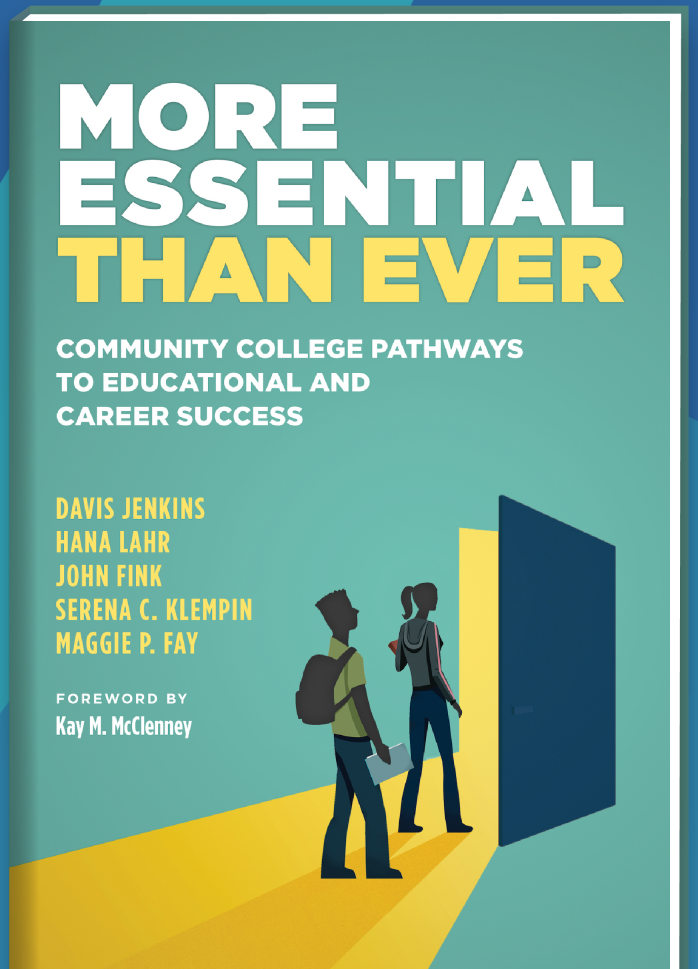
CCRC COMMUNITY COLLEGE RESEARCH CENTER
Teachers College, Columbia University

More Essential Than Ever:

Strengthening California Community College Pathways to Post-Completion Success

Davis Jenkins, Senior Research Scholar

May 2, 2026 | Community College League of California Annual Trustees Meeting



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Community College Pathways to Educational and Career Success

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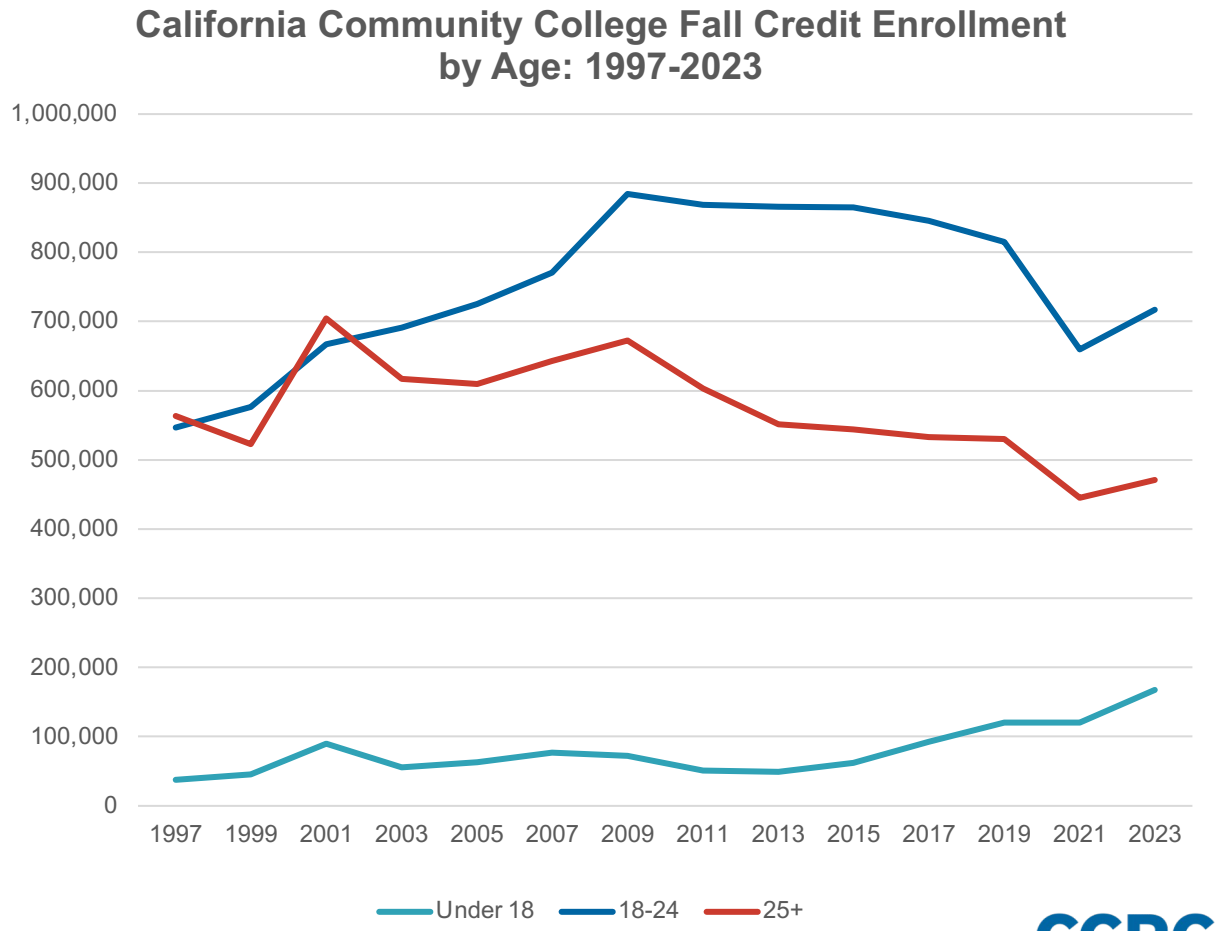
Post-high school enrollment in California community colleges has declined for more than a decade



Source: Community College Research Center. https://public.tableau.com/app/profile/john.fink/viz/UndergraduateEnrollmentTrendsbySector/Summary

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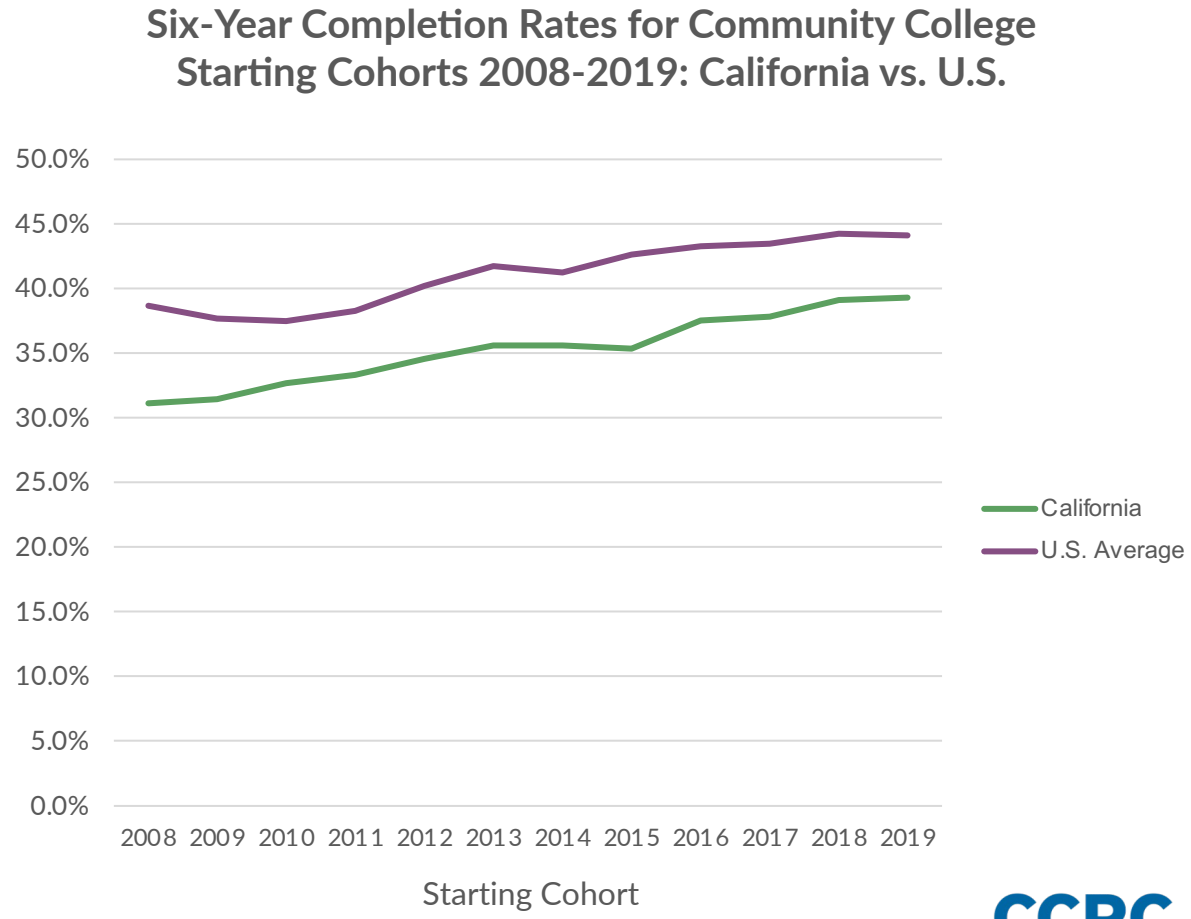
California community college completion rates have improved, but still lag the national average…



Source: National Student Clearinghouse, 2025

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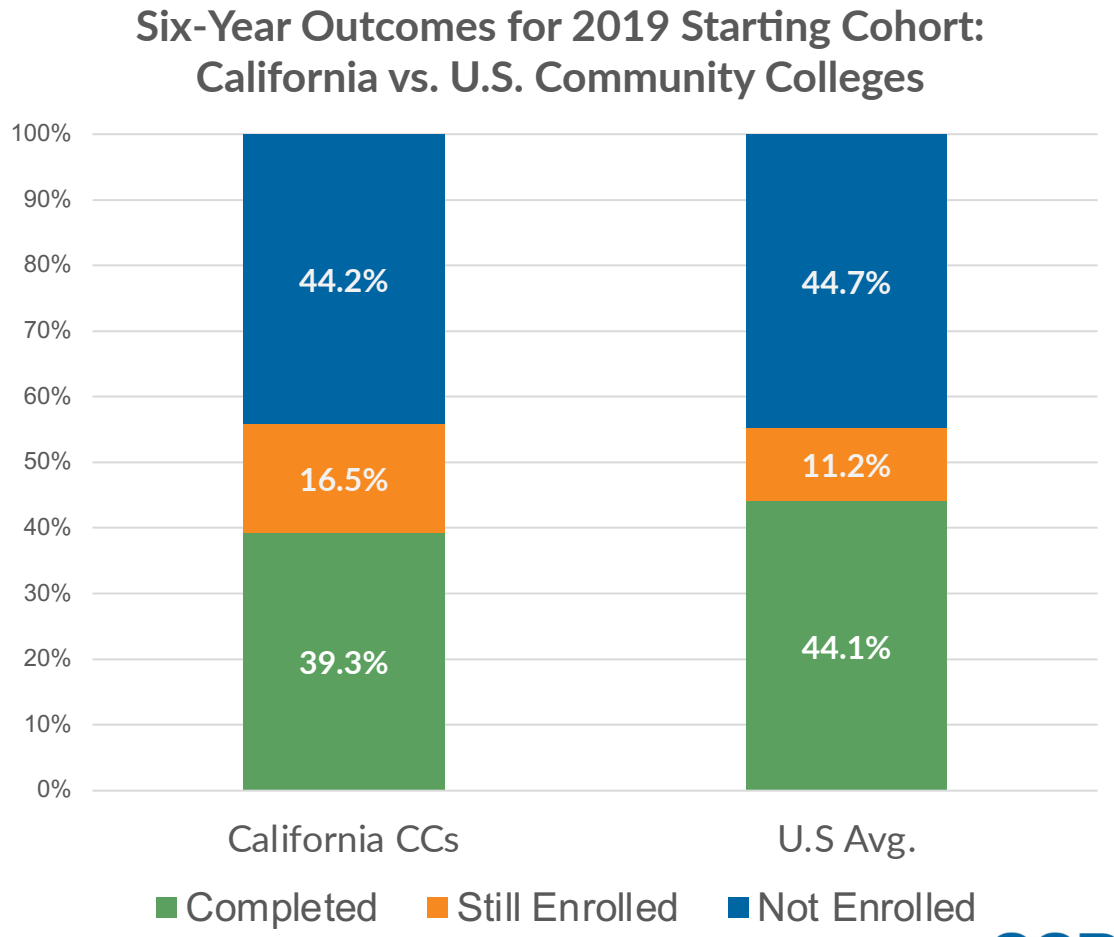
…and more California community college students still enrolled with no degree six years after starting.



