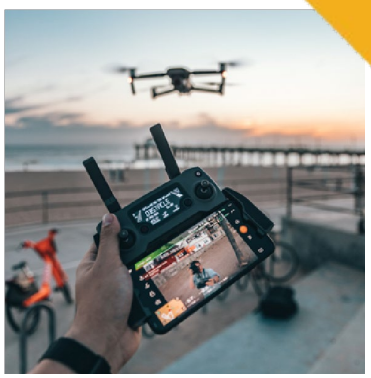
CENTER OF EXCELLENCE
FOR LABOR MARKET RESEARCH
ORANGE COUNTY








Orange County Community College Apprenticeship Opportunities:

Expanding Workforce Pathways

SPRING 2025
PHASE 1: ASSESSMENT

POWERED BY

California Community Colleges

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EXECUTIVE SUMMARY

The Orange County Center of Excellences (OC COE) endeavored to research apprenticeship data, both its sources and the analysis of available data, to assess the validity of information related to Orange County apprenticeships. Through a literature review and comprehensive analysis of secondary, quantitative research in this report, it is clear there are numerous discrepancies in apprenticeship-related data, which makes it challenging—if not impossible at this stage—to evaluate community college apprenticeship outcomes. However, Orange County's community colleges are increasing apprenticeship opportunities while addressing workforce needs in emerging fields. Exhibit 1 provides a high-level summation of the data analyzed throughout this report.

Exhibit 1: Summary of Available Apprenticeship Data by Source

	Data Source	Total # Apprentices	Industries/ CC Sectors	Program Sponsors/ Locations	Wages	Occupations	Apprentice Demographics	Traditional vs. Non-Traditional	CC Programs
DOL	Apprenticeship Dashboard	3,394	✓	✓	✗	✓	✓	✗	✗
DAS	Website homepage	✗	✓	✗	✗	✗	✗	✗	✗
DAS	Program Search Tool	✗	✓	189	✓	✓	✗	✗	✗
DAS	Registration Dashboard	4,693	✓	✗	✗	✓	✓	✗	✗
CCCCO	COCI/DataMart	✗	✗	✗	✗	✗	✗	✗	71
CCCCO	CAI Award Letters	✗	✗	✗	✗	✓	✗	✗	✓

✓ = Complete/Consistent Data ✓ = Incomplete/Inconsistent Data ✗ = No data Found

Orange County Apprenticeship Highlights

- 5% of all DAS registrations are for Orange County
- Between DOL and DAS, apprentices are in all CCCCO sectors, except Lifesciences & Biotechnology
- There are 71 programs (49 active, 1 approved, 3 revisions) across 6 CCCCO sectors, per COCI
- Orange County has received $12.5M (8%) of the total CAI funding

Findings

Analysis of all the research within this report culminated in four broad findings, with components that lend themselves to future study and the next phase of the OC COE's apprenticeship series.

- Data Unreliability
- Majority of Apprenticeships are Traditional and Primarily in the Building Trades
- Homogeny within Apprenticeships
- Lack of Metrics

INTRODUCTION

This report is the first phase of the OC COE's apprenticeship research series. Its purpose is to examine current apprenticeships in Orange County and uncover gaps in existing research and resources. To achieve this, the OC COE conducted an extensive literature review and analyzed apprenticeship data from the US Department of Labor (DOL), California Department of Apprenticeship Standards (DAS), and California Community College Chancellor's Office (CCCCO) for this report.

In the second phase of the OC COE's apprenticeship research series, interviews with regional community colleges will be conducted to gain deeper insight into gaps in apprenticeship data. The goal is to help expand apprenticeship opportunities and support California's target of reaching 500,000 apprentices by 2029.

Apprenticeship and Work-Based Learning (WBL)

Apprenticeship is one component of Work-Based Learning (WBL), which is defined by the Academic Senate for California Community Colleges (ASCCC) as, "an educational strategy used to connect classroom instruction to careers by providing students with opportunities to reinforce and make relevant their classroom experiences. It also allows students to explore potential careers through immersion in their fields and, most importantly, to apply their learned skills in an authentic setting."[1] ASCCC defines apprenticeship as "paid hands-on work-based learning, coordinated by employers or trades groups with students and colleges."[2] Exhibit 2 shows ASCCC's definitions of various forms of WBL.

Exhibit 2: Types of Work-Based Learning[3]

Apprenticeship	• Paid hands-on work-based learning, coordinated by employers or trades groups with colleges and students.
Cooperative Work Experience	• Hands-on work-based learning, either general or occupational, paid or unpaid, coordinated by colleges with students and employers.
Clinicals/ Practicum	• Unpaid hands-on work-based learning completed as part of a course — often utilized in allied health courses but may be used in other disciplines as well.
Internships	• Any work-based learning opportunity that allows a student to apply learned skills and theories to a hands-on, paid or unpaid employment environment.
Preceptorships	• Hands-on work-based learning completed at the end of a program of study in coordination with employed professionals in the discipline, which is common in registered nursing and other allied health programs but may apply to other disciplines as well.
Work Study	• Federal Work Study is an educational financial aid program for students with demonstrated financial need while enrolled.

To better understand the current state of apprenticeships in Orange County, this report focuses solely on apprenticeship, rather than all forms of WBL. The OC COE plans to conduct further research on other types of WBL in the future.

APPRENTICESHIP LITERATURE REVIEW

National and State Apprenticeship Trends

United States

According to the Federal Reserve Bank of Philadelphia, apprenticeships have existed in one form or another since ancient times. By the 13th century, a type of apprenticeship developed by craft guilds in Western Europe formed. Numerous U.S. founding fathers were apprentices themselves, including George Washington, Benjamin Franklin, and Paul Revere.[4]

The modern form of apprenticeship involves a "learn and earn" model that provides benefits to apprentices and employers. Apprentices receive on-the-job training, instruction (often provided by community colleges or other educational institutions), and wages while employers receive skilled employees and increased productivity.

Wisconsin was the first state to create an organized system of apprenticeship in 1911. Only six years later, the Smith-Hughes National Vocational Education Act of 1917 was enacted. This act provided federal aid to states to promote vocational education in response to rapid industrialization and the need to higher skilled workers.[5] Two decades later, the National Apprenticeship Act was passed and "authorized the federal government to oversee the nation's apprenticeship system in cooperation with the states."[6]

There have been several attempts to expand apprenticeship throughout the country. In 1992, apprenticeship became a presidential campaign issue after then-Governor Bill Clinton announced an ambitious plan to expand apprenticeships and training by requiring companies with more than 50 employees "to spend 1.5% of their payroll to train their workers. Those spending less than this proportion…would be required to pay the difference into a fund for training workers of smaller companies" – however, the proposed plan was scaled down once Clinton took office.[7]

In 2014, the Obama administration called for apprenticeships throughout the country to double over the next five years and the DOL "awarded $175 million in American Apprenticeship Initiative Grants to expand apprenticeship programs, primarily in high-growth sectors."[8] Within months of initially taking office, President Trump signed an executive order that directed DOL "to allow companies, trade associations, and unions to develop their own 'industry-recognized apprenticeship' guidelines, which [DOL] will review for quality and then approve."[9] The final rule to establish these industry-recognized apprenticeships was issued in March 2020 but this model was rescinded by the Biden administration in 2022.[10] As part of the Biden administration's Investing in America agenda, DOL allocated over $244 million to "help modernize, diversify and expand the Registered Apprenticeship system in growing U.S. industries" in 2022.[11]

Notably, the efforts of the past three presidential administrations aimed to develop apprenticeships beyond the traditional construction building trades, which has historically accounted for the vast majority of apprenticeships. As of 2021, 22 of the top 30 occupations for apprenticeship in the country were in construction building trades or manufacturing.[12]

California

Governor Gavin Newsom released a plan to grow California's economy in 2018. This workforce development strategy included three initiatives, the second of which established California's goal of 500,000 apprentices by 2029, in alignment with national trends to expand apprenticeship:

