STAIRSTEP: Attracting, Retaining and Transitioning Students one STEP at a Time

Peggy Doerschuk, Cristian Bahrim, Jennifer Daniel, Joseph Kruger, Judith Mann, Christopher Martin

Abstract

The STudents Advancing through Involvement in Research Student Talent Expansion Program (STAIRSTEP) is designed to increase the number of students receiving baccalaureate degrees in science. This NSF sponsored project supports small teams of students directed by a faculty mentor in each of five disciplines: Computer Science (CS), Chemistry (CH), Earth and Space Science (ESS), Mathematics (MA), and Physics (PH). Each team works on a research project and participates in local recruiting events to increase interest in STAIRSTEP and Science, Technology, Engineering, and Mathematics (STEM) in general.

We are far exceeding our goal of retaining 70% of STAIRSTEP participants in their majors, with 91.04% retained (61 out of 67 participants) as CH, CS, ESS, MA, and PH majors as of August, 2012. At 83.3%, we are slightly exceeding our goal of transitioning at least 80% of graduating STAIRSTEP participants to graduate study or careers in STEM within 6 months of graduation. STAIRSTEP students have attained higher GPAs and lower drop in their major courses versus cohorts of students majoring in those disciplines in the three years prior to the grant. Students report that participation in STAIRSTEP has had a significant positive affect on their professional growth.

From fall of 2008 to fall of 2012, First Time in College enrollments in the five STAIRSTEP disciplines increased 97%. The number of majors in STAIRSTEP departments increased 51%. These are good indicators that we are making good progress towards our goal of increasing the number of students receiving baccalaureate degrees in our disciplines.