Source: National Student Clearinghouse, 2025

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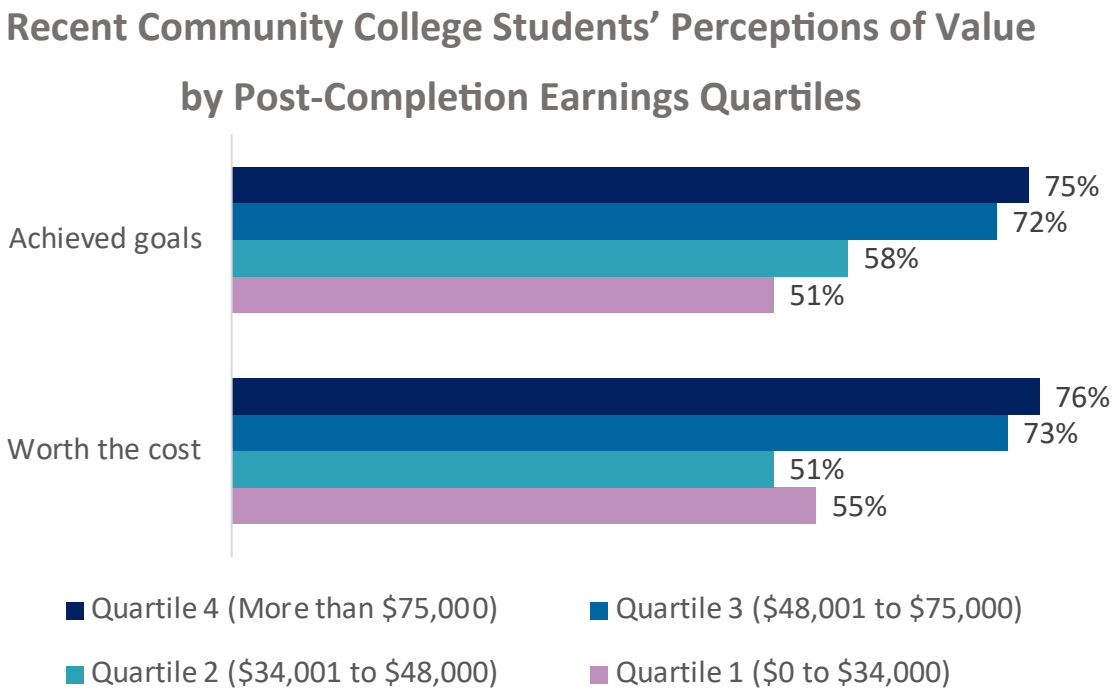
Higher paying jobs or successful transfer → Higher perception of value



Source: https://stradaeducation.org/report/the-value-of-community-colleges-recent-students-motivations-and-outcomes/#:~:text=Overall%2C%20perceptions%20of%20the%20value,those%20of%20bachelor's%20degree%20completers.

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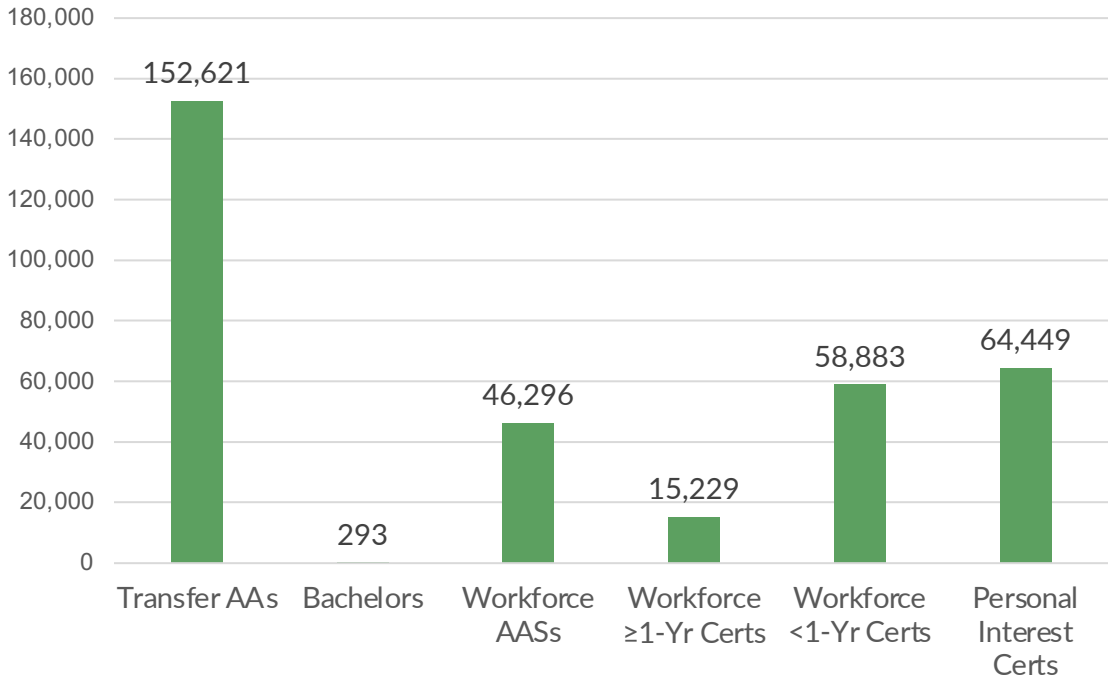
The value of community college awards depends on level, intent, and field.

California Community College Awards by Level and Intent: AY 2023-24



Source: CCRC analysis of IPEDS 2023-24 awards data.

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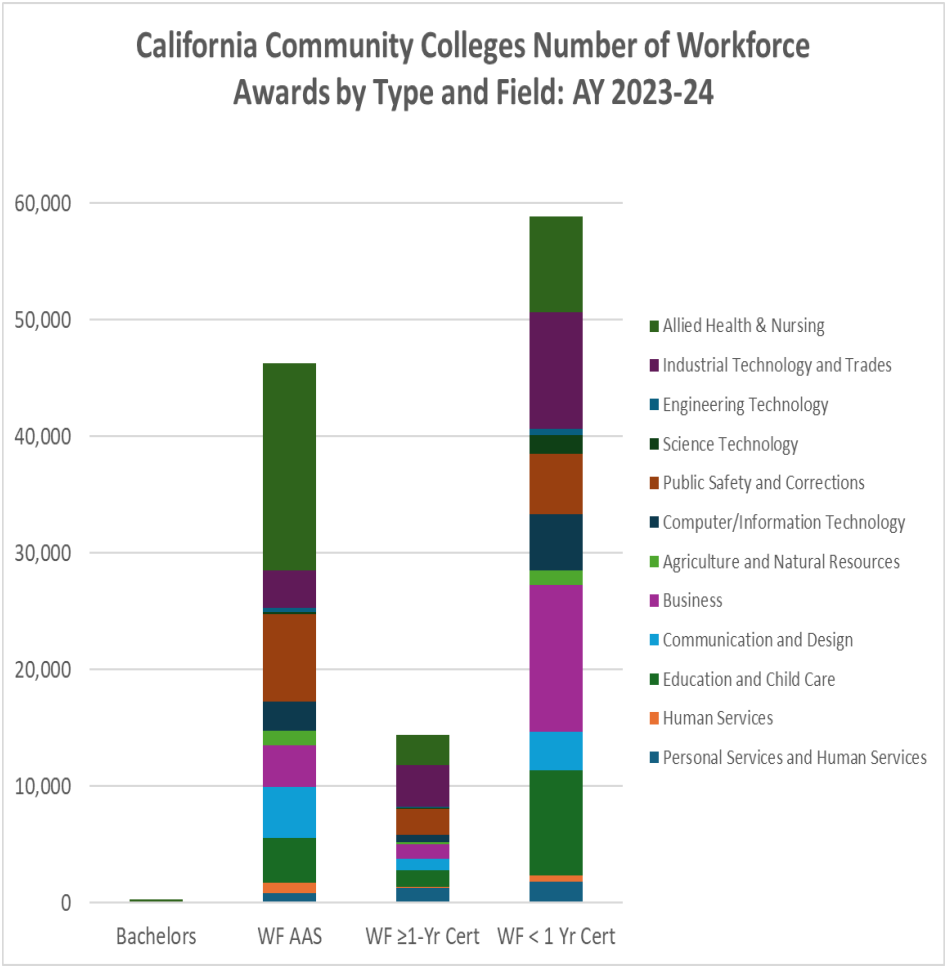

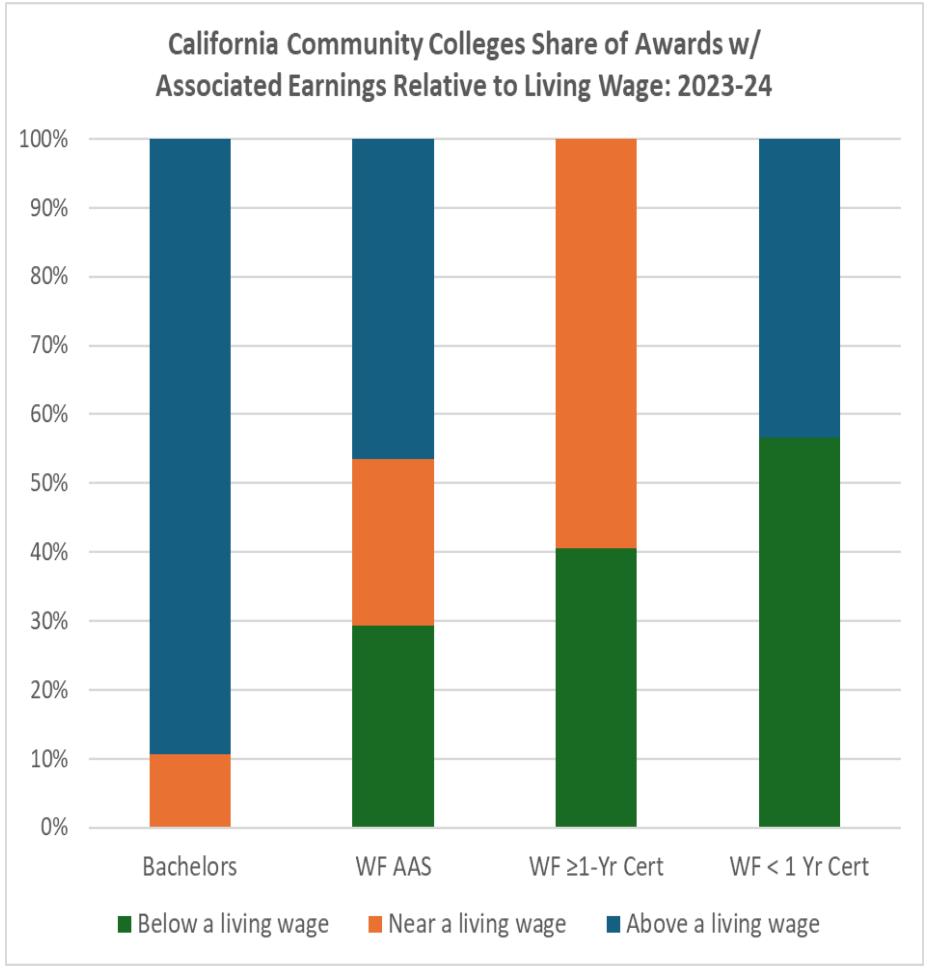

Source: CCRC analysis of IPEDS awards data. https://ccrc.tc.columbia.edu/dashboard/community-college-awards-for-post-completion-success.html

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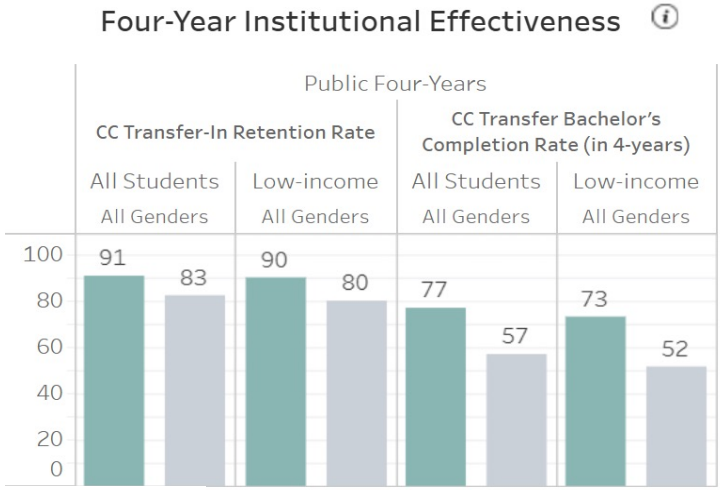
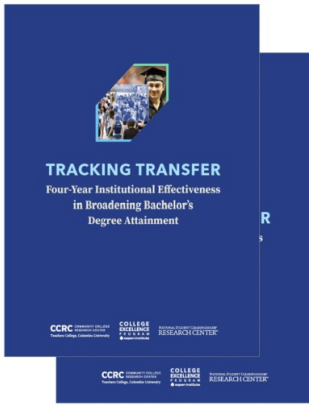
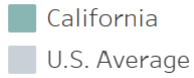
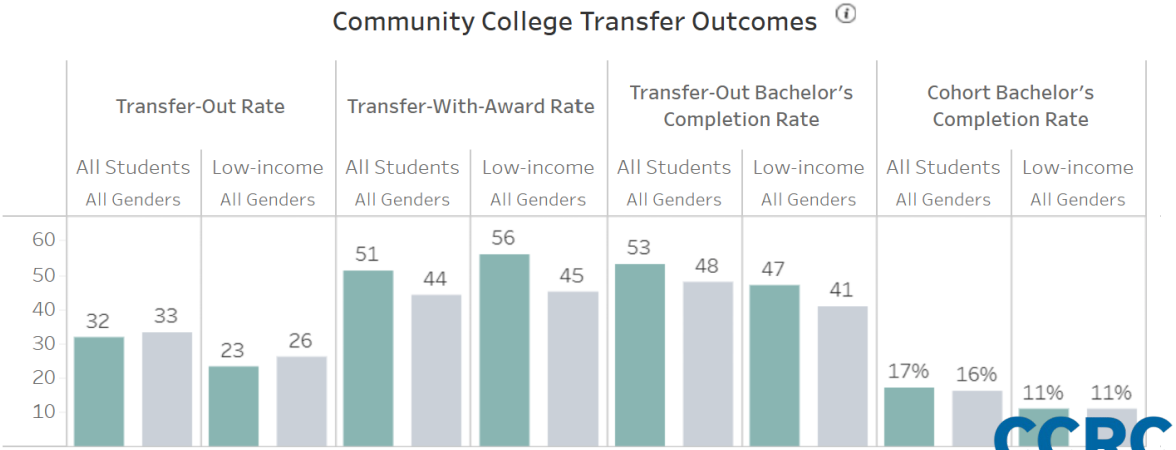
Once California cc students transfer, they do well, but too few students transfer (many AA grads don't apply) and too many earn credits that don't apply to their major.