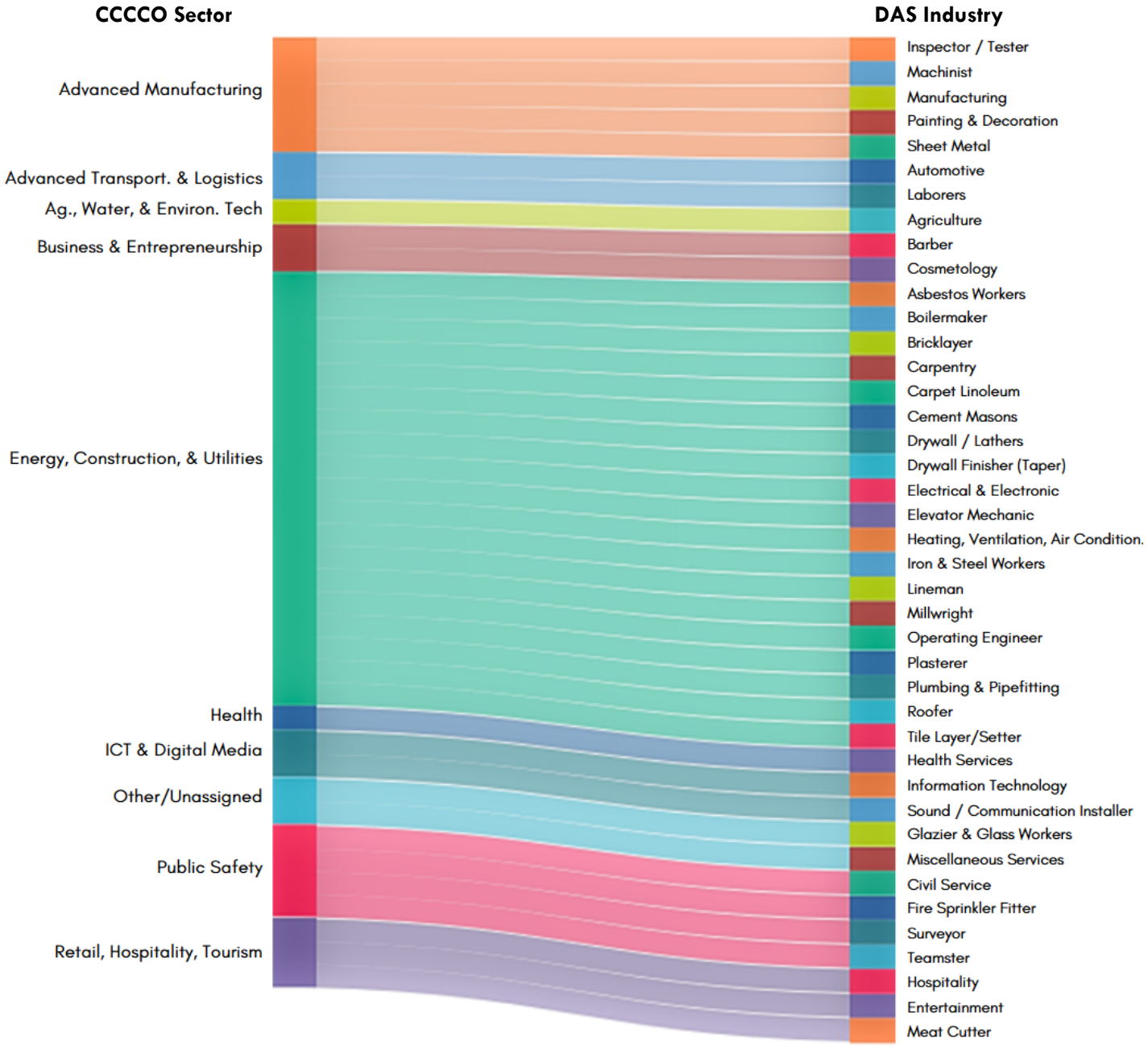
> *First, we will develop transformation maps for every cluster, industry and region of our state to make sure we're preparing folks for the jobs that actually exist…We'll also nurture regional and cluster-based collaborations partnering industry, our academic institutions and communities to innovate new ideas and spur economic growth throughout the state. Second, we will establish 500,000 earn-and-learn apprenticeships by 2029, creating a new vocational pipeline of high-skill workers…Third, we will provide skills accounts for any Californian looking for work, no matter what stage of life.*[13]

The state's Labor & Workforce Development Agency, Department of Industrial Relations, and DAS released an action plan in July 2022 to advance apprenticeships in California and identify strategies to meet apprenticeship goals. In that plan, Governor Newsom's goal was defined as "serving 500,000 Californians through apprenticeship by 2029" which "corresponds to approximately 210,000 active apprenticeships, which is more than double the number of active apprentices as of 2021."[14] The 500,000 figure includes both "total Californians served through the earn-and-learn mechanism of Registered Apprenticeship, and by total number of active apprentices at any given moment."[15]

To help achieve this statewide goal, the California Community College Chancellors Office (CCCCO) provides funding through the California Apprenticeship Initiative (CAI) New and Innovative (N&I) Grant Program which focuses on non-traditional apprenticeships.[16] Additionally, the CCCCO allocated funds via the Related and Supplemental Reimbursement (RSI) Program which supports apprenticeship programs at both community colleges and K-12 local education agencies (LEAs). These programs enable community colleges to track apprenticeship attendance and award academic credits for apprenticeship-related training in collaboration with approved employer partners.

The most critical component of this system is the role of program sponsors — employers responsible for establishing and managing registered apprenticeship programs. To initiate an apprenticeship program, a sponsor must first obtain DAS approval and be listed in the Registered Apprenticeship Partners Information Database System (RAPIDS), a case management platform used by states that participate in federally registered apprenticeship programs.[17] While RAPIDS classifies apprenticeships based on specific industries (hereby referred to as "DAS Industries"), California Community Colleges use Taxonomy of Programs (TOP) codes to categorize programs by academic and vocational disciplines.[18] DAS does not disaggregate apprenticeship data to distinguish between traditional and non-traditional programs, limiting the ability to analyze participation trends across different apprenticeship models. The applicable data for Orange County was organized by DAS industry and mapped to CCCCO-recognized industry sectors, as shown in Exhibit 3.

Exhibit 3: Orange County DAS Industries Aligned with CCCCO Sectors



Traditional and Non-Traditional Apprenticeships

Similarly to the rest of the country, apprenticeships in California have historically focused on construction building trades. As of 2018, "74% of the apprenticeships in California were in construction building trades, 12% were in firefighter positions, and 5% were in correctional officer positions. Only 9% of apprenticeships were in all other occupations combined."[19]

Over the past 10 years, efforts at the national and state level have focused on expanding apprenticeships in non-traditional areas. While there is no single definition of a non-traditional apprenticeship, it is generally understood that non-traditional apprenticeships are those outside of construction building trades, including (but not limited to) education and childcare, healthcare, hospitality, information technology, and manufacturing. A major reason for the focus on non-traditional apprenticeships is ongoing worker shortages both nationally and at the state level. In California, shortages of registered nurses[20], teachers[21], childcare providers[22], and more continue to be reported.

Apprenticeable Occupations

Considering the rise of non-traditional apprenticeships, it is important to understand how an apprenticeable occupation is defined. DOL and DAS each offer definitions of apprenticeable occupations. Both definitions emphasize that on-the-job training tied with supplemental instruction are the most critical components of an apprenticeable occupation, with DOL noting that "apprenticeable occupations are customarily learned in a practical way through a structured, systematic program of on-the-job supervised training supplemented by related technical instruction" and DAS stating that an "apprenticeable occupation… is best learned through an organized system of on-the-job training together with related and supplemental instruction."[23] No specific job titles or occupations (as defined by the federal Bureau of Labor Statistics) are used in these definitions, as shown in Exhibit 4.

Exhibit 4: Apprenticeable Occupation Definitions: US Department of Labor (DOL) and California Department of Apprenticeship Standards (DAS)

DOL	DAS
• Customarily learned in a practical way through a structured, systematic program of on-the-job supervised training supplemented by related technical instruction • Clearly identified and commonly recognized throughout an industry • Involves the acquisition of manual or technical skills and knowledge.	• Requires independent judgment and the application of manual, mechanical, technical, or professional skills and is best learned through an organized system of on-the-job training together with related and supplemental instruction • Defined by the work processes contained in the approved apprenticeship standards under which apprentices are training.

Degree Apprenticeships for Non-Traditional Areas

Apprenticeships in these areas could help address worker shortages, but multiple studies from think-and action-tank New America, note that these occupations also typically require degrees or certificates and/or a state-issued license to obtain employment and earn career advancement. New America states that "degree apprenticeship programs, which integrate on-the-job training with credit-bearing coursework at a college, are likely to be of more importance in non-traditional fields where career advancement remains tied to a college degree."[24] Another study notes that these degree-apprenticeships "strategically establish apprenticeships without hindering the pursuit of higher education" and notes that a degree allows students to continue their education through transfer, whereas a traditional apprenticeship is designed solely for immediate job preparation.[25] However, a major challenge for degree apprenticeships in non-traditional areas is employer engagement.[26] New America recommends working with sector intermediaries to address this challenge, especially where no existing intermediary exists.[27][28]

Funding for Non-Traditional Apprenticeships

The California Apprenticeship Initiative (CAI) New and Innovative (N&I) Grant Program, established under California Education Code Section 79148.1 through Assembly Bill 1809 in 2018, is a state-funded effort designed to expand apprenticeship and pre-apprenticeship opportunities in non-traditional and emerging sectors.[29] The goal is to increase access to hands-on training and education in fields considered "New & Innovative," or apprenticeship programs that fall outside of the traditional building and fire trades and have been historically underrepresented in the apprenticeship system. This initiative is integral to achieving California's goal of 500,000 apprentices by 2029 and places a strong emphasis on workforce equity and access.

