at large to enhance the overall impact, knowledge base, influence, and reach of research on HSIs and the HSI Program. The HSI-Net Centers and Hubs will regularly communicate and collaborate to strengthen and support the HSI community. They will create and promote knowledge on HSIs, grow and support the community of NSF HSI awardees (in all NSF programs), and further the reach of the HSI Program goals and strategies.

HSIs are rapidly growing. They comprise 70% of all Minority Serving Institutions (MSIs). Additionally, on average, half of the HSI student body are Pell grant recipients and a significant number of them are first-generation students[1,2,3,4]. With Hispanics/Latinos projected to comprise 25 percent of the U.S. population by 2045, the HSI-Net will help sustain the economic and social well-being of the U.S.[1,5,6] HSIs enroll two thirds of all Hispanic/Latino college students, more Black students than HBCUs (Historically Black Colleges and Universities), and more Native American students than TCUs (Tribal Colleges and Universities). Given STEM workforce needs and demographic shifts in the US, there is a clear need for a network to support HSIs and expand the reach, impact, and effectiveness of HSI Program goals and strategies[1,2,5].

The HSI Program goals are to enhance the quality of undergraduate STEM education and to increase the recruitment, retention, and graduation rates of students at HSIs pursuing associate's or baccalaureate degrees in STEM. Achieving the HSI Program goals, given the diverse nature and context of the HSIs, requires additional strategies that support building institutional capacity at HSIs through innovative approaches: to incentivize institutional and community transformation and to promote fundamental research on (i) engaging student learning, (ii) diversifying and increasing participation in STEM effectively, and (iii) improving our understanding of how to build institutional capacity at HSIs. The intended outcomes of the HSI Program include broadening participation of Hispanic and other students in STEM who are from groups historically underrepresented in STEM. Building organizational capacity, as encouraged by the explanatory statement[7] of the Consolidated Appropriations Act, 2017 Public Law 115-31, is concerned with the creation, development, and implementation of flexible systems and structures that foster students' and faculty growth while meeting the students *where they are* in their college careers academically, financially, and socially[1,3,4,8]. Institutional structures may also include socio-cultural supports and collaborative processes that promote effective learning environments and inclusiveness[1,4].

The Centers and Hubs described below will form the foundation of an HSI Program Network (HSI-Net) whose aim will be to collectively create synergies and sustain the HSI STEM education community to increase the number of HSIs receiving HSI Program awards and other NSF funding and expand the reach of the knowledge on HSIs and successful models for HSI. The overall goal of the HSI-Net is to expand the impact and effectuate the HSI Program goals and strategies as well as to support and promote collaboration in the HSI community, including prospective PIs to build capacity. The intended outcomes of the HSI-Net are to

help the larger HSI community engage collectively to broaden participation of students that are from groups historically underrepresented in STEM and expand their pathways to continued STEM education and entry into the STEM workforce. The community of HSIs at large and its stakeholders include HSIs, institutions with HSI Program awards, their administrators, faculty, and officers who are engaged in HSI Program activities (financial aid officers; student services; residential services, etc.) as well as student organizations, professional societies, nonprofit organizations, and industry entities/businesses that focus in and support HSIs, advocates for HSIs, scholars/researchers on HSIs, and other scientists that promote the advancement of historically underrepresented groups in STEM, as appropriate.

Through investments in an HSI Program Center for Community Coordination (HSI-CCC), HSI Center for Evaluation, Research and Synthesis (HSI-CERS), and up to five HSI Program Resource Hubs (HSI-Hubs) NSF will create a robust national ecosystem consisting of multi-sector partners supporting and sharing knowledge and successful models of undergraduate STEM education at HSIs, building institutional capacity at HSIs, and effectively broadening participation of students that are historically underrepresented in STEM. The HSI- Net will produce programming that synthesizes and builds upon the current research on effective frameworks and initiatives at HSIs, such as servingness (defined in[4]) and intersectionality (see, for example[8]). It will also serve to disseminate the research, context, and circumstances of successful interventions that support broadening participation in STEM, excellence in STEM education, capacity building and community transformation at HSIs.

Activities and initiatives of the Centers and Hubs should have an impact beyond a single institution or small collaborative group, as results and outcomes should be applicable to a broad community of HSIs. All projects must be guided by a coherent understanding and vision of HSIs and the diverse community they comprise — a vision that recognizes the diversity of HSIs, their roles in effectively serving and preparing students who are from groups historically underrepresented in STEM, and their need to build capacity as encouraged by Congress and defined above. HSI-Net proposals are expected to communicate a realistic vision and an achievable plan for sustainability. It is expected that at least some aspects of centers and hubs will be sustained past the period of award funding. Being sustainable means that a center or hub has developed a product or service that the host institution or organization and its partners can continue to support, and its target audiences want to see continued.

---

[1] Excelencia in Education. (October 2020). *25 Years of Hispanic-Serving Institutions: A Glance on Progress*. Washington, D.C.: *Excelencia* in Education.

