Departmental BPC Plan

University of North Carolina at Chapel Hill

BPCnet RESOURCE PORTAL

Verified On
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Effective dates of plan: January 2021-May 2023
Revision of plan will begin: August 2021
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Context

While the state as a whole is approximately 22% African-American and 15% Latinx, the University student population is only 12% African-American and 10% Latinx. Within Computer Science, the student population is only 6% African-American and 7.5% Latinx. Reducing this disparity between the state-level demographics and those of the university and then the computer science department within the university is central to our BPC mission.

As is the case in nearly all computer science departments, female students are underrepresented with respect to both state- and university-level demographics. This is especially the case for UNC which has an undergraduate population that is nearly 60% female. Currently, the computer science undergraduate population is 28% female which represents significant growth over the past 5 years and is a result of many of our current BPC activities and efforts but is still well short of reflecting the demographics of the general student population.

Goals and Activities

Goal: Meet with the Girls Who Code leaders twice a year to see if they have any needs from the department.

Activity: A student-run group hosts "Girls Who Code" 3 evenings each week. In the past, the group has reached out to the department to get resources and support. In the future, we hope to be more proactive in supporting them. (Ongoing; Day)

Goal: By 2022, have at least 20% of GE Girls' Camp participants be students whose parents or guardians do not have college degrees .

Activity: Each summer we host GE Girls' Camp, an interdisciplinary STEM camp for middle school female students. Students spend one week engaged in experiential STEM activities. The curriculum and funding are provided by GE, but the department is responsible for recruiting teaching staff. We will continue efforts to provide financial support to students who would otherwise not be able to participate. (Ongoing; External Relations team)

Goal: By Spring 2022, have at least 3 undergraduate students volunteer on an ongoing basis at a local middle school.

Activity: In 2021, we will begin working with Grey Culbreth Middle School, a Title I school, in which 6% of students identify as African American and 20% identify as Latinx. Continue building this relationship and identify opportunities for student volunteers. The volunteers will use the CS First curriculum. (Ongoing; Day)

Goal: Develop a transparent process for students to apply to be Learning Assistants (LAs) and have the representation among Black, Latinx, Indigenous, and women students among LAs match or exceed their representation in the undergraduate major population.

Activity: The department relies on undergraduate learning assistants (LAs) in order to provide one-on-one assistance and instructional support throughout our curriculum and specifically in our introductory course sequence. The LA program provides a unique opportunity to connect students further along in their course of study with students just beginning in the major. By actively recruiting women and under-represented groups as LAs through affinity groups (Day), we create highly-visible role models for younger students and mentorship opportunities. Elements of the LA program include: A 3-credit hour course called Effective Peer Teaching In Computer Science (Joseph-Nicholas). Students in this course learn about and discuss pedagogical issues and concepts such as goal motivation theory, implicit bias, micro-aggression, active learning, and others.

Students spend 10 hours per week serving as an LA as a practicum associated with the course. All LAs (and graduate student TAs) are required to attend a 3-hour workshop at the beginning of each semester to introduce and reinforce important best practices with regard to inclusive teaching practices. (Ongoing; Day, Jordan, McNichols)

Goal: By Spring 2021 begin tracking demographics of undergraduate researchers and by Spring 2023, have the demographics of undergraduate researchers match the demographics of the undergraduate major population.

Activity: Each fall faculty present research opportunities to interested undergrads who are matched. In Spring, there is a symposium to showcase undergraduate research outcomes from that academic year. Starting in Spring of 2021, we will administer a brief survey to have students self-report their research participation and their demographic data. These data will serve as baseline data and we will work with affinity groups to increase the representation of students underrepresented in computing because of their race, ethnicity, or gender. (Ongoing; Day, Mayer-Patel)

Goal: Send 40 students to diversity-focused computing conferences per year.

Activity: UNC CS sends a group of students to Grace Hopper and Tapia (in alternate years) to participate in these conferences. Since 2017, we've supported more than 150 students to attend the conference. (Ongoing; Day)

Goal: Increase Data Buddies responses by adding 10% to the number of respondents each year from 2021 to 2024.

Activity: UNC Computer Science participates in the Computing Research Association (CRA) Data Buddies project, which provides a customized report on how our students responded to a survey compared to students at structurally similar institutions. The survey considers factors such as the student's knowledge, confidence, interest, and sense of belonging in computing, as well as the student perceptions of the department. Every year, the faculty discuss the results from Data Buddies at a department meeting. In 2019, we had 770 undergraduate students respond and 92 graduate students respond. (Ongoing; Day)

Goal: Develop a sustainable plan to continue to host Maze Days annually. (Day & ER)

Activity: Maze Day is a community event, which is also a capstone event for Gary Bishop's Enabling Technology course Visually impaired students from around the state attend day-long activities. (Ongoing; Day)