

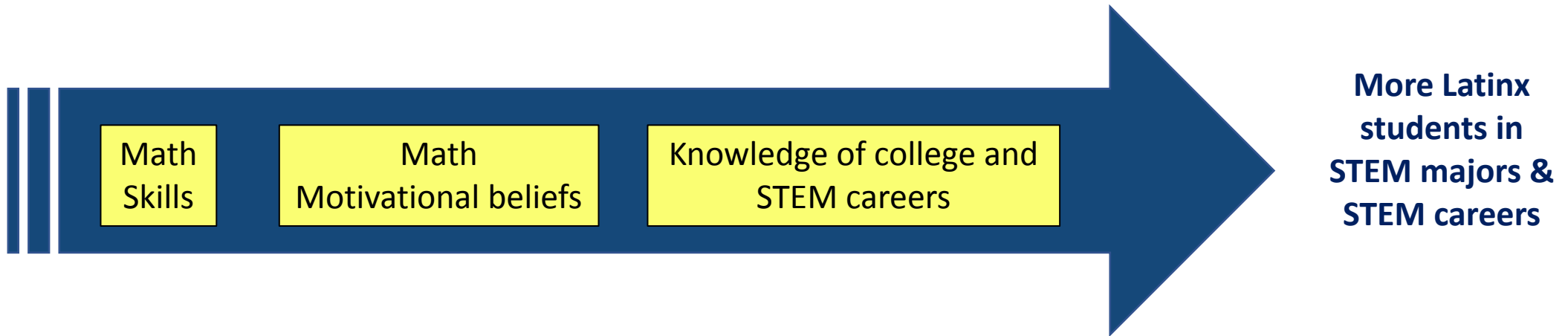
# **UCI Math CEO**

## **(Community Educational Outreach)**

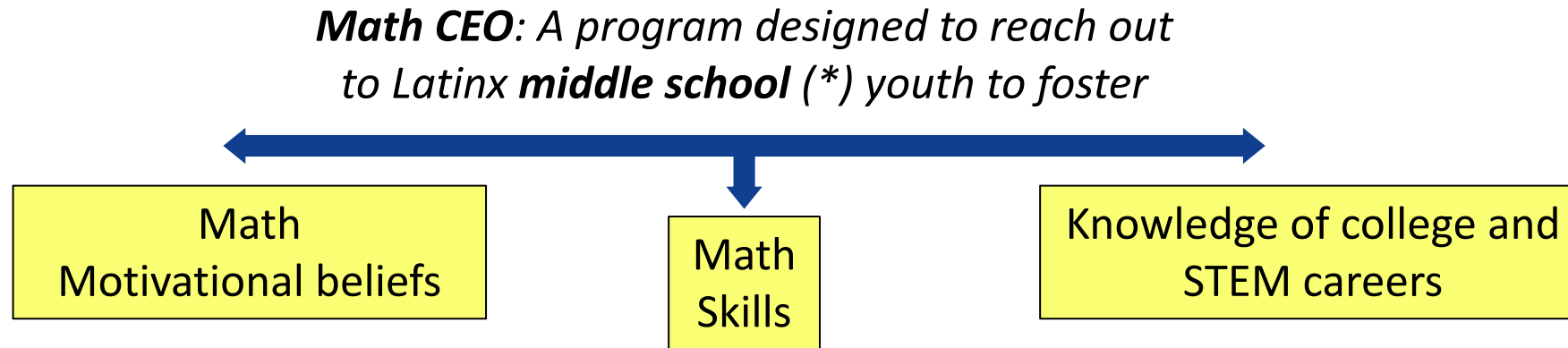
A university community partnership to support students' math achievement and motivation, in preparation for college and STEM careers.

**Alessandra Pantano and Li-Sheng Tseng**  
*In collaboration with: Sandra Simkins, Mark Yu*  
UC LINKS Conference, February 28, 2020