[2] Excelencia in Education, 2020- report released in April 2021 on HSIs, https://www.edexcelencia.org/research/series/hsi-2019-2020.

[3] Hispanic Association of Colleges & Universities (HACU). (2019). 2019 fact sheet: Hispanics higher education and HSIs. https://www.hacu.net/hacu/HSI_Fact_Sheet.asp.

[4] García, G. A., Núñez, A. M., & Sansone, V. A. (2019). Toward a multidimensional conceptual framework for understanding "servingness" in Hispanic-Serving Institutions: A synthesis of the research. *Review of Educational Research*, 89(5), 745-784. https://doi.org/10.3102/0034654319864591.

[5] National Academies of Sciences, Engineering, and Medicine. (2019). *Minority Serving Institutions: America's Underutilized Resource for Strengthening the STEM Workforce*. Washington, DC: The National Academies Press. https://www.nap.edu/catalog/25257/minority-serving-institutions-americas-underutilized-resource-for-strengthening-the-stem Navigate each chapter in https://www.nap.edu/read/25257/chapter/1.

[6] 2017 National Population Projections, https://www.census.gov/library/visualizations/2018/comm/hispanic-projected-pop.html.

[7] House of Representatives; Congressional Record Vol. 163, No. 76, https://www.congress.gov/congressional-record/2017/5/3/house-section/article/H3327-1.

[8] Núñez, A. M. (2014). Employing multilevel intersectionality in educational research: Latino identities, contexts, and college access. *Educational Researcher*, *43*(2), 85-92.

II. PROGRAM DESCRIPTION

HSI Program-Net investments (HSI Net):

This solicitation invites proposals with distinct objectives and goals to the HSI-Net.

- HSI Program Center for Community Coordination (HSI-CCC)
- HSI Center for Evaluation, Research and Synthesis (HSI-CERS)
- HSI Program Resource Hubs (HSI-Hubs)

HSI Program Center for Community Coordination (HSI-CCC)

- **Goals of the HSI-CCC** are to create coordination mechanisms, foster communication, organize collaborations, and strengthen connections between HSIs in the U.S. and its territories and the HSI stakeholders, including current awardees and prospective PIs from the NSF HSI Program.

HSI Center for Evaluation, Research and Synthesis (HSI-CERS)

- **Goals of the HSI-CERS** are to develop tools and approaches to support robust evaluation, research, and synthesis efforts within the HSI community.

HSI Program Resource Hubs (HSI-Hubs)

- **Goals of the HSI-Hubs** are to support and promote collaboration within the HSI community, including prospective PIs, to build capacity at HSIs. The HSI-Hubs will support initiatives and activities that address any area(s) of need in the HSI community, identified by the proposer and community, and supported by evidence. These should be designed to effectively serve the HSI STEM communities and increase participation of historically underrepresented individuals in STEM.

Individuals at HSIs with expertise in STEM education, broadening participation in STEM, and effectively increasing the participation of historically

underreracted individuals in STEM at HSIs are encouraged to be members of the PI team.

A. HSI Program Network Resource Center for Community Coordination (HSI-CCC) and HSI Program Network Resource Center for Evaluation, Research and Synthesis (HSI-CERS)

The primary goals of the HSI-Net CCC and HSI-CERS are to serve as resource centers for the entire HSI community and its stakeholders, build capacity at HSIs for excellence in STEM education and to secure NSF funding, facilitate community transformation as it relates to the HSI Program goals and strategies, and strengthen the impact of research on and initiatives at HSIs. The centers will expand the reach of the HSI Program and the impact of its strategies beyond currently funded HSI projects. The HSI-CCC and HSI- CERS investments will help build a community and disseminate successful practices, outcomes, and achievements in STEM education at HSIs and of the HSI Program investments. They should do so by:

- building, supporting, and expanding the national HSI Program community of stakeholders; providing support and mentorship for HSIs and prospective PIs to effectively increase the participation of historically underrepresented individuals in STEM; and coordinating and supporting new industry, non-profit organizations, and academic collaborations and partnerships with HSIs; and
- screening, validating, synthesizing and distributing research on HSIs and new knowledge generated by work at HSIs, as well as providing a detailed portrait of the current HSI landscape and highlighting models, practices, findings, achievements, and other outcomes from the HSI Program.

Critical HSI-CCC Activities:

Overview: Building, Supporting, and Expanding the HSI Community. The HSI-CCC will create a network to support the HSI community at large and stakeholders, including the HSI Program awardees and prospective awardees through meetings, communications, and other methods that encourage sharing of knowledge, deliverables, frameworks, and findings generated for HSIs and historically underrepresented individuals in STEM at HSIs. The HSI-CCC through its activities will also enhance knowledge on HSIs and the reach and effectiveness of the HSI Program goals and strategies. It is anticipated that the HSI-CCC will collaborate with and coordinate collaboration among the other HSI-Net awardees.

