Writing Broadening Participation in Computing (BPC) Plans

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Motivation for the BPC Initiative

“It will take more than good intentions or business as usual, however, to reverse longstanding underrepresentation. It will take committed, focused, and sustained efforts on the part of many in the computing community.”

“CISE will address BP programmatically both through focused activities and through the inclusion of BPC efforts as an accepted and expected part of its research and education award portfolios.”
Timeline of the BPC Initiative

- **Fiscal Year 2017**: NSF 17-110, *Dear Colleague Letter: Pursuing Meaningful Actions in Support of BPC*, announced

- **Fiscal Year 2018**: BPC Project plans *encouraged* for Expeditions in Computing, Cyber-Physical Systems, and Secure & Trustworthy Cyberspace Frontier submissions

- **Fiscal Year 2019-2021**: BPC Project plans *required by time of award* in Medium and Large proposals submitted to core programs, CPS, and SaTC. *Departmental BPC Plans encouraged*

- **Fiscal Year 2022**: BPC Project plans *required at time of submission*. 
Guiding Principles for BPC Effort

BPC requires *culture change* in colleges/universities, departments, classes, research groups, professional organizations & K-12

CISE research proposals include a *meaningful* plan to broaden participation in computing

Measurable progress towards diversifying the CISE Research Community
5 elements of a meaningful BPC plan

1. Goal and Context: Does the plan describe a goal and the data from your institution(s) or local community that justify that goal?

2. Intended population(s): Does the plan identify the characteristics of participants from an underrepresented group listed above, including school level (e.g., African American undergraduates or female high-school students)?

3. Strategy: Does the plan describe activities that address the stated goal(s) and intended population(s)?

4. Measurement: Is there a plan to measure the outcome(s) of the activities?

5. PI Engagement: Is there a clear role for each PI and co-PI? Does the plan describe how the PI is prepared (or will prepare or collaborate) to do the proposed work?
Challenges for BPC Plans

• A meaningful BPC plan should answer positively for all five elements *for all PIs and co-PIs*.

• The BPC Plan activities *do not* need to relate to the proposed research.

• Novelty in the BPC plan is not required. PIs can implement a best practice.

• Be realistic about your expertise and capacity.

• Do not confuse *broader impacts* with *broadening participation*.
  • Proposed projects require both.
  • The proposed activities for the two can be related.

Building on existing local and national resources?
Supporting the CISE Community in BPC Plans
• **Activity library**: A collection of existing BPC programs and activities.

• **BPC Alliances**: Coalitions supported by NSF.

• **Checklists and templates**: Resources for developing project BPC plans.

• **Departmental BPC plan verification**: Instructions on how to verify a departmental BPC plan.

• **Statistics and Data Hub**: A compilation of publicly available data on postsecondary degrees awarded and K-12 enrollment.

• **Undergraduate BPC Literature Database**: A collection of scholarly articles on BPC for college students.

• **Consulting, workshops and events**
Types of BPC Plans

**Project BPC Plans**
Describes PI actions
Submitted to NSF

**Standalone Project BPC Plan**
- One plan for the *entire* proposal
- 3 pages total for a proposal

**Connected Project BPC Plan**
- One plan per each institution in a proposal
- For each institution:
  - 1 page PI plan +
  - 2 page Verified Departmental Plan

**Departmental BPC Plan**
- Describes *department* actions
- Verified by BPCnet.org
- 2 pages
Do all PIs on the project have a Verified Departmental BPC Plan at their institution?

Yes

Do all PIs on the project intend to participate in an activity in a Verified Departmental BPC Plan at their institution?

Yes

Submit a Connected Project BPC Plan

No

Submit a Standalone Project BPC Plan

No

Submit a Standalone Project BPC Plan
Funding for BPC Activities

1. Request funding at award time for BPC activities
   • Costs for the BPC activities are separate from the stated budget limits
2. Request a BPC Supplement (NSF 24-030) to either
   • extend the reach of current BPC activities or
   • coordinate BPC activities within a department or similar unit.
3. Submit a BPC Demonstration Project (NSF 21-571) proposal to develop and evaluate a pilot of a BPC intervention
BPC Supplements

• Medium and larger awards for CISE Core Programs, SaTC, and CPS programs require a meaningful BPC plan and can request a BPC Supplement

• Supplements should either:
  • **Extend the reach** of current BPC activities that have some evidence of effectiveness to more participants or institutions;
    • **Example:** Partner with community colleges to offer summer research experiences and webinars in Quantum Information Science & Engineering
  • **Coordinate** or **institutionalize** BPC activities within a department or similar unit.
    • **Example:** Develop a departmental DEI/BPC plan with advice from NCWIT and evaluate initial interventions
Reporting Requirements

• Check the solicitation!

• Include in the appropriate sections of your annual report
  • A summary of what each PI and co-PI did, including any changes to the plan;
  • Numbers of events, participants, and participant demographics (if there are barriers to collecting this data, describe those limitations and provide the best estimates possible); and
  • A reflection (supported by data if available) on progress, any unexpected challenges or results, and anything planned.
Questions?

NSF CISE BPC Initiative

NSF BPC FAQ (22-125)

CISE Core Programs Solicitation (23-561)