

Benefits of Mentorship on Engineering/Computer Science Degree Completion www.caldstatela.edu/ecst/caps

2021 Virtual S-STEM Fall Forum



Culturally Adaptive Pathway to Success (CAPS)

Eun-Young Elaine Kang (PI) Matthew Jackson (Co-PI) Jane Dong (Co-PI) Emily Allen (Co-PI) California State University, Los Angeles (Cal State LA)

This project is supported by the National Science Foundation grant (Grant No. 1742614) All findings and opinions are those of the authors, not necessarily of the funding agency or AAAS.

Project Overview

- Accelerate the graduation for academically talented, low-income students in engineering and computer science majors at California State University, Los Angeles (Cal State LA)
- Supports 2 cohorts of scholars from their sophomore to senior years.
- Aims to achieve
 - 90% of scholars persist in engineering or computer science majors
 - 50% graduate within 5 years
 - and an additional 40% graduate within 6 years





Best Practices/Successes

Three Integrated Interventions & CAPS Research

Mentor+

mentor training and individual advisement meetings

Peer cohorts

Cohort Gatherings (By major and By cohort year) and Sophomore Learning Cluster

Professional development with difference-education Field Trips, Seminars (reflection essay), Professional Conference

CAPS Research

- how these interventions affect the development of social belonging and engineering identity of CAPS scholars
- the impact of Mentor+ on academic resilience and progress to degree.

both qualitative and quantitative data collections from focus group meetings, An online survey after completion of each project year, and academic records





Impacts/Implications

- Scholars report a high level of satisfaction with the program and report financial, social, and academic benefits. Faculty also report satisfaction with their participation.
- Scholars reported excellent relationships with mentors, universally agreeing that CAPS mentors were helpful.

	CAPS	NON CAPS
Year 2: GPA	3.47	3.39
Year 1: GPA	3.31	3.45

	CAPS	NON CAPS
Year 2: Identity (1=least strong, 5=most strong)	4.10	3.83
Year 1: Identity (1=least strong, 5=most strong)	3.90	3.87

- Program Accomplishments:
 - 86% of scholars were retained at the end of Spring 2021
 - 100% of retained scholars are expected to achieve 5-year graduation
 - College base rate: 19%
 - 70% of the retained first cohort achieved 4-year graduation
 - College base rate: 4%
 - >50% of the second cohort are expected to achieve 4 year graduation
 - College base rate: 4%





Identified Gap(s) for Future Collaboration or Enhancement

Specific goals for the CAPS program during year four

- Prepare CAPS activities for online and in person learning environments
- Continue conducting the longitudinal research study with surveys and academic data comparisons with control group
 - Disaggregate data further (by major, gender, URM)
 - Identify which support and/or activity have the biggest impact on students' success

Identified Challenges and Enhancement

- Time management as their greatest challenge
- Suggested improvements by both mentors and scholars: more professional development, adjusting to COVID, workshops and social events that include both cohorts of scholars.