Through planning, implementation, and expansion grants made available since the 2021-22 academic year, CAI has supported innovative programs that align with industry needs, ensuring that the training provided is relevant and responsive to the evolving labor market. Coordination with DAS is mandatory for all grant types. Grantees awarded planning grants must secure DAS registration within the grant period; implementation grant applicants must already have DAS-registered programs at the time of application; and expansion grant applicants must be submitted by the lead LEA of an existing DAS-registered program. Additionally, programs funded under CAI are required to demonstrate long-term sustainability and meet key performance indicators, including retention, completion, and wage benchmarks, while providing student support services to remove barriers to success. These structured requirements ensure that funded programs are not only aligned with regulatory standards but are also positioned to develop apprenticeable occupations that meet regional labor market demand and create long-term career pathways.

Occupational Areas for New Apprenticeships

Community colleges seek to identify occupations with strong potential for apprenticeship opportunities, particularly in emerging areas. While a comprehensive examination of this topic is beyond the scope of this report, the OC COE will utilize the following regional apprenticeship analysis to establish a baseline of existing apprenticeships. The second phase of this apprenticeship series will integrate this data analysis with labor market information to develop a list of workforce needs, which will be mapped to apprenticeable occupations in Orange County.

APPRENTICESHIP DATA ANALYSIS

Publicly available data from regional community colleges and governing agencies was collected and analyzed to define the apprenticeship landscape in Orange County. This report examines available data from the DOL, DAS, and CCCCO to assesses traditional and non-traditional apprenticeship registrations and demographics. In some instances, distinctions between the datasets are analyzed. This section also lists occupational programs that are approved by state and local governing boards, offered at Orange County community colleges, and the CAI Grant awards within the region.

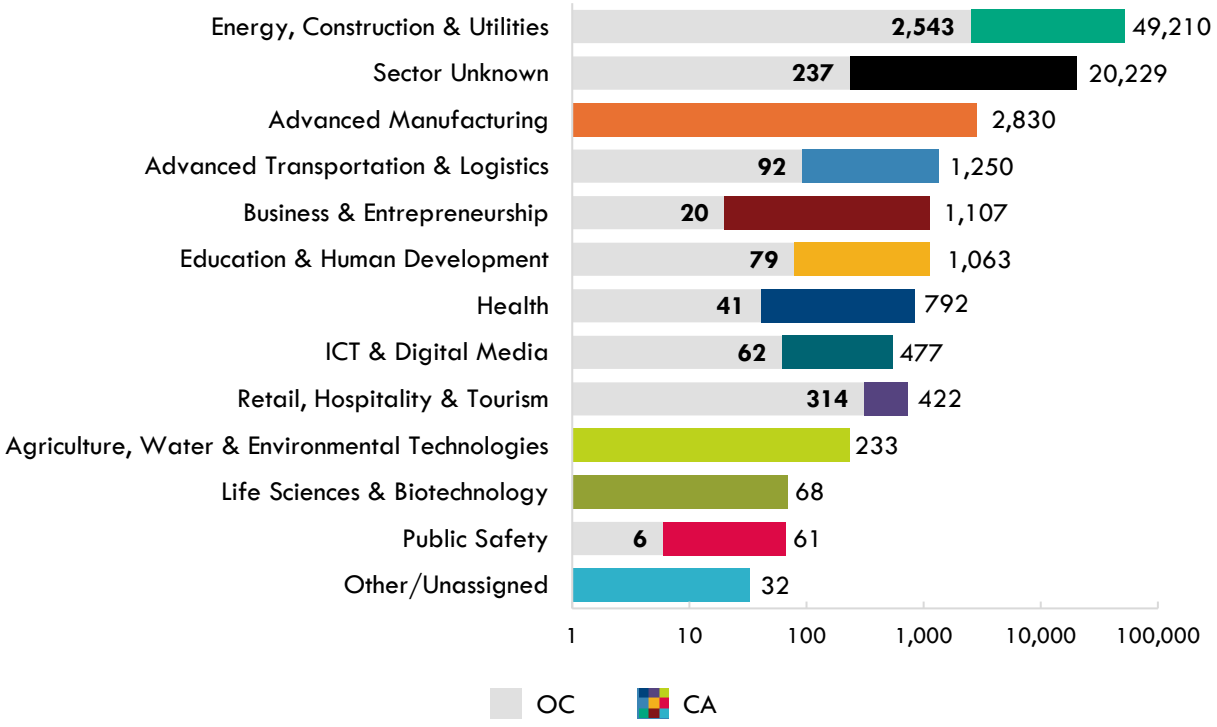
US Department of Labor (DOL)

DOL Apprentices by State Dashboard

Apprenticeship data is publicly accessible through the DOL's *Apprentices by State* dashboard.[30] This interactive tool, updated monthly dating back to fiscal year 2015, presents county, state, and national data for the Registered Apprenticeship Partners Information Database System's (RAPIDS). Available metrics include demographics (e.g., ethnicity, sex, age, disability status, education, and veteran status) as well as work-related indicators, such as RAPIDS occupation and industry, offering a comprehensive and historical overview of apprenticeship participation across jurisdictions.

Currently, the available data runs through January 1, 2025 and indicates that there are 678,014 active apprentices nationwide, with 11% (77,774) being in California. Of all apprentices in the state, 4% (3,394) are in Orange County. Energy, Construction & Utilities leads as the CCCCO sector with the highest number of active apprentices for both California and Orange County. However, due to the high percentage of missing apprentice-occupational data at the state level (26%) and in Orange County (7%), it is not possible to accurately determine which subsequent sectors have the most apprentices. A logarithmic scale is utilized to better visualize the wide range of apprenticeship programs across the state and Orange County in Exhibit 5, which details the breakdown of registered apprentices by CCCCO sector.

Exhibit 5: Logarithmic Representation of DOL Enrollment by CCCCO Sector in the State and Orange County



Demographics

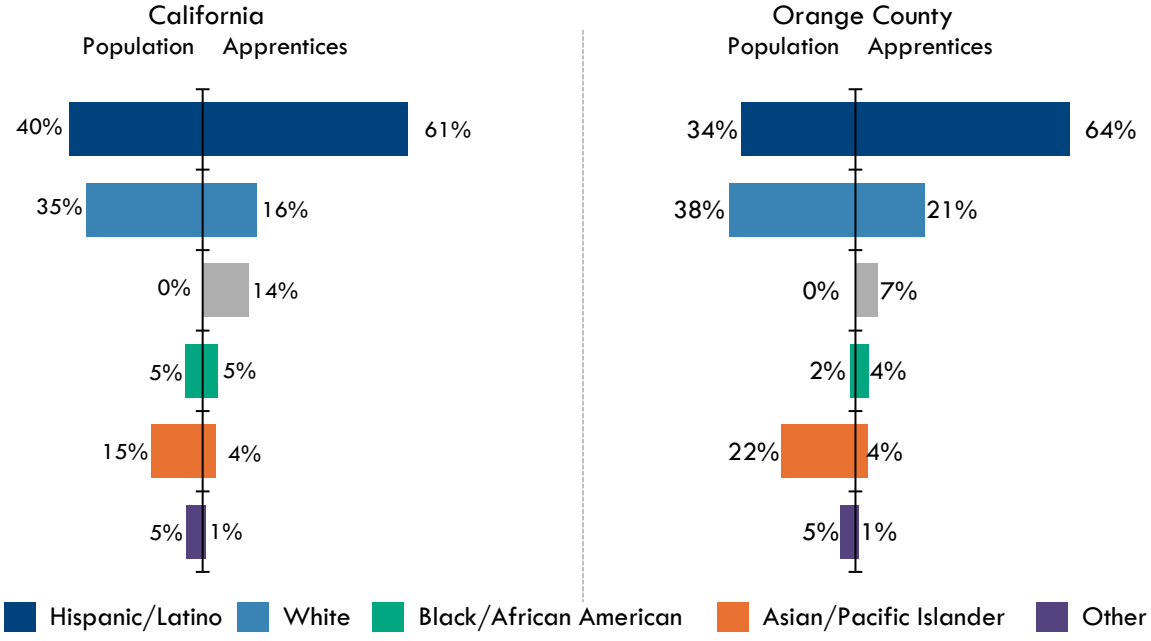
Analyzing demographic data is crucial for obtaining a comprehensive understanding of apprenticeship participation. This section examines demographic trends – specifically race and ethnicity, age, and gender – among apprenticeship registrations by program locations. The data comes from the DOL's Interactive Apprenticeship Data dashboard and is compared with population and demographics from the American Community Survey.

Ethnic Representation

There are clear discrepancies in the ethnic composition of individuals registered in apprenticeships in relation to California's and Orange County's populations, as shown in Exhibit 6. Hispanic or Latino individuals, the largest ethnic group, account for 40% of the statewide population and the largest share of apprentices (61%). White individuals represent the second largest demographic group in the state and amongst apprentices; however, the proportion of white individuals in apprentices (16%) falls far below this group's populational share (35%). Similarly, the percentages of apprentices who are Asian or Pacific Islander (4%) or of another race or ethnicity (1%) are considerably lower than their respective shares of the population: 15% and 5%. Black or African American representation in apprenticeships aligns with the population at 5% each. Notably, 14% of apprentices' ethnic background is unknown, which could potentially account for low representation amongst other demographic groups.

