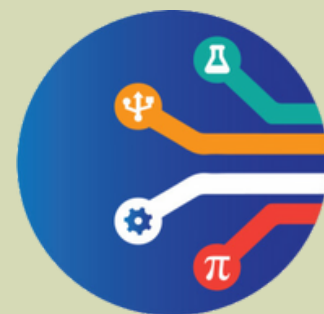
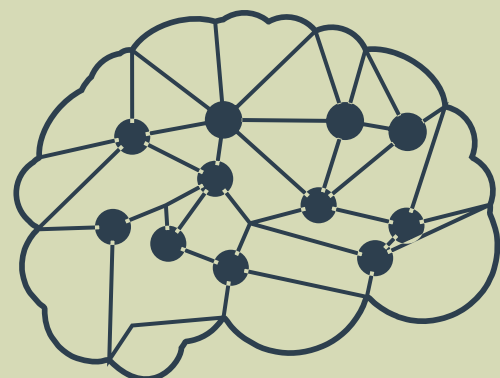


# STEM/MÁS

## MAXIMIZING ACHIEVEMENT IN STEM

Board of Trustees Meeting  
April 2, 2024



**STEM**  
SANTA MONICA COLLEGE

# STEM TEAM

## Project Manager

- Vanan Yahnian

## Program Specialist

- Paulette Gomez

## STEM Counselors

- Jose Cue
- Debbie Ostorga
- Marian Bagamaspad Lowkeen
- Belen Vaccaro
- Sheridan McArthur

## STEM Therapist

- Dr. Jennifer Bulger

## Career Counselor/STEM Counseling 12 Instructor

- Gohar Srapyan

## Career Advisor - STEM

- Joan Kang



# ESA/STEM – MÁS PROGRAM

Funded by a U.S. Department of Education, Title III, HSI (Hispanic Serving Institutions) grant, the Engage, Succeed, Advance in Science, Technology, Engineering, and Math (ESA-STEM) project at Santa Monica College aims to increase the number of Hispanic and low-income students attaining degrees in STEM fields.

The overarching goal of the ESA-STEM project is to improve the academic attainment of students earning degrees in STEM through the MÁS (Maximizing Achievement in STEM) cohort-based academic support program.

The MÁS Program is designed to assist underrepresented students interested in pursuing STEM majors/careers successfully complete their studies at SMC, transfer to ANY baccalaureate program, and/or enter the STEM workforce.

