



Snowbird 2022

How and Why to Create a Departmental BPC Plan?



CRA

Computing Research
Association



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RESOURCE PORTAL



Welcome

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RESOURCE PORTAL



Today...

- NSF BPC Initiative (Jeff Forbes)
- Departmental BPC Plan Overview (Nancy Amato)
- How to Create a Departmental BPC Plan (Mary Hall)
- Common Mistakes and How to Avoid Them (Tracy Camp)
- Q&A (All panelists)
- Wrap-up

Who is here today?

- BPC Plan Status
 - No BPC Plan yet: 52%
 - BPC Plan in-progress: 23%
 - Complete BPC Plan: 20%
- BPC Activities
 - On average: 6
 - More than 3 activities: 86%

Being a resource and a hub

- BPCnet.org
- BPCnet.org BPC Plan Consultancy
 - Free!
 - Utilize at ANY stage
- Upcoming workshop - August 3-5, 2022 in Denver, CO
 - <https://bpcnet.org/workshop/>
 - Apply ASAP!
- bpcinfo@cra.org



NSF BPC Plan Initiative

Jeff Forbes

National Science Foundation

jforbes@nsf.gov

NEED TO GO BEYOND THE USUAL SUSPECTS

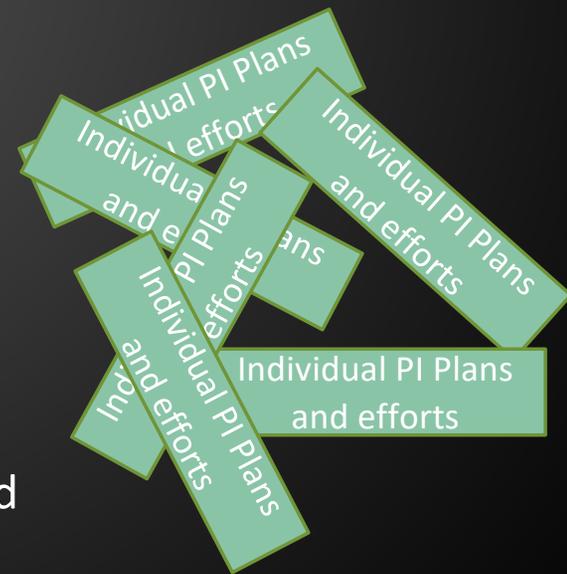
“It will take more than good intentions or business as usual, however, to reverse longstanding underrepresentation. It will take committed, focused, and sustained efforts on the part of ~~many~~ in the computing community.”

**ALMOST
EVERYONE**

<https://www.nsf.gov/cise/oad/cise7bp.jsp>

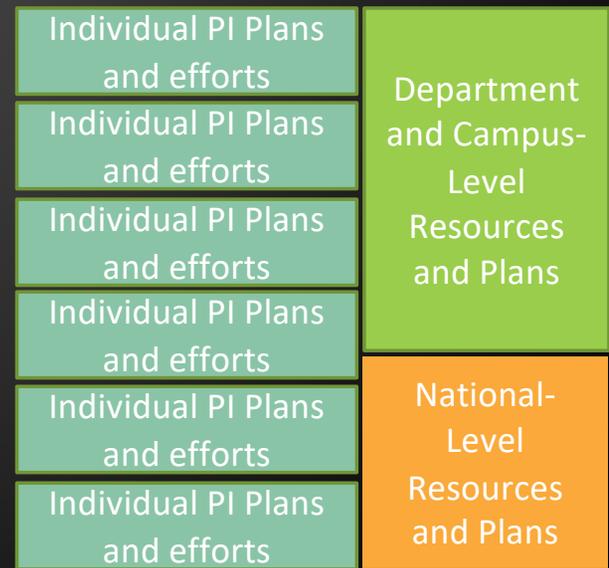
BPC VISION

- Goal: Measurable progress towards diversifying the CISE Research Community
- Goal: CISE research proposals include a meaningful plan to broaden participation in computing
- **Approach: Individual PIs offer BPC plans for Medium (and larger) proposals in Core, CPS, SaTC**
 - **Standalone** and **Connected** BPC plans
- Key Concept: Individual PIs plug into departmental and national plans and expertise
- Increase collaboration, coordinate efforts, broaden expertise



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- **Key Concept: Individual PIs plug into departmental and national plans and expertise**
- **Increase collaboration, coordinate efforts, broaden expertise**



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** to coordinate and institutionalize BPC activities within a department or similar unit.
3. Submit a **BPC Demonstration Project** proposal to develop and evaluate a pilot of a BPC intervention
 - Refer to the BPC Solicitation ([NSF 21-571](#)) for more information on supplements and demonstration projects



Departmental BPC Plan Overview

Nancy Amato

What is a BPC Plan?