HSI-CCC proposals must describe plans to:

- Produce a variety of engagement opportunities (including but not limited to webinars, resource materials, newsletters, and workshops) for the HSI community and its members to collaboratively discuss and explore various topics critical to increasing the participation of historically underrepresented individuals in STEM at HSIs and building capacity at HSIs, including grantsmanship.
- Organize the HSI Program PI meetings, occurring every two years (for a total of three PI meetings), as part of a larger suite of community building activities. (HSI Program PIs are required to budget for two members of the leadership team to attend these meetings.)

The community building and outreach activities of HSI-CCC, in addition to organizing the PI meeting, may include the following:

- organizing other events such as national and regional workshops for students, faculty members, researchers, and administrators at HSIs as well as leaders from the HSI community;
- developing a comprehensive communication plan which includes a website, social media strategies, and technologies that can be used to share information relevant to HSIs, including HSI Program updates;
- facilitating continuous communication and networking opportunities to coordinate and foster collaborations across the HSI community and its stakeholders, including industry, non-profit organizations, and societies that support and promote HSIs;
- validating, updating, and distributing exemplary materials, evidence-based interventions and practices adapted from existing research on HSIs or designed by HSIs, including but not limited to HSI Program projects; and
- enhancing the HSI Program visibility and communicating impact while also serving as a repository for results/findings from the many funded projects.

The communication activities of HSI-CCC — should include developing an online communications platform to link the HSI-CCC with the external community and disseminate information to the public. Although this platform is essential, it is not sufficient to fully meet the dissemination requirements for the HSI-CCC. NSF encourages creative dissemination efforts that can reach many individuals with in the HSI community and its stakeholders.

HSI-CCC proposals are encouraged to budget for a program coordinator to oversee logistical aspects of the center and coordinate the day-to-day operations. This coordinator will work closely with the HSI-CCC PIs and leadership team to make sure staff, collaborators and consultants meet their objectives on a weekly basis.

Critical HSI-CERS — Activities:

Overview: Developing and sharing evaluation tools/approaches with the HSI community and synthesizing and disseminating exemplary project outcomes and impacts from HSI Program awardees. The HSI-CERS will conduct activities that will assist the HSI Program in providing a detailed portrait of the current HSI landscape and highlighting successful models, findings, and other outcomes from HSIs and the HSI Program portfolio, which includes over 150 projects in the continental United States and Puerto Rico. The HSI-CERS — will prepare and disseminate a public-facing impact report of outcomes and impacts highlighting projects findings and outcomes in the HSI Program every two years (for a total of three impact reports). The HSI-CERS will also be responsible for organizing an annual Evaluation and Research Design workshop for new HSI Program Track 1: Planning or Pilot Projects (PPP) awardees and others in the HSI community (for a total of six workshops). Every other Evaluation and Research Design workshop will be conducted in conjunction with the HSI Program PI meetings (which will take place every two years). Participation in these workshops is required from the HSI Program's Track 1: Pilot and Planning Projects (PPP) awardees. The HSI-CERS will generally support sites for collecting and managing data, as well as designing and implementing site-level evaluation plans, including longitudinal evaluations to assess the processes, outcomes and impact of its activities.

HSI-CERS proposals must describe plans to:

- prepare and disseminate public-facing reports;
- design and facilitate the Evaluation and Research Design workshops for new HSI Program Track 1 awardees;
- disseminate information on key evaluation tasks and important evaluation practices within the HSI community, including to HSI Program PIs and prospective PIs;
- foster a community of practice for current and potential HSI Program grantees, focusing on evaluation practices;
- support both the evaluation processes and knowledge generation within HSI projects and the HSI community at large;
- specify how the HSI-CERS will conceptualize, develop, and implement an appropriate analytical framework to synthesize evidence providing a detailed portrait of the HSI landscape and highlighting the HSI program outcomes and impacts across all HSI awardees; and
- describe plans for regularly producing and disseminating an impact report.
    - Include a timeline specifying the stages needed to implement this analytical framework, obtain data, and generate a high-quality, public HSI Program Impact Report.

The first impact report should be published at the end of the second year; the second and third impact reports should be published in year four and year six of the grant. It is expected that proposers will engage appropriate professional teams with experience in leveraging existing administrative public data sets, developing data collection and/or harmonization strategies in coordination with currently funded HSI Program projects and project evaluators with the goal of utilizing project level data more effectively and efficiently, synthesizing information at a large scale, managing databases, developing professional data visualizations and/or graphic designs, and possessing other expertise, as appropriate. The impact report should, at a minimum, meaningfully discuss national outcomes to include themes such as institutional outcomes, faculty outcomes, and impact of the research findings generated by the HSI Program awards. The impact report should be of high quality in terms of content and graphical design.

The evaluation activities of HSI-CERS may also include the following activities:

- assisting projects in designing and implementing site-level evaluation plans and conducting longitudinal evaluations to assess the processes, outcomes, and impact of program activities;
- supporting projects in the tasks of data collection and management;
- helping PIs and potential PIs connect to evaluation resources; and
- helping PIs and potential PIs communicate or coordinate evaluation strategies relevant to their project's goals.