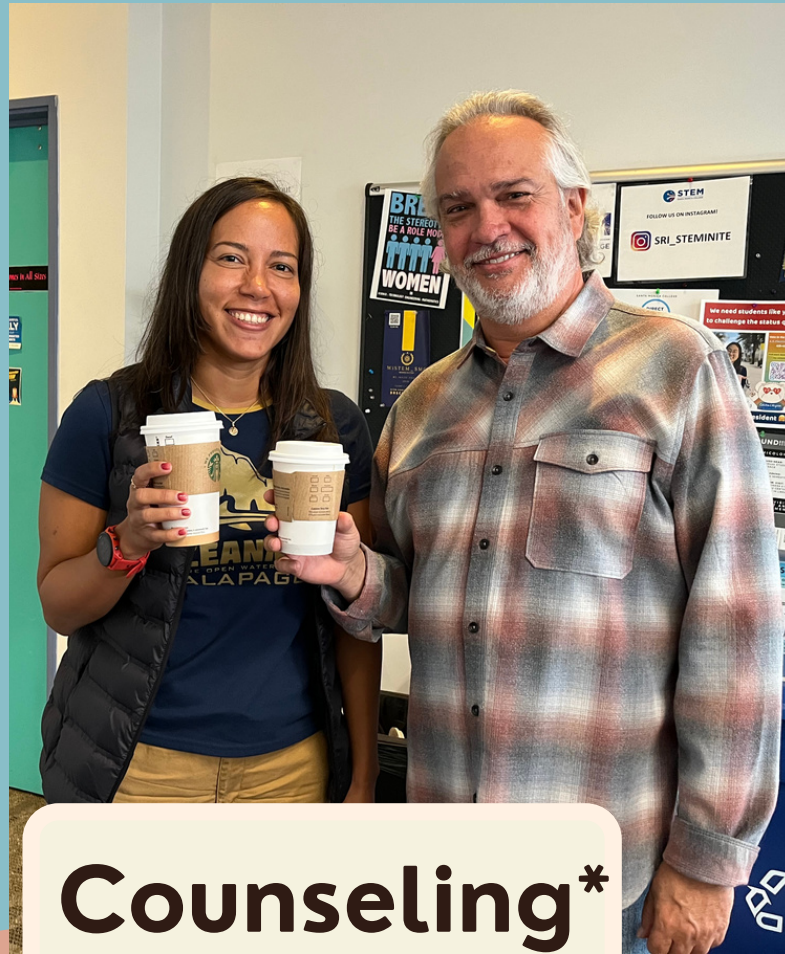


# STEM/MÁS PROGRAM

## WRAPAROUND SUPPORT MODEL

- Priority Enrollment & early access to select STEM blocked class sections
- STEM-focused Transfer Counseling
- STEM Therapist
- Contextualized STEM Counseling & Research courses (Couns. 12, 15, & Science 10)
- STEM Career Counselors
- Peer Mentoring & Workshops
- Free STEM Tutoring & Supplemental Instruction
- Financial Aid support & workshops
- Internship opportunities, workshops, lectures, & URM Speakers
- Makerspace Programming
- Program Orientation and Summer STEM Skills Week

# STEM/MÁS PROGRAM RESOURCES



**Counseling\***



**Tutoring/Mentoring**



**Therapist\***



**Workshops**



**Alumni Network**



**Makerspace**



**University & Industry Partnerships**

**Program resources are OPEN to ALL students\***  
\*Priority given to enrolled program participants.



# The STEM Program at Santa Monica College

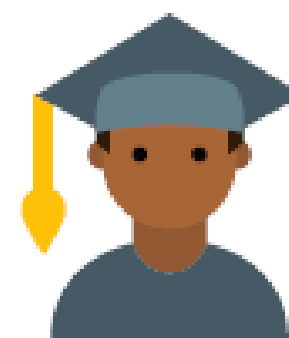
UPDATED 2024

## PROGRAM ORIGINS

2011



YEAR SMC RECEIVED FIRST OF **THREE FEDERAL HSI GRANTS** TO LAUNCH AND SUPPORT STEM PROGRAM



93

STUDENTS IN THE FIRST COHORT OF THE MAXIMIZING ACHIEVEMENT IN STEM (**STEM MÁS**) PROGRAM IN 2012-2013

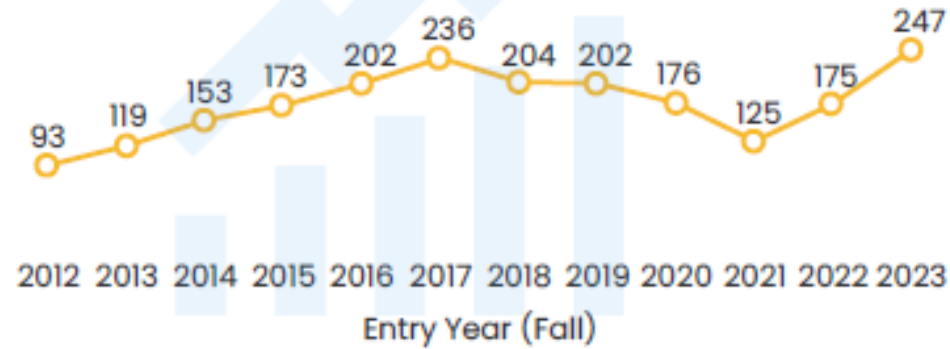
# STEM MÁS PARTICIPANTS



**2,105**

Total number of students served over the life of the three grants (2012-2023)

Numbers of STEM MÁS Participants by Entry Year



The number of students who start the STEM MÁS program each year has **doubled or more** in recent years when compared to the original cohort in 2012

