SUMMARY OF CAHSI INCLUDES EFFORTS

This document summarizes the CAHSI INCLUDES *collective impact* efforts and activities that are in progress by institutions and organizations across the pilots. Fig. 1 maps the efforts to broad categories of initiatives: Recruitment, Retention, Support Structures, Bridging, and Career Pathways. Below each effort is a list of the institutions and organizations involved.
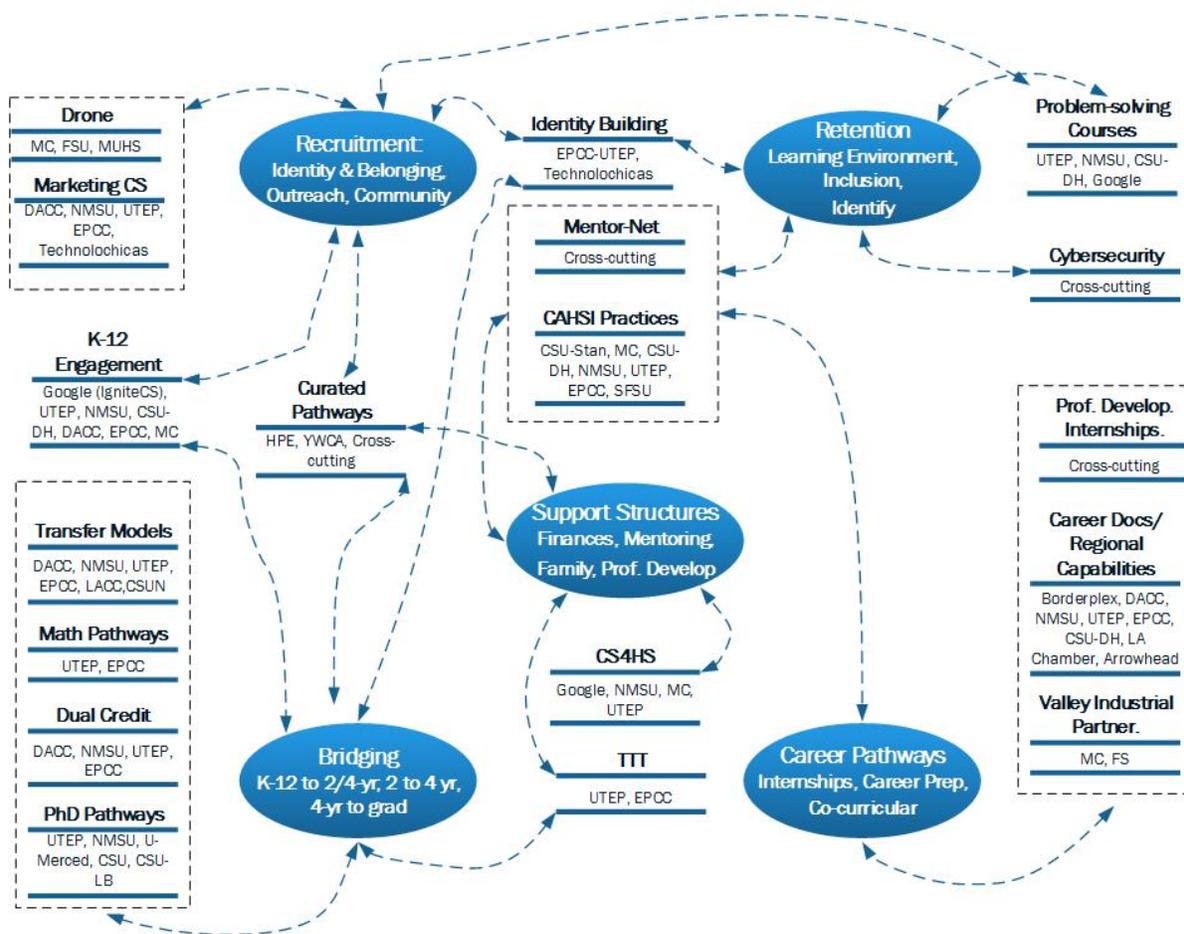

Figure 1: Mapping of pilot collective impact efforts to categories of initiatives.

