

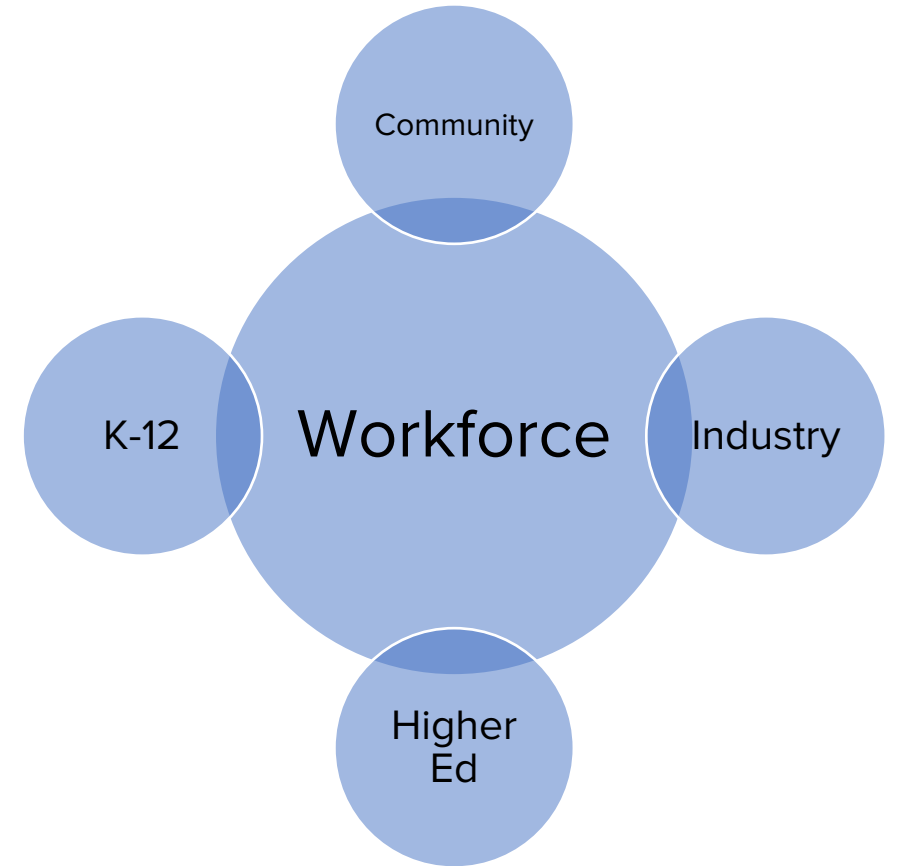
Successful Avenues: Community College Pathways That Work

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STEM Ecosystem

- What are the needs of the workforce/industry and how are these needs being communicated to institutions of higher ed to better prepare students for the workforce?
- How can we increase STEM talent and representation that is more reflective of the population of California in the workforce?



The Five STEM Talent Gaps



1. FUNDAMENTAL SKILLS GAP

- Average STEM competency is insufficient for modern work
- The new “STEM skills” (employability skills, 21st century skills) are hard to build in traditional education models
- Employers do not always clearly or appropriately define the skills they need



2. BELIEF GAP

- Students hold incorrect beliefs about their own STEM ability
- Students and others feel they do not “belong” in STEM
- Students believe only certain industries offer STEM jobs
- Employers hold incorrect beliefs about how academic performance and credentials relate to job success



3. POSTSECONDARY EDUCATION GAP

- Not enough people hold credentials beyond high school, but most STEM jobs require postsecondary credentials
- Credentials are misaligned with employer needs
- Jobseekers and employees face challenges engaging in lifelong learning



4. GEOGRAPHIC GAP

- In some regions, the number of jobs is declining, leaving people out of work and with outdated skillsets
- In some regions, there is a booming STEM economy, but companies must import talent as locals are not equipped to compete for those jobs



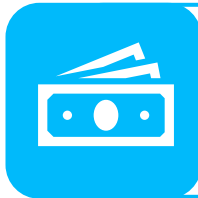
5. DEMOGRAPHIC GAP

- Lack of access to resources drives achievement gaps in STEM education from early years
- Bias and historic inequity remain embedded in education and employment systems

Multiple, complex factors affect retention in STEM degree programs



Less access to STEM courses
& poorer academic
preparation in high school



Lack of financial resources,
higher debt, and need to
work while in school



Lack of role models, mentors,
and peer networks



Bias and discrimination from
teachers and peers



1. Riegel-Crumb, C., King, B., & Irizarry, Y (2019). Does STEM stand out? Examining racial / ethnic gaps in persistence across postsecondary fields. *Educational Researcher*, 48(3), 133-144. Retrieved from: <https://journals.sagepub.com/doi/pdf/10.3102/0013189X19831006>

2. Kapor Center for Social Impact (2018). *The leaky tech pipeline: A comprehensive framework for understanding and addressing the lack of diversity across the tech ecosystem*. Retrieved from https://mk0kaporcenter5ld71a.kinstacdn.com/wp-content/uploads/2018/02/KC18001_report_v6-1.pdf

What is the Avenue System?