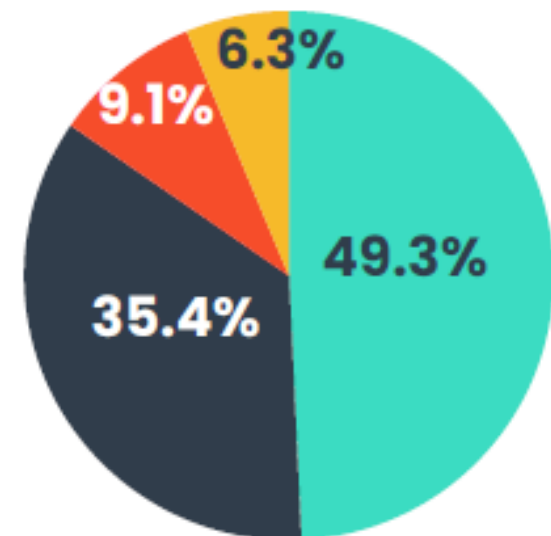


MALE STUDENTS REPRESENTED

**53%**

OF ALL STEM MÁS STUDENTS (2012-2023) AND ARE ONLY SLIGHTLY OVERREPRESENTED WHEN COMPARED TO FEMALES

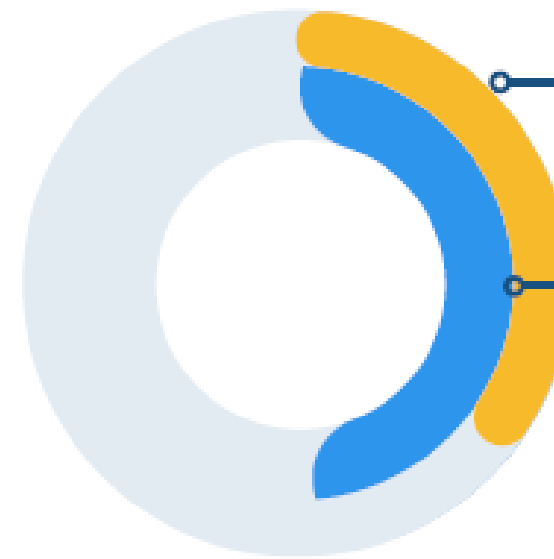
AGE AT START OF PROGRAM (2012-2023)



19 YEARS AND YOUNGER 20 TO 24  
25 TO 29 30 OR OLDER

# STEM MÁS STUDENTS ARE RACIALLY DIVERSE

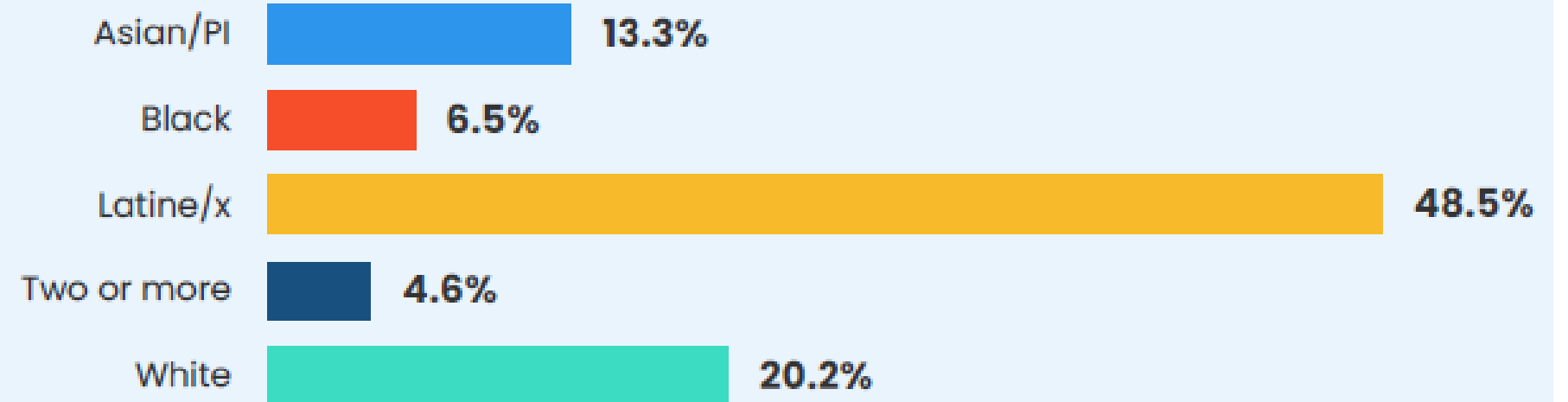
Disproportionately more STEM MÁS students were Latine/x when compared to their representation in the overall college population during the same period (fall terms 2012-2023, credit and noncredit)