The research and synthesis activities of HSI-CERS may also include the following activities:

- curating; a database of HSI literature, presentations, and other resources for faculty at HSIs and potential and current PIs at HSIs
- establishing and maintaining a database for PIs to share data and support collective analysis;
- identifying new practices and approaches to data analysis at HSIs; and
- conceptualizing an HSI "*servingness*" definition and practices for measuring student success at HSIs.

B. HSI Program Network Resource Hubs (HSI-Hubs)

HSI Program Network (HSI-Net) seeks proposals that will result in development and implementation of up to five HSI Program Resource Hubs (HSI-Hubs) that would provide services, resources, and/or knowledge generation pertaining to specific areas of need in the HSI community. The HSI-Hubs may focus one or several critical aspects of HSIs such as institutional transformation, capacity building for specific institution types, academic programs, student success, servingness, research on various diversity, equity, and inclusion (DEI) areas that may effectively increase the participation of historically underrepresented groups in STEM. (More information on servingness can be found in[6].) The activities may also include research or initiatives that improve the understanding of how to build institutional capacity at HSIs and produce knowledge about effective integration of historically underrepresented groups in STEM and the STEM workforce. HSI-Hubs will provide support for specific areas of need and of importance to the HSI community, and will serve the HSI community at large, and its stakeholders, including current and potential HSI awardees. While examples of potential themes are listed in this solicitation, the program encourages evidence-based proposals that speak to the HSI program's intended outcomes of effectively broadening the participation of students historically underrepresented in STEM and expanding their pathways to continued STEM education and successful integration into the STEM workforce.

The goals of the HSI-Hubs will be to liaise with the HSI-CCC and HSI-CERS in serving the HSI community and its stakeholders, and to expand the reach of HSI Program and the impact of its strategies. These hubs will address needs identified by the HSI community. Possible topics may include: institutional transformation, capacity building at HSIs, STEM leadership development of faculty and scholars from historically underrepresented groups, research and dissemination, intersectionality and climate culture at HSIs, increasing the participation of historically underrepresented individuals in STEM at HSIs, partnerships, or any other area critical to the HSI community that supports the goals and strategies of the HSI program. This listing of possible thematic areas is not meant to be exclusive. Rather, NSF expects prospective PIs to define the need, cite evidence establishing the needs at HSIs, and offer a clear recommended plan with activities and measurable objectives and solutions. PIs are encouraged to put forward critical areas and ideas that are important to the HSI community and its unique and diverse ecosystem.

Activities required of all HSI-Hub projects regardless of focus, all HSI- Hubs must propose and budget for activities related to the hub's critical area to:

- identify, develop, and promote promising innovative research or initiatives on HSI and successful practices and frameworks for HSIs that generate valuable new knowledge and systemic change for excellent STEM education at HSIs;
- gather, analyze, and utilize the data and insights from the experiences of those historically underrepresented in STEM and with deep knowledge of the HSI community
  - to share information about what works and what does not;
- share and leverage effective frameworks designed for HSI;
- provide intellectual infrastructure for collaborations with potential to expand the knowledge base about HSIs;
- develop mechanisms for dissemination of successful practices at HSIs, the context in which they work and research results; and
- ensure that the HSI-Hub's activities are inclusive of the broad collection of institutions within the HSI typology (which includes 2-year colleges, rural colleges, PUIs, comprehensive public institutions, universities in Puerto Rico, private institutions, and research-intensive universities).

All proposals for an HSI-Hub must also describe a plan to include and leverage the diversity of constituents, approaches, disciplines, and ideas at HSIs, in particular, of those with a deep understanding of the HSI community and those that give the institution the HSI designation. It should also include a strategy to adapt successful existing frameworks for effectively diversifying the STEM enterprise and for student success at HSIs.

III. AWARD INFORMATION

Anticipated Type of Award: Standard Grant or Continuing Grant or Cooperative Agreement

Estimated Number of Awards: 2 to 7

One award for the HSI-CCC in FY 2023.

- Up to $7,000,000
- Cooperative agreement
- Six-years-long project

One award for the HSI-CERS in FY 2023.

- Up to $7,000,000
- Cooperative agreement
- Six-years-long project

Up to five awards for the HSI-Hubs in FY 2023.

- Up to $3,000,000 per project
- Continuing or standard grants
- Up to five-years-long projects

Number of awards are subject to the availability of funds. NSF anticipates that approximately up to $29,000,000 will be available for continuing or standard awards in response to this solicitation. In FY 2023, the HSI Program expects to fund new centers totaling up to $14,000,000 and new hubs totaling up to $15,000,000.