A BPC Plan:

- Describes how a PI or department will contribute to Broadening Participation in Computing (BPC) in a meaningful way
- Departments → Departmental BPC Plans
- PIs → Project BPC Plans
- Each type of BPC Plan has a specific structure and content
 - See resources on BPCnet.org and NSF solicitations

Project BPC Plans - Connected & Standalone

A **Project BPC Plan** is a document written by PIs submitting a proposal to NSF CISE for [certain programs that require the inclusion of a BPC Plan](#).

Connected Project BPC Plans (requires verified Departmental Plan)

- Lists PI engagement with activities from a [verified Departmental BPC Plan](#)
- Page limit: Each institution submits 3 pages (1 page plus their 2 page [verified Departmental BPC Plan](#))

Standalone Project BPC Plans

- Describes BPC activities and how each PI engages in them
- Page limit: 3 pages, shared by all participating institutions

Departmental BPC Plans

A **Departmental BPC Plan** is a 2 page document that describes the current focus of BPC activities across a department or academic unit, and what the department has committed to do to address the [underrepresentation of certain populations, as defined by NSF CISE](#).

- Summary: Lists BPC activities of a department
- Submitted to: BPCnet.org for [verification by BPCnet](#)
- Page limit: 2 pages
- Information from BPCnet.org:
 - [More details about Departmental BPC Plans](#)
 - [See a list of verified Departmental BPC Plans](#)
 - [Schedule a free appointment with a BPC Consultant](#)

Types of BPC Plans

DEPARTMENTAL BPC PLAN

- Describes **department** actions
- Submitted to BPCnet.org
- 2 pages

PROJECT BPC PLAN

- Describes **PI** actions
- Submitted to NSF
- Two options:

Connected Project BPC Plan

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

Standalone Project BPC Plan

- One plan for the entire proposal
- 3 pages total for a proposal



How to Create a Departmental BPC Plan?

Mary Hall

Questions you may have

Relevant link: <https://bpcnet.org/departmental-bpc-plans/>

- Format? <https://bpcnet.org/departmental-bpc-plans/#checklist-content>
- The process from a chair's perspective?
- Identifying area(s) of focus?
- Getting buy in?
- Data collection?
- Departmental structure to support ongoing needs?
- How departmental plan interacts with individual and multi-institutional plans?

The Process

1. Download template from bpcnet.org <https://bpcnet.org/departamental-bpc-plans/#checklist-content>
2. Understand terminology: BPC plan should have goal(s) that address needs in your unique institutional context with activities for which you can measure impact
 - a. Context: At your institution, what are the opportunities and needs for broadening participation? Provide data to support your position.
 - b. Goal: A concrete measurable impact towards broadening participation
 - c. Activity: What your department PIs will do as part of your BPC Plan
 - d. Measurement: Measure the impact of your activities towards achieving your goals
3. When completed, make sure your plan passes the checklist
4. Submit to bpcnet.org for review by consultant

Barrier - Baggage from past experience

- Start from a positive place
- Don't assume barriers based on prior experience
- This is an opportunity to **lead** an effort that has renewed importance
- Your faculty want to do better
- You'll be pleasantly surprised, especially in today's climate
- Bring your knowledge/experience with BPC to the table
- Focus on what can be changed - **your specific levers**
- Accept that some simply may not get on board



Department Organizational Steps

1. Assign someone to shepherd the BPC Plan and be the internal and external point of contact.
 - a. That person can organize data collection for context
2. Organize a small committee to oversee the development of the plan, which should include (i) senior faculty; (ii) NSF PIs that are not especially active in BPC; and, (iii) faculty/staff already involved in BPC.
3. Socialize so that everyone (who wants to) (i) buy into the goals; and, (ii) see how they fit into the BPC plan activities
4. Brainstorm given collected data and decide on a context
5. Brainstorm about goals and BPC activities
 - a. Include currently-ongoing activities that PIs are engaged in
 - b. Include other BPC activities PIs could easily participate in
6. Propose the outline of a BPC plan to the full faculty
7. Develop a PI plan based on the Departmental Plan to serve as an example of how to “use” the departmental plan