Source: CCRC analysis of National Student Clearinghouse data. https://ccrc.tc.columbia.edu/dashboard/tracking-transfer-state-outcomes.html









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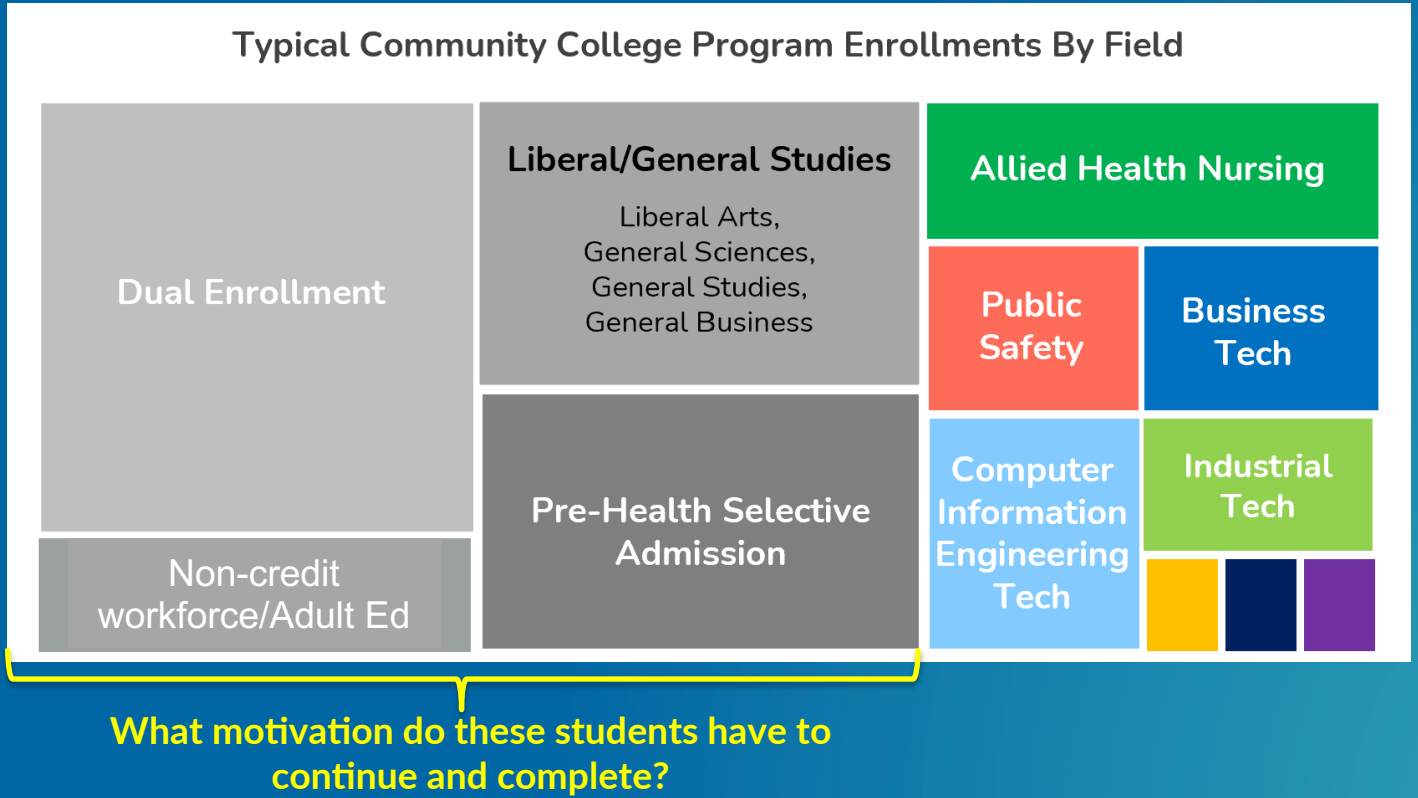
Too many students are not enrolled in a program that clearly leads to a good job or transfer in their major field of interest.



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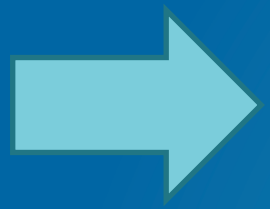
More Essential Than Ever:
From Completion to Post-Completion Success

Pathways reforms to date have achieved gains by **removing barriers to completion**



Moving forward, community colleges also need to focus on **strengthening pathways to post-completion success**—and thus make students' investment of time, money and effort worth it

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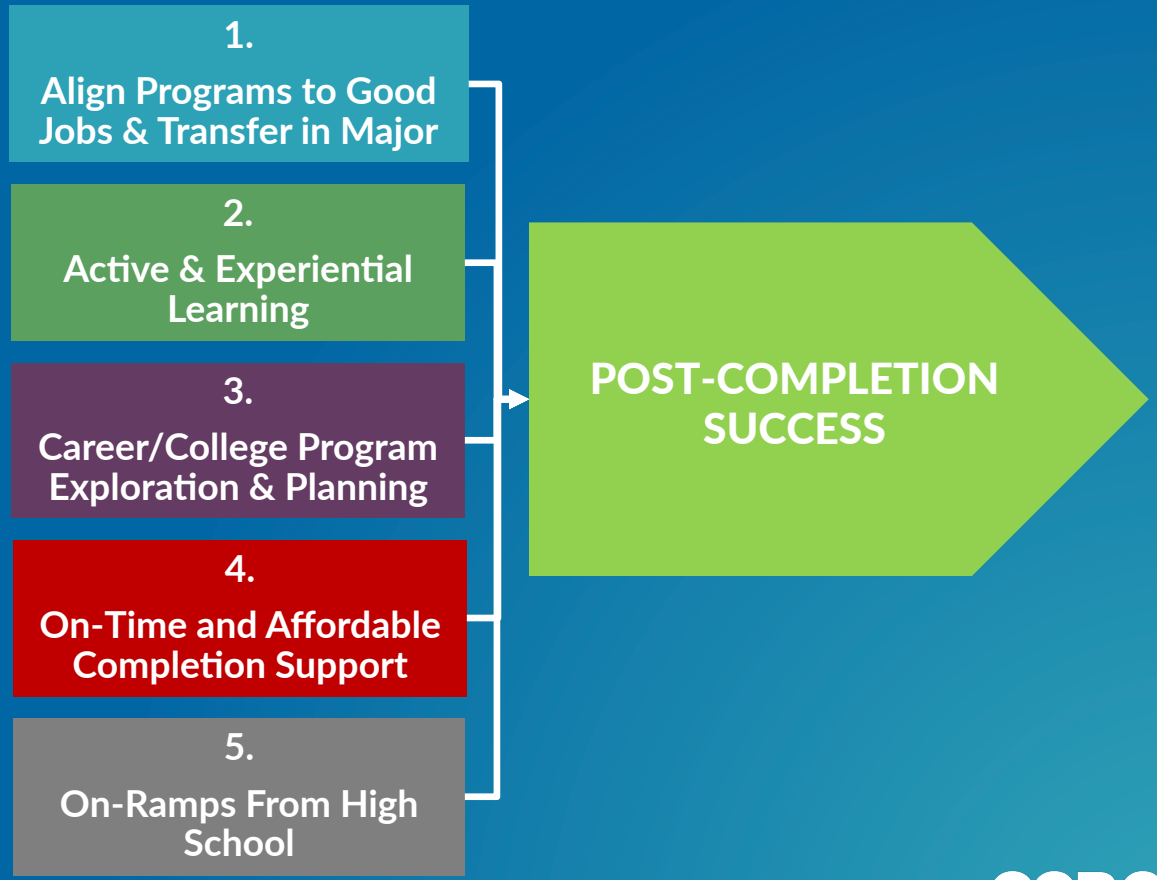
Five frontiers for strengthening community college pathways to post-completion success



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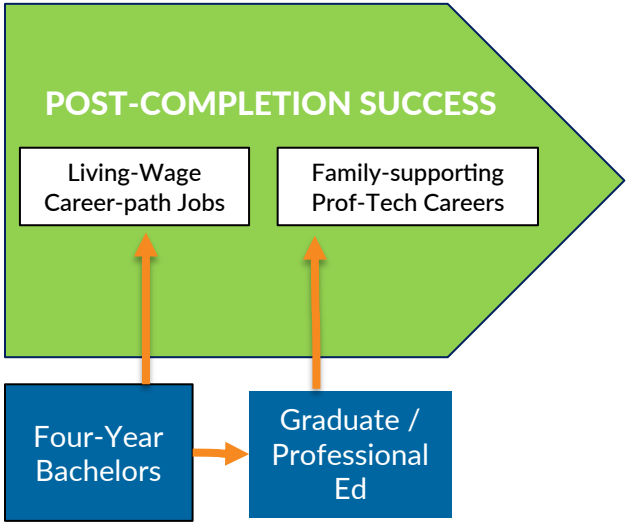
Start with **post-completion success** in mind, and backward design



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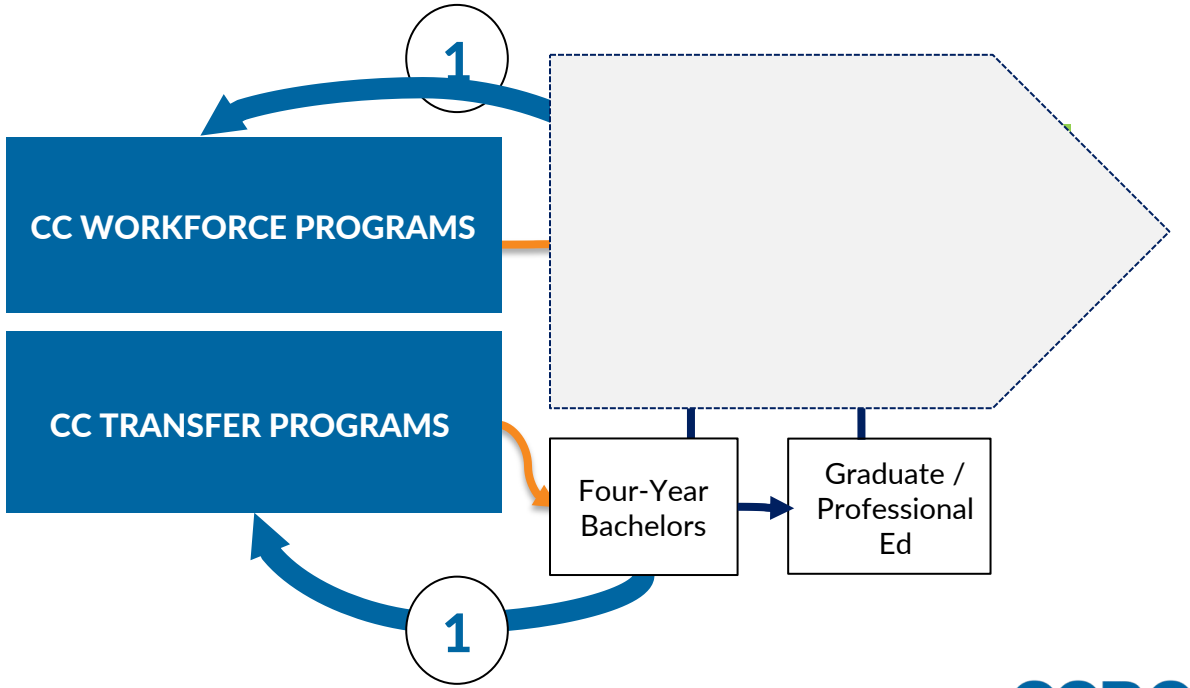
Frontier 1: Partner with employers and universities to ensure programs lead to living-wage jobs or transfer in major.



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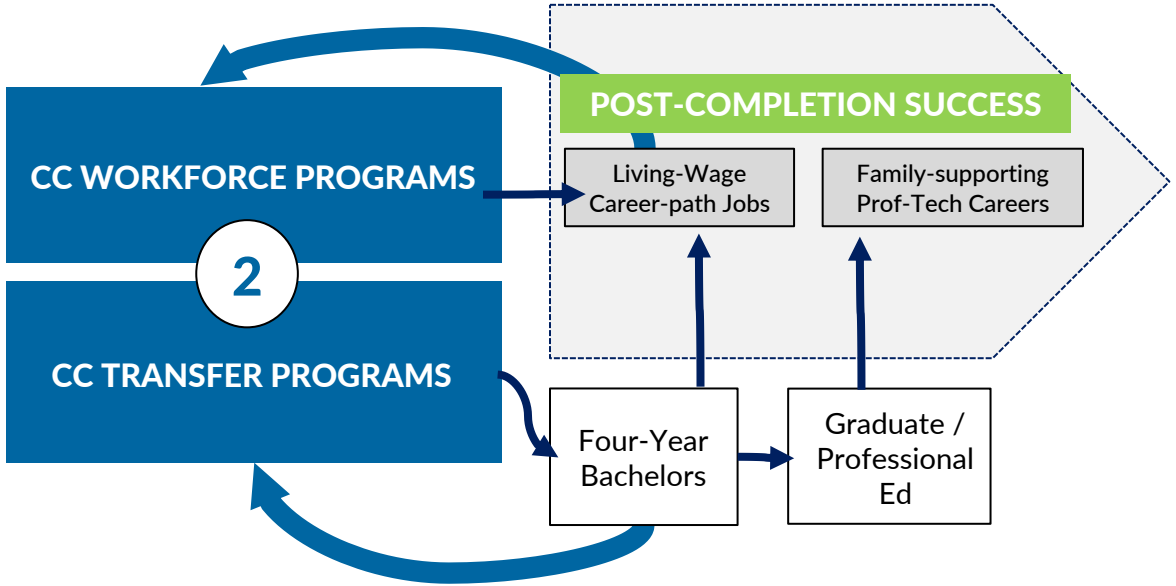
Frontier 2:

Help students develop versatile skills by embedding active and experiential learning throughout all programs.