Anticipated Funding Amount: $14,000,000 to $29,000,000

IV. ELIGIBILITY INFORMATION

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Eligible institution must:
    a. Be an accredited institution of higher education.
    b. Offer undergraduate STEM educational programs that result in certificates or degrees.
    c. Satisfy the definition of an HSI as specified in section 502 of the Higher Education Act of 1965 (20 U.S.C.1101a). The HSI Certification Form is required with submission of the proposal. (See section V of the solicitation.) Institutions should review the legislation before certifying their eligibility for this program at https://www.govinfo.gov/content/pkg/USCODE-2011-title20/html/USCODE-2011-title20-chap28-subchapV-partA-sec1101a.htm.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

An eligible institution may submit as lead for one HSI-CCC proposal and one HSI-CERS proposal.

An eligible institution may submit as lead for one HSI-Hub.

Limit on Number of Proposals per PI or co-PI:

For each of the proposal categories centers or hubs (HSI-CCC, HSI-CERS, and HSI-Hubs), an individual may serve as PI or Co-PI of only one proposal in each of the given categories.

Additional Eligibility Info:

Collaborative proposals from multiple and single institutions are accepted as HSI-CCC, HSI-CERS, and HSI-Hubs proposals.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Letters of Intent *(required)*:

Submission of Letters of Intent (LOI) is required in order to submit a proposal in all categories of centers (HSI-CCC and HSI-CERS). The content of LOI is not evaluated and is only used for NSF merit review planning purposes. If an HSI submits a letter of intent by the deadline then it is automatically eligible to submit the full proposal. There is no formal invitation or other notice after the letter of intent has been submitted.

When submitting a Letter of Intent in response to the HSI-Net solicitation please note the **required conditions**:

- Clearly indicate the category for which the proposers are applying at the beginning of the project title (HSI-CCC: or HSI-CERS:).
- A minimum of one and maximum of four PI/co-PI/Senior Project Personnel are permitted.
    - Details can be changed between the letter of intent and the full proposal.
- Lead PI name, email, and phone number is required when submitting Letters of Intent.
- A maximum of one page description is permitted of the HSI-CCC or the HSI-CERS concept to be proposed and the experience of the PIs and proposing institutions managing similar projects.
- A list of subawardees, collaborating institutions/organizations, and any other participating institutions/organizations.

Letter of Intent Preparation Instructions:

When submitting a Letter of Intent through Research.gov in response to this Program Solicitation please note the conditions outlined below:

- Submission by an Authorized Organizational Representative (AOR) is required when submitting Letters of Intent.
- Submission of multiple Letters of Intent is permitted

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

- Full Proposals submitted via Research.gov: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the *NSF Proposal and Award Policies and Procedures Guide* (PAPPG). The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg. Paper copies of the PAPPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov. The Prepare New Proposal setup will prompt you for the program solicitation number.
- 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: (https://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) 292-8134 or by e-mail from nsfpubs@nsf.gov.

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via Research.gov. PAPPG Chapter II.D.3 provides additional information on collaborative proposals.

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

The Project Description is limited to 15 pages.

Requirements for HSI-CCC, HSI-CERS and HSI-Hubs:

PI team and senior personnel of submitting institutions and subawardees: The PI team and senior personnel of all proposing institutions, as either submitting institutions, subawardees, or a members of a collaborative research project, must demonstrate a deep understanding of, knowledge of, and experience with the HSI community and its ecosystem.

Evaluation: Proposals must include formative and summative assessments of the quality and success of the proposed activities as appropriate. This evaluation must be conducted by an experienced evaluator who is external to the project.

HSI Program PI meeting: PI and Co-PIs for HSI-CERS and HSI-Hubs are expected to participate in the HSI Program PI meeting every two years. Budgets should include travel to the site of the PI meeting for at least two members of the leadership team.

Competitive proposals for HSI-CCC, HSI-CERS and HSI-Hubs will:

- have a clear statement of the activities to be undertaken;
- have a diverse PI and leadership team with deep understanding of the HSI community and highly qualified to undertake the proposed work;
- have a rationale for how the participating organizations are well-prepared and suited for the work proposed;
- have a Management Plan as part of Supplementary Documents that includes short- and long-term goals that are specific, measurable, achievable, and anchored in a timeframe; identifies the roles and responsibilities of each of the collaborating organizations and individual in such organization in the leadership team; and addresses effective communication and decision-making among these organizations;
- describe and identify the roles of each team member and the communication and decision-making connections;
- utilize relevant, current literature related to the evidence-based strategies and other activities in the proposed work;
- include an intersectional lens when designing activities, collecting and analyzing the data, analyzing STEM areas of need (including participation gaps), and developing strategies to address them;
- involve multiple HSI Program and HSI community constituencies and present a clear plan to solicit and include perspectives and expertise from various HSIs; and have clear mechanisms for encouraging and for building community among HSI stakeholders, including current and prospective PIs.

Type of Proposal: For HSI-CC or HSI-CERS select "Center" as the proposal type. For HSI-Hubs select "Research" as the proposal type.

Title: Please include "HSI-CCC:", "HSI-CERS:", or "HSI-Hubs:" at the beginning of the project title. Please note that if submitting an HSI-CCC or HSI-CERS proposal via Research.gov, the system will automatically prepend the title with "Center".