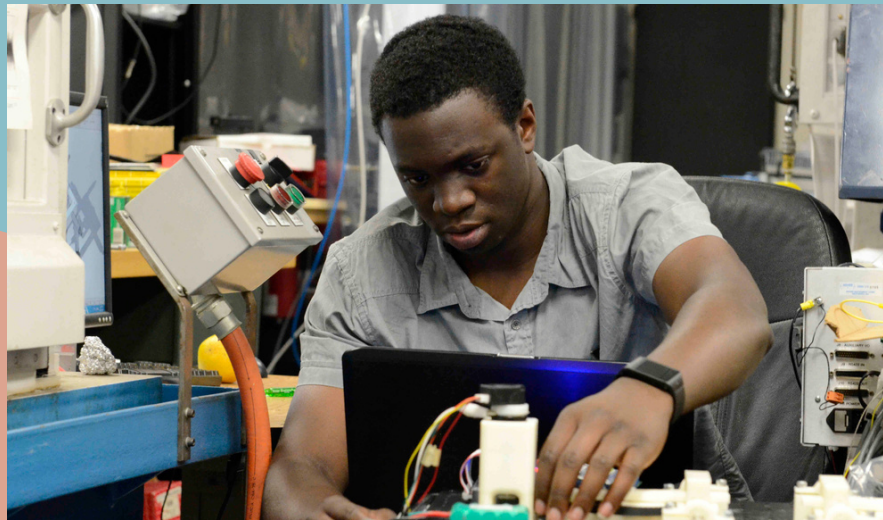
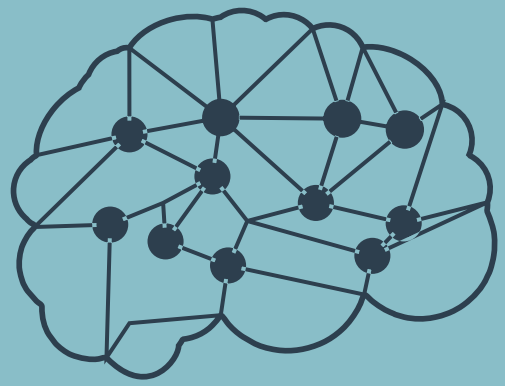


36% of the college population is Latine/x

49% of STEM MÁS students are Latine/x

Race/Ethnicity of All STEM MÁS Students (2012-2023)





*SMC/STEM Alumnus  
Jonah Hephzibah  
working in the  
robotics lab at UCLA.  
Currently: Software  
Engineer at Snap Labs,  
Snap Inc.*

## STEM MÁS OUTCOMES

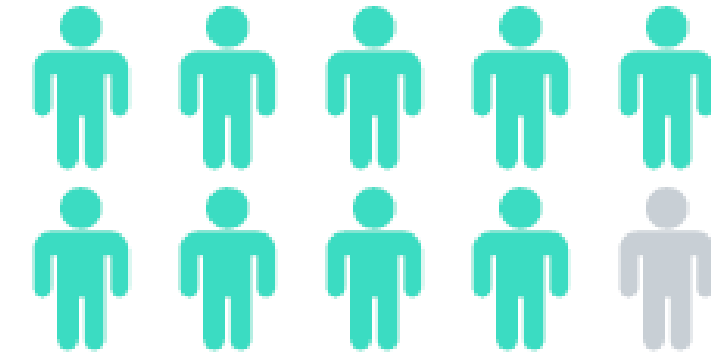
On average, STEM MÁS students\* spent



# 2.6

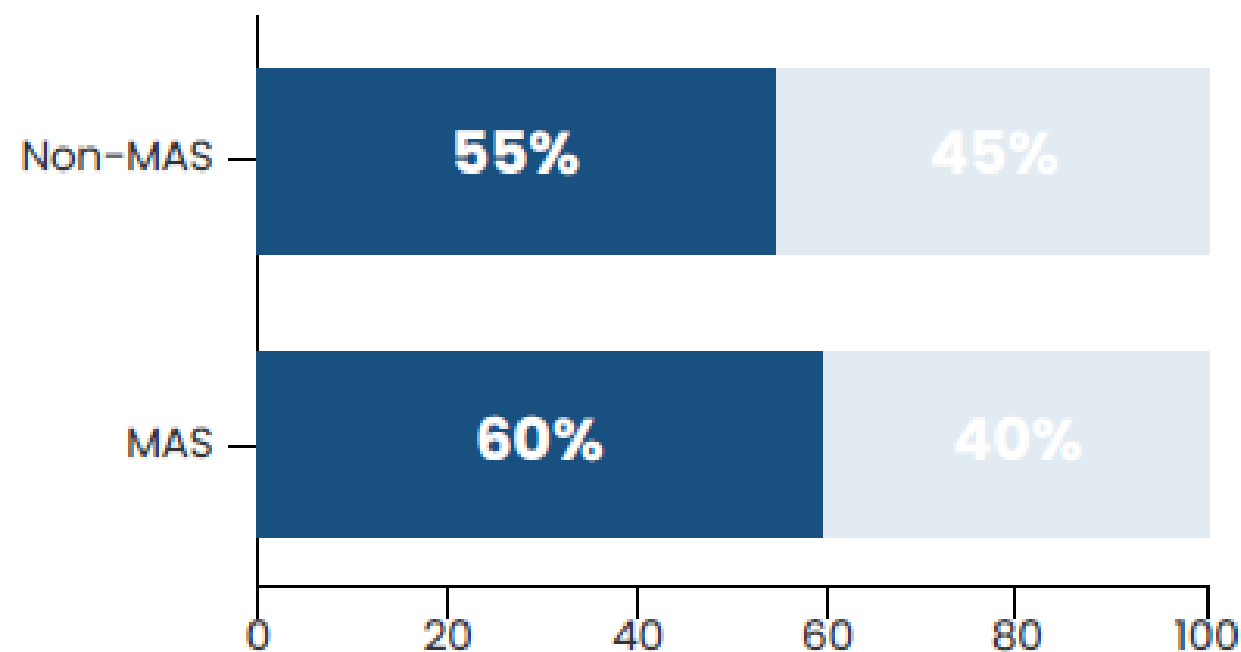
fewer years to complete their STEM associate degrees when compared to non-MÁS students

