

# Attracting Students into Science: Mentor for a Summer Student Research Program for Community College Students

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Mentor rating of student progress as scientist-in-training

RECCS cohorts 2018-2020 (n=41)

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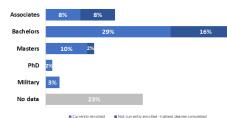
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The Research Experience for Community College Students (RECCS) is a 9-week paid internship that pairs community college students with research mentors and authentic research experiences in environmental and geosciences. The RECCS program aims to increase **students' persistence in STEM disciplines** (Science, Technology, Engineering, and Math), and develop a more **diverse geoscience workforce**. Students learn basic research, writing, and communication skills, and they present their research at a local student science symposium. RECCS will be entering its ninth year this summer.

## Why mentor a RECCS student?

Colorado is home to more than 100,000 community college students at 15 institutions. These institutions often serve racially or ethnically diverse groups, as well as firstgeneration college attendees. Providing an authentic research experience for community college students serves to develop a more diverse geoscience workforce and builds motivation for students to transfer to a geoscience field of study at a 4-year institution. Undergraduates who participate in a research experience are more likely to pursue additional research experiences or to enroll in graduate school than those who don't have this opportunity.

#### RECCS Alumni Persistence in 4-year Degree and Beyond (n=62)



**RECCS** applicant demographics

"I [used] to think to go for a Bachelor was not meant to be for me. The more I conquer in my education, the more I find people that look like me and listen to stories that I can relate to my life. I can say I now believe I will not only graduate but also, I can get a Masters or even a Doctor in the field."

2021

**Total Applicants** 

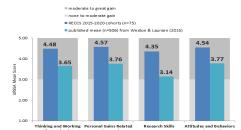
2022

2023

### Student Impact

Mentors have a tremendous opportunity to impact student growth when the research experience is scaffolded with professional development, reflection on the research experience, and supported by peers. RECCS mentors highly rate student progress as scientists-in-training. Additionally, RECCS students have shown greater self-reported gains than other undergraduate researchers in understanding the process of science, research skills, attitudes such as feelings of efficacy and belonging, and personal gains like confidence in their ability to do research.

Students' self-reported gains on URSSA



"RECCS program not only improved my research experience, but it also gave me an opportunity to learn how to communicate with my peers and mentors. I gained communication skills, independent research skills, creating scatter plots, which were very difficult for me in the beginning of my project, and making a professional poster as well"



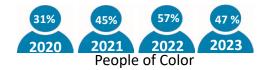
"Definitely working with my mentor was life changing and so incredibly valuable..."

References:

CRITICAL ZONE OBSERVATORIES

- Hunter, Anne-Barrie, et al. 2009. URSSA: Evaluating Student Gains from Undergraduate Research in the Sciences. *Council on Undergraduate Research Quarterly*. V29 (3): 15-19.
- Weston, Timothy J. & Laursen, Sandra L. 2015. The Undergraduate Research Student Self-Assessment (URSSA): Validation for Use in Program Evaluation. CBE Life Science Education. Sept 3; 14(3): ar33.

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