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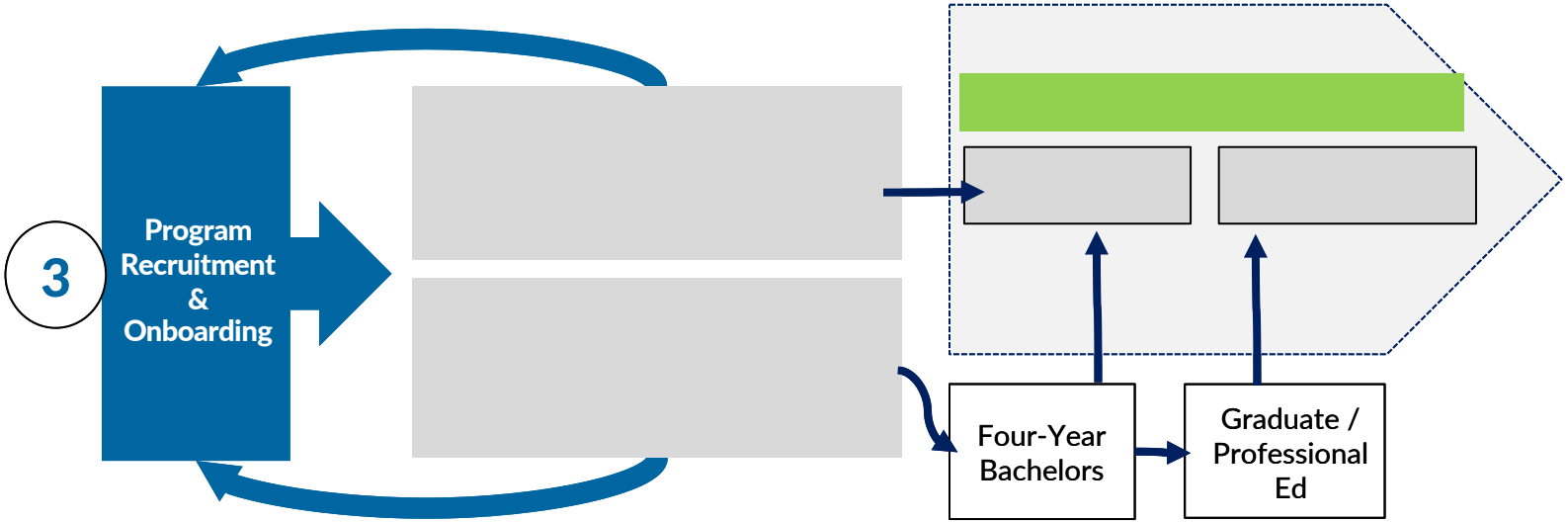
Frontier 3:

Rethink the onboarding experience to help students explore, choose, and plan a program of study aligned with their interests and aspirations.



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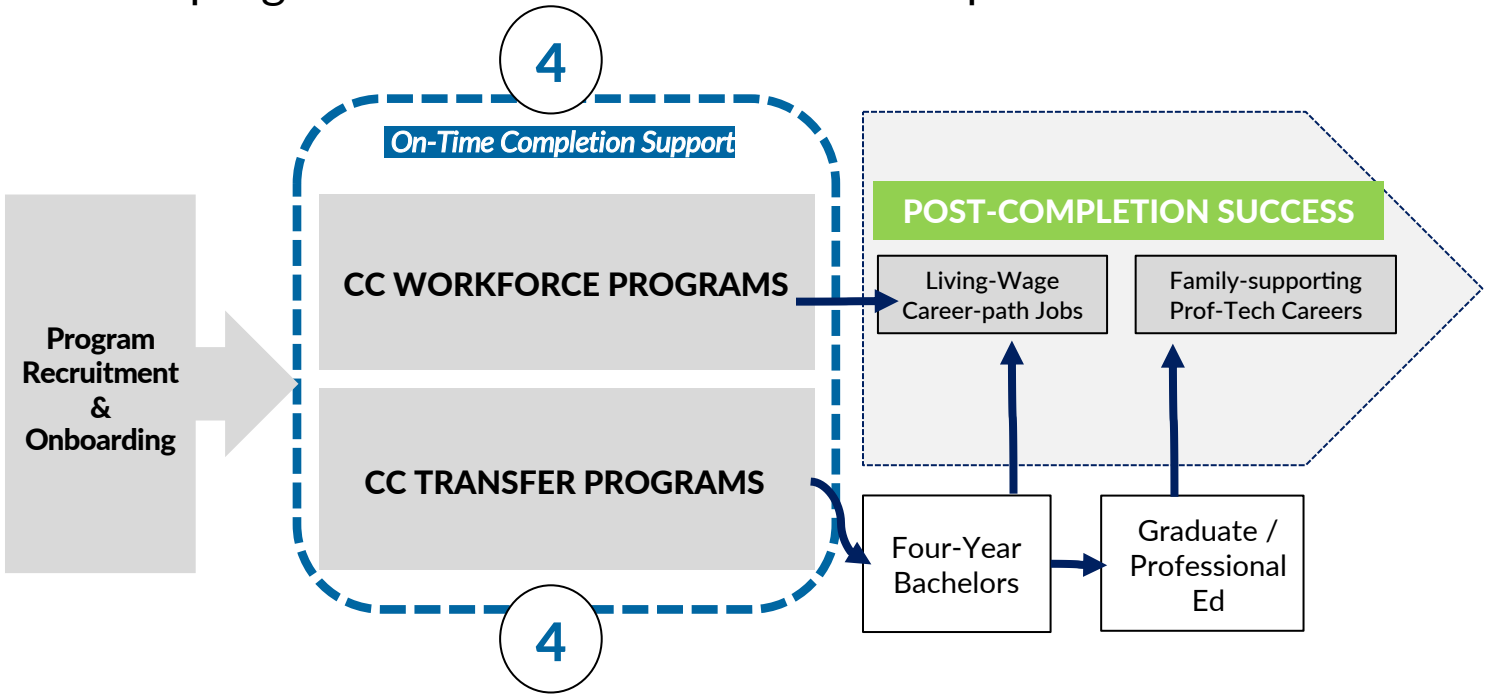
Frontier 4:

Structure, schedule and deliver courses—and provide progress monitoring and support—to enable busy students to complete their programs in as little time and cost as possible.



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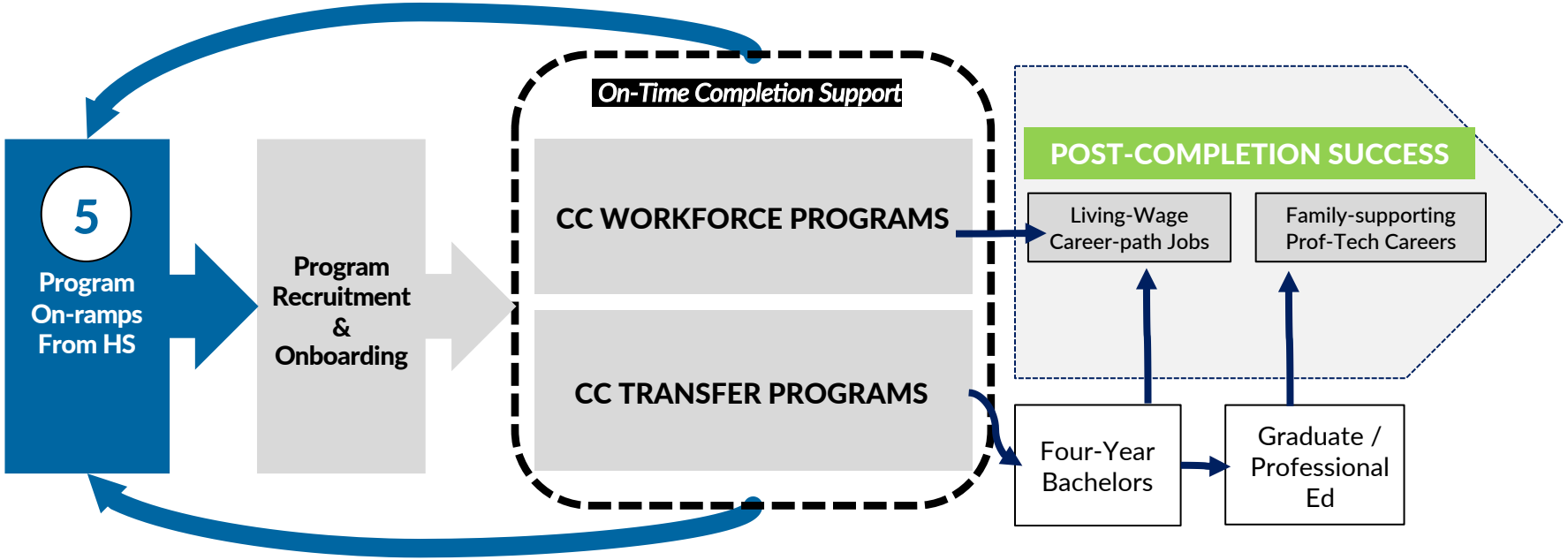
Frontier 5:

Rethink the high school dual enrollment as an onramp to a debt-free, career-connected postsecondary pathways for students who wouldn't otherwise continue their education after high school.



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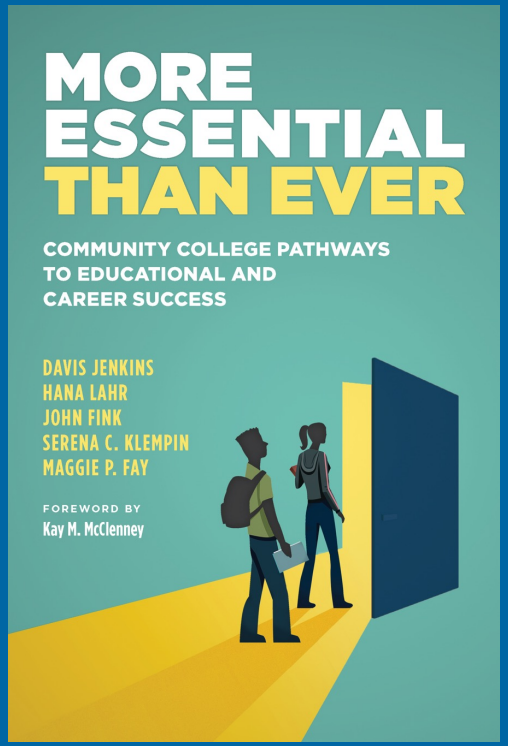
More Essential Than Ever is filled with practical guidance and examples



- "Taking Action" steps at the end of each chapter
- Dozens of examples and case studies from different colleges
- Blog series and discussion guide to facilitate broad engagement

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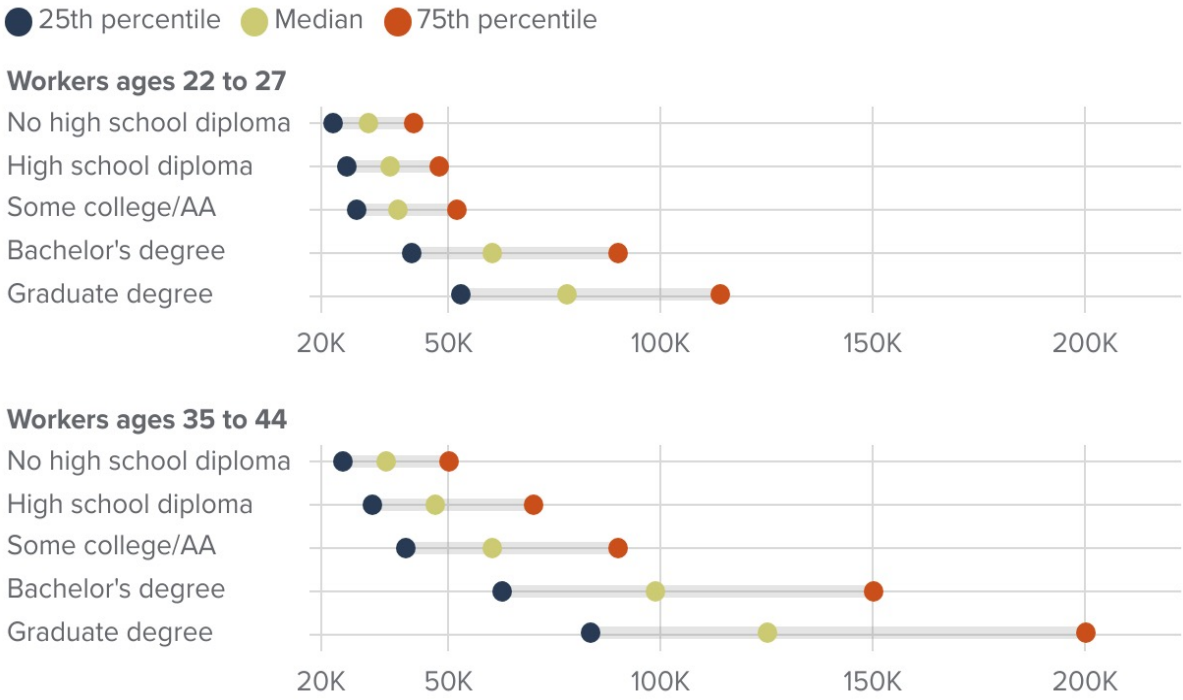
Pathways frontier with biggest potential payoff for California community colleges:

Rethinking dual enrollment as an onramp to career-connected postsecondary education

Substantial postsecondary education and training—AAS, apprenticeship, bachelor's—by mid-20s, increasingly essential for family-sustaining, career-path employment in California

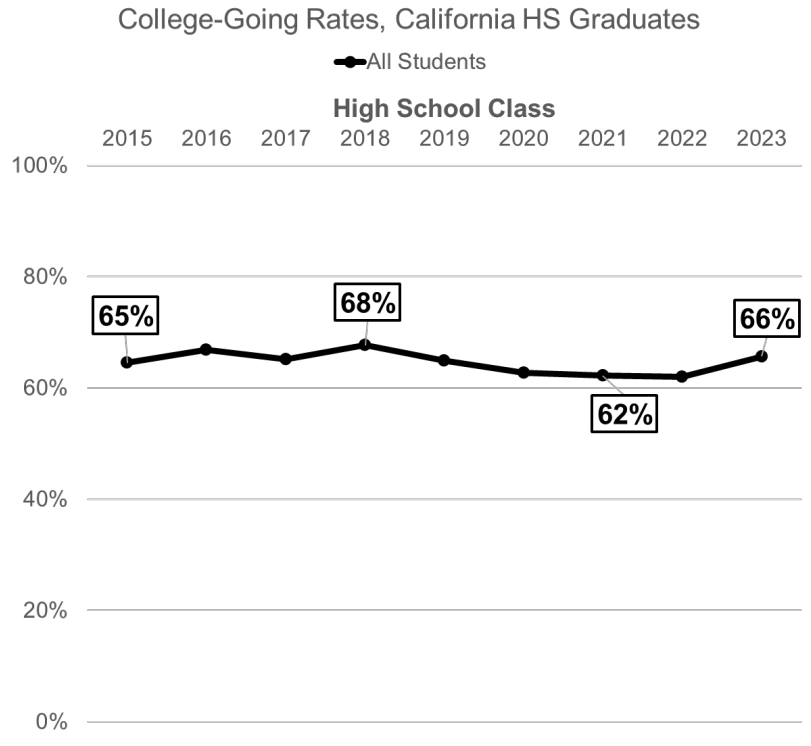
Source: Public Policy Institute of California, April 2025.