\*STEM degrees earned between 2017-2018 to 2019-2020, excluding auto-awarded degrees



## 9 IN 10 PERSIST

On average, over 9 in 10 STEM MÁS students **persist from fall to spring semester (94%)**



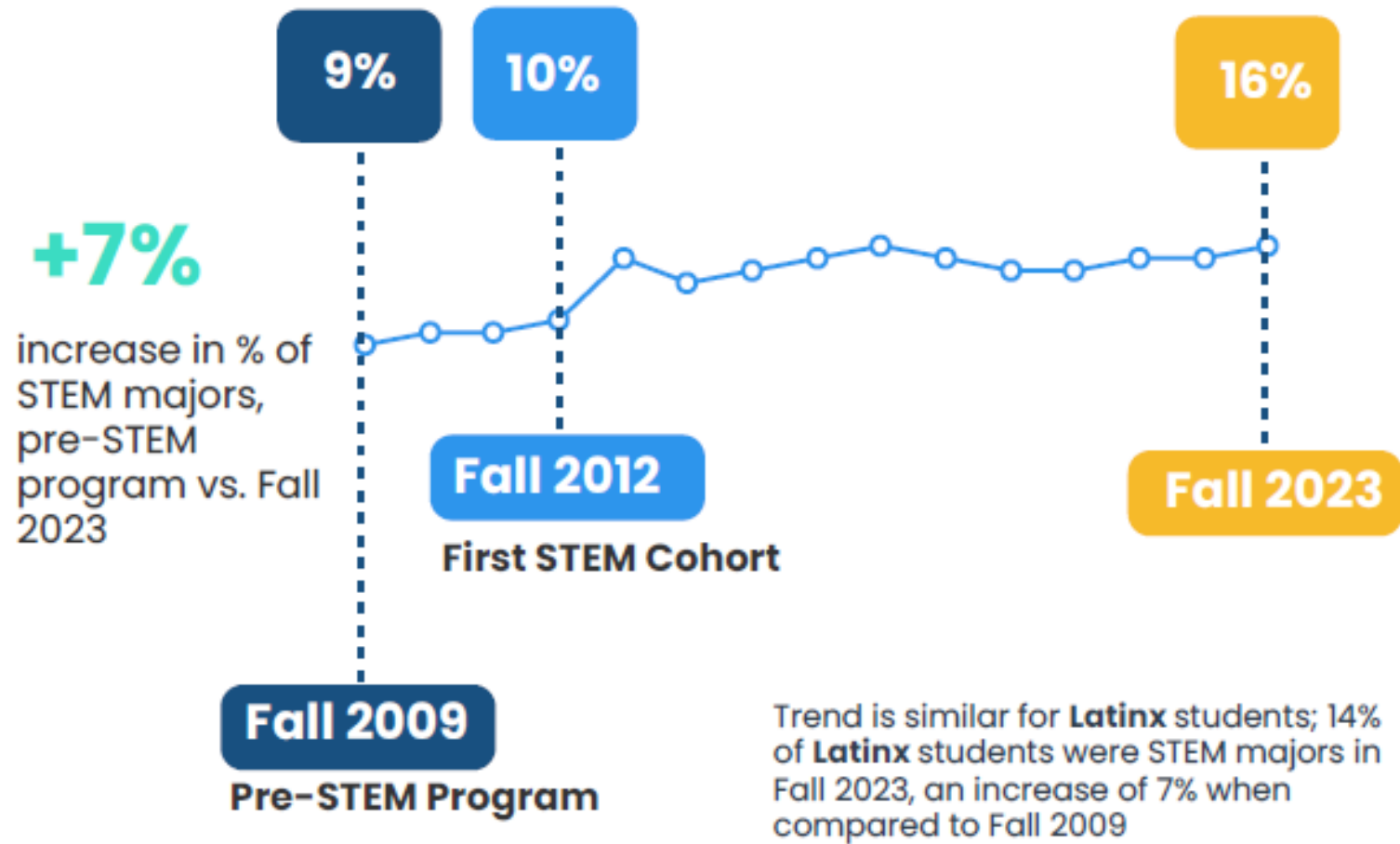
On average, **Latine/x MÁS** students successfully completed their STEM courses\* at **higher rates** than other Latinx students in the same courses,

