Departmental BPC Plan

Department of Computer Science

Yale University

Effective Dates of Plan: 10/29/2024 - 10/29/2026

Contact: Holly Rushmeier (holly.rushmeier@yale.edu), Climate and Diversity Chair



Context: While progress has been made at Yale under our first plan, the representation of students from URGs¹ and women continues to lag.

- -- In the period 2010-2019 (pre-pandemic statistics) 19.1% of students in the major were women compared to 49.5% in the Yale undergraduate population. In the most recent data released (2022-23) 34% of students in the major were women compared to 51% in the Yale undergraduate population.
- -- In the period 2010-2019 (pre-pandemic statistics)12.7% of students in the major were from URGs compared to 23.6% in the Yale undergraduate population. In the most recent data released (2022-23) 20% of students in the major were from URGs compared to 29% in the Yale undergraduate population.
- -- The terminal MS program has been nearly entirely international students and has typically included 20% to 30% women over the past 10 years. In the last two years the percentage of women has been 33.3% and 25.9%.
- -- Under 10% of our doctoral graduates and admitted doctoral students have been women and even fewer have been from URGs from 2016 through 2024.
- -- In 2020 and 2024, the representation of women among tenure track faculty rose from approximately 20% to approximately 25%. The representation of faculty from URGs is substantially lower.

At the undergraduate level, students apply to and are admitted to Yale College not to the Engineering School or the department. For undergraduates, the department must pursue efforts to improve the department climate to be inclusive. At the graduate and faculty levels the department must increase recruiting efforts to underrepresented groups.

Goals (G), Activities (A), and Measurement (M) (Contacts are listed in parentheses.)

- (G1) Each year, collect data and input about climate and inclusiveness in Yale computer science courses to increase representation and reduce attrition through the required core course sequence.
- (A1.1) (Contact: Lin Zhong) Update the best practices in teaching document originally developed by a BPC-focused faculty/student working group in the Spring and Summer of 2021.
- **(A1.2)** (Contact: Andre Wibisono) Encourage faculty to encourage students to complete Data Buddies survey to provide additional information about department inclusivity and areas that need improvement.
- (A1.3) (Contact: Lin Zhong) Continue to work with the CS Graduate Student Advisory Committee created in 2021 to report student concerns about the inclusivity of the climate to the faculty.

(M1.1) (Contact: Ted Kim) Obtain annual data from Yale Strategic Analysis group on the CS

¹ URGs is short for Underrepresented racial and ethnic Groups in Computing and includes students who identify as American Indian, Alaska Native, Black, African American, Hispanic, and Latino/a/x/e, Native Hawaiian, and/or Other Pacific Islander,

required course pipeline. Measure whether the rate of attrition for women and students from URGs through the core computer science sequence improves, with the goal that this rate is no different than that for students not in these groups.

- (M1.2) (Contact: Holly Rushmeier) Obtain Data Buddies and measure response rate. Since 2020 the number of responses has increased from less than 20 to over 300. Prepare a report of issues raised in the report regarding CS climate to report to the faculty.
- (G2) Each year, provide funding and support for women and students from URGs in computer science outside the classroom and to attend conferences to increase participation in the major.
- (A2.1) (Contact: Holly Rushmeier, Ted Kim) Every semester the department chair or DUS will meet with leaders from Computer Science related student groups such as the Yale National Society of Black Engineers (NSBE) chapter, Yale-WiCS, Yale ColorStack and Yale SHPE. These meetings will serve to help identify new opportunities for providing departmental support to students.
- (A2.2) (Contact: Holly Rushmeier) Continue funding women and students from URGs to attend conferences, and spearhead efforts to secure funding for this effort analogous to successful student proposal which the University now funds for Grace Hopper attendance.
- (A2.3) (Contact: Holly Rushmeier) Organize conference report sessions where students share their experiences attending events such as Tapia and Game Developers of Color.
- (M2.1) (Contact: Scott Peterson) Send out and collect assessment surveys to students attending relevant conferences. Establish a baseline for assessing year over year improvement.
- (G3) Increase representation of women and students from URGs in graduate program by 2028. (A3.1) (Contact: Lin Zhong) Hold information sessions for students from URGs identified and invited by Yale Graduate School.
- (A3.2) (Contact: Holly Rushmeier) Promote Yale's ASCEND program with CS faculty to increase funded partnerships with faculty from HBCUs.
- **(M3.1)** (Contact: Lin Zhong) Collect data on applications, admissions and matriculations in the graduate program to compare year over year improvement.
- (G4) Increase representation of women and people from URGs on the faculty by 2028.
- (A4.1) (Contact: Holly Rushmeier) Contact women and candidates from URGs drawing from lists such as Rising Stars and CI fellows and encourage them to apply.
- (A4.2) (Contact: Holly Rushmeier) Post notices of faculty opportunities to boards/mailing lists for groups such as Black in AI, Latinx in AI and Women in ML.
- (A4.3) (Contact: Ted Kim) Invite "Rising Stars" participants who identify as women or are from URGs to give seminars in the department throughout the year to raise their visibility.
- **(M4.1)** (Contact: Ted Kim) Collect data on applications, short list, offers and acceptances with demographic information included to compare year over year improvement.