References Cited: All references cited in the Project Summary and Project Description should be listed in this section.

Other Required Sections: Per guidance in the PAPPG, the Project Description must contain, as a separate section within the narrative, a section labeled **"Broader Impacts"**. Proposers can decide where to include this section within the Project Description. The proposal must also describe "Results of Prior NSF Support" for related projects in which the PI or co-PI have been involved, as outlined in the PAPPG.

Data Management Plan (DMP): All data collected for HSI Program projects must accord with the current EHR Data Management Guidance, which may be found here: https://www.nsf.gov/bfa/dias/policy/dmpdocs/ehr.pdf. Proposals must include a Supplementary Document of no more than two pages labeled "Data Management Plan." See Chapter II.C of the PAPPG for full policy implementation. For additional information on the Dissemination and Sharing of Research Results, see: https://www.nsf.gov/bfa/dias/policy/dmp.jsp. DMPs will be reviewed by panelists and program directors.

Postdoctoral Researcher Mentoring Plan: Each proposal that requests funding to support postdoctoral researchers must upload under "Mentoring Plan" in the supplementary documentation section. Mentoring activities provided to postdoctoral researchers supported on the project will be evaluated under the Broader Impacts review criterion. For additional information regarding postdoctoral researcher mentoring plans, see Chapter II.C of the PAPPG.

Supplementary Documentation:

Letters of Support: Letters of Support from the leadership of all partnering institutions/organizations indicating high-level support and commitment to the HSI-Net center or hub efforts <u>should be included</u>. **Each letter is limited to one page.** *A letter of support is typically from a key stakeholder such as an organization, collaborator, or Congressional Representative, and is used to convey a sense of enthusiasm for the project and/or to highlight the qualifications of the PI or co-PI. A letter of support submitted in response [to this] requirement must be unique to the specific proposal submitted and cannot be altered without the author's explicit prior approval.* Chapter II.C. 2.j, of the PAPPG.

HSI Certification Form signed by the authorized organizational representative of the lead institution (https://www.nsf.gov/ehr/Pubs/HSICertForm.pdf) must be included.

Project Personnel: Provide current, accurate information for all personnel and organizations involved in the project in the Supplementary Document section. NSF staff will use this information in the merit review process to manage reviewer selection. The list must include all PIs, co-PIs, senior personnel, paid/unpaid consultants or collaborators, sub-awardees, postdocs, project-level advisory committee members, and writers of letters of support and collaboration. This list should be numbered and include (in this order) full name, organization(s)/affiliation(s), and role in the project, with each item separated by a semi-colon. Each person listed should start a new numbered line. For example:

1. Mark Johnson-Smith; ABC University; PI
2. Erika Garcia; MNO College; Senior Personnel
3. Tatiana Rodriguez; ABC University; Postdoc
4. Atanaska Green; XYZ Inc.; Paid Consultant
5. Monica Chen; Bigname Research Organization; Subawardee

The **biographical sketch of the independent evaluator(s) must** be included and uploaded as a single PDF file in the Other Supplementary Documents section of the proposal.

Management Plan that articulates the project goals and objectives that are measurable, achievable, realistic, and anchored within a timeframe (SMART); identifies the roles and responsibilities of each of the collaborating HSIs and organizations and each of the team members; and addresses effective communication and decision making. As part of the Management Plan, provide a separate list of all institutions and organizations outlining the roles and functions addressed by each institution. **The Management Plan is limited to three pages.**

Appendix: **Not permitted.** Proposals submitted with an Appendix will be returned without review. Please see Section II of this solicitation for details on all the expected critical activities of the HSI-CCC, HSI-CERS, and HSI-Hubs and the corresponding requirements for proposals.

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

Other Budgetary Limitations:

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

C. Due Dates

- **Letter of Intent Due Date(s)** *(required)* (due by 5 p.m. submitter's local time):

    November 14, 2022

    Required for the HSI Program Network Resource Center for Community Coordination (HSI-CCC) and HSI Program Network Resource Center for Evaluation, Research and Synthesis (HSI-CERS).

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

    December 15, 2022

    HSI-CCC and HSI-CERS --full proposal deadline. A letter of intent is required for proposal submission.

    December 15, 2022

    HSI Program Network Resource Hubs (HSI-Hubs)

Submitting a letter of intent (LOI) is required for submission of a full proposal for the HSI-CCC or HSI-CERS.