The Avenue system is designed to eliminate barriers that prevent full participation of women and underrepresented groups in STEM, serving high potential, low resource students, and those from families in which neither parent holds a bachelor's degree.



AvenueE

*Roadmap to Your Career in
Engineering & Computer Science*

FOUNDING
CORPORATE
PARTNER



AvenueB

*Roadmap to Your Career
in Biological Sciences*



AvenueM

*Roadmap to Your Career
in Medicine*



Overview of the Avenue Programs

Additionally, they are designed to help community college transfer students smoothly transition to UC Davis, and ultimately, a successful career.

AvenueM builds upon the original model but includes two additional 4-year institutions and extended student support through medical school.

Avenue students must possess a demonstrated commitment or potential for leadership to positively impact the elimination of barriers facing women and other members of underrepresented groups in careers in Biological, Engineering, Computer or Medical Sciences.

Map of Program Partners and Scale

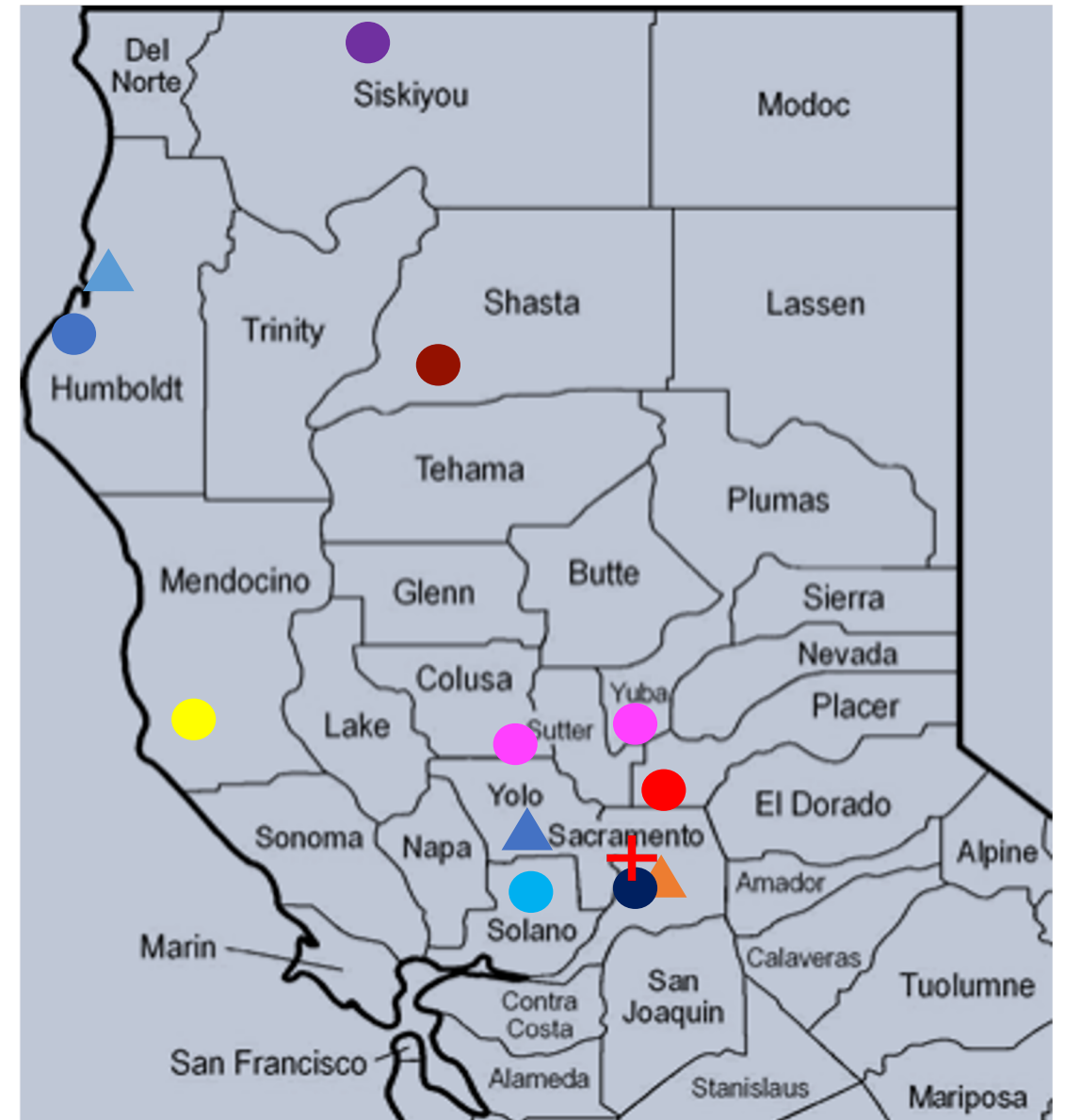
+ UCD School of Medicine

4-Year Institutions

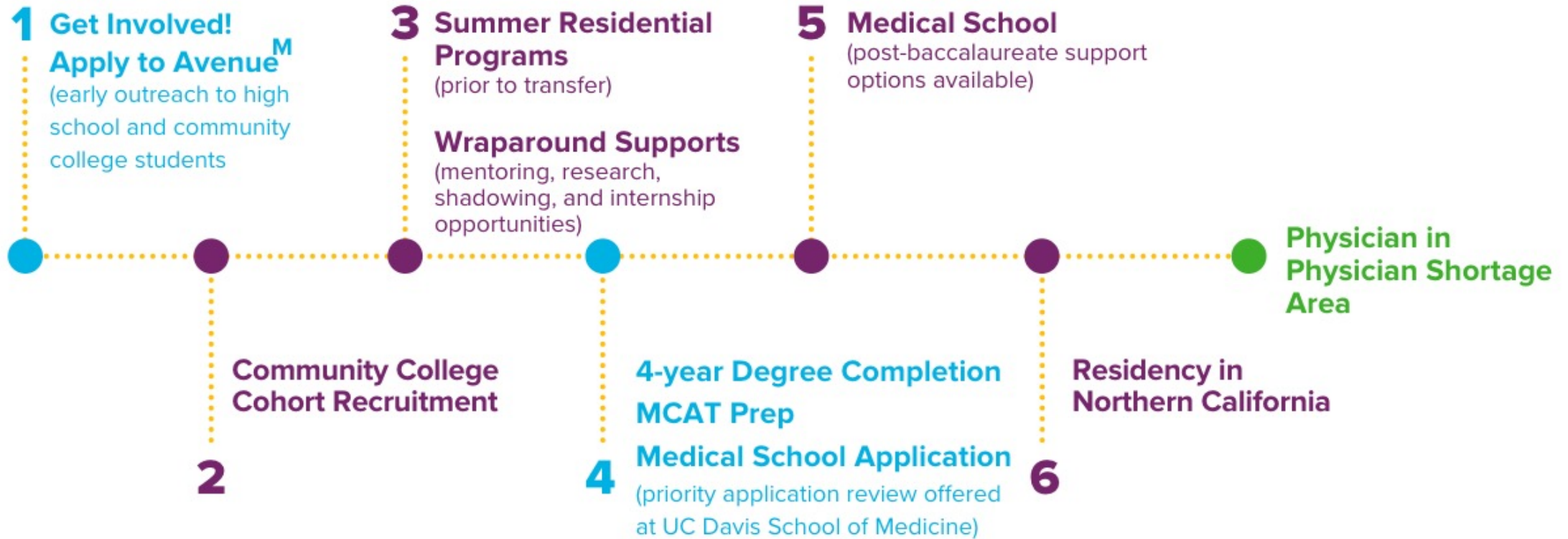
- ▲ UC Davis
- ▲ Sac State
- ▲ CSU Humboldt

Community College/Districts

- Los Rios
- Yuba/Woodland
- Solano
- Sierra
- College of Redwoods
- College of the Siskiyous
- Mendocino College
- Shasta College
- California Tribal College



