Departmental BPC Plan

Department of Computer Science
The University of Iowa

Effective dates of Plan: 02/02/2024 - 02/02/2026

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1. Context

The University of Iowa, established in 1847, is an R1 university, one of three public universities in the State that share a common Board of Regents. It has 31,452 students enrolled as of Fall 2023, with 22,130 undergraduate, 6,079 graduate, 1,883 pre-professional (Doctorate), and 1,410 post-graduate training students.

The Department of Computer Science hosts two undergraduate majors on its own (there are two others offered jointly) and one graduate program offering Master's and Ph.D. degrees. As of the Fall of 2023, the computer science undergraduate major has 506 students, the informatics undergraduate major 101, and the computer science graduate program 88 (students generally settle on a major sometime during year 2, although changes are common through the beginning of year 3). The department has 22 faculty members with a primary appointment in the department (3 in the instructional track, 1 Emeritus, the remaining tenure-track)

We conducted a review comparing demographic information from the state of Iowa (2022 US Census Bureau Estimates), the University, each of our majors, comparable majors from other US institutions based on the 2022 Taulbee survey, and our faculty. Based on our review the area where our department could most improve is in terms of the participation of women in the computer science major. See the table below for a selected set of the data. Other underrepresented groups in computing (including Black or African American, Hispanic or Latino, American Indian or Alaska Native, Native Hawaiian or Pacific Islander, and persons with disabilities) have representations near or above state and university levels.

Percentage	State of Iowa	University of Iowa	CS ugrad (USA)	CS ugrad (U of Iowa)	Informatics ugrad (USA)	Informatics ugrad (U of Iowa)
Male	50.2	45.0	72.98	82.7	72.42	69.3
Female	50.49.8	55.5	21.21	16.1	27.44	30.7
Sex/Gender Unknown/Nonbinary	Not Available	Not available	5.8	1.0	0.13	0
White (not Hispanic or Latino)	89.5	74.9	29.72	54.7	40.2	40.9
Hispanic or Latino	6.9	7.9	10.26	10.2	12.3	15.9
Black or African American	4.4	3.0	4.61	4.13	8.21	6.81
Asian	2.8	5.0	23.71	14.2	18.44	19.3
American Indian or Alaska Native	0.6	0.1	0.16	0.20	0.17	0
Native Hawaiian or Pacific Islander	0.2	0.1	0.08	0	0.09	0
Two or more races	2.2	3.3	3.24	6.30	3.75	9.1
Race/Ethnicity Unknown	N/A	Not available	18.64	4.33	9.36	3.40

| International | N/A | 5.5 | 9.59 | 5.71 | 7.48 | 5.7 |

2. Goals and Future Plans

Our current goals, given the contextual data we gathered are to:

1. Continue collecting and analyzing recruitment, retention, and outcome data by gender, race, and ethnicity for the CS and Informatics undergraduate major each year.
2. Continue gathering data on individual and project-related BPC activities from faculty each year.

Our future plans are to focus on:

1. Increase the enrollment of women in the CS undergraduate major to the current national average, 21.21%, by the Fall semester of 2026.
2. Maintain the enrollment of students from underrepresented groups in computingat a level near or above the University's undergraduate enrollment.
3. Eliminate disparities that may exist in outcomes for students in our programs across these underrepresented groups.
4. Increasing participation of our faculty in BPC activities.

3. Activities and Evaluation

To achieve these goals, we will begin by developing a sustainable process to set, implement, and evaluate our BPC goals, activities, and performance evaluation criteria. We will re-evaluate this process every semester (first two years) and then annually. Our BPC goals and plan will be informed by the following initial activities:

(1) Develop and maintain a sustainable process to ensure that relevant data across underrepresented groups is collected and stored for easy access every semester including:
  (a) Expressions of interest in computing education at application time
  (b) Enrollment
  (c) Performance in departmental courses (starting with key ones)
  (d) Retention
  (e) Graduation
  (f) Employment (including internships)
  Re-evaluate this process every semester.
  Addresses goal 1. Responsible party: DEO, Juan Pablo Hourcade.
  Measurement: Which of the above data are collected and changes to process made each year.

(2) Participate in the *Data Buddies* departmental climate survey and review data annually.
  Addresses goal 1. Responsible party: DEO, Juan Pablo Hourcade.
  Measurement: Number of survey respondents.

(3) Study data collected under activities (1-2) every semester to identify recruitment problems, retention after each computer science course, and outcomes for women.
  Addresses goal 1. Responsible party: Undergraduate committee.
  Measurement: Recruitment and retention problems identified.

(4) Develop a sustainable process to record data with easy access about proposed and ongoing department and faculty activities pertaining to BPC goals.
  Addresses goal 2. Responsible party: Padmini Srinivasan.
  Measurement: Number of survey respondents.

(5) Analyze BPC goals and activities at annual full faculty, departmental retreat and present most recent data from activities (1-4) at one spring semester faculty meeting.
  Addresses goals 1 and 2. Responsible party: DEO.
  Measurement: Feedback from faculty and dates of presentation.