

Departmental BPC Plan

International Computer Science Institute (ICSI)



Effective Dates of Plan: 09/26/2022- 09/26/2024

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1. Context

- This plan is intended to be a resource for ICSI PIs as they develop individual project-specific BPC plans. Activities around ICSI-internal efforts should be coordinated with the IDEA Working Group¹.
- ICSI is an independent non-profit research institute. Many ICSI researchers hold joint appointments with universities, government labs, and industry, and we often employ university students. We disaggregate data by job title (research directors, research scientists, postdocs, grad students, and undergraduate students) and by race, ethnicity, and gender. Because the total number of people is small (56), we do not report those statistics here to preserve privacy. Overall, ICSI is around 25% women and around 10% Black, African-American, Hispanic, Latino, and/or American Indian.

2. Goals

- *G1:* Annually aggregate demographics of 100% of ICSI employees and at least 50% of affiliated research contributors working on ICSI projects, to enable tracking of recruitment and retention of researchers from under-represented groups (URGs)².
- *G2:* By 2024, measure and increase by 50% the number of researchers who seek to recruit students and other research personnel via channels that are likely to reach more URGs. Assess effectiveness of current recruiting efforts, and expand methods.
- *G3:* Gather relevant data and set goals for retention (at ICSI) and career advancement (at ICSI and afterwards) of research staff from URGs. Develop targeted plans (to be included in the 2024-2026 Departmental BPC Plan) to support career success of researchers from URGs.
- *G4:* Measure and increase the number of ICSI research staff members participating in Broadening Participation in Computing (BPC) activities (within ICSI and/or externally) by 25% by 2024.

3. Activities and Measurement

Tracking Demographics

- *A1:* Set up a database for tracking demographics of all ICSI employees, as well as non-employees working on ICSI projects, e.g. undergrads receiving independent study credit.³ Use data to provide reports to IDEA Working Group and ICSI Board on trends in ICSI community demographics.³
Measurement: % of employees and others working on ICSI projects tracked in database within one month of their starting at ICSI. (G1; Contacts: Tschantz, Kreibich)

Increasing Recruitment of Researchers from URGs

- *A2:* Create, maintain, and expand a list of contacts and links that ICSI PIs can use to recruit graduate and undergrad RAs, postdocs, and technical specialists, focusing on channels likely to reach URGs. Circulate at least 3 times/year. Compile best practices and resources for attracting candidates from URGs. *Measurement:* # of times list is circulated. (G2; Interim Contact: Bernd)
- *A3:* Collect data biannually on PIs' use of suggested channels for expanded recruitment. *Measurement:* # of surveys of PIs about recruitment; # of researchers using channels. (G2; Interim Contact: Bernd)
- *A4:* Recruit through programs that aim to support research experiences for undergraduates from underrepresented groups (such as DREU and exploreCSR), and provide mentorship within those programs, applying best practices recommended by CRA and NCWIT.³ *Measurement:* # of PIs

¹ Inclusion, Diversity, Equity, and Accessibility ("IDEA"). (To get involved, contact bpinfo@icsi.berkeley.edu.)

² In this Plan, "Under-Represented Groups" refers to groups included in the NSF's focused BPC initiatives: women; people who identify as American Indian/Native American, Alaska Native, Black/African American, Hispanic/Latino, Native Hawaiian, or Pacific Islander; and people with disabilities. Some activities in this plan may begin by determining which specific groups we can most effectively focus on.

³ Some aspects of this activity require working with the ICSI admin team, so may be dependent on their availability.

recruiting through these programs; # of and demographics of students participating; feedback from those programs' regular evaluation efforts. (G2; Interim Contact: Bernd)

Assessing and Improving Career Supports for Researchers from URGs

- A5: Gather available historical data on career paths of employees and students and their advancement towards PI status within ICSI, including proposal submissions, as well as career paths post-ICSI employment.³ Evaluate whether researchers from URGs and researchers who aren't from URGs have similar trajectories. Work with HR and IDEA WG to set specific targets to improve retention, proposal submission, and career advancement. *Measurement:* Report to IDEA WG by 2024; targets reflected in 2024-26 BPC Plan. (G3; Interim Contacts: Kreibich, Tschantz)
- A6: Create a database for tracking career paths within and after ICSI (in future); implement a process for regularly contacting former employees, visiting scholars, and students to gather relevant information; contact ICSI alumni to collect data.³ *Measurement:* % of employees (etc.) contacted or tracked by 2024. (G3; Interim Contacts: Kreibich, Wolkenhauer, Caskey)
- A7: Review research on institutional factors that support persistence in CS/STEM careers by researchers from URGs and identify factors most relevant to ICSI, including effective strategies and metrics for success. In the 2024-2026 Departmental BPC Plan, chart steps to measure and improve levels of support in those areas, for example via mentorships or affinity groups. *Measurement:* Targets and relevant planned activities reflected in 2024-26 BPC Plan. (G2, G3; Contact: Bernd)

Expanding BPC Awareness and Participation

- A8: Conduct a biannual survey to identify BPC activities that ICSI community members currently or recently engage(d) in, plus similar activities at our affiliated university, UC Berkeley. Disseminate BPC activity lists (with contacts) at least 3 times/year and encourage participation in those activities by ICSI research staff and other community members, especially in coordinated activities. *Measurement:* # of surveys conducted and analyzed; # of outreach efforts broadcast. (G2, G4; Contact: Bernd)
- A9: Identify and contact existing CS programs in the Bay Area that work with elementary, middle, and high school students from URGs (including ones that ICSI researchers already participate in). Work with programs and/or schools to identify how individual ICSI project resources and researchers can be (more) useful. Create a small campaign at ICSI to promote volunteering for these programs and/or schools; regularly solicit and incorporate feedback from program directors and school staff. *Measurement:* # of ICSI researchers participating; # of students reached; feedback from programs. (G4; Contacts: Wijesekera, Crnkovich)
- A10: Volunteer for Bay Area CS programs for elementary, middle, and high school students from URGs, such as those identified in A9. *Measurement:* See A9. (G4; Contacts: Wijesekera, Bernd)
- A11: Design and implement a mentorship program where ICSI researchers can be paired with elementary, middle, and high school students from URGs.³ Build an ICSI blueprint for future mentorship activities with other schools, based on feedback. *Measurement:* # of ICSI researchers participating; # of mentees; blueprint established. (G2, G4; Contact: Wijesekera)

Building Collaborations Towards BPC (Cross-Goal)

- A12: Develop long-term partnerships with minority-serving institutions, for example building on existing contacts of ICSI research staff, to facilitate new collaborations and create pipelines for open positions. *Measurement:* # of activities, projects, or programs held with partners (G2, G4; Interim Contact: Shanley)
- A13: Work with NCWIT to instigate and organize a learning circle with people from similar research institutes about how small research institutes can best support BPC goals (including what metrics for success are most appropriate). Participate and contribute to learning and discussions. *Measurement:* # of ICSI community members participating. (G2, G3, G4; Contact: Shanley, Kreibich)