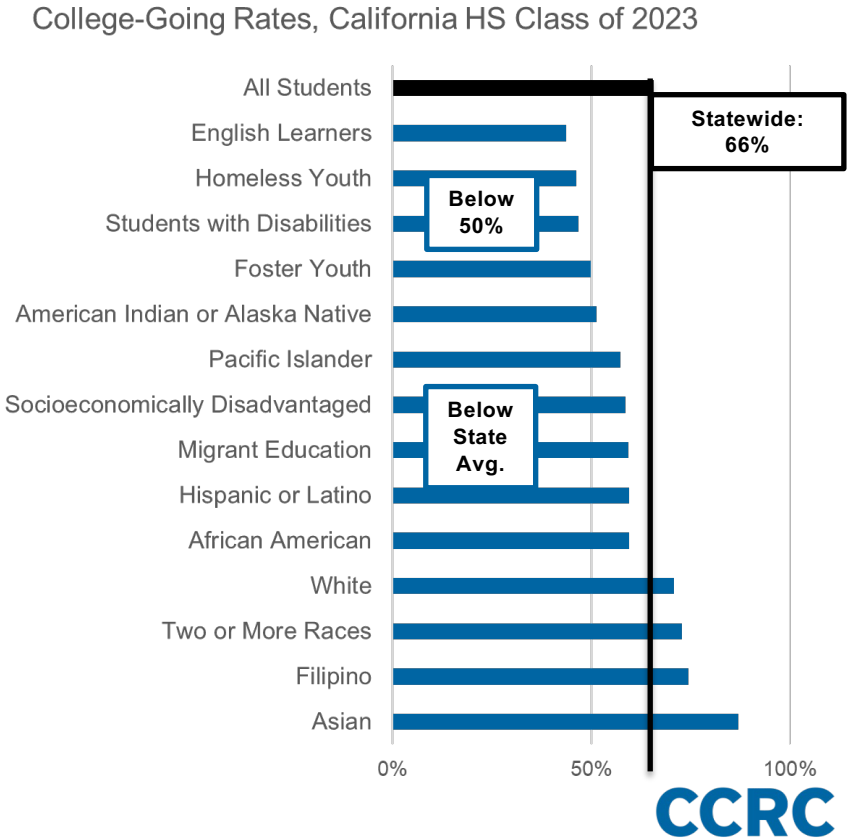
Wage differences between college graduates and high school graduates increase with age



SOURCE: Combined 2022 and 2023 American Community Survey, 1-Year Estimates.
NOTES: Restricted to full-time, year-round workers. Those currently enrolled in school are excluded. Groups are defined by their highest level of education. "AA" refers to associate degrees.
FROM: PPIC Blog, April 2025.

College-Going Rates Somewhat Stable, but Gaps are Persistent





Source: California Department of Education, College-Going Rate (CGR) data (12 month)

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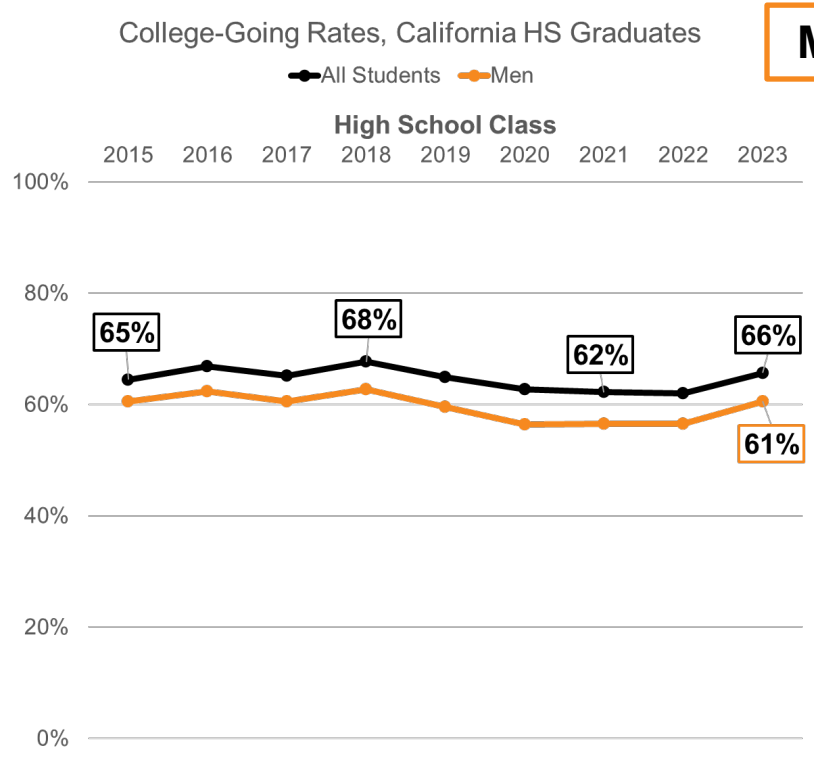
College-Going Rates Somewhat Stable, but Gaps are Persistent



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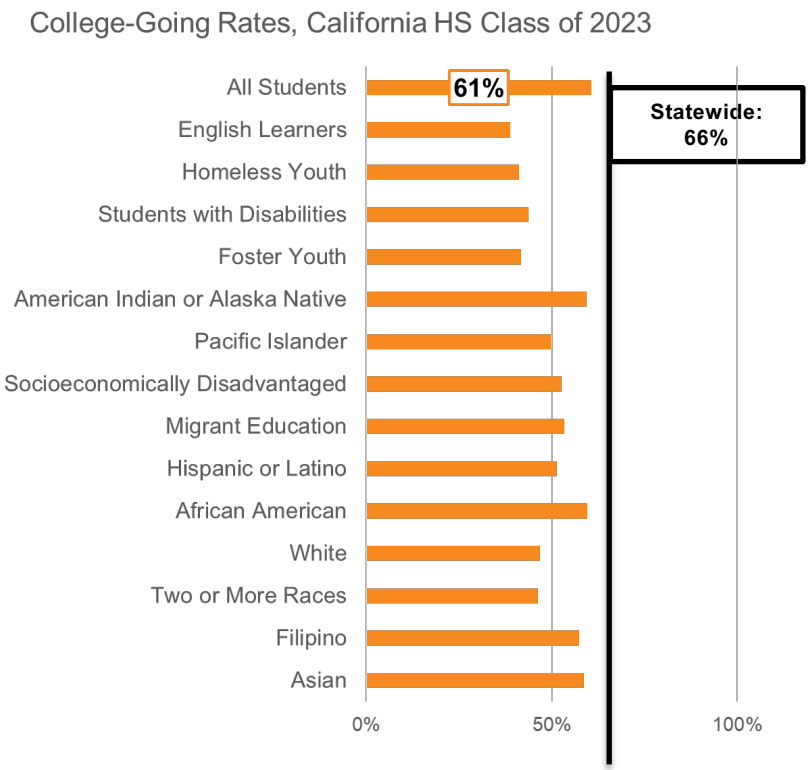

Source: California Department of Education, College-Going Rate (CGR) data (12 month)

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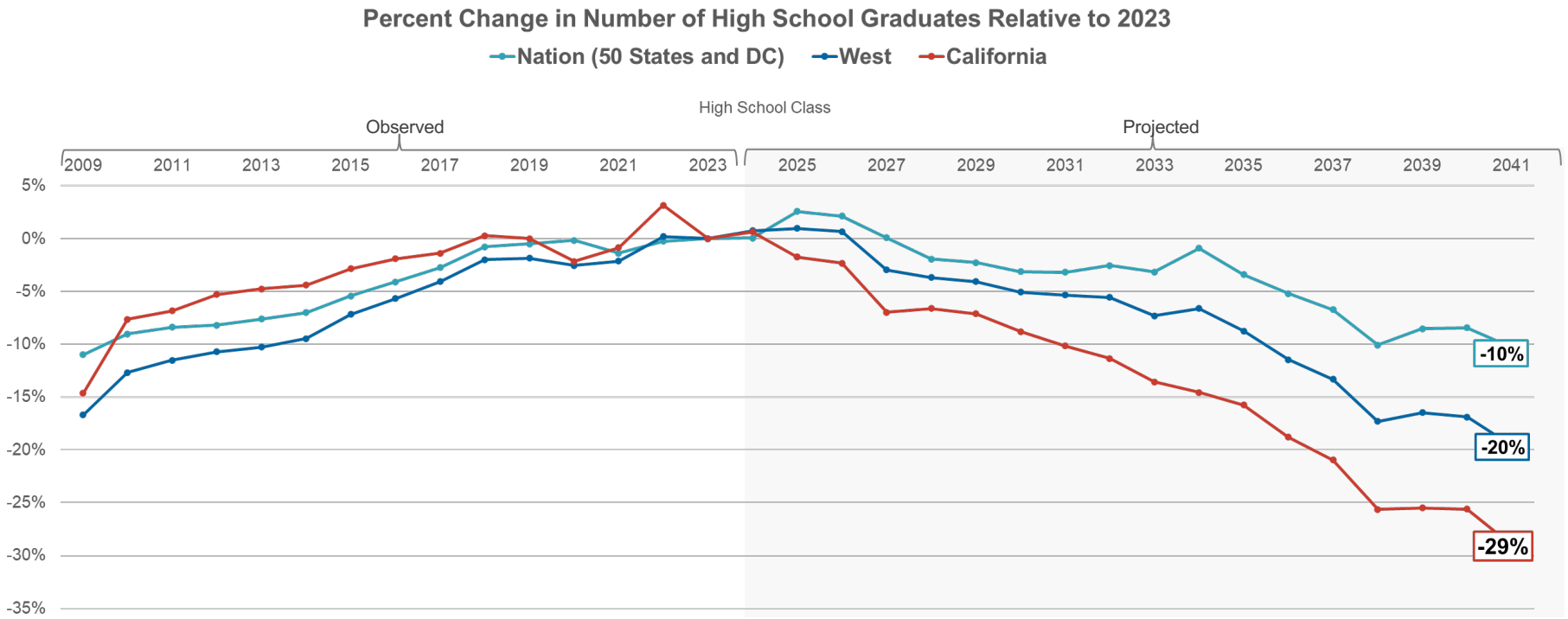
California faces a 29% projected decline in HS graduates from 2023-2041



Lane, P., Falkenstern, C., & Bransberger, P. (2024). Knocking at the College Door: Projections of High School Graduates. Western Interstate Commission for Higher Education. https://www. wiche.edu/knocking

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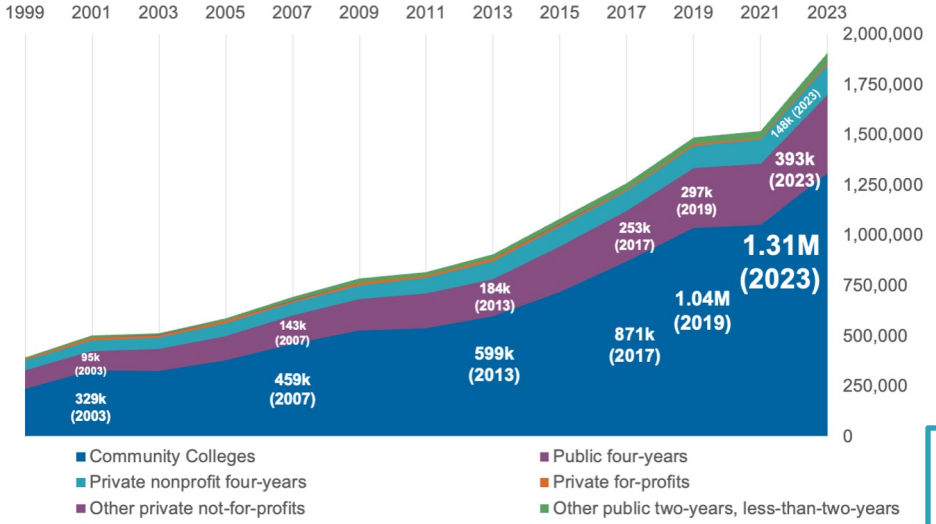
The Opportunity:
Dual Enrollment Widespread, Growing, and Potentially Effective

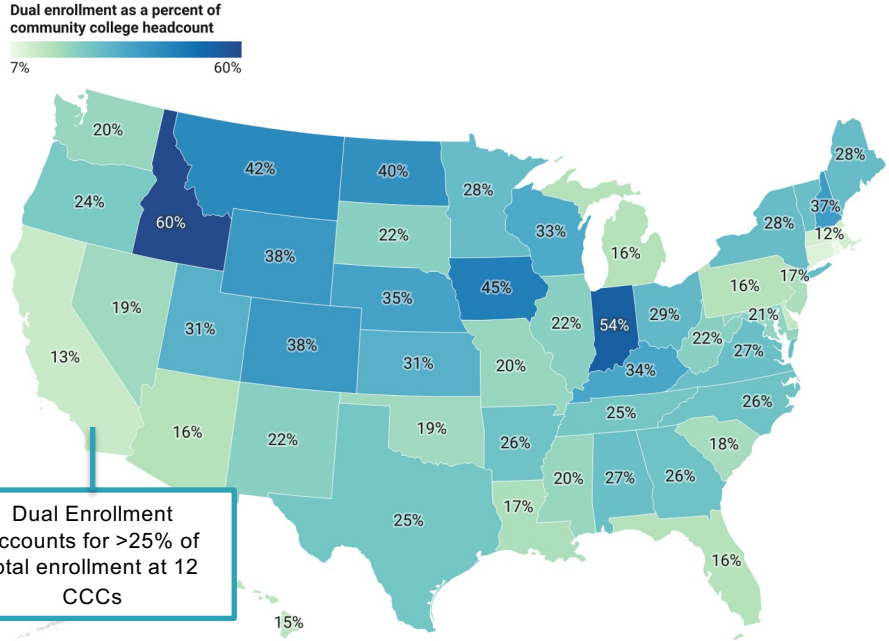
Dual enrollment has doubled in the past decade, up to 2.8M in 2023-2024

Growth of Dual Enrollment, Fall Enrollments 1999-2023



1 in 5 community college students are in high school

Percentage of Community College Students in High School in 2023-24



Dual Enrollment accounts for >25% of total enrollment at 12 CCCs

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CCRC analysis of IPEDS Data
https://ccrc.tc.columbia.edu/easyblog/high-school-dual-enrollment-grows.html

