Historically Black Colleges and Universities Undergraduate Program (HBCU-UP):

Broadening Participation Research Centers

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Directorate for Education and Human Resources
Division of Human Resource Development

Solicitation: Historically Black Colleges and Universities Undergraduate Program (HBCU-UP) (nsf20559) | NSF - National Science Foundation
Proposal & Award Policies & Procedures Guide - PAPPG | NSF - National Science Foundation
Zoom Etiquette

• For a smooth experience, participants should:
  • Update name to include institution
    • Example: NSF-Carleitta Paige-Anderson; School-Name
  • Mute audio when not speaking, and vice versa
  • Communicate via Chat during presentation
    • Select Everyone: general questions/comments
    • Select PD: private/personal situations
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Webinar Agenda

• Historically Black Colleges and Universities Undergraduate Program (HBCU-UP) Overview
• Broadening Participation Research Centers (BPRCs)
  – Overview
  – Active BPRCs
  – Eligibility
• Preliminary Proposal Preparation and Submission Guidelines
• Full Proposal Submission Guidelines (in brief)
• Merit Review Process
• Discussion: Questions and Answers
Historically Black Colleges and Universities Undergraduate Program (HBCU-UP)

**Goal:** To enhance the quality of undergraduate STEM education and research at HBCUs in order to broaden participation in the nation’s STEM workforce and STEM graduate programs.
HBCU-UP

Supports development, implementation, and the study of evidence-based, innovative models and approaches to prepare HBCU undergraduates for STEM workforce.

- Innovation in instruction and curriculum development
- STEM research experiences for undergraduates
- Critical transitions (K-12 to undergraduate, 2-year to 4-year, retention from freshman to sophomore, undergraduate to graduate)
- STEM faculty professional and leadership development
- Enhance STEM faculty research (RIA, EiR)
- Research capacity building
- Broadening participation research in STEM Education
- STEM teacher preparation
HBCU-UP Funding Tracks NSF 20-559

- Broadening Participation Research in STEM
- Research Initiation Awards
- HBCU-Excellence in Research*
  - HBCU-EiR is described under NSF solicitation 20-542
  - Managed by the Office of Integrative Activities
- Targeted Infusion Projects
- Implementation Projects
  - Achieving Competitive Excellence (ACE)
- Broadening Participation Research Centers
How do you seek to enhance STEM Education and Research?

Faculty Research
- Broadening Participation Research in STEM
- Research Initiation Awards
- HBCU-Excellence in Research*

Institutional Change
- Targeted Infusion Projects
- Implementation Projects
- Achieving Competitive Excellence Projects

National Impact
- Broadening Participation Research Centers

*HBCU-EiR is described under NSF solicitation 20-542
If you aim to lead efforts to disseminate the success of HBCUs in educating African American STEM undergraduates ...

- **Project Length**: Up to five years
- **Award size**: Up to $9 million
- **Build the intellectual infrastructure to facilitate the creation, integration and transfer of new knowledge in broadening participation research**

Broadening Participation Research Centers
Broadening Participation Research Centers (BPRCs)

- Establish a culture in broadening participation research that will add to the research knowledge and enhance understanding of the barriers that hinder and factors that enhance our ability to broaden participation in STEM.
- Offer the HBCU community a venue for interaction and an effective mechanism to undertake long-term integrated research and education activities focusing on broadening participation research.
- Gather and represent the collective intelligence of HBCU STEM higher education and serve as a national hub for the rigorous study and broad dissemination of the critical pedagogies and culturally sensitive interventions that contribute to the success of HBCUs in educating African American STEM undergraduates.
Active BPRCs

CASL | Center for the Advancement of STEM Leadership (advancingstemleadership.net)

https://stemuscenter.org
Broadening Participation Research Centers – Eligibility

- **Eligible Institutions:** Historically Black Colleges and Universities (HBCUs) that are accredited and offer undergraduate educational degree programs in science, technology, engineering and mathematics (STEM).
- Institutions that have been awarded **three previous Implementation or ACE Implementation Projects** are eligible to be the lead institution to submit a proposal for a Broadening Participation Research Center (BPRC).
- The Principal Investigator and co-Principal **must be the key personnel** that will be responsible for guiding the implementation of the project or Center.
- An eligible institution can submit only **one Broadening Participation Research Center proposal** and can have only one active center. The lead institution of the center proposal must demonstrate the capacity to conduct broadening participation research.
BPRC Proposal Preparation and Submission
The HBCU-UP program solicitation, NSF 20-559, is available at: [Historically Black Colleges and Universities Undergraduate Program (HBCU-UP) | NSF - National Science Foundation](https://nsf.gov)

BPRC Proposal Submission – Deadlines

Preliminary Proposal
March 22, 2022

Full Proposal
November 22, 2022
Broadening Participation Research Centers – Preliminary Proposals

• Letters of Intent are not required for BPRC proposals.

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

• Preliminary proposals that are not compliant with the guidelines may be returned without review, thus making the proposing team automatically ineligible for submitting a full BPRC proposal.
Preliminary BPRC proposals will contain an overview of the proposed vision, strategic plan, partnerships, research, education, outreach, and knowledge transfer activities with sufficient detail to allow assessment of the intellectual merit and broader impacts of the proposed Center.
BPRC Preliminary Proposals: Project Summary

• 1-page maximum
• Provide an overview of the proposed Center, addressing separately the intellectual merit and broader impacts of the project.
BPRC Preliminary Proposals: Project Description

• 8-pages maximum

• Articulate a vision for the proposed Center that clearly outlines the challenges being addressed.