## 5% higher

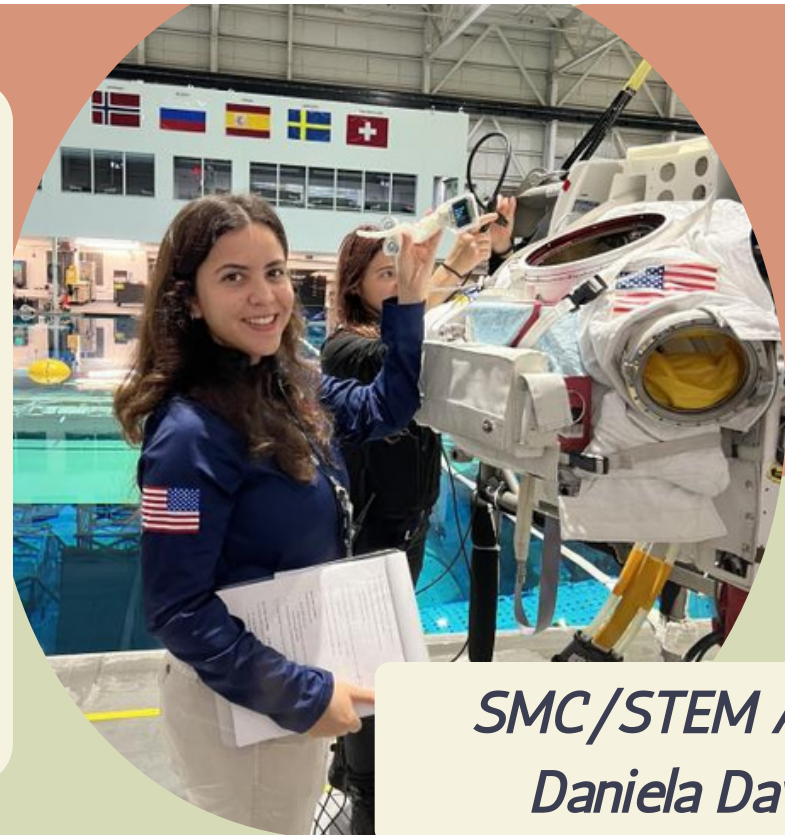
\*Fall 2012 to Winter 2024, Transfer-Level STEM Courses

## OVERALL IMPACT

Percentage of Credit Credential-Seeking Students in Fall Terms Who Declare STEM Major

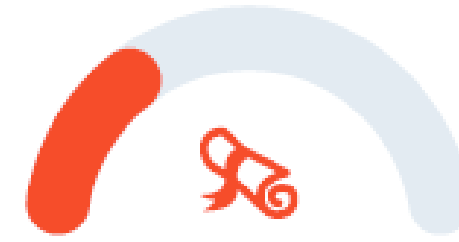


*Currently working as a Graduate Research Assistant at MIT where she is earning her MS in Aeronautics and Astronautics*



*SMC/STEM Alumna, Daniela Davalos*

## STEM DEGREES



# 34%

of all STEM degrees awarded in 2023-2024 were awarded to **Latinx** students, an increase of 6% when compared to 2014-2015 (28%)

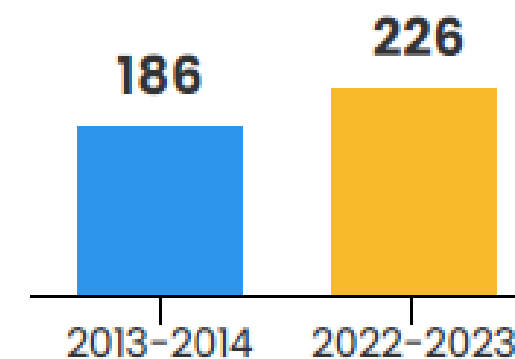
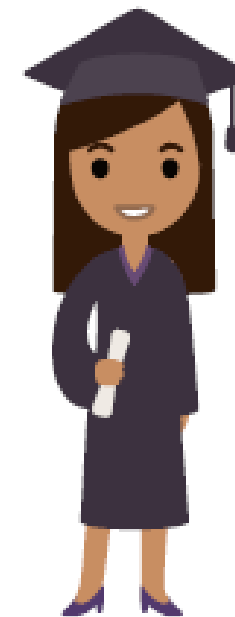


# +136

additional STEM\* degrees were awarded overall in 2022-2023 when compared to 2014-2015

\*Degrees in STEM AOI

## STEM TRANSFER



# +22%

increase in **annual number of SMC students who transferred into STEM\* majors at the CSU and UCs** from 2013-2014 to 2022-2023. The annual number of **Latine/x** students who transferred into STEM majors at the CSUs improved by **+93%** during the same period.