# THE STEM CHALLENGE



# The UCI Math Community Educational Outreach Program

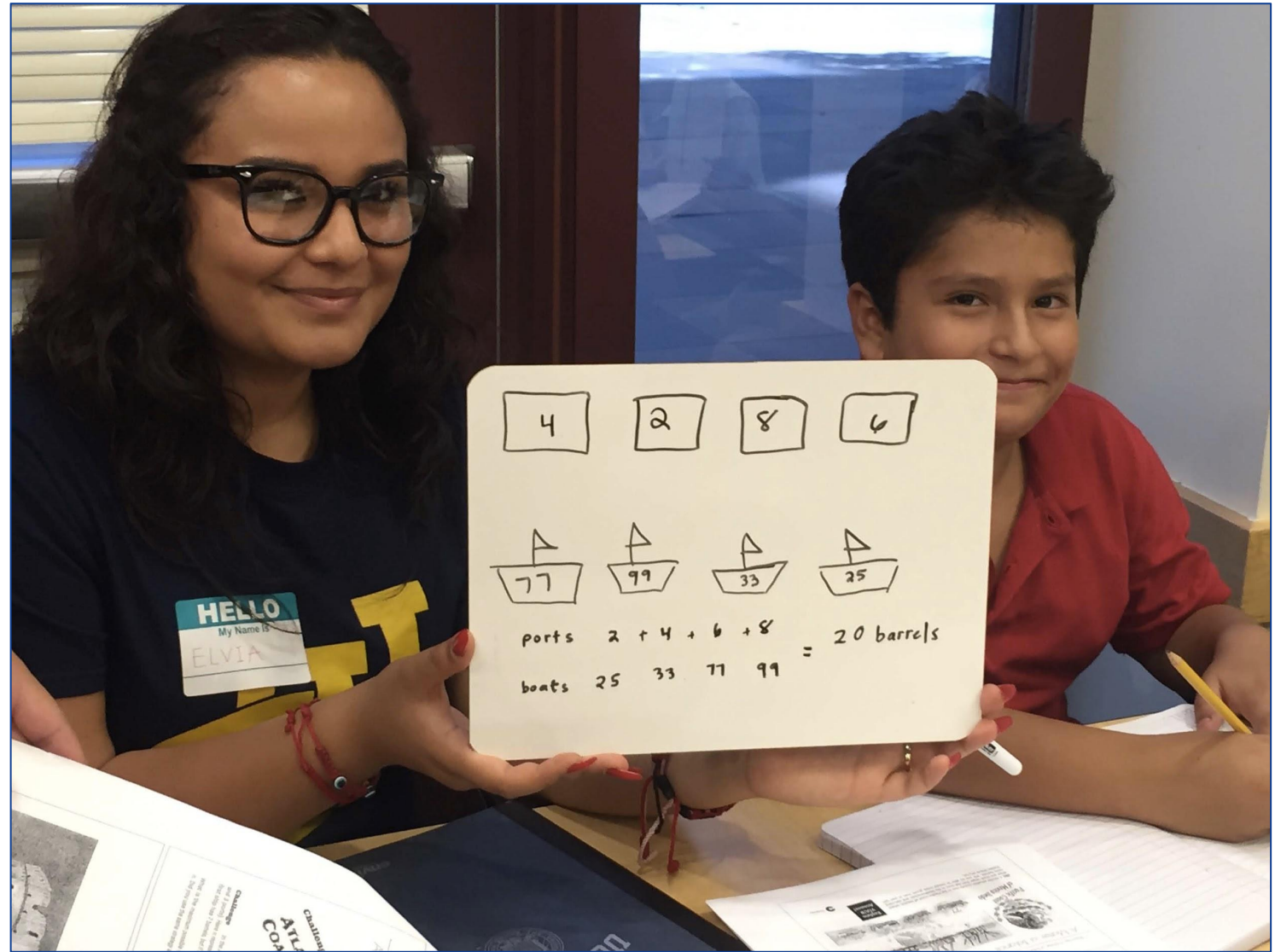


(\*) Middle school is a critical period for developing lasting interests in STEM because

- ❖ It is the time when youth starts forming career aspirations
- ❖ It also the time when motivation in math and science begins to decline.