Similar demographic trends exist at the county-level. Hispanic or Latino representation in apprenticeships (64%) surpasses their share of the county population (34%), though by a larger margin (30 percentage points) relative to statewide data (21 percentage points). Analogous to the statewide comparisons, white, Asian or Pacific Islander, or persons of another race or ethnicity account for lower percentages of apprentices relative to their respective shares of the county population; albeit with a greater percentage difference Asian and Pacific Islander apprentices and population at a difference of 18% in the county. Black or African American representation for apprenticeship participation is 2% higher than their county population.

Exhibit 6: Ethnic Composition of California and Orange County Population and Apprentices

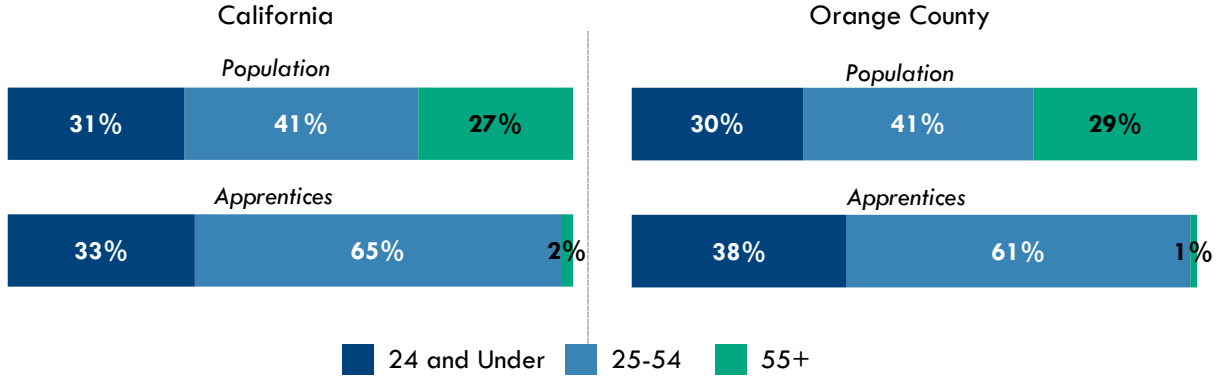


Age Distribution

DOL apprenticeship data clusters apprentices into three age groups: 24 and under, 25 to 54, and 55 or older. Nearly two-thirds (65%) of apprentices in California are aged 25 to 54 – often considered prime working years. While this aligns with this age group's lead in the state population (41%), there is a notable 24-percentage point difference between the two metrics. Individuals 24 and under comprise a third of apprentices (33%), relatively aligning with the age group's composition in the state population (31%). The largest disparity lies with the representation of persons 55 and older. Despite comprising over a fourth of the state population (27%), this age group accounts for only 2% of apprentices, which aligns with the trend that apprenticeships generally occur early in one's career as opposed to the end of it.

Orange County population and apprentice age trends largely mimic those at the state level with the bulk of apprentices aged 25 to 54. Exhibit 7 shows the distribution of age groups within the population and amongst apprentices, grouped at the state and county levels.

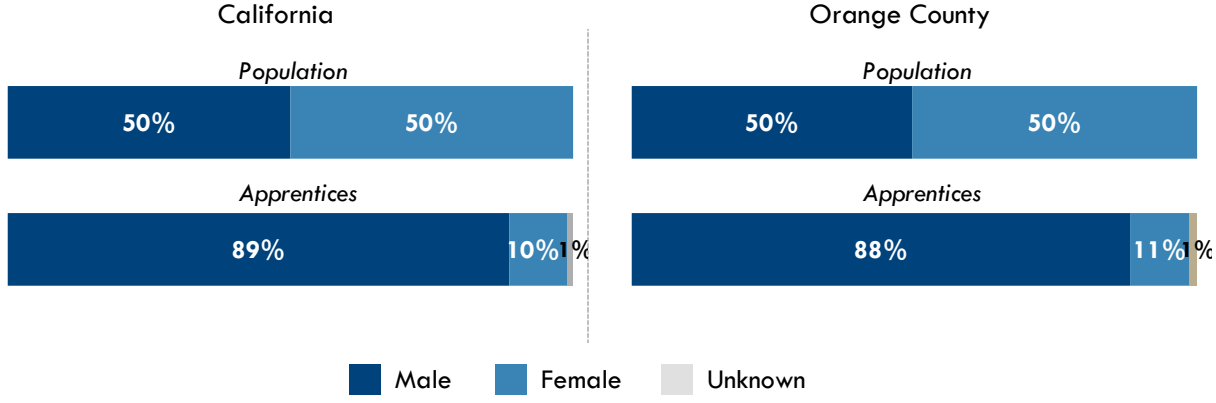
Exhibit 7: Age Distribution of California and Orange County Population and Apprentices



Gender Representation

While men and women are evenly split within the state and county populations, the vast majority of apprentices are men (88% - 89%). Men outnumber women nearly 9 to 1 in apprenticeships across both geographic areas, as shown in Exhibit 8. Notably, these figures highlight discrepancies across apprenticeships as a whole and do not account for nuanced, gender distributions within specific sectors or occupations. This data is also limited because ACS only collects gender as male or female while apprenticeship data also includes "unknown" as a gender.

Exhibit 8: Gender Distribution of California and Orange County Population and Apprentices



California Department of Apprenticeship Standards (DAS)

The DAS provides multiple datasets offering insights into apprenticeship program participation. These datasets include registration snapshots, a program sponsor search tool, and interactive dashboards with demographic and occupational breakdowns. Additionally, DAS data captures key variables such as starting wages, program durations, and regional trends, which can be used to assess program viability and identify industry sponsors.

As of February 2025, the DAS apprenticeship homepage displayed an undated snapshot highlighting three key metrics: (1) the total number of registered apprentices in California (91,493), (2) registered trainees (1,229), and (3) registered pre-apprentices (4,467).[31] However, it is unclear when this data was last updated, and these figures do not align with the more detailed, and regularly updated information available in the DAS Registration Dashboard, raising concerns about data consistency and reporting accuracy. These data discrepancies underscore the importance of understanding the registration and tracking processes for apprenticeship programs.

A retrieval from DAS's program search tool—which allows users to filter approved apprenticeship programs by county and occupational group (41 available)—returned 777 statewide program sponsor results across all occupations. An Orange County search resulted in 324 program sponsors. However, only 189 of these sponsors (59%) explicitly listed Orange County as a program location. It is important to note that the program sponsor pages do not indicate the frequency of data updates and may contain outdated information, particularly regarding starting wages.

As outlined in California Code of Regulations, Title 8, Section 208[32], registered apprenticeship programs must follow wage schedules that increase as apprentices advance through their training. For all apprentices, other than those in building and construction trades, wages are determined by the program sponsor and approved by the chief of DAS, ensuring wages are not less than applicable state minimum wage orders. Building and construction trades follow prevailing wage rates that are determined by local labor market conditions as defined by DAS and collective bargaining agreements. Due to a lack of region-specific wage data and inconsistencies with available data, wage evaluations were not included in this analysis.

Orange County, the DAS industries with the most registered apprenticeship programs include Barbering/Cosmetology (11%), Health Services (5%), Automotive (5%), Manufacturing (5%), Machinists (5%), Information Technology (5%), and Carpentry (5%). Among the most common apprenticeship trades or occupations tracked in RAPIDS for Orange County, Barber (11%) and Cement Mason (2%) represent the highest concentrations. Several apprenticeship sponsors are prominent within RAPIDS, providing training opportunities across multiple sectors. The program sponsors with the most approved apprenticeship programs in Orange County include Advanced Manufacturing and Transportation Apprenticeships of California, Apprenti, Construction Teamsters Apprenticeship Fund of Southern California JAC, as shown in Exhibit 9.

Exhibit 9: DAS Program Sponsor Top Search Results (n=189)

OC DAS Industries	OC DAS Occupations	OC Program Sponsors
• Barber/Cosmetology (11%) • Health Services (5%) • Automotive (5%) • Miscellaneous Services (5%) • Manufacturing (5%) • Machinist (5%) • Information Technology (5%) • Carpentry (5%) • Tile Layer/Setter (4%) • Teamster (4%)	• Barber (11%) • Cement Mason (2%) • Plumber (1%) • Painter (1%) • Drywall / Lather (1%) • Carpenter (1%) • Plasterer (1%) • Sheet Metal Worker (1%) • Bricklayer (1%) • Sprinkler Fitter (1%) • Construction Craft Laborer (1%) • Terrazzo Finisher (1%)	• Advanced Manufacturing and Transportation Apprenticeships of California • Apprenti • Construction Teamsters Apprenticeship Fund of Southern California JAC • Music Forward Foundation • Southern California Operating Engineers Joint Apprenticeship Committee • Rx Research Services Unilateral Apprenticeship Committee • Joint Apprenticeship Committee Tile & Terrazzo Industry • California Fire Fighter Joint Apprenticeship Committee • San Diego Associated General Contractors J.A.C. • Bricklayers & Allied Craftworkers Local #4 California J.A.C.

