Departmental BPC Plan Computer Science Purdue University



Effective dates of Plan: 01/03/2025 – 01/03/2027 **Contact**: Bedrich Benes & Ninghui Li, Associate Heads,

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1. Context

Purdue University is a public land-grant research university in West Lafayette, Indiana, and the flagship campus of the Purdue University system. As of fall 2023, approximately 24% of all Purdue undergraduates self-identify as women, and approximately 12% identify as persons from historically underrepresented racial and ethnic groups (URGs, this group includes American Indian or Alaska Native, Black or African American, Hispanic or Latino, or Native Hawaiian/Other Pacific Islander).

	Undergraduate	Undergraduate Students		Graduate Students	
	Women	URG	Women	URGs	
Purdue CS 2022-2023	24.0%	6.0%	19.1%	1.8%	
National Average	29.5%	20.0%	25.2%	4.4%	
per the Taulbee survey 2023					

Purdue's Department of Computer Science has a student representation that is slightly below the national average for women at the undergraduate level but significantly below average for students from URGs. The representation of women and URGs in our student population at the graduate level is lower than the national average. Purdue CS is not directly involved in the undergraduate admissions process, but the department does handle graduate admissions.

2. Goals

G1: Increase representation (our target is 1-2% in each of the two years of the plan) of people who identify as women and/or as a member of a URG in our undergraduate and graduate population via, for example, scholarship and outreach activities

G2: Increase participation of high school students who identify as women and/or as a member of a URG in Purdue's Computer Science summer experiences for high-school students by 2-4% in each year of the plan.

G3: We have created and implemented a training program for teaching assistants (undergraduate and graduate level) focusing on diversity, equity, and inclusion, where 90% of teaching assistants have been trained on DEI. We plan to maintain this number.

G4: Create and implement (by fall 2027) a training program for faculty and staff to move them from awareness to allies in creating a more inclusive environment inside and outside the classroom. At least 75% of faculty and staff will be trained on DEI by the end of 2027.

G5: Develop and implement a longitudinal data research project to analyze undergraduate course enrollment and concentration demographic trends to inform future representation goals by the end of 2027.

3. Activities and Measurement

A1: Pipeline Program (G1) We will expand our participation in Purdue's College of Science Emerging Leaders Science Scholars (ELSS) program, which mentors students from URGs at Purdue to help them transition to college and improve attrition. We will do this by the end of 2027. Measured by the number of ELSS participants and students from URGs in our CS program. Contact point: P. Drineas.

A2: Bridge Program (G1, G2) We will expand our Bridge Program for women and students from URGs. (i) We will work towards efficiently communicating the program to the groups as mentioned earlier using personal communications (phone calls, online meetings, etc.) (ii) We will try to understand mitigating circumstances that prevent participation in the program by the aforementioned groups. (iii) We will work towards securing additional funding from within the department and the college. Expansion will be completed by the end of the BPC plan. This will be measured by the number of women and students from URGs participating in the program and the amount of additional funding secured. Contact point: N. Li.

A3: K-12 Outreach (G1, G2) We refilled the vacant CS K-12 outreach specialist position. The K-12 outreach will expand access to CS education across Indiana, focusing on URGs. Through partnerships with schools, community organizations, and programs for educators, we will host workshops, develop curriculum-aligned resources, and leverage initiatives like Mindset Mondays to foster a growth mindset in computing education. We will measure its impact by the number of developed activities and impacted teachers. Contact point: J. Brewer.

A4: Faculty and Staff Training (G4) Develop a program for faculty and staff to increase BPC awareness. (i) Increase participation of faculty and staff to workshops and Brightspace training modules offered by the Center for Intercultural Learning, Mentorship, Assessment and Research (CILMAR); (ii) organize BPC discussions at faculty meetings, coupled with visits and presentations from the Office of the Vice Provost for Diversity and Inclusion. Measured by the number of training sessions attended by faculty and staff, the number of BPC-related workshops and visits, and evaluated via survey questions as part of the data collection process in A7. The program will be active for the duration of this plan. Contact point: M. Shively and J. Richards.

A5: TA Training (G3) We will work with both undergraduate and graduate students to (i) Develop a training module for undergrad and grad TAs (UTA and GTA) to increase BPC awareness; (ii) We will seek student input via townhalls and surveys to identify areas of improvement in our UTA/GTA training. (iii) We will review the current UTA and GTA selection process to address inconsistencies regarding UTA/GTA skills to BPC. Measured via the data collection process in A8; to be finalized by the end of the BPC plan. Contact point: M. Shively.

A6: Awareness (G3, G4) Visually promote inclusion in CS: (i) A "CS is for everybody" permanent but changing display inside the lobby area in Lawson, featuring individuals from past and present who are part of URGs. (ii) Stage formal/informal showings of material on the screens in the Lawson Commons, such as the films "Coded Bias" and "Picture a Scientist." *Measured by the implementation of the above by the end of 2026. Contact point: B. Benes.*

A8: Data collection (G5) We will collect yearly data to understand and analyze undergraduate course enrollment and demographic trends to identify potential bottlenecks in increasing the representation of women and students from URGs in our student population and retention statistics. *Measurement will be a survey designed in the 2025-2026 academic year and implemented in 2026-2027. Contact point: J. Richards.*