\*Transferred into majors with CIP 03 (Natural Resources/Conservation), 11 (Computer Info Sys), 14 (Engineering), 26 (Biological Sci), 27 (Mathematics), and 40 (Physical Sci)



# **STUDENT VOICES**

# STUDENT VOICES

**Ingrid Lopez**

**Alumna, STEM Peer Mentor/Tutor**

**Currently studying Computer Science & Linguistics at UCLA**

When I first started college I was overwhelmed. The STEM/SRI program has provided *direction* and *guidance* in traversing *the path to graduation*. Thanks to the program I have developed a stronger academic resume through the internship information and counseling that has *opened doors* to more opportunities.



# STUDENT VOICES

**Dexter Mack**

**Current Program Participant**

**Major: Statistics**

It's only my second semester at SMC but the amount of **support and dedication** that I receive every day in the **STEM Lab** from people like Paulette and Mrs. McArthur is **invaluable**, and I don't think I would have gotten it anywhere else. I always thought that when I became a STEM major, it would be lonely, as it is always depicted in social media or other testimonies, but I think **talking to people who relate** to the same thing academically is one of the biggest changes I saw in myself as I've been here. Everyone understands it's hard and that's okay.



# STUDENT VOICES



## Tamara Mmbuka

Alumna, STEM Tutor and SI Leader

UCLA - BS, Materials Science

American University - MS Human Resource Analytics and Management

Current Position: People Operations Specialist at Lattice

Between the STEM program and Black Collegians, I found people that shared **common goals** and motivations around **academic and career success**. Furthermore, staff and **faculty** candidly shared a sense of **vulnerability** about their aspirations and career paths that I could relate to. It also allowed me to understand that there are **different paths to success**.



**"I'm glad I joined the STEM Program my first year because just meeting and talking to professors and faculty the summer before my first semester made me less nervous to start my classes. Meeting the professors I would eventually take for my bio and chem classes I think was most helpful because they already knew me the first day of class. Even just talking to them while having lunch or helping them during STEM skills helped me feel more comfortable. I already knew that they were nice and approachable so it was easy to go to office hours or talk to them after lecture/lab."**

Maria Cabrera Abad, Alumna, STEM Tutor

Univ. of CA, Berkeley, B.S. Molecular & Cell Biology

Current Position: Lab Tech: Beverage Formulations, Power Brands

**"SMC's STEM Program helped me figure out what classes I needed and to find people to study with. There's a lot of mentorship here, and you can really build community. These classes can get pretty hard, and there are lots of late nights, so I like that there are people around who understand what I'm going through."**

Gabriella Dean, Alumna, STEM Tutor

USC, B.S. Mechanical Engineering

Current Position: Systems Engineer, Booz Allen Hamilton



# STUDENT VOICES



**"...being in STEM is like you get a second family, I've met the majority of my friends here, you build long lasting connections with students and staff."**