Apprenticeship program durations vary significantly by industry sector and employer, with some apprenticeships lasting as little as 12 months, while others extend up to five years (60 months). Exhibit 10 provides the number of DAS-approved apprenticeship programs in Orange County, along with the minimum and maximum program lengths, as listed on the program sponsor pages.

Exhibit 10: DAS Program Sponsor Search Results by CCCCO Sector

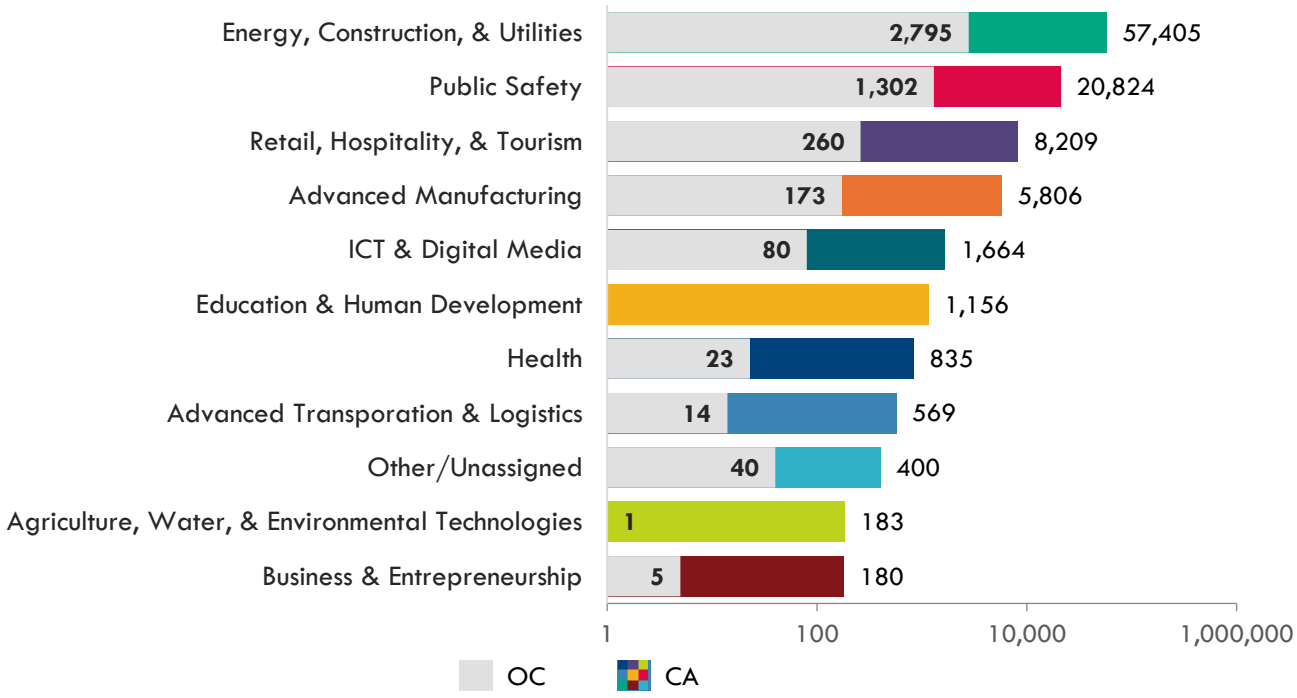
CCCCO Sector	Program Count	Minimum Program Length (Months)	Maximum Program Length (Months)
Advanced Manufacturing	28	12	60
Advanced Transportation & Logistics	16	12	48
Agriculture, Water & Environmental Technology	6	12	24
Business and Entrepreneurship	20	24	24
Energy, Construction, & Utilities	58	24	60
Health	11	12	24
ICT & Digital Media	14	12	48
Other/Unassigned	2	12	48
Public Safety	23	12	60
Retail, Hospitality, & Tourism	11	12	24

DAS Registration Dashboard

Additional DAS apprenticeship data, including detailed registration trends, demographic insights, and program statistics, can be explored in the official Registration Dashboard provided by the California Apprenticeship Division.[33] This publicly available dashboard is updated monthly[34] and offers interactive visualizations to analyze apprenticeship participation across industries, regions, and timeframes, providing deeper insights into the evolving apprenticeship landscape.

As of February 2025, the dashboard reports a total of 97,231 registered apprentices statewide with nearly 5% (4,693) of them in Orange County. Energy, Construction & Utilities; Public Safety; and Retail, Hospitality & Tourism, which collectively account for 89% of California's and 93% of the Orange County's total recorded apprentices, respectively, are the top sectors for apprenticeships. Notably, the DAS registered apprenticeships lack any representation from the Life Sciences and Biotechnology sector. Exhibit 11 details the breakdown of registered apprentices in California and Orange County by CCCCO sector utilizing a logarithmic scale to more effectively visualize the large differences in apprentice counts across sectors.

Exhibit 11: Logarithmic Representation of DAS Enrollment by CCCCO Sector in the State and Orange County



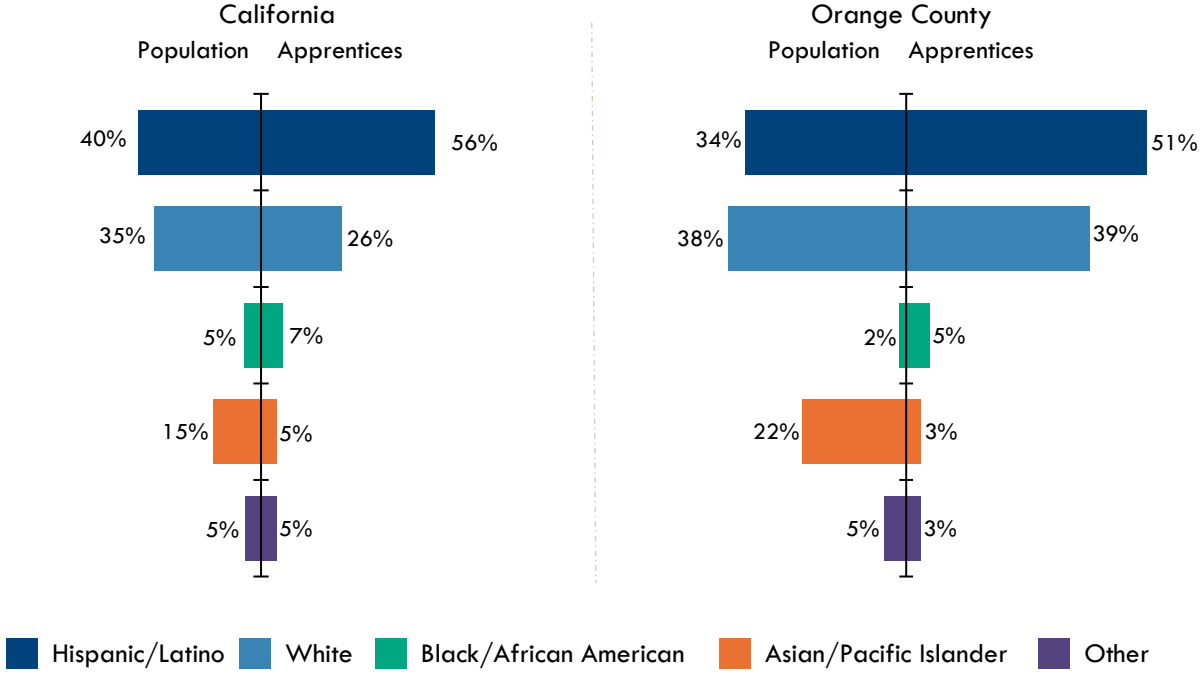
State and County Demographics

It is essential to examine the demographic composition of registered apprentices to gain deeper insight into the apprenticeship landscape. Using data from the DAS Registration Dashboard, the following section analyzes age, gender, and ethnicity trends across California's apprenticeship programs. While the dashboard does not distinguish between traditional and non-traditional apprenticeships, these demographic insights help highlight participation patterns and potential disparities across industries and regions.

Ethnic Representation

Apprenticeship participation among ethnic groups shows notable disparities when compared to both Orange County and California's overall demographics, as shown below in Hispanic apprentices represent 56% of apprentices statewide and 51% in Orange County, despite comprising only 40% of the state and 34% of the county's population, indicating strong engagement in apprenticeship programs. White apprentices account for 26% statewide and 39% in Orange County, closely aligning with their representation in both the state (26%) and county's population (38%). Black/African American apprentices represent 7% statewide and 5% in Orange County, which is higher than their 2% proportion of the county's population but aligned with the state's population (5%). Asian/Pacific Islander apprentices, however, are underrepresented, accounting for 5% statewide and 3% in Orange County, despite making up 15% of the state population and 22% of the county's population; this disparity highlights a lower participation rate in apprenticeships for this group. Other racial and ethnic categories remain consistent across the state and Orange County, each representing approximately 5% of apprenticeship participants.