D. Research.gov/Grants.gov Requirements

For Proposals Submitted Via Research.gov:

To prepare and submit a proposal via Research.gov, see detailed technical instructions available at: https://www.research.gov/research-portal/appmanager/base/desktop?_nfpb=true&_pageLabel=research_node_display&_nodePath=/researchGov/Service/Desktop/ProposalPreparationandSubmission.html. For Research.gov user support, call the Research.gov Help Desk at 1-800-673-6188 or e-mail rgov@nsf.gov. The Research.gov Help Desk answers general technical questions related to the use of the Research.gov 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: https://www.grants.gov/web/grants/applicants.html. In addition, the NSF Grants.gov Application Guide (see link in Section V.A) provides instructions regarding the technical preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

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

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

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

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

A comprehensive description of the Foundation's merit review process is available on the NSF website at: https://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 *Leading the World in Discovery and Innovation, STEM Talent Development and the Delivery of Benefits from Research - NSF Strategic Plan for Fiscal Years (FY) 2022 - 2026*. These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

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

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

A. Merit Review Principles and Criteria

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

1. Merit Review Principles

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

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

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

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

2. Merit Review Criteria

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

The two merit review criteria are listed below. **Both** criteria are to be given **full consideration** during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (PAPPG 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 PAPPG 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 other underrepresented groups 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 the Intellectual Merit and Broader Impact criteria, **for all HSI-Net proposals, reviewers will be asked to evaluate** the following:

1. How well does the proposal demonstrate deep understanding of, knowledge of, and experience with the HSI community as well as the ability to reach out to and connect with various HSI constituents and historically underrepresented groups in STEM?
2. How well does the proposal use an intersectional lens in their project design, data collection, evaluation, and implementation to address identified issues and assess the project's impact on the undergraduate STEM education at HSIs?

Reviewers for the HSI-CCC and HSI-CERS will be asked to also evaluate the following:

1. How well does the project articulate a plan to engage the HSI community in knowledge production and sharing of successful practices, including continuous program improvement, as well as increasing NSF HSI Program impact throughout the nation?

In addition to the Data Management Plan and Postdoctoral Research Mentoring Plan (if applicable), proposers are reminded that **reviewers will also be asked to review all the required components**, including supplemental documents. Reviewers will evaluate all proposals against the Intellectual Merit and Broader Impact criteria as well as the additional merit review criteria.

B. Review and Selection Process

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

National Science Board approved criteria. Additional merit review criteria apply. Reviewers will evaluate all proposals against these criteria and review all required components. Please see the full text of this solicitation for further information. **Centers above $5,000,000 will require a pre-award site visit and additional internal review after the proposal reviews and before making the award decisions.**

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

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

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

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

B. Award Conditions

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

*These documents may be accessed electronically on NSF's Website at https://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

Administrative and National Policy Requirements

Build America, Buy America

As expressed in Executive Order 14005, Ensuring the Future is Made in All of America by All of America's Workers (86 FR 7475), it is the policy of the executive branch to use terms and conditions of Federal financial assistance awards to maximize, consistent with law, the use of goods, products, and materials produced in, and services offered in, the United States.

Consistent with the requirements of the Build America, Buy America Act (Pub. L. 117-58, Division G, Title IX, Subtitle A, November 15, 2021), no funding made available through this funding opportunity may be obligated for an award unless all iron, steel, manufactured products, and construction materials used in the project are produced in the United States. For additional information, visit NSF's Build America, Buy America webpage.

Special Award Conditions:

The HSI-CCC and HSI-CERS awards will be made in the form of **cooperative agreements**. The cooperative agreement will have an extensive section of Special Conditions relating to the period of performance, detailed work description, awardee responsibilities, NSF responsibilities, joint NSF awardee responsibilities, funding amounts and funding schedule, reporting and evaluation requirements, key personnel, and other conditions. NSF will provide general oversight and monitoring of the HSI-CCC and HSI-CRES, and the evaluation (conducted by an evaluator external to the project) to help assure effective performance and administration, as well as facilitate any coordination necessary to further the objectives of the HSI-Net as a whole.

Within the first 90 days of the award, the lead organization of the HSI-CCC, HSI-CERS, and HSI-Hubs should submit to NSF an integrated and coordinated strategic plan for addressing the goals and objectives delineated in this solicitation and addressed in the proposal including a virtual infrastructure to facilitate collaborative activities, dissemination of accomplishment and products, and the implementation of a set of specified activities and targeted outcomes.

Any cooperative agreement awarded in response to this solicitation will contain the following term and condition:

Ensuring Adequate COVID-19 Safety Protocols

a. This clause implements Section 3(b) of Executive Order 14042, Ensuring Adequate COVID Safety Protocols for Federal Contractors, dated September 9, 2021 (published in the Federal Register on September 14, 2021, 86 FR 50985). Note that the Department of Labor has included "cooperative agreements" within the definition of "contract-like instrument" in its rule referenced at Section 2(e) of this Executive Order, which provides:

For purposes of this order, the term "contract or contract-like instrument" shall have the meaning set forth in the Department of Labor's proposed rule, "Increasing the Minimum Wage for Federal Contractors, " 86 Fed. Reg. 38816, 38887 (July 22, 2021). If the Department of Labor issues a final rule relating to

that proposed rule, that term shall have the meaning set forth in that final rule.