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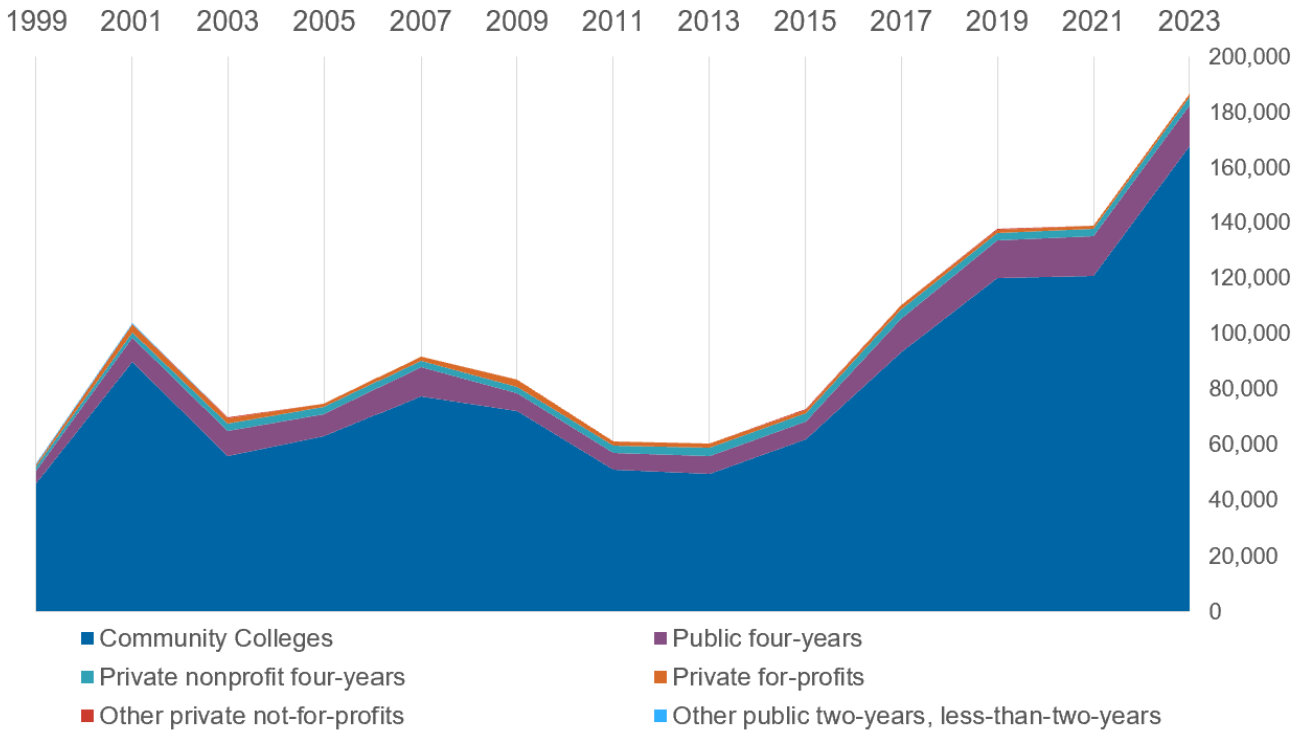
California Dual Enrollment

1999-2023

IPEDS Fall Enrollments

Fall Undergraduate Enrollments among Students Aged 17 or Younger



Expansion of Dual Enrollment in California Concentrated at Community Colleges

1 **Strong research base showing that DE can work as a lever for expanding college access & attainment**

2 **DE benefits Black, Latino, low-income, and other priority groups**

3 **Postsecondary outcomes generally stronger but differ state-to-state**

Reviews & Meta-Analyses

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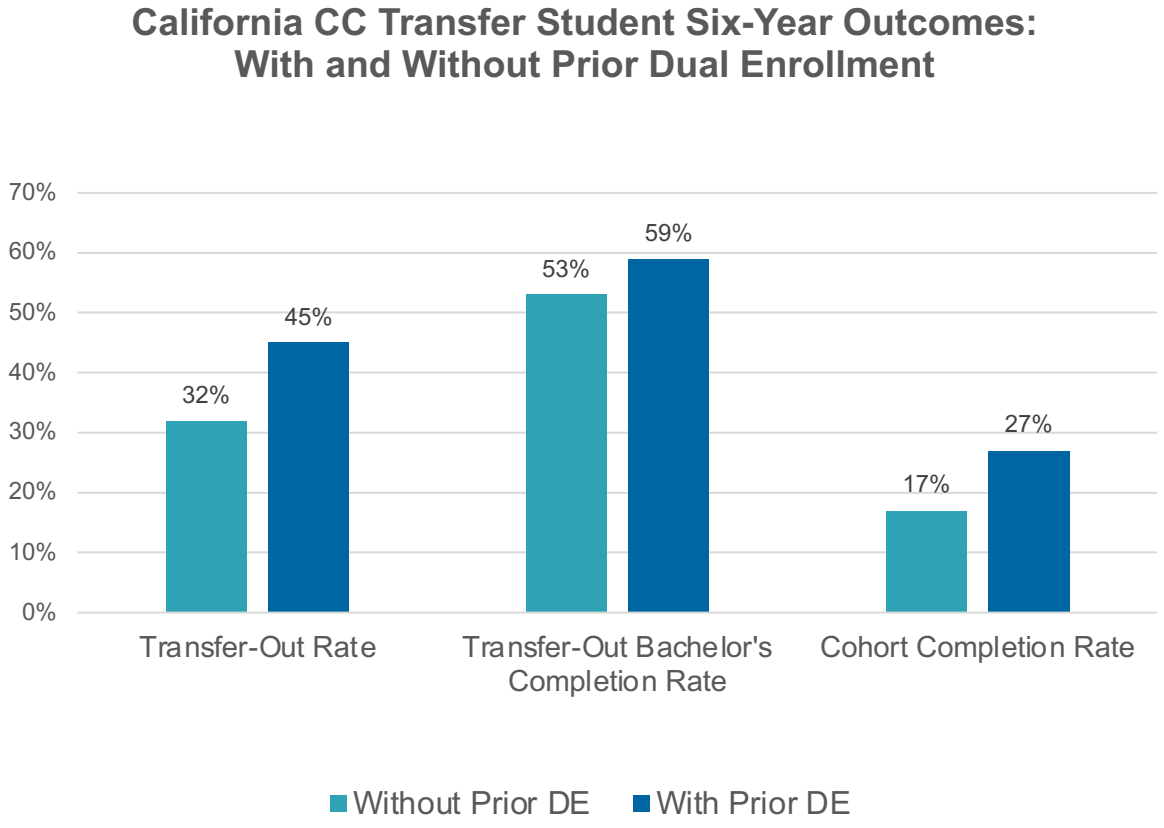
Former Californinia cc dual enrollment students have stronger transfer outcomes than those with no prior DE.



Source: Velasco et al. CCRC, 2024.

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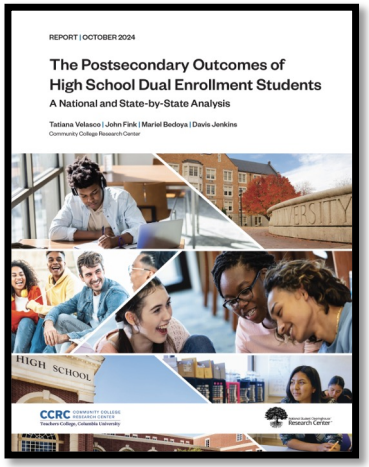
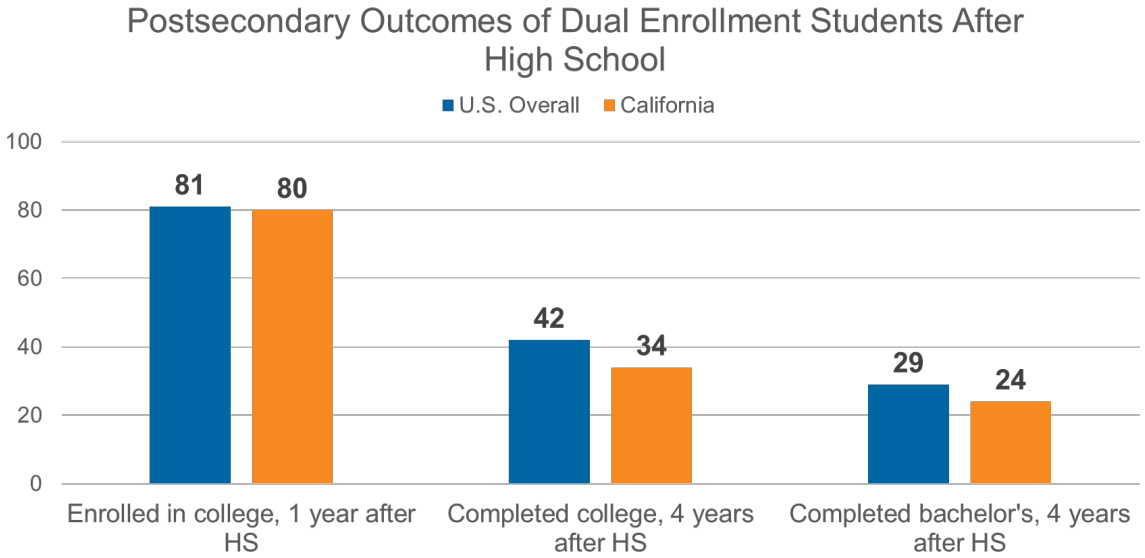
Postsecondary Outcomes for California Dual Enrollment Students



Velasco et al., 2024



CCRC analysis of NSC data on students who started dual enrollment in fall 2015, tracked up to 4 years after expected high school graduation (Velasco et al., 2024)

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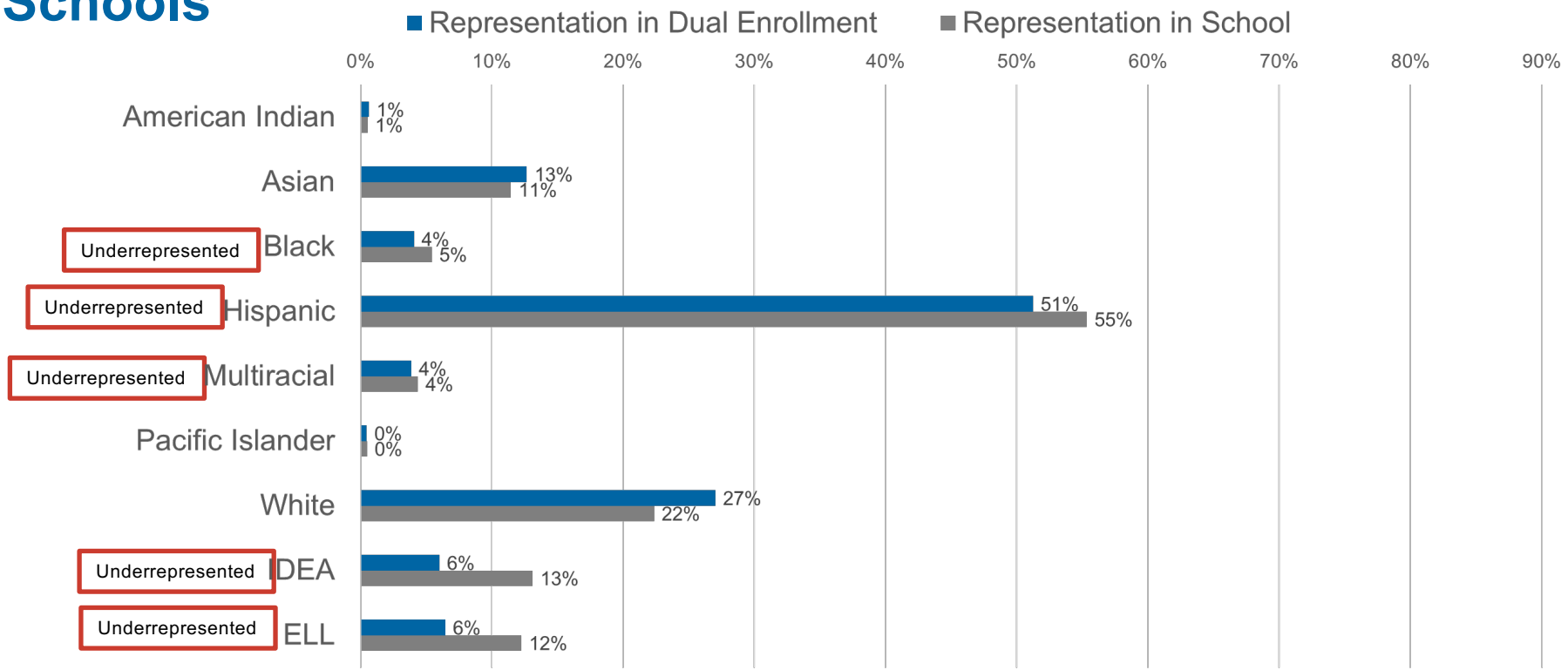
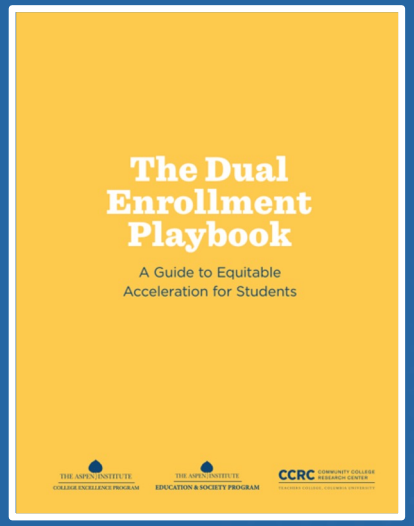
“Programs of Privilege” Access to Dual Enrollment Uneven

Representation in Dual Enrollment: California Public Schools

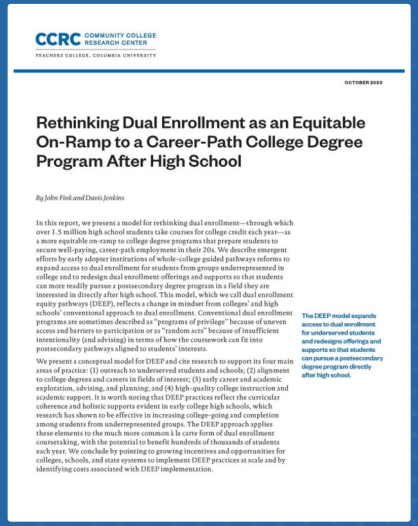


CCRC analysis of CRDC data from the 2021-22 academic year, accessed via: https://civilrightsdata.ed.gov/