Nuts and Bolts: Content of Departmental BPC Plan

1. Write goals that motivate all BPC activities (goal, not vision)
 - a. E.g., "G1: By (date), (BPC measure) will improve from (current value) to (goal value)"
 - i. Also include the number of people if the value is a ratio or percentage
 - b. Provide data relevant to each goal or an additional activity to collect that data
 - c. Multiple activities may share the same goal, but do not need to do so
2. Describe each activity, including
 - a. An activity identifier, like "A1"
 - b. A contact person (a single name is sufficient)
 - c. The identifier of the goal it serves, like "G1"
 - d. A clear description of what will occur as part of the activity
 - e. How its outcomes will be measured
3. Add additional institutional context
 - a. Describe the type of your institution and how many people do you serve
 - b. (Optional) Provide additional demographic information



Advice for Goals in Departmental BPC Plans

- A few BPC-focused SMART Goals that can cover ALL activities
 - **Option 1:** What data do you have that shows a BPC problem? Make a goal to improve it.
 - **Option 2:** Make a goal to collect it and then improve it.

Advice for Context in Departmental BPC Plans

- Include ONLY what is necessary to motivate the goals.
- Say “omitted” if data would violate privacy



Advice for Activities in Departmental BPC Plans

Things that the department does or wants to do where PIs can get involved

Broadly Applicable Activities

- BPC-focused REU program
- BPC education – i.e., learning opportunities for faculty
- BPC-oriented data collection
- Diversity conference attendance with students
- Affinity groups with opportunities for faculty involvement
- BPC Committee will _____
 - For Connected Project BPC Plans where PIs role is “join the BPC Committee”



Strategy/Barrier: Getting Data

- Start by collecting data to establish context
- Data may be hard to come by
 - IPEDS data is available through the BPCNet Portal
 - <https://bpcnet.org/statistics/>
 - Become a Databuddy
 - <https://cra.org/ceip/data-buddies/>
- When you cannot get data from Institutional Research (e.g. due to small numbers), consider grass roots collection within your department
- *Establish a **Data Coordinator** as part of your plan*



Developing Individual Plans from Departmental Plan

- Single/Multiple PIs in department that has a departmental plan:
 - Use two pages from Departmental Plan, and attach a page summarizing activities for the PIs
 - Each PI should participate in at least one activity, selected from departmental plan
 - Alternatively, PI can write their own BPC Plan, either using departmental plan activities or their own activities
- Multiple PIs from different institutions:
 - Each PI can submit 3 pages, with 2 pages from departmental plan if available
 - Each PI should participate in at least one activity. If they have a departmental plan, their activity can be selected from their institution's plan
 - Similar activities across institutions provides leverage, if translates across different contexts

Evaluating Departmental BPC Plans

- Vision vs Goal
 - Vision: “We are committed to supporting all”
 - Goal: “By 2024 retention rates will no longer differ by race”
 - Both OK, goals needed
- Language Matters
 - Use NSF BPC-call population names
 - May define collective terms for multiple such populations
 - Include person-specifiers (e.g. “Hispanic students” not “Hispanics”)
- Few goals, more activities



Common Mistakes (and How to Avoid Them)

Tracy Camp

What to include in your Departmental BPC Plan?

- Mistake: no mention of groups minoritized in tech
- Mistake: list goals w/o associated activities
- Mistake: plan to improve a number you don't know
- Mistake: over-promise (e.g., no expertise to do)
- Mistake: assume K-12 outreach = BPC

- Mistake?: include EVERYTHING your department is doing
- Mistake?: only include novel BPC activities

How to write your BPC Departmental Plan?

- Mistake: skip including context
 - Mistake: assume people need to be fixed
 - OR standards need to be lowered
 - Mistake: “this activity is successful” w/o data showing success
 - Mistake: list acronyms w/o definitions
-
- Mistake: don't engage your faculty in the plan development

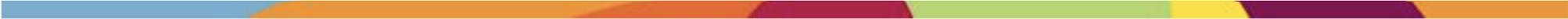


How to implement your BPC Departmental Plan?