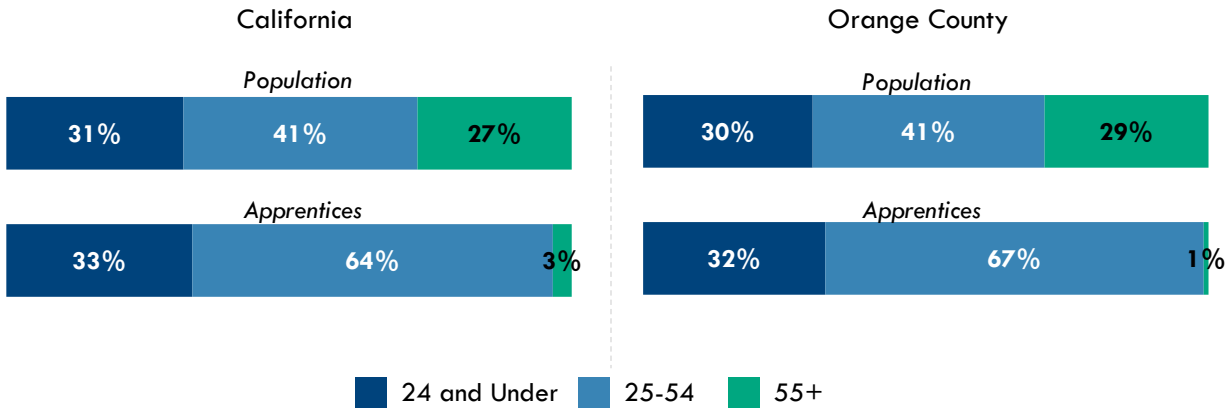
Exhibit 12: DAS Apprentice Registration Dashboard Demographics by State and County



Age Distribution

Exhibit 13 shows that age distribution in apprenticeship programs skews heavily toward adults aged 25-54, who make up 64% of statewide apprentices and 67% of Orange County apprentices. This is significantly higher than their 41% share of the state and 41% share of the county's total population, indicating that this age group participates in apprenticeships at a higher rate than other age groups. The 24-and-under age group accounts for 33% of statewide apprentices and 32% of Orange County apprentices, closely matching their 31% share of the state and 30% share of the county's population. By contrast, the 55+ age group has the lowest representation, comprising only 3% of statewide apprentices and 1% in Orange County, despite making up 27% of the state and 29% of the county's total population.

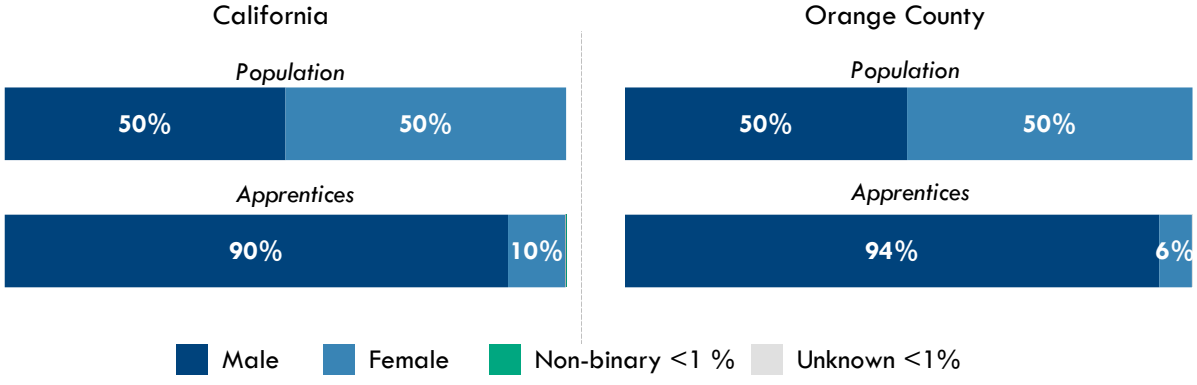
Exhibit 13: DAS Apprentice Registration Dashboard Age Distribution by State and County



Gender Representation

Apprenticeship participation in California and Orange County is overwhelmingly male dominated, with 90% of statewide apprentices and 94% of Orange County apprentices identifying as male, as shown in Exhibit 14. In contrast, only 10% of statewide apprentices and 6% of Orange County apprentices are female, highlighting a significant gender disparity. Additionally, non-binary and unknown gender identities each account for less than 1% of apprentices statewide and in Orange County. When compared to both California's and Orange County's general populations, where males and females are evenly distributed (50% each), women appear to be staggeringly underrepresented in apprenticeship programs.

Exhibit 14: DAS Apprentice Registration Dashboard Gender Distribution by State and County



California Community Colleges

Apprenticeship data for California Community Colleges is collected and reported in several different systems. For the purposes of this report, four sources of information are used: the Chancellor's Office Curriculum Inventory (COCI), CCCCO Data Mart, and CCCCO California Apprenticeship Initiative (CAI) Grant Award memos.

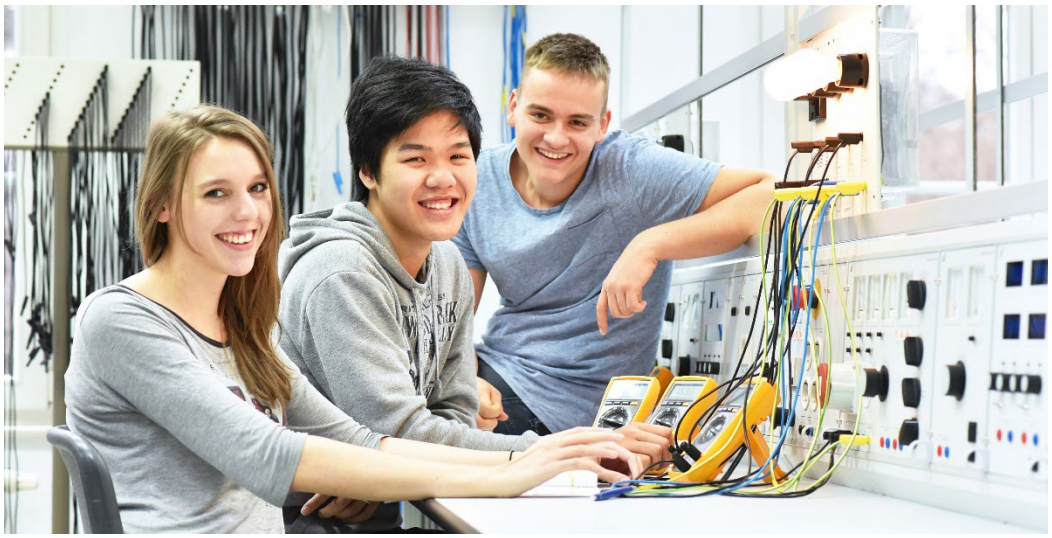
Chancellor's Office Curriculum Inventory (COCI) and CCCCO Data Mart

COCI and Data Mart serve as key data sources for tracking and analyzing apprenticeship-related courses and programs across California's community colleges. COCI is a statewide database that maintains records of active, approved, inactive, and submitted courses and programs.[35] It provides a centralized system for curriculum approval and management, ensuring that community college offerings align with state workforce training needs. Data Mart, maintained by the California Community Colleges Chancellor's Office, is an online reporting tool that provides enrollment, program, and outcome data for California's community college system.[36] However, because DataMart has limitations disaggregating data by apprenticeship-specific student enrollments and outcomes, the College Master Course and Program Files were used to analyze trends in program and course availability to provide a clearer view of the apprenticeship programs currently being offered by the region's colleges.

By leveraging both COCI and Data Mart, this analysis examines the status and alignment of apprenticeship courses and programs, identifying areas of opportunity in apprenticeship tracking. To identify community college apprenticeship programs, two search strategies were applied:

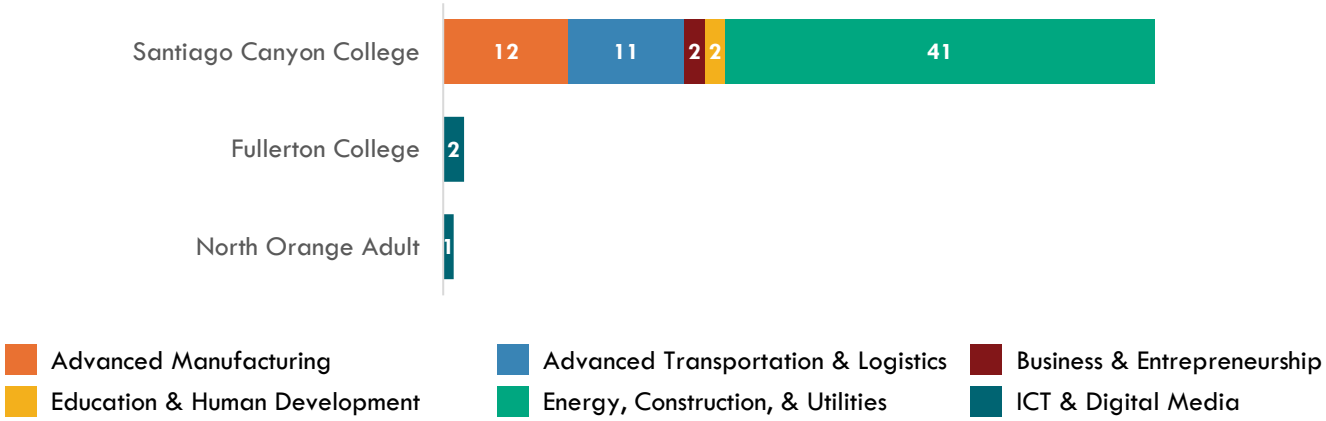
1. Keyword search for courses with "Apprentice" (71 programs) or "Apprenticeship" (69 programs) in the title (Data Mart Program Course File)
2. Search for courses coded as SAM Code "A", (738 courses) which designates courses exclusively for registered apprenticeships (Data Mart Program Course File + COCI)