# A University-Community Partnership built around Math Enrichment

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# A University-Community Partnership



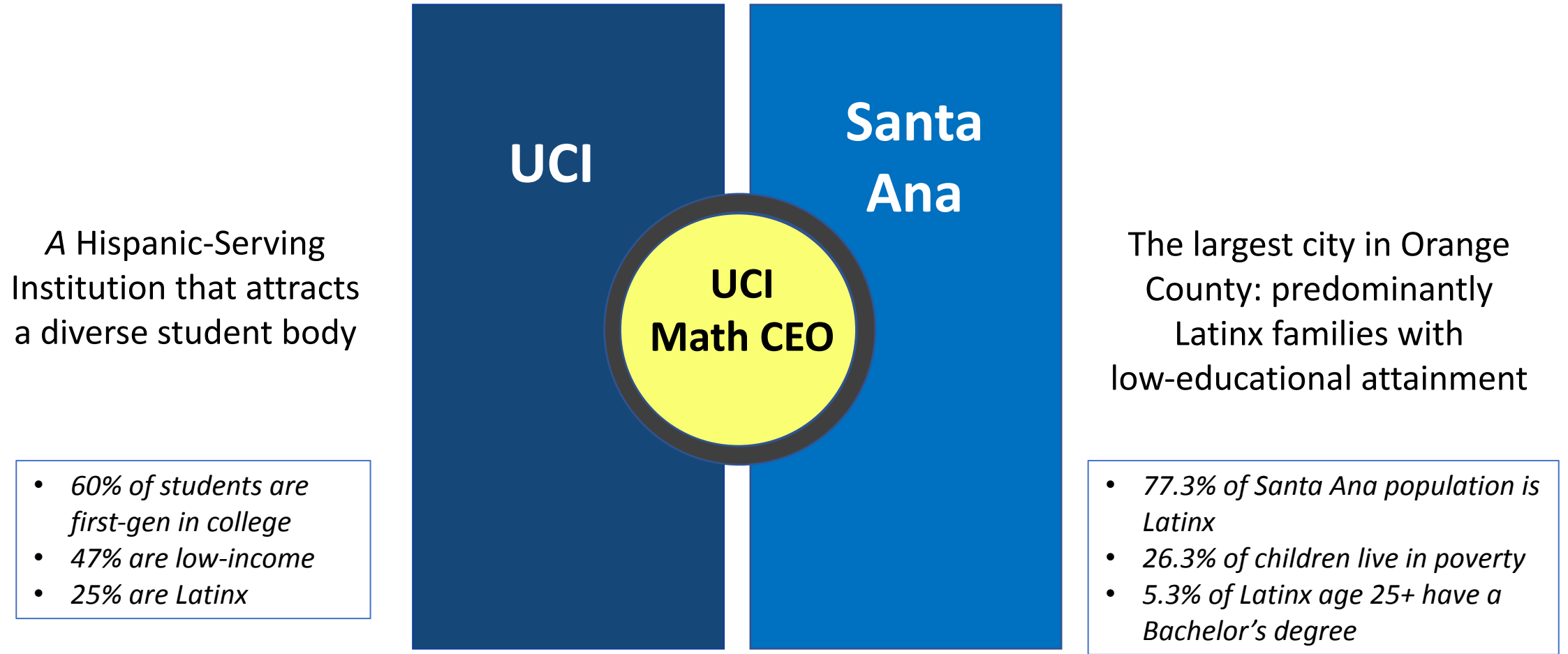
UCI  
Math CEO

UC Irvine



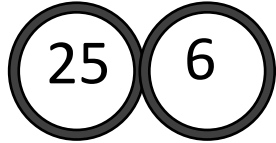
Santa Ana

# A University-Community Partnership

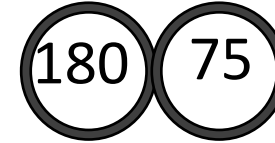


# A growing trajectory

Mentees Mentors



Mentees Mentors



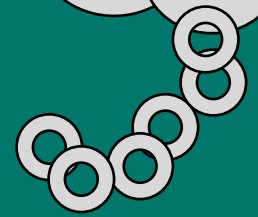
**2014-15**  
Lathrop MS

**2015-18**  
Lathrop MS  
Villa MS

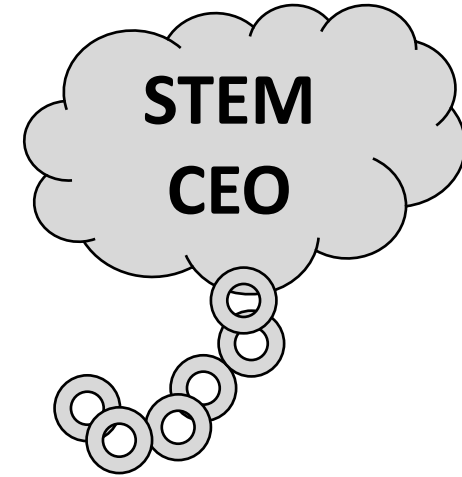
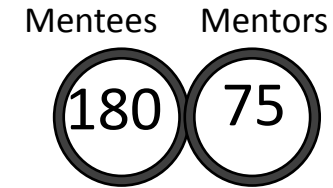
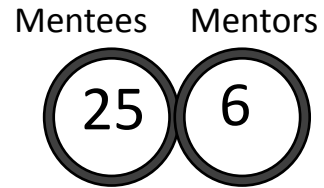
**2018-19**  
Lathrop MS  
Villa MS  
Marco Forster MS  
Carr MS