    a. The awardee must comply with all guidance, including guidance conveyed through Frequently Asked Questions, as amended during the performance of this award, for awardee workplace locations published by the Safer Federal Workforce Task Force (Task Force Guidance) at https://www.saferfederalworkforce.gov/contractors/.
    b. *Subawards*. The awardee must include the substance of this clause, including this paragraph (c), in subawards at any tier that exceed the simplified acquisition threshold, as defined in Federal Acquisition Regulation 2.101 on the date of subaward, and are for services, including construction, performed in whole or in part within the United States or its outlying areas. That threshold is presently $250,000.
    c. *Definition*. As used in this clause, *United States or its outlying areas* means:
        1. The fifty States;
        2. The District of Columbia;
        3. The commonwealths of Puerto Rico and the Northern Mariana Islands;
        4. The territories of American Samoa, Guam, and the United States Virgin Islands; and
        5. The minor outlying islands of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Islands, Navassa Island, Palmyra Atoll, and Wake Atoll.
    d. The Foundation will take no action to enforce this article, where the place of performance identified in the award is in a U.S. state or outlying area subject to a court order prohibiting the application of requirements pursuant to the Executive Order (hereinafter, "Excluded State or Outlying Area". A current list of such Excluded States and Outlying Areas is maintained at https://www.saferfederalworkforce.gov/contractors/

C. Reporting Requirements

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

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

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

More comprehensive information on NSF Reporting Requirements and other important information on the administration of NSF awards is contained in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

There will be a **minimum of two site visits** for the HSI-CCC and HSI-CERS, and **one site visit** for the HSI-Hubs. One held towards the end of the first year and one during the third year of the project. The purpose of the first-year site visit is to provide technical assistance (especially during the first year start up period) and may be held in person or virtually. The purpose of the third-year site visit is to conduct an in-depth evaluation of performance, assess progress toward goals, provide advice and recommendations for enhancing project performance, and to determine satisfactory progress and continuation of support for the project. For the HSI-CCC and HSI-CERS a third site-visit might take place in year four to discuss sustainability plans.

All **HSI-Net reports** (i.e., the HSI-CCC, HSI-CERS, and HSI-Hubs reports) are expected to include all available project evaluation reports from external project evaluators, relevant project data (including baseline data) and impact data, connect the data to the expected outcomes as the progress of activities is contextualized in the annual report narrative, survey instruments, and other tools and materials developed by the project. HSI-Hub grantees are asked to participate and contribute project related documents and materials whenever possible to the HSI-CCC and HSI-CERS. As a cooperative agreement, NSF staff will coordinate regular check-ins with the HSI-CCC and HSI-CERS leadership team, at least once every quarter or more frequently as needed.

VIII. AGENCY CONTACTS

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

General inquiries regarding this program should be made to:

- James Alvarez, telephone: (703) 292-2323, email: jalvarez@nsf.gov
- Michael Davis, telephone: (703) 292-7166, email: mdavis@nsf.gov
- Mary Crowe, telephone: (703) 292-7177, email: mcrowe@nsf.gov
- Luis A. Cubano, telephone: (703) 292-7941, email: lcubano@nsf.gov
- Michael J. Ferrara, telephone: (703) 292-2635, email: mferrara@nsf.gov
- Elsa Gonzalez, telephone: (703) 292-4690, email: elgonzal@nsf.gov
- Sonja Montas-Hunter, telephone: (703) 292-7404, email: smontash@nsf.gov
- Julio G. Soto, telephone: (703) 292-4649, email: jgsoto@nsf.gov

For general inquiries contact, telephone: (703)292-4649, email: NSF-EHR-HSI@nsf.gov

For questions related to the use of FastLane or Research.gov, contact:

- FastLane and Research.gov Help Desk: 1-800-673-6188
- FastLane Help Desk e-mail: fastlane@nsf.gov

Research.gov Help Desk e-mail: rgov@nsf.gov

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail:support@grants.gov.

IX. OTHER INFORMATION

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

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

ABOUT THE NATIONAL SCIENCE FOUNDATION

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

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

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

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See the *NSF Proposal & Award Policies & Procedures Guide* Chapter II.E.6 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 https://www.nsf.gov

- **Location:** 2415 Eisenhower Avenue, Alexandria, VA 22314

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

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

- **To Order Publications or Forms:**

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

  or telephone: (703) 292-8134

- **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 System of Record Notices, NSF-50, "Principal Investigator/Proposal File and Associated Records," and NSF-51, "Reviewer/Proposal File and Associated Records." 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
Policy Office, Division of Institution and Award Support
Office of Budget, Finance, and Award Management
National Science Foundation
Alexandria, VA 22314

| Policies and Important Links | | Privacy | | FOIA | | Help | | Contact NSF | | Contact Web Master | | SiteMap |

National Science Foundation, 2415 Eisenhower Avenue, Alexandria, Virginia 22314, USA
Tel: (703) 292-5111, FIRS: (800) 877-8339 | TDD: (703) 292-5090 or (800) 281-8749

Text Only