

NCWIT (National Center for Women & Information Technology) has an extensive collection of research- and theory-based resources, as well as programs, to help you create an inclusive environment for students and faculty in your postsecondary computing program. All resources can be accessed for free online, and professionally designed print versions are available to NCWIT members at no cost.

## Take a systemic approach to change:

It can be hard to know where to start in trying to increase diversity in your computing program or on your faculty. Often, organizations resort to ad hoc interventions, but unfortunately, sporadic, random efforts are unlikely to succeed in creating lasting change. Instead, taking a systematic strategic approach and understanding the key levers for change will yield better results. The two resources below can help you take a more systemic approach, and one that is supported by social science research.

**NCWIT Systemic Change Model for Undergraduate Programs** Based on decades of social science research, this model shows the different areas of reform necessary for creating comprehensive change in undergraduate computing programs.

**NCWIT Engagement Practices Framework** is a compilation of inclusive pedagogical and curricular practices, including actionable tips for instructors at all levels.

## Join a Community of Practice:

NCWIT was started in part to give faculty and administrators a place to meet others interested in broadening participation in computing and to learn about what research has said will work to diversify who does computing.

**Higher Ed Alliance** The NCWIT Higher Ed Alliance was formed in 2004 and now is a coalition of more than 650 institutions of higher education working to increase the meaningful and influential participation of women, gender-queer and nonbinary people in computing. Any computing faculty or administrator can become the representative of your computing department. It is free to join and just needs chair approval. The Alliance provides community for you as a change agent, programs to participate in, and resources to support you as you create more inclusive environments for students, faculty, and staff.

**Email Discussion Group** The Higher Ed Alliance has a moderated email list where individuals post questions and hold important conversations about BPC with colleagues from around the country, to support a year-round “community of practice.”

**Learning Circles** To participate in a more targeted community of practice, considering applying to be part of a Learning Circle. These are small cohorts of 3-5 like institutions who are all working on BPC goals in their own departments, coached by an NCWIT social scientist.

## Evaluate your efforts:

Too often, departments spend time and funds doing interventions with only anecdotal data about whether these efforts were successful. Learn more about how to do evaluation, and find survey and interview instruments you can customize for your own evaluations.

**NCWIT Evaluation Tools** provide tips and tools to help you get started with your own evaluations.

## Encourage students to join the Aspirations in Computing community

Research has shown that external encouragement and multiple points of group support can combat experiences of not being included and the resulting sense of not belonging. Repeated messages of exclusion can put off prospective computer scientists. NCWIT has the Aspirations in Computing program to serve as an antidote to these negative experiences.

The **Aspirations in Computing Community** College students who identify as women, non-binary, or genderqueer, and are majoring or minoring in a computing or engineering discipline, can feel a part of a larger national community of over 20,000 individuals with a passion for technology by joining this virtual community. NCWIT's research has shown that the camaraderie and opportunities afforded by this community positively influence persistence in computing through higher education and into technical careers.

**NCWIT Collegiate Award** Aspirations Community members attending post-secondary institutions that are members of NCWIT's Higher Ed Alliance are eligible to apply for an award based on their computing accomplishments (with awards up to \$10,000).

## Learn more about research-based approaches to recruit and retain students in computing:

Often departments aren't sure how to get started, or faculty members aren't all at the same point of readiness to make change. Learning together can help to unify the department and galvanize change efforts. Below are three resources that can help lead you to making change as a unit.

**NCWIT 101: Introduction to Diversifying Undergraduate Computing Programs** is a self-guided course that addresses topics such as systemic change, recruiting students, retention and pedagogy, evaluation, and strategic planning. The modular design enables you to take the whole course, or select parts most relevant to you. Explore it on your own, or work through it with your group.

**Intersectionality in Tech 101** An intersectional approach recognizes that one's social location—oftentimes shaped by race, class, gender and other dimensions of who we are—creates multiple, interconnected identities and distinct experiences of power and lack of power. Use this resource to explore how these concepts apply to the work of broadening participation in computing.

**Pipeline-in-a-Box: Promoting Advancement of CS/IT Students from Two-Year to Four-Year Institutions** describes anticipated obstacles, maps a strategy for building a strong transfer relationship, and provides strategies, data, templates, posters, presentations, and additional resources.

## Visit [NCWIT.org](https://ncwit.org) for more resources, programs, and opportunities!