**2019-2020**  
Lathrop MS  
Villa MS  
Marco Forster MS  
Carr MS  
(El Sol MS)  
Century HS

**STEM  
CEO**



# A growing trajectory



**2014-15**  
**Lathrop MS**

**2015-18**  
**Lathrop MS**  
**Villa MS**

**2018-19**  
**Lathrop MS**  
**Villa MS**  
**Marco Forster MS**  
**Carr MS**

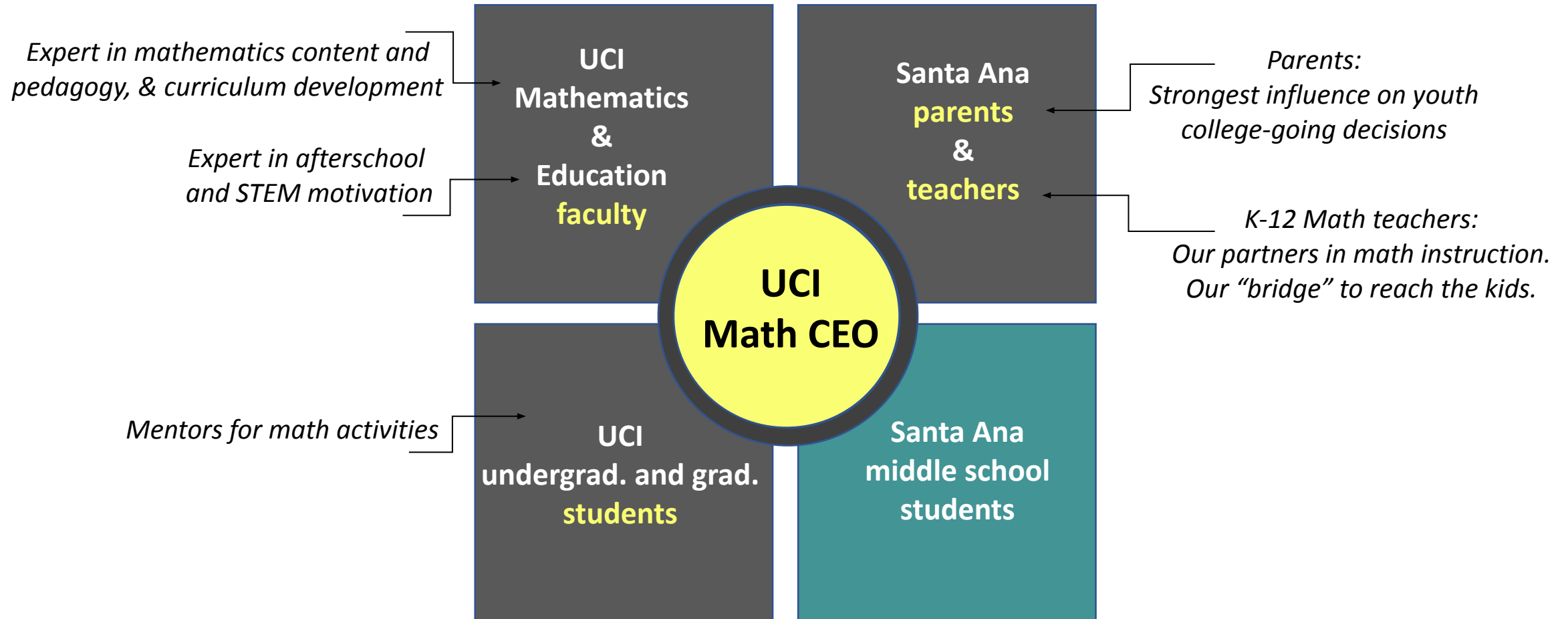
**2019-2020**  
**Lathrop MS**  
**Villa MS**  
**Marco Forster MS**  
**Carr MS**  
**(El Sol MS)**  
**Century HS**