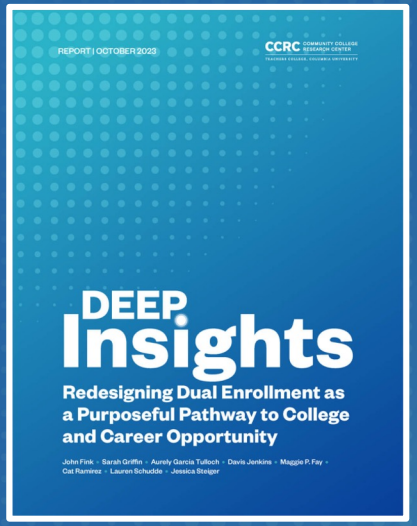
CCRC's Research Focus: Expanding College Access and Success Through Dual Enrollment



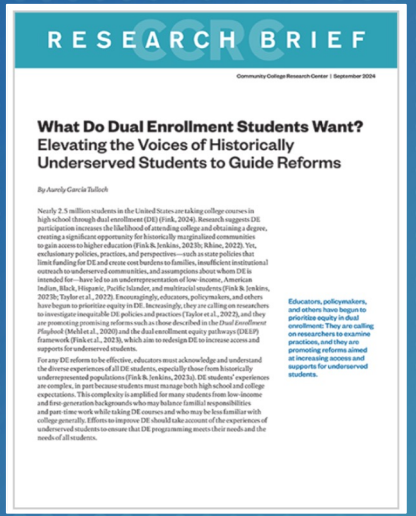
The Dual Enrollment Playbook: A Guide to Equitable Acceleration for Students (October 2020)



Rethinking Dual Enrollment as an Equitable On-Ramp to a Career-Path College Degree Program After High School (October 2023)



DEEP Insights: Redesigning Dual Enrollment as a Purposeful Pathway to College and Career Opportunity (October 2023)



What Do Dual Enrollment Students Want? Elevating the Voices of Historically Underserved Students to Guide Reforms (Sept. 2024)

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Rethinking Dual Enrollment as an Onramp to College and Career Opportunity

Conventional Approach

"Programs of privilege"

"Random acts"

DEEP Approach

All – and especially underserved students

Designed to expand college and career opportunities

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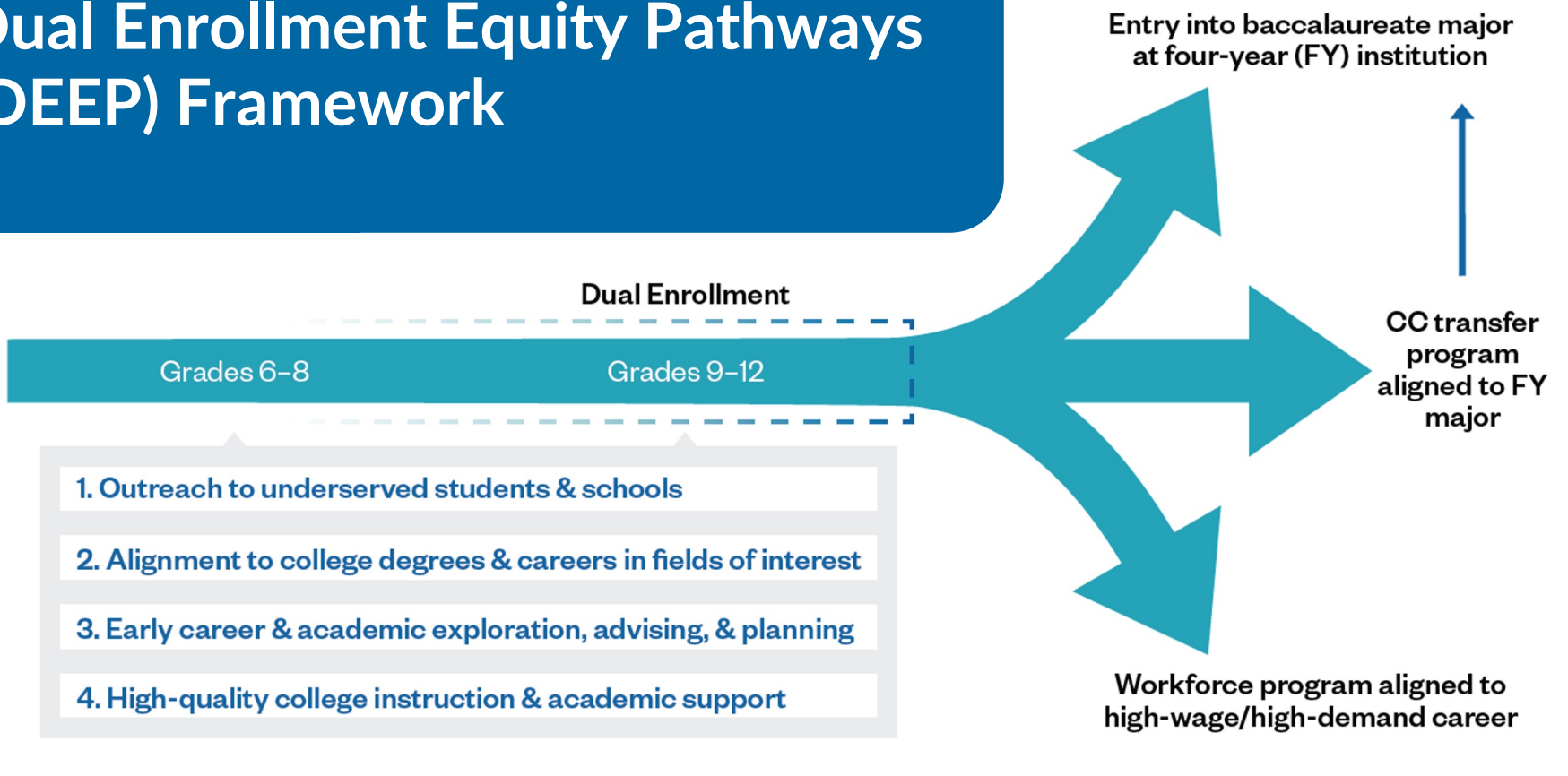
Dual Enrollment Equity Pathways (DEEP) Framework



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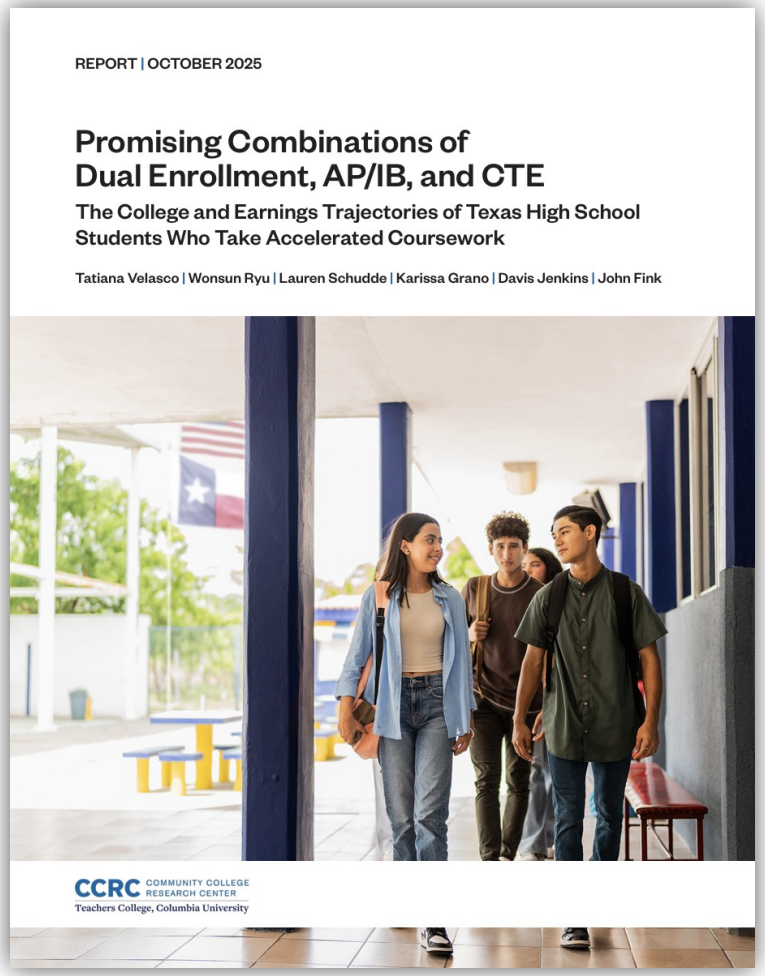

High school CTE with embedded dual enrollment was associated with +16% earnings gain by age 25 compared to CTE alone (Velasco et al., 2025)

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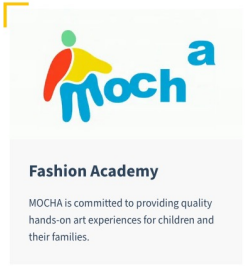
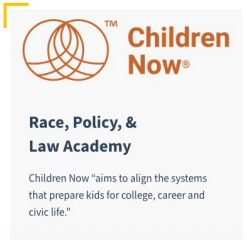
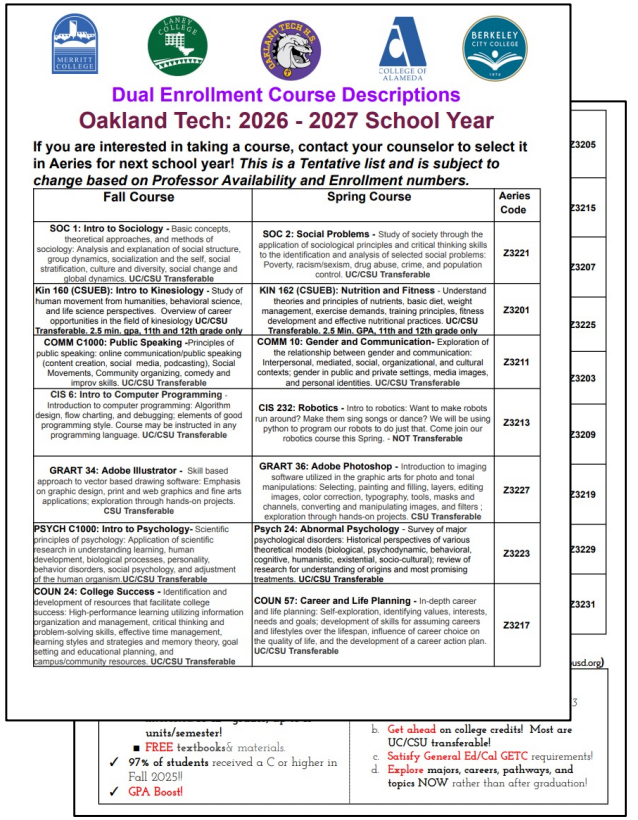






Dual Enrollment Course Descriptions

Oakland Tech: 2026 - 2027 School Year

If you are interested in taking a course, contact your counselor to select it in Aeries for next school year! ***This is a Tentative list and is subject to change based on Professor Availability and Enrollment numbers.***

Fall Course	Spring Course	Aeries Code
SOC 1: Intro to Sociology - Basic concepts, theoretical approaches, and methods of sociology. Analysis and explanation of social structure, group dynamics, socialization and the self, social stratification, culture and diversity, social change and global dynamics. **UC/CSU Transferable**	**SOC 2: Social Problems -** Study of society through the application of sociological principles and critical thinking skills to the identification and analysis of selected social problems: Poverty, racism/sexism, drug abuse, crime, and population control. **UC/CSU Transferable**	Z3221
Kin 160 (CSUEB): Intro to Kinesiology - Study of human movement from humanities, behavioral science, and life science perspectives. Overview of career opportunities in the field of kinesiology **UC/CSU Transferable, 2.5 min. gpa, 11th and 12th grade only**	**KIN 162 (CSUEB): Nutrition and Fitness** - Understand theories and principles of nutrients, basic diet, weight management, exercise demands, training principles, fitness development and effective nutritional practices. **UC/CSU Transferable, 2.5 Min. GPA, 11th and 12th grade only**	Z3201
COMM C1000: Public Speaking -Principles of public speaking: online communication/public speaking (content creation, social media, podcasting), Social Movements, Community organizing, comedy and improv skills. **UC/CSU Transferable**	**COMM 10: Gender and Communication-** Exploration of the relationship between gender and communication: Interpersonal, mediated, social, organizational, and cultural contexts; gender in public and private settings, media images, and personal identities. **UC/CSU Transferable**	Z3211
CIS 6: Intro to Computer Programming - Introduction to computer programming: Algorithm design, flow charting, and debugging, elements of good programming style. Course may be instructed in any programming language. **UC/CSU Transferable**	**CIS 232: Robotics -** Intro to robotics: Want to make robots run around? Make them sing songs or dance? We will be using python to program our robots to do just that. Come join our robotics course this Spring. - **NOT Transferable**	Z3213
GRART 34: Adobe Illustrator - Skill based approach to vector based drawing software: Emphasis on graphic design, print and web graphics and fine arts applications; exploration through hands-on projects. **CSU Transferable**	**GRART 36: Adobe Photoshop -** Introduction to imaging software utilized in the graphic arts for photo and tonal manipulations: Selecting, painting and filling, layers, editing images, color correction, typography, tools, masks and channels, converting and manipulating images, and filters ; exploration through hands-on projects. **CSU Transferable**	Z3227
PSYCH C1000: Intro to Psychology- Scientific principles of psychology: Application of scientific research in understanding learning, human development, biological processes, personality, behavior disorders, social psychology, and adjustment of the human organism.**UC/CSU Transferable**	**Psych 24: Abnormal Psychology** - Survey of major psychological disorders: Historical perspectives of various theoretical models (biological, psychodynamic, behavioral, cognitive, humanistic, existential, socio-cultural); review of research for understanding of origins and most promising treatments. **UC/CSU Transferable**	Z3223
COUN 24: College Success - Identification and development of resources that facilitate college success: High-performance learning utilizing information organization and management, critical thinking and problem-solving skills, effective time management, learning styles and strategies and memory theory, goal setting and educational planning, and campus/community resources. **UC/CSU Transferable**	**COUN 57: Career and Life Planning -** In-depth career and life planning: Self-exploration, identifying values, interests, needs and goals; development of skills for assuming careers and lifestyles over the lifespan, influence of career choice on the quality of life, and the development of a career action plan. **UC/CSU Transferable**	Z3217

units/semester!
- FREE textbooks& materials.
- ✓ 97% of students received a C or higher in Fall 2025!!
- ✓ GPA Boost!

b. Get ahead on college credits! Most are UC/CSU transferable!
c. Satisfy General Ed/Cal GETC requirements!
d. Explore majors, careers, pathways, and topics NOW rather than after graduation!

