

**Departmental BPC Plan
Khoury College of Computer Sciences
Northeastern University**



Effective dates of plan: 10/18/2024 - 10/18/2026

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1. Context

Khoury College of Computer Sciences, Northeastern University (NU) offers degree and certificate programs in computer science, data science, cybersecurity, and interdisciplinary programs linked with other NU colleges. As of Fall 2023, Khoury College enrolled 7784 total students (3462 UGs, 4063 MS or graduate certificate students, and 269 PhD students) and employed 173 full-time faculty. The college runs undergraduate, MS, and PhD programs at the main Boston campus and educates MS and graduate certificate students at seven of the university’s twelve other campuses.

The college’s mission is *CS for Everyone*, *CS for Society*, and our BPC plan is an integral component. The college has a history of education and outreach activities designed to increase participation of students from underrepresented groups (BIPOC students, defined in “Notes” below, and women). Recent increases have been seen in women UG and MS students due to Combined Majors and the innovative Align MS program. As of Fall 2023, 52% of our 3462 UGs were pursuing a combined major and 45% of those students were women. This surpasses 2022 IPEDS data, indicating 23% of U.S. computing graduates were women. The Align MS program (a subset of our MS students) enrolled a total of 2299 students: 6% are BIPOC, and 54% are women. Most recent NCES data (AY2021-2022) indicated 34% of MS graduates in Computer Sciences were women . While our progress is encouraging, college-wide statistics (tables below) reveal opportunities for higher rates of participation for women in CS-only undergraduate degrees, MS, and PhD programs and for BIPOC students in all programs.

Khoury College of Computer Sciences UG Demographics	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Women	30%	32%	35%	36%
Men	70%	68%	65%	64%
Unknown or Non-Binary	< 5%	< 5%	< 5%	< 5%

Khoury College of Computer Sciences UG Demographics	Fall 2020	Fall 2021	Fall 2022	Fall 2023
BIPOC	15%	18%	18%	18%
Non-Bipoc	85%	82%	82%	82%

Khoury College of Computer Sciences MS & Certificate Demographics	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Women	42%	42%	42%	42%
Men	58%	57%	58%	57%
Unknown or Non-Binary	< 5%	< 5%	< 5%	< 5%

Khoury College of Computer Sciences MS & Certificate Demographics	Fall 2020	Fall 2021	Fall 2022	Fall 2023
BIPOC	6%	5%	< 5%	< 5%
Non-Bipoc	94%	95%	95%	96%

Khoury College of Computer Sciences PhD Demographics	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Women	23%	25%	27%	31%
Men	77%	75%	72%	68%
Unknown or Non-Binary			< 5%	< 5%

Khoury College of Computer Sciences PhD Demographics	Fall 2020	Fall 2021	Fall 2022	Fall 2023
BIPOC	< 5%	5%	7%	8%
Non-Bipoc	97%	95%	93%	92%

Notes: (a) Values indicated by <5% are not specified to protect the confidentiality of individuals summarized in the data. (b) We define BIPOC as Black, Indigenous, and people of color, which includes people who identify as Hispanic, Pacific Islander, and multiple of these ethnic and racial identities.

2. Goals

This Khoury College plan lays out a two-year roadmap for faculty participation in BPC efforts. We are committed to addressing the current underrepresentation of women and BIPOC students in CS and related disciplines. Our overall framework is evaluation to action, emphasizing data collection and dissemination combined with innovation and improved program implementation. BPC goals, activities, and evaluation, which are explicitly linked to the Dean’s strategic plan for DEIAB, will enable faculty to meaningfully meet NSF expectations for BPC and at the same time contribute to the college’s inclusive mission.

G1: Faculty, supported by key staff, will (a) design a comprehensive plan to collect, track, and internally disseminate BPC data (i.e., student demographics and information about BPC initiatives) and (b) analyze programmatic factors correlated with BPC increases to apply to targeted programs, by Fall 2026.

G2: Each year, at least 30% of full-time faculty will create or contribute to key college BPC activities, outlined in activities (below) and in an internal repository of activities maintained by the BPC advisory committee, to increase participation and engagement of women and BIPOC students in all Khoury degree programs.

3. Activities

A1 (G1, G2): Participate in an advisory committee of faculty, staff, and students to guide evaluation related to college BPC activities, assessment of BPC programming, and development of BPC best practices for the college. (Khoury DEI Director)

A2 (G1): Survey of all faculty across the network of campuses to share their participation in broadening participation and DEIAB activities. (Andrea Stith)

A3 (G1): Create mechanism for consolidating and tracking BPC data and establish a data repository accessible to faculty and key staff. (Khoury Director of DEI)

A4 (G1): To disseminate BPC data, collaborate with college leadership (dean, etc.) to create college-wide communication on DEIAB activities and BPC impact, such as a Town Hall or Dean's State of the College (Beth Mynatt and Mary French), or a college-wide activity across all network campuses. (Khoury Director of DEI)

A5 (G2): Design and implement learning activity or experience for faculty to increase awareness and effectiveness of research mentoring methods related to diversity, inclusion, and broadening participation. (Ben Hescott and Ariel Hamlin)

A6 (G2): Design and implement activities to broaden undergraduate participation and engagement (see repository of related activities, such as Combined Majors, student clubs, and K-12 pipeline such as NU's SMASH academy). (Khoury Faculty and Director of DEI)

A7 (G2): Design and implement professional development activities and experiences to raise PhD students' awareness of inclusive mentoring and broadening participation practices and prepare them to provide BPC leadership in CS careers, including industry, academia, non-profits, and government (see repository for activities, such as journal club and PhD mentoring series). (Kellie Melchin)

4. Evaluation

Progress toward our two BPC goals will be assessed by tracking, evaluating, and communicating results of the activities described above (A1-8). There will be reports to College Leadership three times per year of progress of the BPC advisory committee (Khoury Director of DEI); data collection, tracking, and dissemination planning and implementation (Khoury Director of DEI); the survey of faculty participation in broadening participation activities (Andrea Stith); and preparing the Dean's annual communication to the college on DEIAB progress and BPC impact (Mary French). In addition, tracking each semester (fall, winter, summer) will collect data on the number and demographics of students reached by BPC activities and will track the number and demographics of student enrollments in Khoury college, Northeastern University and national data. (Sarah Maravetz)