Avenue^M Scholar Journey

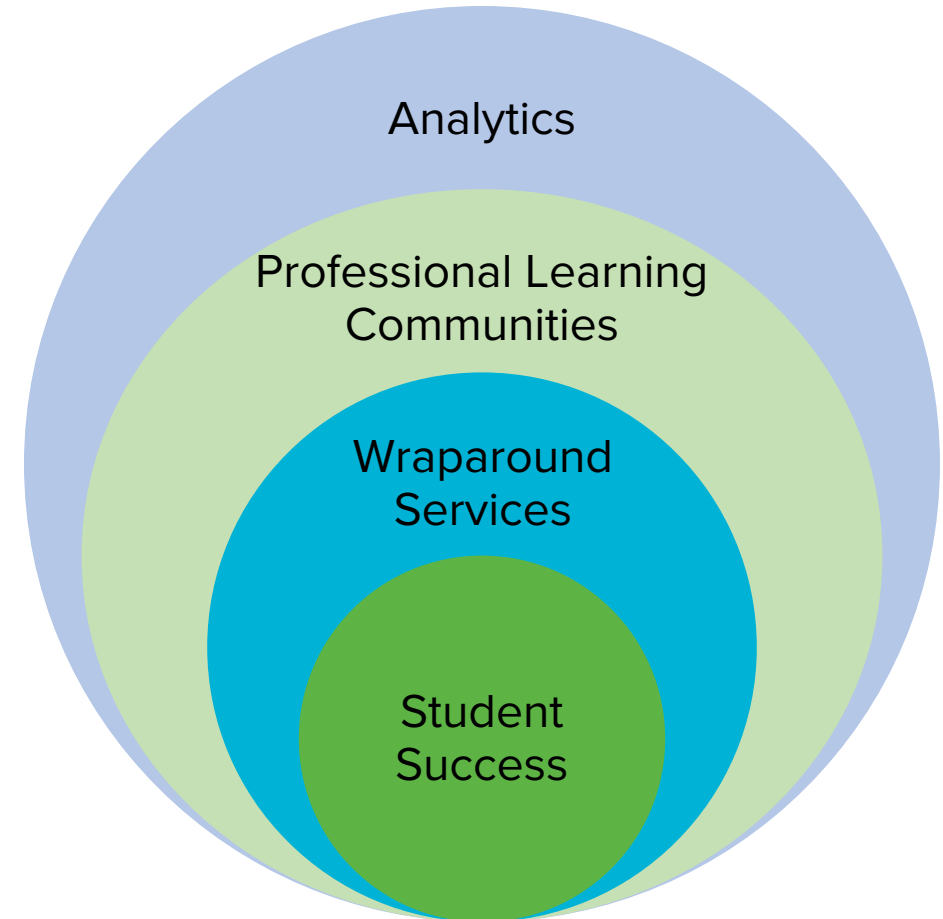


Continuous alternative ramp supports for careers in allied health professions or other areas

Avenue ^M Program Benefits	For CC Students	For 4-Year Students	For Medical School Students
A Supportive Community	X	X	X
Targeted Admissions Advising	X	X	X
Admissions Workshops & Information Sessions	X	X	X
Scholar Awards* (additional eligibility maybe apply)	X	X	X
Residential Enrichment Programs	X	X	X
Targeted Academic Advising, Support & Tutoring	X	X	X
Research Opportunities	X	X	X
Professional Connections	X	X	X
Peer, Faculty and Physician Mentors	X	X	X
Enrichment Opportunities	X	X	X
Career/Medical School Preparation	X	X	X

Core Components

- Wraparound Services
 - Student support
 - Mentors
 - Internships
 - Tutoring
 - Research
 - Consistent academic advising
- Industry Engagement
- Professional Learning Communities
- Assessment and Evaluation

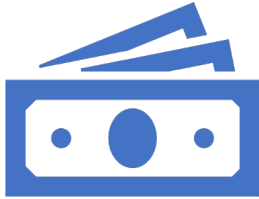


The Verticals of Professional Learning Communities



Project Leadership	Key administrators from all higher education partners, the Project Manager, Cohort Leaders, and the Advisory Board will meet to review progress toward outcomes.
Admissions/Outreach	A community of admissions directors and outreach representatives from each institution to share strategies, successes, and challenges related to recruiting and enrolling URiM students.
Student Support	A community of student affairs and academic advising professionals who serve on the frontlines of ensuring student needs are addressed.
Learner Analytics	A community of student data stewards to discuss and improve upon data analytics findings and predictive models that will help inform how we can best prepare and retain URiM students.
Pre-Med Faculty	A community of faculty and instructors from all higher education partners to discuss student preparation, curriculum considerations, and teaching strategies in a collaborative environment.
Community Health Organizations	A community of health organizations and professionals to share insights on student internships, research opportunities, early career exploration, and other experiential learning opportunities.

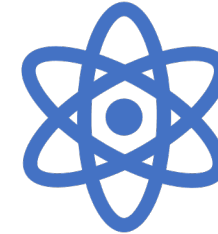
Sustainability & Scale



Institutionalizing
services to lower costs



Scholar Awards remain
integral



Expansion to other
STEM disciplines



Thank you!

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