Z3205
Z3215
Z3207
Z3225
Z3203
Z3209
Z3219
Z3229
Z3231
usd.org)

Oakland Technical High School Academies & Industry Partners

Oakland, California

CCRC

MISSION

The Hawthorne High School of Manufacturing and Engineering is a progressive small learning community tasked with creating the next-generation workforce. HHSME is committed to developing innovators who lead through the design and implementation of practical solutions to meet the ever-changing workforce challenges of today and beyond.

WORK-BASED LEARNING OPPORTUNITIES

Job shadowing and internship opportunities allow our students an inside look at what the future might bring for their individual careers. These range from 20 hours to 200+ hours, working with industrial professionals on-site at one of our industry partner's facilities. Many of these shadowing/internships have evolved into full-time and part-time employment for our students.

STUDENT SUPPORT

Students use the same industry-leading design principles and 3D Design Software as companies like Northrop Grumman, Boeing and Walt Disney Imagineering. Students explore the worlds of architecture and product design, experiment with aerodynamics and biomechanics, and are trained in state-of-the-art manufacturing labs.

GRADE-LEVEL COURSE SEQUENCE

9 Introduction to Engineering Design

10 Principals of Engineering (El Camino College Dual Enrollment course)

11 Computer Integrated Manufacturing (El Camino College Dual Enrollment course)

12 Engineering Design and Development (El Camino College Dual Enrollment course)

www.hhscougars.org/hhsme

Through **dual enrollment and articulation with El Camino College**, students earn college credit while still in high school, gaining a head start on careers in engineering, advanced manufacturing, and other high-demand industries.

Introduction to Engineering Design (PLTW)

Articulated with El Camino College
Designed for **9th grade students**, the major focus of IED is the **design process and its application**. Through hands-on projects, students apply engineering standards and document their work. Using industry-standard 3D modeling software, they design solutions to solve real-world problems, document their process in an engineer's notebook, and communicate solutions to peers and professionals.
Why take this class?
You'll learn how to think and work like an engineer. Using 3D design software, you'll create and test your own ideas, keep an engineer's notebook, and learn how to turn problems into solutions.

Principles of Engineering (PLTW)

Dual Enrollment with El Camino College
Designed for **10th grade students**, this survey course introduces students to **core engineering concepts** they'll encounter in college and beyond. Topics include mechanisms, energy, statics, materials, and kinematics. Students develop problem-solving skills, apply research and design, document their work, and present solutions to authentic challenges.
Why take this class?
Curious about how machines, structures, and systems really work? This class gives you hands-on projects in energy, forces, materials, and motion — the building blocks of all engineering fields.

Computer Integrated Manufacturing (PLTW)

Dual Enrollment with El Camino College
This course asks: **How are things made?** Students explore the history of manufacturing, robotics and automation, and modern production methods. Topics include manufacturing processes, computer modeling, CNC machining, additive manufacturing, and flexible manufacturing systems. Designed for **10th–12th grade students**, the class gives a strong foundation in the technologies shaping today's industries.
Why take this class?
Ever wonder how everyday products are made? In this course, you'll use 3D printers, CNC machines, and robotics to explore the world of modern manufacturing — and even make your own parts.

Engineering Design and Development (PLTW)

Dual Enrollment with El Camino College
This **capstone course** challenges students to work in teams to design and develop an **original solution to a real-world problem**. Following the engineering design process, students perform research, validate and justify a chosen problem, then design, build, and test their solutions. They collaborate with **industry mentors** throughout the process and present their final project to a panel of professionals. Intended for **12th grade students**, this course prepares students for college and career pathways in engineering and advanced manufacturing.
Why take this class?
This is your chance to tackle a real problem, design a solution, and build it. You'll work in teams, partner with mentors, and present your final project just like professional engineers do.

Hawthrone High School Manufacturing & Engineering Academy

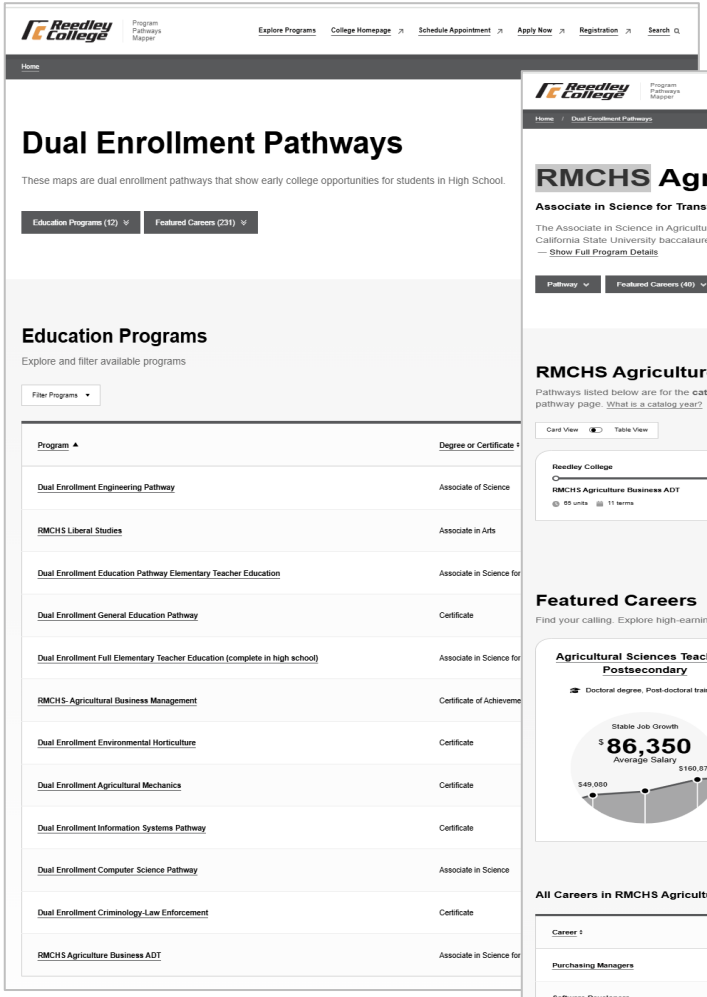
Hawthorne, California

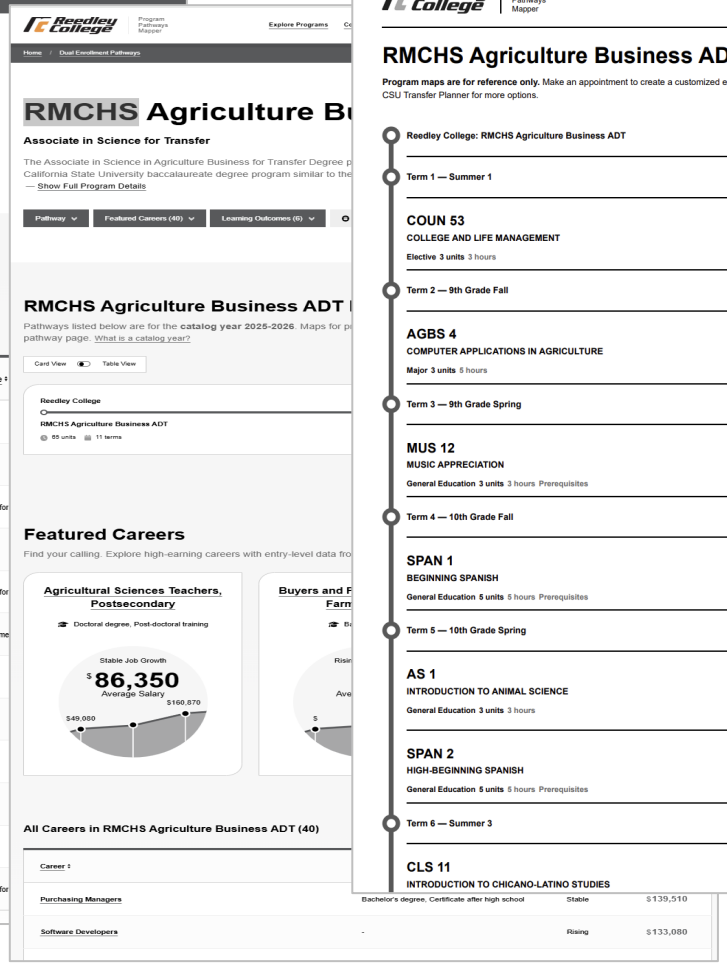
CCRC

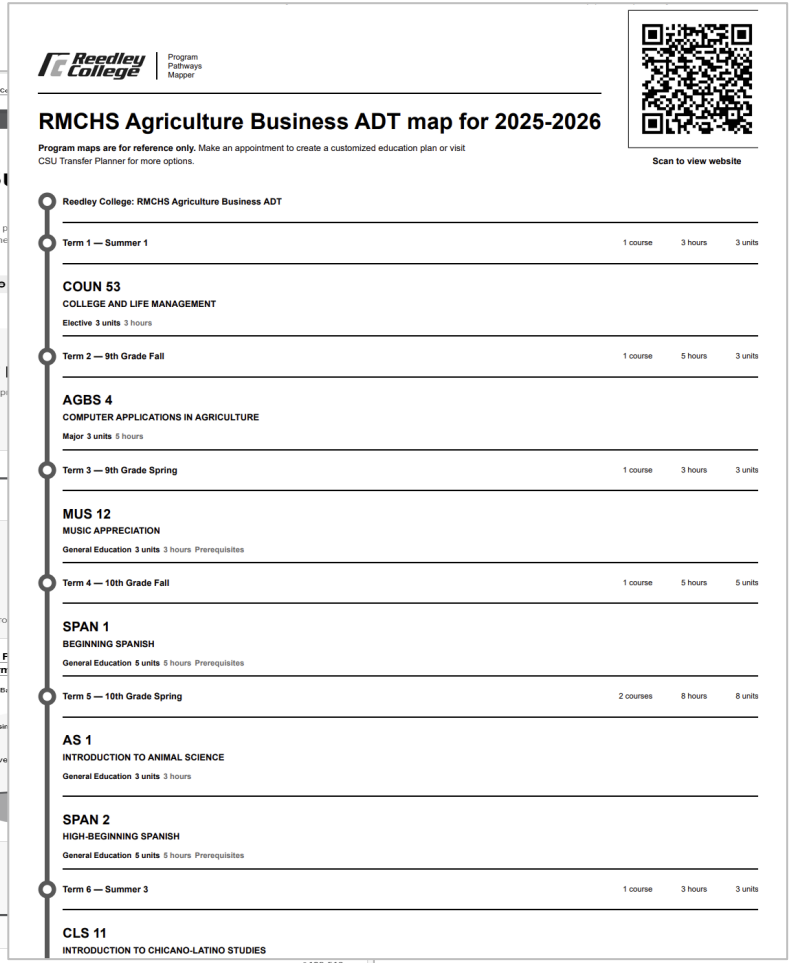
Hawthrone High School Manufacturing & Engineering Academy

Hawthorne, California

CCRC


Reedley College
Program Pathways Mapper
Explore Programs
College Homepage
Schedule Appointment
Apply Now
Registration
Search
Home
Dual Enrollment Pathways
These maps are dual enrollment pathways that show early college opportunities for students in High School.
Education Programs (12)
Featured Careers (231)
Education Programs
Explore and filter available programs
Filter Programs
Program
Degree or Certificate
Dual Enrollment Engineering Pathway
Associate of Science
RMCHS Liberal Studies
Associate in Arts
Dual Enrollment Education Pathway Elementary Teacher Education
Associate in Science for
Dual Enrollment General Education Pathway
Certificate
Dual Enrollment Full Elementary Teacher Education (complete in high school)
Associate in Science for
RMCHS- Agricultural Business Management
Certificate of Achieveme
Dual Enrollment Environmental Horticulture
Certificate
Dual Enrollment Agricultural Mechanics
Certificate
Dual Enrollment Information Systems Pathway
Certificate
Dual Enrollment Computer Science Pathway
Associate in Science
Dual Enrollment Criminology-Law Enforcement
Certificate
RMCHS Agriculture Business ADT
Associate in Science for


Reedley College
Program Pathways Mapper
Explore Programs
Home / Dual Enrollment Pathways
RMCHS Agriculture Bu
Associate in Science for Transfer
The Associate in Science in Agriculture Business for Transfer Degree p
California State University baccalaureate degree program similar to the
Show Full Program Details
Pathway
Featured Careers (40)
Learning Outcomes (6)
RMCHS Agriculture Business ADT
Pathways listed below are for the catalog year 2025-2026. Maps for p
pathway page. What is a catalog year?
Card View
Table View
Reedley College
RMCHS Agriculture Business ADT
65 units
11 terms
Featured Careers
Find your calling. Explore high-earning careers with entry-level data fro
Agricultural Sciences Teachers, Postsecondary
Doctoral degree, Post-doctoral training
Stable Job Growth
$86,350
Average Salary
$49,060
$160,870
All Careers in RMCHS Agriculture Business ADT (40)
Career
Purchasing Managers
Bachelor's degree, Certificate after high school
Stable
$139,510
Software Developers
-
Rising
$133,080


Reedley College
Program Pathways Mapper
RMCHS Agriculture Business ADT map for 2025-2026
Program maps are for reference only. Make an appointment to create a customized education plan or visit CSU Transfer Planner for more options.
Scan to view website
Reedley College: RMCHS Agriculture Business ADT
Term 1 — Summer 1
1 course
3 hours
3 units
COUN 53
COLLEGE AND LIFE MANAGEMENT
Elective 3 units 3 hours
Term 2 — 9th Grade Fall
1 course
5 hours
3 units
AGBS 4
COMPUTER APPLICATIONS IN AGRICULTURE
Major 3 units 5 hours
Term 3 — 9th Grade Spring
1 course
3 hours
3 units
MUS 12
MUSIC APPRECIATION
General Education 3 units 3 hours Prerequisites
Term 4 — 10th Grade Fall
1 course
5 hours
5 units
SPAN 1
BEGINNING SPANISH
General Education 5 units 5 hours Prerequisites
Term 5 — 10th Grade Spring
2 courses
8 hours
8 units
AS 1
INTRODUCTION TO ANIMAL SCIENCE
General Education 3 units 3 hours
SPAN 2
HIGH-BEGINNING SPANISH
General Education 5 units 5 hours Prerequisites
Term 6 — Summer 3
1 course
3 hours
3 units
CLS 11
INTRODUCTION TO CHICANO-LATINO STUDIES

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CCRC COMMUNITY COLLEGE RESEARCH CENTER
Teachers College, Columbia University

For more information, contact us.

Davis Jenkins: pdj2102@tc.columbia.edu

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