Arrowhead Arrowhead Center	**HPE** Hewlett Packard Enterprise
Borderplex The Borderplex Allliance	**LA Chamber** Los Angeles Chamber of Commerce
CS4HS Computer Science for High Schools	**LACC** Los Angeles Community College
CSU California State University	**MC** Merced College
CSU-DH California State University Dominguez Hills	**MUHS** Merced Union High School
CSU-LB California State University Long Beach	**NMSU** New Mexico State University
CSU-Stan California State University Stanislaus	**SFSU** San Francisco State University
CSUN California State University Northridge	**TTT** Teachers Teaching Teachers
DACC Doña Ana Community College	**U-Merced** University of California, Merced
EPCC El Paso Community College	**UTEP** University of Texas at El Paso
FS University of California, Fresno	**YWCA** Young Women's Christian Association

Summary of efforts:

- **CAHSI Practices**: Dissemination of CAHSI effective practices across the partners, including the Affinity Research Group (**ARG**) model that focuses on professional development of students, Peer-Led Team (**PLTL**) learning that uses peer-led activities to support understanding of course material, **Fellow-Net** that facilitates creation of competitive fellowships, and **Mentor-Grad** that involves students in ARG and other activities that help them transition to graduate programs.

- **Career Opportunities/Regional Capabilities**: Efforts focused on partnerships between higher education and regional organizations working on economic and workforce development.

- **CS4HS:** A Google initiative focused on teaching components of CS Principles to K-12 teachers.

- **Curated Pathways**: A collective impact effort led by YWCA-Silicon Valley. It is in pilot in San Jose, with intent to scale up (into higher grades including community college) as well as out (to other regions) nationally. HPE/HPI were founders/thought leaders of the program and remain heavily engaged. It starts with awareness and interest-building efforts, then moves into 'preparation.' efforts that include a broad set of activities.

- **Cyber-Security**: Efforts to build cyber security curricula, programs, and co-curricular activities, including a new Associate of Applied Science in Cyber-Security, Information Technology Model Curriculum, and programs for middle and high school students; training local and regional professionals in cybersecurity.

- **Drone:** Efforts to design and implement the curriculum for drone/robotics modules or courses that can attract student to study CS,

- **Dual Credit** (dual college/high school credit for high school students): Initiatives centered on credentialing; professional development of teachers' pedagogical skill and content knowledge to ensure students are exposed to college-level learning; improvement of courses using a feedback loop from former dual credit students' experiences in advanced computation classes.

- **Identity Building**: Activities that help students build identity as a STEM/computing student at the beginning and end of the semester, e.g., Meet and Greet STEM major day, End of the semester social day, and EPCC STEM/Math Club field trip to UTEP.

- **K-12 Engagement**: Refine training of students and in-service teachers who work on summer outreach programs to develop a sense of belonging; efforts that engage students in in the classroom on computing-related activities, e.g., efforts with Google through Ignite CS.

- **Marketing CS:** Strategies to expose and define career pathways for middle and high school students, and recruit dual credit students.

- **Math Pathways**: Efforts to improve student success in mathematics using the curriculum developed by the DANA Center, which focuses on reasoning and conceptual understanding.

- **MentorNet:** A virtual platform that supports mentoring of students by computing professionals.

- **PhD/Academic Career Pathways**: An effort to create collective commitment to underrepresented student advancement into PhD programs, post-docs, and faculty careers.

- **Problem Solving**: An effort with Google and several universities to create three 1-credit hour courses focused on problem solving and the development of analytical thinking skills.

- **Professional Development and Internships**: Efforts to promote and align internships, cooperative education, service learning, and capstone experiences; career preparation

- **Transfer Models**: Efforts to strengthen the transition from 2-year to 4-year colleges through collaborations focused on curriculum development and co-curricular activities.

- **TTT**: Teachers Training Teachers is an effort among community college and university professors to improve math education.
- **Valley Industrial Partnership**: An effort to build industrial relationships.