- Mistake: forget to measure your activities
- Mistake: leave your plan on the shelf

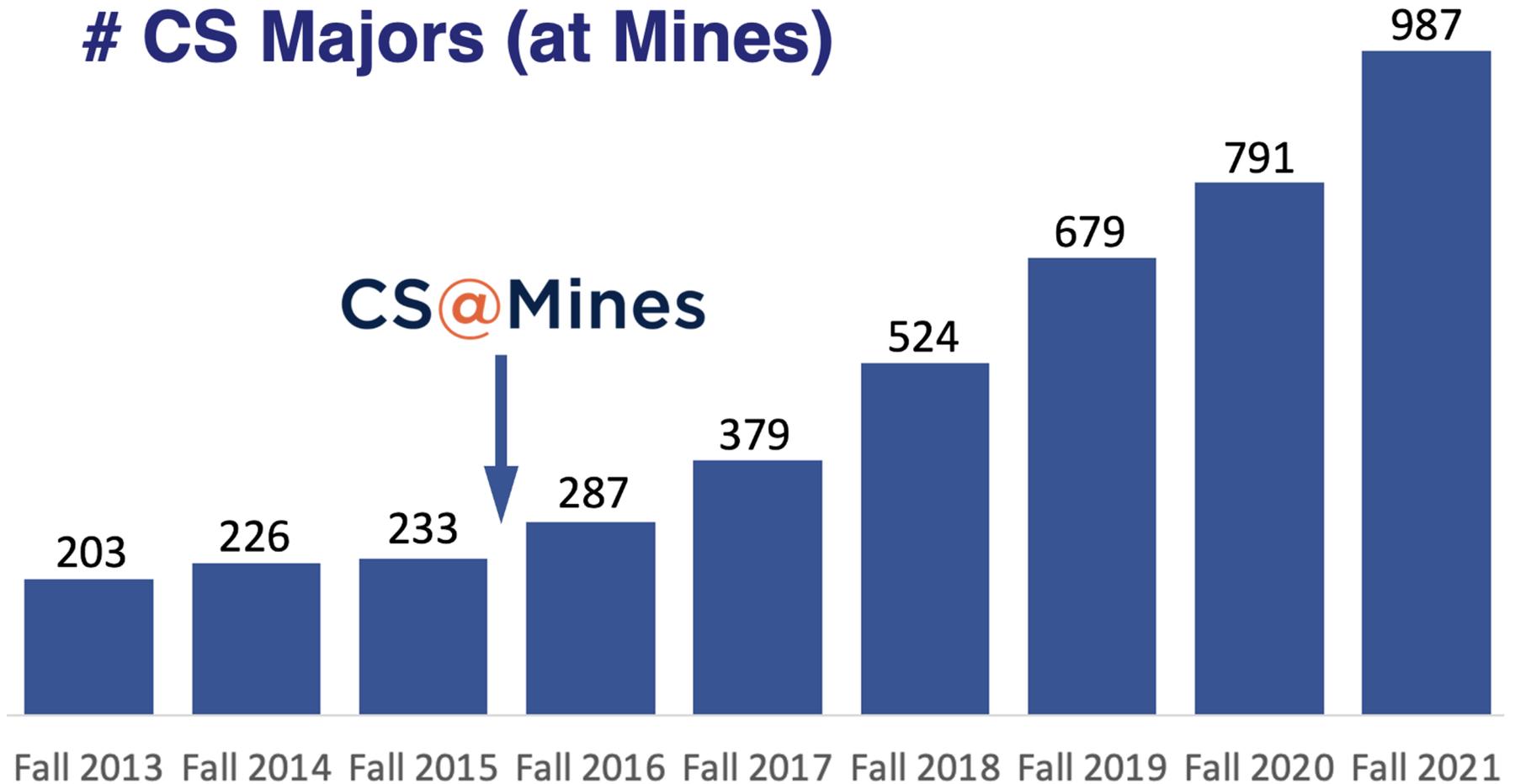


A few musings ...



CS@Mines

CS Majors (at Mines)



	Fall 2008	Fall 2021	Change
UG Majors	157	987	~6.3x
Women (#)	17	226	~13.3x
AHN (#)	12	180	~15x

	Fall 2008	Fall 2021	Change
UG Majors	157	987	~6.3x
Women (%)	10.8%	22.9%	~2.1x
AHN (%)	7.6%	18.8%	~2.5x

	Fall 2008	Fall 2021	Change
UG Majors	157	987	~6.3x
Women (%)	10.8%	22.9%	~2.1x
AHN (%)	7.6%	18.8%	~2.5x

Women at Mines: ~31.7%

URG at Mines: ~18%



What did **CS@Mines** do?



Q & A

All panelists



Wrap-up

Burçin Tamer

Reminders

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