# Our students

	Lathrop MS	Villa MS	Foster MS	Carr MS	Century HS
Latinx	98.5%	98.6%	63.1%	98.3%	97.2%
English learners	39.4%	28.2%	23.7%	36.8%	29.9%
Socioeconomically disadvantaged	96.1%	92.2%	62.9%	93.0%	94.8%
Students with disabilities	18.1%	6.2%	13.7%	13.7%	15.1%
Proficient in Mathematics	12.0%	17.0%	45.0%	14.0%	13.0%
Table 1. Data from School District Accountability Report Card					

# UCI faculty and students work together with Santa Ana parents and teachers to support youth's journey towards college and STEM careers

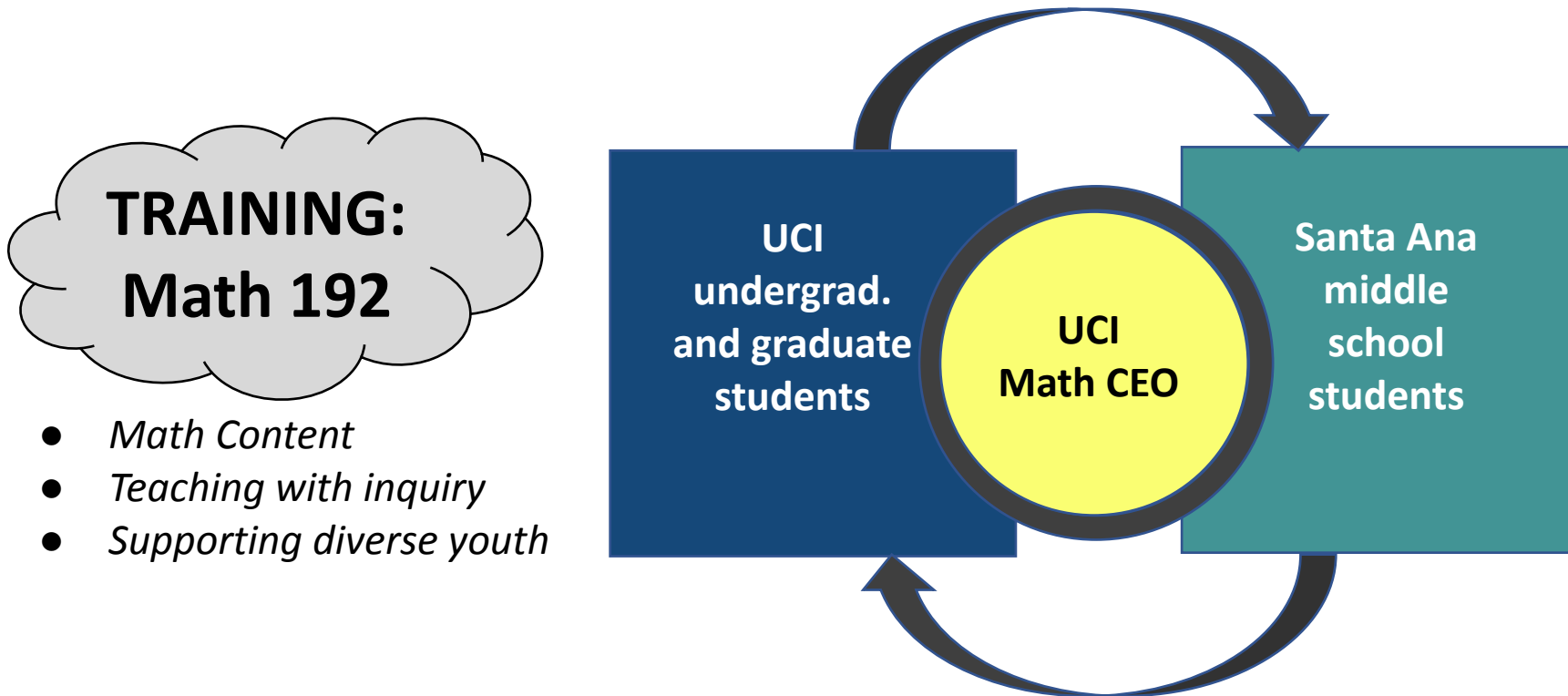




**A mutually-  
beneficial  
partnership**

# A mutually-beneficial partnership

*Mathematics mentors and role models for academic pathways*



*Teaching experience, reinforced interest in serving the community*



# Program Components

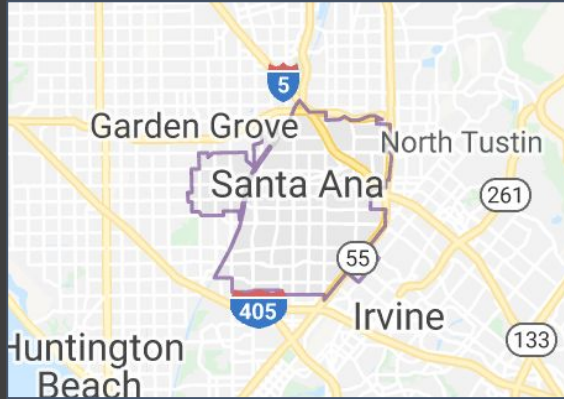