Based on the search criteria, there are a total of 383 apprenticeship programs listed in COCI, with 71 (18%) located in Orange County across three institutions: Santiago Canyon College, Fullerton College, and North Orange Continuing Education Center (listed in COCI as "North Orange Adult"). Santiago Canyon College accounts for 96% of the county's apprenticeship programs, with 68 total offerings in Energy, Construction & Utilities (41), Advanced Manufacturing (12), Advanced Transportation & Logistics (11), and additional sectors (4). Of these programs, 47 are active, 18 are inactive, and 3 are under revision. Further examination of the Santiago Canyon College TOP codes reveals diverse program offerings such as Carpentry, Electrical, and Heavy Equipment Operation to Barbering and Cosmetology as well as Early Childhood Education.



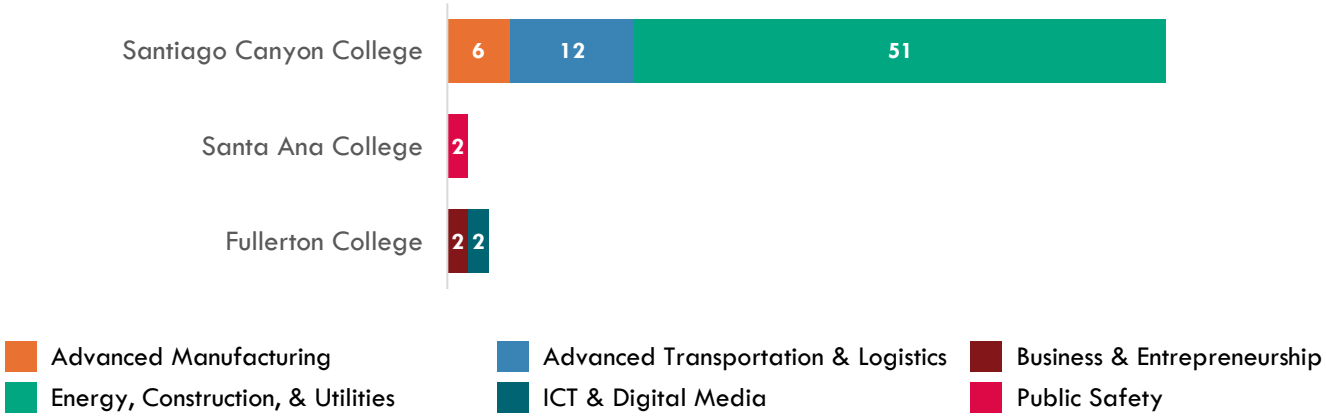
The remaining programs are offered at Fullerton College (2 active) and North Orange Continuing Education (1 approved), all within the Information and Communication Technologies (ICT) and Digital Media sector and coded as Computer Information Systems concentrations. Exhibit 15 provides a detailed breakdown of active programs by college and CCCCO sector. See Appendix B for a detailed list of apprenticeship programs in COCI.

Exhibit 15: COCI Apprenticeship Programs by College and Sector (n=71)



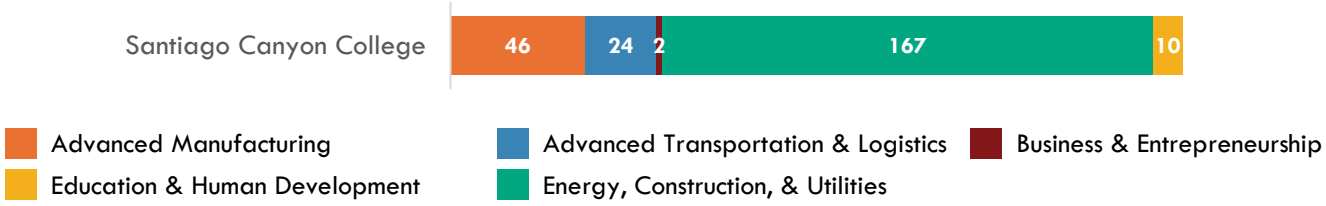
Course offerings have a similar trend emerging in terms of institutional concentration and sector focus, with Santigo Canyon College offering 69 (92%) of the region's 75 total active apprenticeships courses, the majority of which are in Energy, Construction, and Utilities sectors. The remaining courses are offered at Fullerton in Business and Entrepreneurship and ICT & Digital Media sectors and Santa Ana Colleges, which offers two courses in Public Safety. Exhibit 16 provides a detailed breakdown of active programs by college and CCCCO sector.

Exhibit 16: DataMart "Active" Apprenticeship Courses by College and Sector (n=75)



Before a course can be active, it must be approved by a college district's board of trustees for credit. When reviewing courses designated as exclusively apprenticeship (SAM code "A"), 249 board-approved courses and 414 inactive courses were identified. Notably, all 249 board-approved courses were from Santiago Canyon College, with the majority in the Energy, Construction, and Utilities (167), Advanced Manufacturing (46), and Advanced Transportation and Logistics (24) sectors. In contrast, the inactive courses came from a broad range of colleges, with 8 out of 10 institutions inactivating apprenticeship courses. Exhibit 17 provides a detailed breakdown of approved programs by college and CCCCO sector.

Exhibit 17: DataMart "Approved" Apprenticeship Courses by College and Sector (n=249)



To better understand the structure of regional apprenticeship programs and their associated occupational outcomes, it is important to evaluate apprenticeship pathways for middle-skill occupations—occupations typically requiring an Associate Degree or less. Future analysis that maps specific occupations to community college apprenticeships programs or courses, as well as identifies sectors currently lacking apprenticeship activity, could be help identify potential areas for apprenticeship development and expansion.

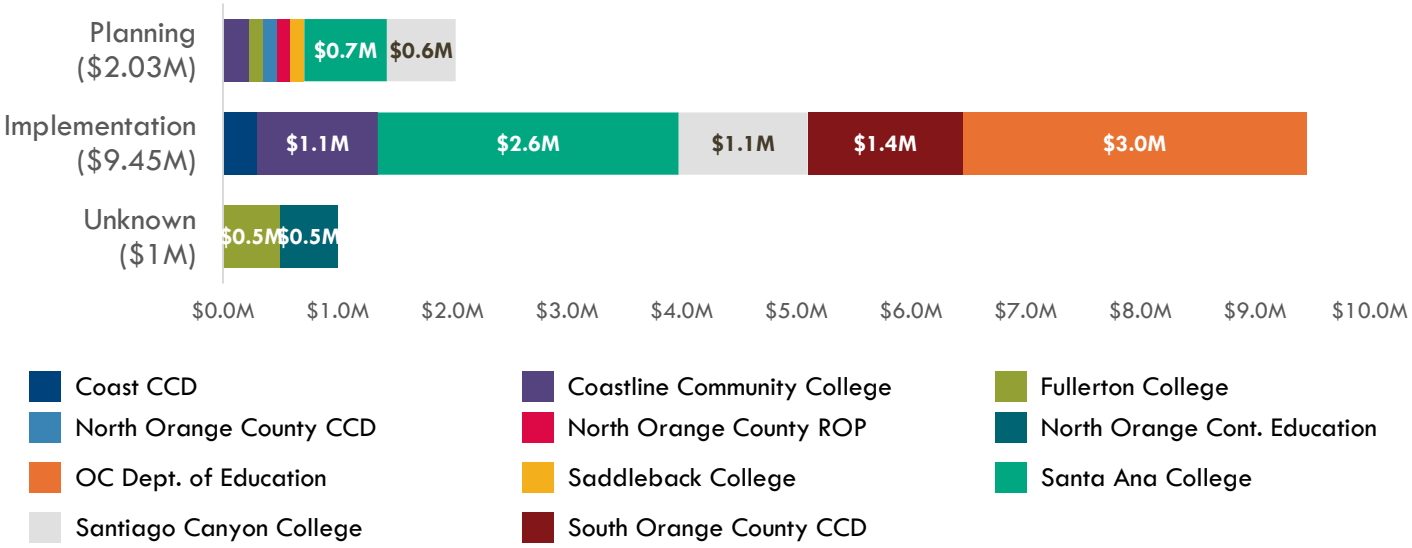
CCCCO California Apprenticeship Initiative (CAI) Grant Awards

Added to Education Code in 2018, CAI grants have been allocated to California community colleges, local education agencies, workforce development boards, industry sector partnerships, nonprofit organizations, labor unions, and other qualified organizations. To assess its regional impact, an analysis of CAI funding distribution and awarded programs in Orange County was conducted. However, as the CAI Grant Program is still in its early stages, comprehensive outcomes data on apprentice enrollment, completion rates, and long-term workforce impacts are not yet available. Future OC COE reports on CAI grant-related metrics such as enrollment, retention, and program success metrics will provide further insights into these investments.