Alessa Ruiz, Alumna, STEM Tutor

UCSD - B.S. Molecular Biology

Current Position: Quality Control Associate, City of Hope

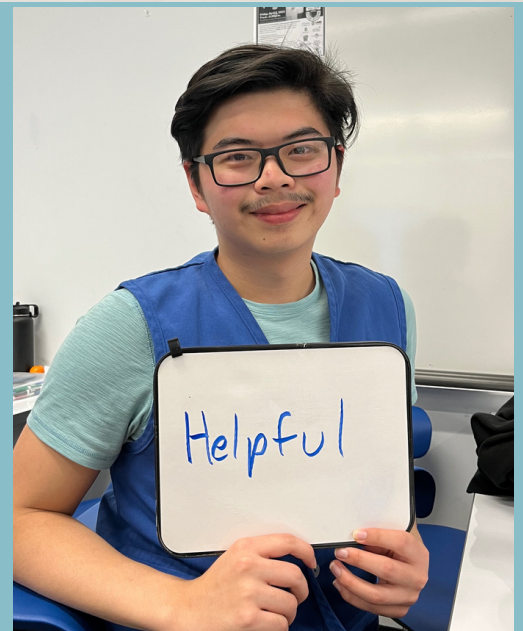
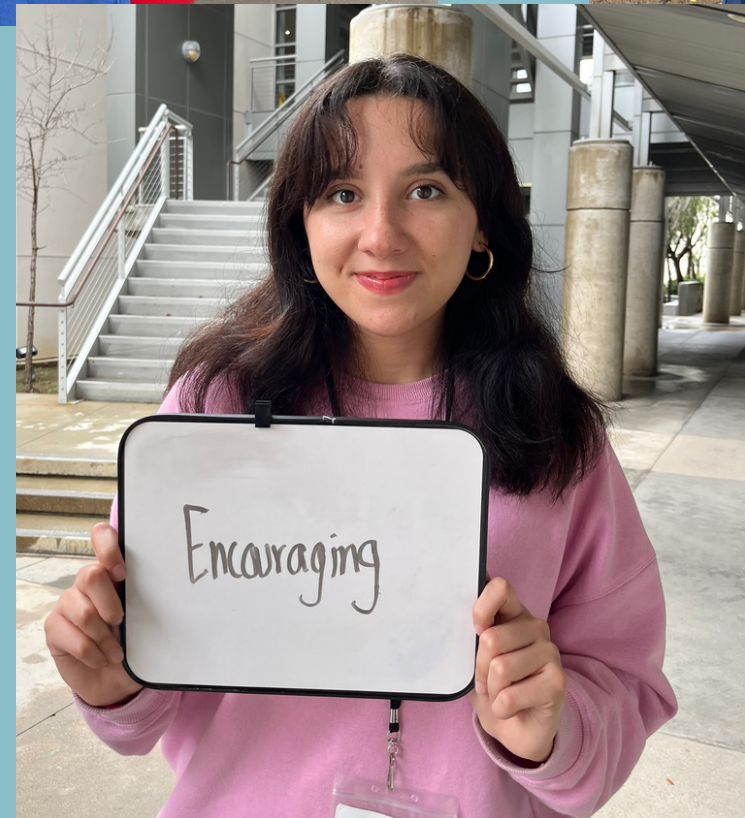
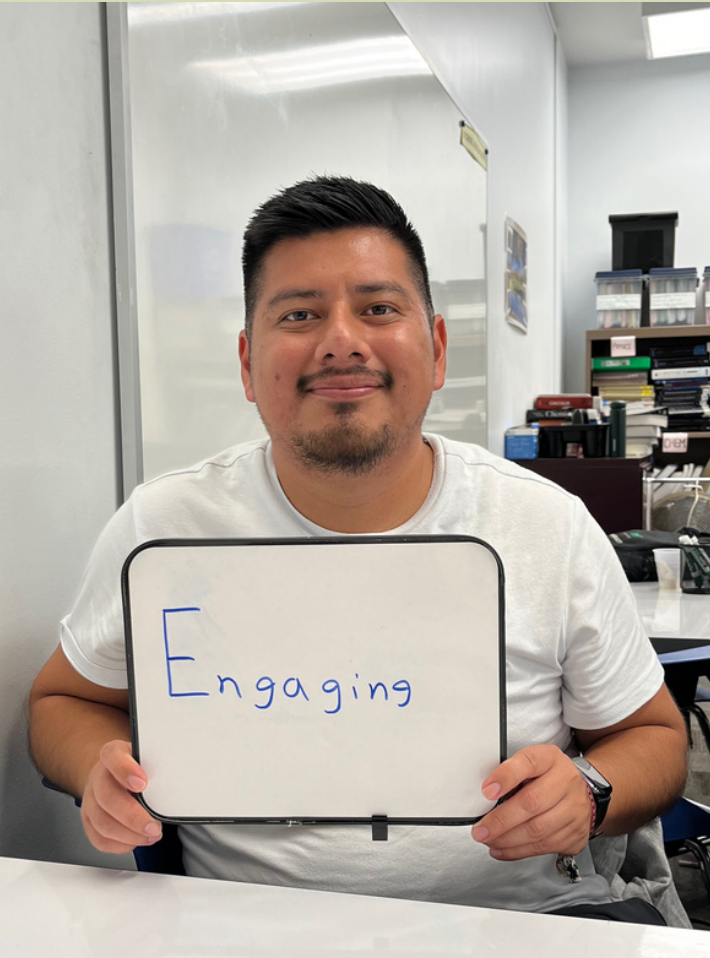
**"...the STEM Program is also an awesome community of really great people, it's worth it to join just for that alone. The people in charge of the STEM Program are also amazing, and will go out of their way to help you succeed! Definitely join, it's one of the best decisions I made when I started at SMC."**

Jay Gietzelt, Alumna, Biological Sciences

Current Position: PhD Candidate at Wageningen University



# WHAT DOES THE STEM/MÁS PROGRAM MEAN TO YOU?



**THANK YOU.  
QUESTIONS?**