# MATH ENRICHMENT





# Math enrichment sessions on the UCI campus

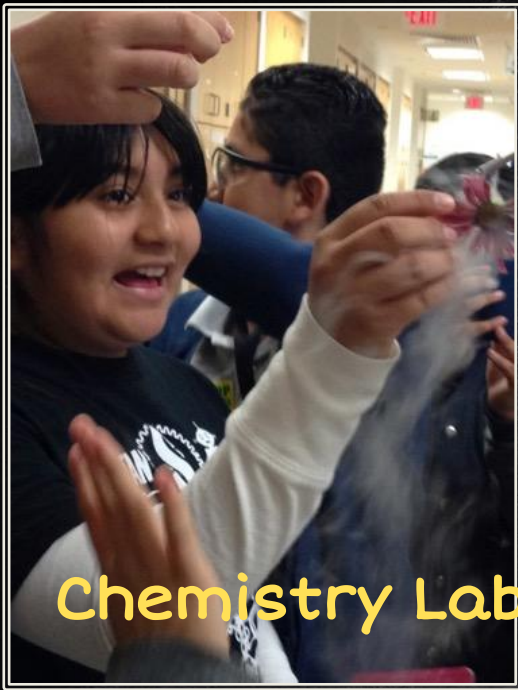




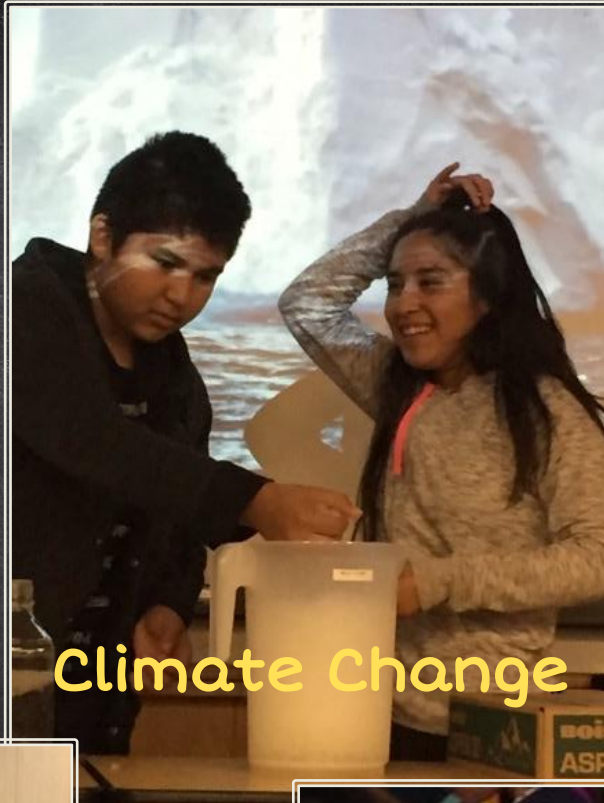


**FIELD TRIPS**





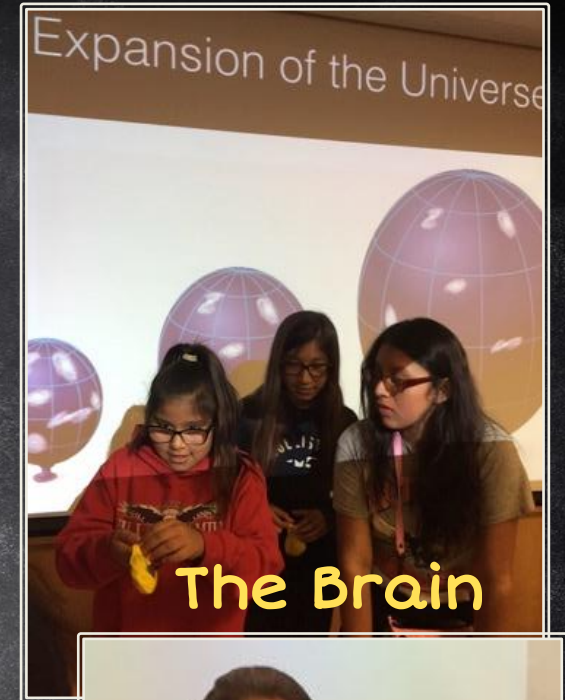
Chemistry Lab



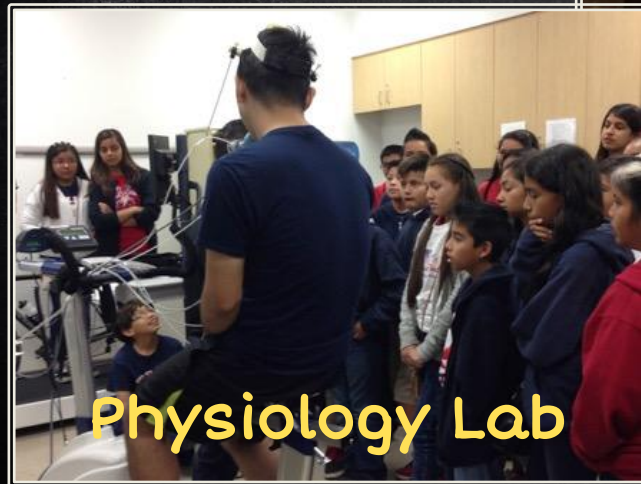
Climate Change



Astronomy



The Brain



Physiology Lab



Manufacturing







Lunch with Mentors

College panel



Campus tour



What kind of classes

do you take if

do you take if

your undecided?



# BILINGUAL COLLEGE WORKSHOPS FOR FAMILIES



“It resonated with me that  
their parents are from Mexico  
and they still continued with  
their studies.”

Spanish-speaking financial consultants from UCI advise parents  
about college admission and financial aid

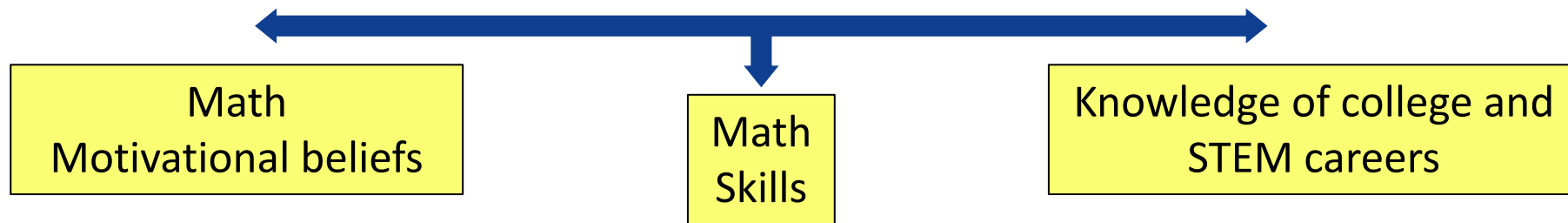


Spanish-speaking students from  
UCI share, their college experience



# An overview of Math CEO

***Math CEO: A program designed to reach out to Latinx middle school youth to foster***



- *Inclusive and culturally responsive learning environment, students don't feel judged*
- *Emphasis on building positive mentor-mentees relationships*
- *Interesting and challenging math activities that promote inquiry*
- *The program sparks and sustains interest in math (continuous exposure)*

- *Create rich math content*
- *24 math enrichment sessions a year, where kids work in small groups with college students*

- *Host most meetings on a college campus*
- *Provides (near-peer) college mentors*
- *Annual day-long fieldtrip (visits to STEM labs, campus tour, dine at campus cafeteria)*
- *College-orientation workshops for families*

**Collaboration with School of Ed:** Research & Evaluation for continuous improvement and quality control; assistance with mentor training grants