• The proposed research should be sufficiently complex and long-term to justify a Center, and flexible enough to permit change as the research proceeds.
  – In addition to an outline of research themes, some illustrative examples of specific research directions with sufficient detail to be evaluated by reviewers should be included.
BPRC Preliminary Proposals: Project Description (continued)

• 8-pages maximum

• Describe how the integration of research, education, outreach, and knowledge transfer in a Center-level activity will advance the proposed research in a way that other funding mechanisms cannot.

• A description of the team members and why each is essential to the project plan should be included (must not be more than 2 of the 8 pages).

• Results from Prior NSF Support should not be included.
  – Should be discussed in the full proposal
BPRC Preliminary Proposals: References and Biographical Sketches

• **References Cited (2-page limit):** See NSF PAPPG instructions for format.

• **Biographical Sketches (3-page limit per person):** Biographical Sketches are required for the PI and co-PIs only.
  – **Biographical Sketches** (new format)
BPRC Preliminary Proposals: Supplementary Documents

• List all project personnel who have a role in the management, research, education, outreach, and knowledge transfer components of the Center. Provide the last name, first name, institution/organization, role in the project.

• Include a one-page table indicating an estimate of funds that will be allocated to each participating institution broken down by category, i.e., research, education, outreach, and knowledge transfer.
BPRC Preliminary Proposals: Collaborators & Other Affiliations

• Information specified in the PAPPG should be submitted using the instructions and spreadsheet template found on the Collaborators and Other Affiliations Information website at https://www.nsf.gov/bfa/dias/policy/coa.jsp

• Please note that proposers using the COA template for more than 10 senior project personnel will encounter proposal print preview issues. Please see the COA website for updated guidance.
BPRC Proposal Submission

Preliminary Proposal

March 22, 2022

Full Proposal*

November 22, 2022

*Full proposal webinar will be scheduled following preliminary proposal review. Date: TBD
Broadening Participation Research Centers – Full Proposal Content

• Cover Sheet and Certifications
• Project Summary
  • Both intellectual merit and broader impacts described
• Table of Contents (Automatic)
• Project Description (up to 25 pages)
• References Cited
• Biographical Sketches (new format)
• Budgets and Budget Justification
• Current and Pending Support (new format)
• Facilities, Equipment and Other resources
Broadening Participation Research Centers – Full Proposal Content

- Special Information/Supplementary Documents
  - Mentoring Plans
    - Undergraduate student, Graduate student and/or Post-Doctoral research (if applicable)
  - Data Management Plan
  - Letters of Commitment and Collaboration
  - Quotes for Equipment
  - Project Evaluation

- Single Copy Documents
  - List of Suggested reviewers (Optional)
  - Collaborators and Other Affiliations
  - The list of Partner Institutions and Project Personnel that were required in the preliminary proposal must be updated to reflect any changes occurring since the time of preliminary proposal submission. You can also use up to 2 pages to briefly describe the partnering institutions.
The Project Description must contain the indicated sections and cannot exceed 25 pages including tables and illustrations.

The broader impacts resulting from the proposed project must be addressed and described as an integral part of the narrative.
MERIT REVIEW PROCESS
Broadening Participation Research Centers - Merit Review

• 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.

• 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.
Both criteria, Intellectual Merit and Broader Impact, will be given full consideration during the merit review and decision-making process. Each criterion is necessary but neither, by itself, is sufficient. Proposers must fully address both criteria.

The following elements will be considered in the proposal’s review:

- What is the potential for the proposed activity to:
  - advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
  - benefit society or advance desired societal outcomes (Broader Impacts)?
Broadening Participation Research Centers – Merit Review

• To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?

• 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?

• How well qualified is the individual, team, or institution to conduct the proposed activities?

• Are there adequate resources available to the PI (either at the home institution or through collaborations) to carry out the proposed activities?
Broadening Participation Research Centers – Merit Review

Reviewers will also be asked to evaluate the following:

- Data Management Plan (required)
- Student Mentoring Plan and/or Postdoctoral Researcher Mentoring Plan (as appropriate)
- Letters of collaboration
- Other supplementary documents
Broadening Participation Research Centers – Additional Review Criteria

• Does the proposal convey a vision for how the Center will establish a culture in broadening participation research that will produce work that adds to the research knowledge base?

• How are the research, education, outreach, and knowledge transfer efforts strategically embedded and integrated in the proposed Center?

• To what extent are the research, educational, outreach, and knowledge transfer activities innovative and how do they contribute to the unifying mission of the proposed Center?

• To what extent does the proposed Center management have the vision, experience, and capacity to manage a complex and innovative enterprise that integrates research, education, outreach, and knowledge transfer?

• Does the evaluation plan define indicators and benchmarks to inform the project team and others about the operations and effectiveness of the implementation?
Multi-Phase Merit Review Process

Preliminary Proposals (Required)
- Ad Hoc and panel review

Promising preliminary proposals
- Invited to submit full proposals

Full Proposals (Invitation only)
- Ad Hoc and panel review

Site Visits
- Only for selected full proposals
- Review criteria, vision and legacy potential, and institutional commitment

Final Recommendations
- Reviews, discussion summary, site visit report
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  – To subscribe:
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    2) Leave the subject line blank
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    – Example of the body of your message:
    – subscribe HBCU Percy Julian

• General Questions:
  – HBCU_UP@nsf.gov
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Thank You!