

BPCNet: Get Support for the NSF Broadening Participation in Computing Plan Requirement

The National Science Foundation (NSF) is committed to addressing the lack of diversity in the computing workforce by encouraging practices and programs that focus on the underrepresentation of women of all racial/ethnic backgrounds (African Americans/Blacks, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, Native Pacific Islanders), and persons from economically disadvantaged backgrounds, and persons with disabilities. A [Broadening Participation in Computing \(BPC\)](#) plan should incorporate one or more of these groups, and/or another group underrepresented in computing, that is relevant to your local area (for example, rural populations).

As an NSF-funded BPC Alliance, NCWIT offers scalable, evaluated, and packaged programs and resources that CISE Principal Investigators (PIs) and their departments can engage with as plans for broadening participation in computing are developed.

CISE PIs can work with a dedicated NCWIT liaison for your BPC plans. Email bpcnet@ncwit.org with any questions.

Why Is Diversity Important for CS Research?

Technology should be developed by those who are as diverse as the population it serves. CS is missing out on innovative

thinkers, but you can make a difference by getting involved in recruiting and educating a new generation of researchers.

Read this [blog](#) to learn (or remind yourself) how BPC pertains to you and your field.

NCWIT Research You Can Learn From and Put Into Action Immediately

View a collection of packets [online](#).

NCWIT Programs You Can Get Involved In

- [Aspirations in Computing \(AiC\)](#)
- [Counselors For Computing \(C4C\)](#)
- [Extension Services](#)
- [TECHNOLOchicas](#)
- [Self-guided Course: Create a Recruitment or Retention Plan](#)

Aspirations in Computing (AiC)

[Aspirations in Computing \(AiC\)](#) encompasses a suite of programs that provides technical girls and women with ongoing engagement, visibility, and encouragement for their computing-related interests and achievements from high school through college and

into the workforce. AiC opportunities include awards for women in high school, college, and graduate school, as well as high school educators. An entire department can get involved, or individual students and faculty can volunteer for a number of opportunities.

AiC Award Application Reviews

CISE research teams can [volunteer to review AiC award applications](#) – thousands of which are received in the last quarter of each calendar year. Get inspired by the amazing accomplishments of high school, undergraduate, and graduate students interested in computing while giving back.

Departments do not need to have an NCWIT Academic Alliance membership in order for individuals to volunteer.

Time commitments vary per person (from one to 10+ hours).

Email bpcnet@ncwit.org for more information.

AiC Affiliate Award Events

CISE researchers can host or volunteer for AiC Affiliate Award events: view a map of 79 Regional Affiliates [online](#).

In order to participate, departments must have an NCWIT Academic Alliance (AA) membership. (Verify AA memberships [online](#). Not listed? Fill out an [AA membership form](#) to join more than 600 colleges and universities nationwide.)

Time commitments vary by region and level of involvement (from about 10 to 100 hours).

Email bpcnet@ncwit.org for more information.

AspireIT

By serving as an [AspireIT Partner Organization](#), you can host and

facilitate a local program that encourages young women to learn new skills and become technology innovators. [AspireIT](#) connects high school and college women from AiC with K-12 girls to create and enhance interest in computing. Using a near-peer model, AspireIT Leaders teach fundamentals in programming and computational thinking in fun, creative environments.

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Time commitments vary by level of involvement (from about 10 to 100 hours).

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AiC Noteworthy Outcomes

- **Ninety percent** of past high school AiC Award recipients report a major or minor in a STEM field – **82 percent in computer science or engineering.**
- Since 2013, more than 9,500 girls have received an estimated 295,000 instruction hours through 436 AspireIT programs in 43 states. AspireIT participants reported statistically significant increases over time for “Intent to Persist in Computing,” “Confidence in Computing,” and “Perceived Social Support for Computing.”
- **Eighty-six percent** of 2018 Collegiate Award recipients agreed that winning the award increased their commitment to pursuing a computer science degree in college.

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BPC plans. Email bpcnet@ncwit.org with any questions.

Counselors For Computing (C4C)

CISE researchers can host [Counselors for Computing \(C4C\)](#) events on their campus. C4C provides professional school counselors with information and resources they can use to support ALL students as they explore computer science education and careers. C4C conveys this information at workshops across the country, including high schools and college campuses.

C4C Noteworthy Outcome

In 2017, C4C staff and counselor consultants produced or presented at 52 events in 18 states, **reaching 4,477 counselors for a potential reach of 1,119,250 girls**. Nearly all counselors who attended events reported that C4C influenced their understanding of computing careers (91 percent).

“Being a change-maker, developing new opportunities for our students resonated with me and inspired me.” ~ C4C Participant

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Extension Services

[Extension Services \(ES\)](#) recommends research-based approaches and resources for increasing women’s participation in computing, helping departments achieve measurable results in the short term

and the long term. PIs can work with an ES consultant to develop a customized strategy that focuses on creating culture change within educational systems.

Time commitments vary by level of involvement (from about five to 20 hours).

Noteworthy Outcome

For 2012-16 ES clients who received customized consultation, new enrollments of **women grew by 75 percent** over four years, **outgrowing the increase in men**, which grew by only 38 percent.

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TECHNOLOchicas

Departments can host a TECHNOLOchicas event on campus, either for K-12 outreach or inreach at their college or university. [TECHNOLOchicas](#), co-produced with the Televisa Foundation, is a national initiative designed to raise awareness among young Latinas and their families about opportunities and careers in technology. Visit the [TECHNOLOchicas site](#) for videos, events, and resources for encouraging Latinas to pursue computing. More than 250 profiles of real-life, diverse Latinas in tech are available at technolochicas.org.

Time commitments vary by level of involvement (from about 20-25 hours).

Noteworthy Outcomes

- The TECHNOLOchicas campaign leverages **NCWIT resources, in both English and Spanish**, for engaging young women in computing.
- TECHNOLOchicas have participated in **more than 120 outreach events nationwide**, including appearances at local schools and public housing communities, conference presentations, CSEdWeek events, as well as events hosted by major tech corporations, including Apple and Microsoft.

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If you are a CISE PI with questions about NCWIT programs or resources, contact us at bpcnet@ncwit.org.

Self-guided Course: Create a Recruitment or Retention Plan

This [self-guided course](#) is designed for faculty and administrators who are beginning work on diversifying undergraduate computing programs or are trying to reignite existing initiatives. In this course, you will learn from NCWIT social scientists and from fellow faculty and administrators who have implemented successful initiatives. At the end of the course, you'll have a concrete plan for implementing doable recruitment and retention strategies, including some evaluation mechanisms.

Time commitment will vary by level of involvement (from about 12-40 hours).

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