Departmental BPC Plan: Paul G. Allen School of Computer Science & Engineering, University of Washington

Effective dates of Plan: 12/15/2021- 12/15/2023

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1. Context

The Allen School has had relative success with gender diversity (although we still have far to go): women are 32% of our undergraduate majors (Computer Engineering and Computer Science), 30% of our Ph.D. students, and 25% of our faculty. Surveys by Data Buddies and the UW Center for Evaluation & Research for STEM Equity reveal a high sense of inclusion among Allen School undergraduate majors and Ph.D. students: 85% and 94% respectively, "agree" or "strongly agree" with the statement "I feel included in the Allen School." We have not had as much success with other Historically Underrepresented Groups in computing (HUG).[1] In our surveys, for example, BHN (Black, Hispanic, and/or Native) students are less likely than others to have "found one or more communities or groups where I feel I belong" or "feel like I can be my authentic self."

The Allen School has a number of faculty and staff focused on student diversity, a commitment to broader faculty and staff diversity, a just-completed 5-year Strategic Plan for DEIA, and changes underway to improve the climate in our introductory course sequence.

2. Goals

The Allen School aims to create a diverse, inclusive and equitable community that celebrates and values differences among its members. Here, we focus on 6 "stretch goals" for the next 5 years:

G1. Increase the percentage of women at the undergraduate level by 10 percentage points
G2. Increase the percentage of domestic BHN undergraduates to the UW-Seattle average
G3. Retain women and BHN undergraduate students at rates similar to others
G4. Increase the percentage of women in the Ph.D. program by 10 percentage points
G5. Increase the percentage of domestic BHN Ph.D. students by 10 percentage points
G6. Retain women and BHN Ph.D. students at rates similar to others

3. Activities and Measurement

K-12 Outreach (G1, G2)
A1. Retarget summer camps to focus on BHN students and economically disadvantaged youth (Chloe Dolese Mandeville) The Allen School offers a variety of summer camps but they attract little diversity other than gender. We will improve diversity by partnering with groups working with our target populations, and increase culturally relevant content and pedagogy.

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[1] We define HUG to include BHN students, women, and persons with disabilities.

A2. Lab-in-a-box (Lauren Bricker) We will develop a set of "lab-in-a-box" materials: outreach/recruitment activities geared toward K-12 students in HUG that can be used in a range of outreach events such as the CS Open House, Discovery Days, and school visits.

A3. Allen School K-12 teacher professional development (Lauren Bricker) we will expand our professional development to Washington state K-12 teachers with a focus on inclusion.

Faculty are needed to develop curriculum, materials and activities, facilitate camps, contribute to teacher professional development and act as guest speakers for events.

Measurement: We will collect data on the level of engagement of the participants, their participation in other Allen School events, changes in their attitudes toward computing, influence on student college aspirations and applications, and the degree of involvement of faculty.

Undergraduate Recruitment (G1, G2)

A4. Deepen engagement with target secondary schools (Chloe Dolese Mandeville) Transitioning from "broad and shallow" to "targeted and deep," we are developing significant relationships with 5 partner high schools and their surrounding communities (chosen with diversity in mind). We expect to expand this activity to additional schools.

A5. Expanded on-campus recruitment efforts (Crystal Eney) We will increase on-campus recruitment efforts to attract "interest changers" who develop a passion for computing once they arrive at UW. We will continue offering events for introductory course students including the women's tea and HUG community conversations, and we will expand partnerships with UW campus units including the Office of Minority Affairs & Diversity, the Ethnic Cultural Center, and the Women's Center to attract students from traditionally underrepresented groups.

Faculty are needed to develop materials, participate in activities, and host lab visits.

Measurement: We will collect data on participants' levels of engagement, participation in other Allen School events and changes in attitude toward computing or college aspirations, the number of internal transfers, and the degree of involvement of Allen School faculty.

Graduate Student Recruitment and Retention (G3, G4, G5, G6)

A6. Expanded and coordinated undergraduate research activities (Maya Cakmak) We will increase research experiences for students in HUG from the Allen School, other departments at UW and other universities (e.g., through CRA's DREU program).

A7. Increased connections to organizations that are potential sources of graduate students in HUG (Les Sessoms) We will increase our involvement with programs such as GEM, QEM, CAHSI, IAAMCS, CRA-WP, NCWIT, Meyerhoff, Karsh, CMD-IT, Tapia, AccessComputing, etc.

A8. LEAP Alliance (Elise Dorough, Les Sessoms, Ed Lazowska) We will continue active participation in the LEAP Alliance and in-depth mentoring of LEAP Fellows.

Faculty are needed to host undergraduate students in their labs and contribute to group activities, steward relationships with DEIA-related organizations, and mentor LEAP Fellows.

Measurement: Disaggregated tracking of recruitment and retention rate across Ph.D. population.

Allen School faculty should consult the internal site *Allen School Guidance for Writing Broadening Participation in Computing Plans for NSF CISE Proposals*.