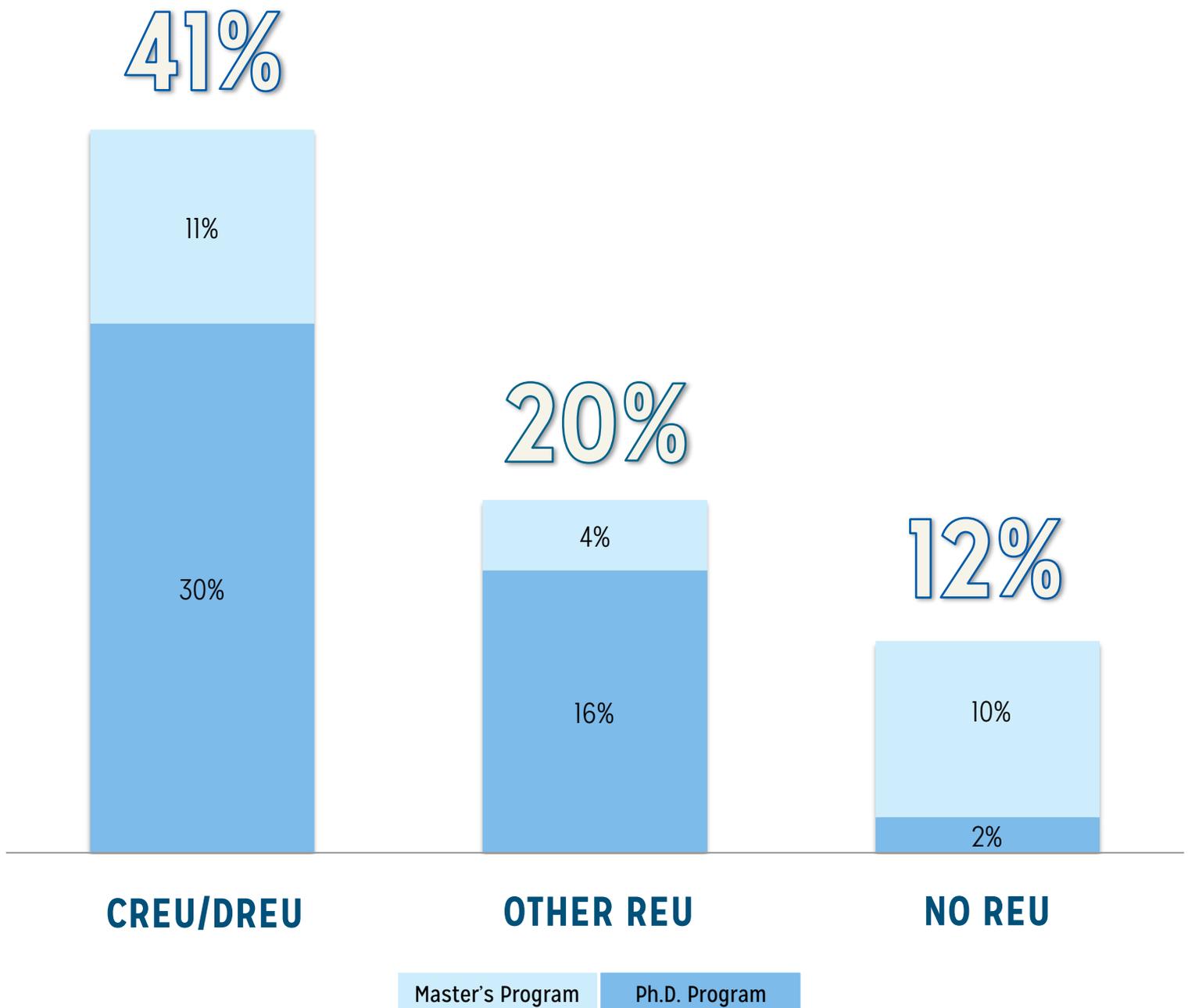


REUs & Graduate School Attendance Rates

Author: Burçin Tamer, Center for Evaluating the Research Pipeline (CERP), 2015

Twice as many of CREU/DREU students attend graduate school compared to other REU students



Data were collected from a sample of undergraduate students in computing programs during the final semester of their undergraduate career, including students who had participated in CRA-W/CDC REUs (CREU and DREU). CREU/DREU participants were significantly more likely to be attending a graduate program in computing in the upcoming fall, compared to students who had completed a different REU or No REU during college, $p < .05$. Furthermore, CREU/DREU students were also more likely to be entering a Ph.D. program compared to students with other REU experiences, or No REU experience, $p < .05$.

REUs & Graduate School Attendance Rates: Analytic Method

Author: Burçin Tamer, Center for Evaluating the Research Pipeline (CERP), 2015

About CREU and DREU

Collaborative Research Experiences for Undergraduates (CREU) and Distributed Research Experiences for Undergraduates (DREU) are REU programs run the by CRA-W/CDC Alliance.

Data

This analysis examines survey data collected during spring semesters of 2011 through 2015. Respondents were undergraduate students in computing fields completing their final year in college. Students were grouped based on prior participation in undergraduate research programs: CREU/DREU, Other REU program(s), or No REU. Students in the latter two groups were matched to CREU/DREU students based on their background characteristics using nearest neighbor 1-to-1 *propensity score matching*.

Propensity score matching uses a set of background variables, preselected by the researcher(s), to assign a score to each observation that summarizes their background characteristics. Then, it identifies the most similar student from the comparison group(s) for each of the students in the CREU/DREU group. In this analysis, students were matched on gender, race, institution type, and parents' highest education level.

Table 1 shows the number of students in each group in the initial (unmatched) sample and after matching. Students included in these numbers are only men of underrepresented racial minority, and women (URMW), because CREU and DREU are only offered to URMW students.

Table 1. Unmatched and matched samples

	Unmatched sample	Matched sample
CREU (n = 43) + DREU (n = 55)	98	98
Other REU	164	98
No REU	261	98

Note. Sample sizes are observations that have data for all of the variables included in the current analyses.

Analysis

The matched samples were analyzed in two groups: CREU/DREU vs. Other REU students and CREU/DREU vs. No REU students. Students were compared on whether they were (a) attending graduate school in the upcoming fall, and (b) whether they were specifically pursuing a Ph.D. program, using *Chi-squared tests*. The differences between the CREU/DREU students and each of the other comparison groups were significantly different, $p < .05$. The percentage of students planning to attend graduate school in the fall, and the type of degrees they plan to pursue, are illustrated in the graphic associated with this report.

About CERP

This report is a product of The Computing Research Association's (CRA) Center for Evaluating the Research Pipeline (CERP). CERP strives to inform the computing community about patterns of entry, subjective experiences, persistence, and success among underrepresented individuals involved in academic programs and careers related to computing.

For more information about CERP, visit <http://cra.org/cerp/>



CERP

Computing Research
Association
Evaluation