According to award letters, first issued in February 2022 and most recently issued in October 2024, Orange County has received 28 CAI awards totaling nearly $12.5 million in funding—approximately 8% of the total $149.8 million awarded statewide—reinforcing a substantial regional investment in workforce development via apprenticeships and pre-apprenticeships. Most of the funding supported implementation grants (76%), followed by planning grants (16%), and 8% of awards

were classified as unknown. Notably, no expansion grants were awarded in the region during this timeframe, possibly due to the nascency of the CAI grant program. Additionally, 96% of the total funds were directed toward registered apprenticeship programs, while 4% supported pre-apprenticeship initiatives (not shown). Award letters did not specify whether the funded apprenticeship programs were for credit or non-credit programs, limiting analysis of the instructional-delivery model supported by these investments. However, it is worth noting that any awards to North Orange Cont. Education are, by default, non-credit programs. Exhibit 18 details the total CAI grant funding received by various institutions in Orange County over this period.

Exhibit 18: CAI Grant Awards by Recipient



These awards cover a variety of CCCCO sectors with over 80% of all regional CAI funding allocated to the following sectors:

- Education & Human Development ($5.4M)
- Advanced Transportation and Logistics ($1.7M)
- Retail, Hospitality, & Tourism ($1.6M)
- Advanced Manufacturing ($1.4M)

Teacher Assistant and Preschool Teacher apprenticeship programs received significant support, with Santa Ana College awarded over $2.6 million, and both the Orange County Department of Education and Santiago Canyon College securing over $1.1 million each for apprenticeship implementation. Other occupational programs such as Logistician ($1.0 million), Restaurant Cook ($1.5 million), and Mechatronics Technician 2 (over $1.3 million) support apprenticeship implementation throughout the region. Exhibit 19 outlines the specific occupations and program types that received CAI funding in Orange County.

Exhibit 19: Awarded CAI Projects in Orange County by Funding Amount

Fiscal Year	Institution	Occupation	Award Type	Funded
ADVANCED MANUFACTURING				**$1,460,000**
2022-23	South Orange County CCD	Mechatronics Technician 2	Implementation	$1,350,000*
2022-23	Coastline Community College	Industrial Production Manager	Planning	$110,000
ADVANCED TRANSPORTATION & LOGISTICS				**$1,669,994**
2023-24	Coastline Community College	Logistician	Implementation	$1,050,000
2023-24	Santa Ana College	Automotive Service and Technician and Mechanic	Planning	$120,000
BUSINESS & ENTREPRENEURSHIP				**$240,000**
2023-24	Santiago Canyon College	Bookkeeping, Accounting, Auditing Clerk	Planning	$120,000
2022-23	Santa Ana College	Human Resources Assistant	Planning	$120,000
EDUCATION & HUMAN DEVELOPMENT				**$5,370,000**
2022-23	Orange Co. Dept. of Education	Teacher Assistant	Implementation	$1,500,000*
2022-23	Santa Ana College	Preschool Teacher	Implementation	$1,125,000*
2022-23	Santiago Canyon College	Preschool Teacher	Implementation	$1,125,000*
2023-24	Santa Ana College	Teacher Assistant	Implementation	$1,500,000
2023-24	Coastline Community College	Teacher Assistant	Planning	$120,000
HEALTH				**$600,000**
2024-25	North Orange County ROP	Dental Assistant	Planning	$120,000
2024-25	Santa Ana College	Dietetic Technician	Planning	$120,000
2024-25	Santiago Canyon College	Certified Nursing Assistant	Planning	$120,000
2023-24	Santiago Canyon College	Licensed Practical and Licensed Vocational Nurse	Planning	$120,000
2023-24	Santiago Canyon College	Medical Assistant	Planning	$120,000

Fiscal Year	Institution	Occupation	Award Type	Funded
ICT & DIGITAL MEDIA				**$1,160,000**
2021-22	North Orange Cont. Education	Computer Network Specialist	Unknown	$500,000
2022-23	Coast CCD	Information Security Analyst	Implementation	$300,000
2024-25	Santa Ana College	Computer User Support Specialist	Planning	$120,000
2023-24	Fullerton College	CNC Programming Specialist	Planning	$120,000
2022-23	North Orange County CCD	Network and Computer Systems Administrator	Planning	$120,000
LIFE SCIENCES & BIOTECHNOLOGY				**$120,000**
2023-24	Santiago Canyon College	Biological Technician	Planning	$120,000
OTHER/UNASSIGNED				**$120,000**
2023-24	Santa Ana College	Legal Interpreter and Translator	Planning	$120,000
PUBLIC SAFETY				**$120,000**
2023-24	Santa Ana College	Forensic Science Technician	Planning	$120,000
RETAIL, HOSPITALITY, & TOURISM				**$1,620,000**
2023-24	Orange Co. Dept. of Education	Restaurant Cook	Implementation	$1,500,000
2022-23	Saddleback College	Chef	Planning	$120,000
2023-24	Coastline Community College	Logistician	Implementation	$1,050,000
2021-22	Fullerton College	Drone Pilot Apprenticeship	Unknown	$499,994
			Total Awarded	**$12,479,994**

**Funded with conditions*

New & Innovative Criteria

The CAI award letters include helpful information for community colleges seeking future CAI funding. These letters not only indicate which proposed apprenticeship programs received funding but also list all proposed programs that were not funded—often including reasons for their rejection. Specifically, the award letters highlight proposals designated as "New and Innovative" (N&I), a classification that prioritizes the development of apprenticeship programs in sectors outside of the traditional building and fire trades, with a focus on emerging fields or occupations where apprenticeships are not yet well established.

Orange County institutions have applied for over $30.6 million and ultimately received 41% of the requested amount. However, $18.1 million in proposed CAI apprenticeships were deemed ineligible, including $1.0 million in applications that did not meet the N&I criteria and $3.5 million for programs that significantly overlapped with competing CAI applications.

Award letters indicate there 314 occupations across the state were awarded funding, 12 were deemed ineligible for failing to meet the N&I criteria and 6 were ineligible due to program overlap. These totals reflect duplicated counts, meaning that some occupations may be counted to multiple times due to applications spanning the state.

Exhibit 20 provides a snapshot of occupations awarded funding for meeting N&I criteria, those denied funding due to program duplication or overlap, and those rejected for not meeting the N&I criteria. Community colleges should consider this information when determining which programs to submit for future CAI applications.

Exhibit 20: Common Occupations Submitted in CAI Applications Throughout California by "New & Innovative" Eligibility Criteria

New & Innovative Occupation Awards		Occupations Ineligible Due to Program Overlap
• Automotive Service Technician and Mechanic • Biological Technician • Bookkeeping, Accounting, and Auditing Clerk • Bus Coach Operator • Certified Nursing Assistant • Childcare Worker • Community Health Worker • Computer Network Support Specialist • Dental Assistant • Dietetic Technician • Drone Operator, Drone Pilot • Electrical Power-Line Installer and Repairer • Food Service Manager • General and Operations Manager	• Industrial Maintenance Mechanic • Information Security Analyst • Marketing Coordinator • Mechatronics Technician • Medical Assistant • Preschool Teacher • Registered Nurse • Restaurant Cook • Software Developers • Surgical Technologist • Teacher Assistant • Video Game Designer • Vocational Nurse • Water and Wastewater Treatment Plant and System Operators • Web Developers	• Software Developers • Medical Equipment Preparers (Sterile Processing Technician)
		Occupations Not Considered New & Innovative
		• Construction Laborer • Electrician • Emergency Medical Technician and Paramedics • Sheet Metal Worker • Welding, Soldering, Brazing Machine Setters

CONCLUSION

Observations and findings from the comprehensive data analysis of apprenticeships in Orange County, interwoven with areas for future research, are as follows:

Data Unreliability

- Data is often incomplete, and/or inconsistent. This is prevalent in most of the data sources.
- Compounding the issue is the fact that data within individual organizations (e.g., DOL, DAS, CCCCO) are often contradictory. This could be partially due to sources infrequently stating when their information was last updated, making it unclear whether the data is inaccurate or from different time periods.
- DOL provides information specific to apprentices—the individuals in apprenticeships—while DAS provides information on apprenticeship programs, making direct comparisons of the two data sets unfeasible.

Majority of Apprenticeships are Traditional and Primarily in the Trades

- Both DOL and DAS report twice as many building trade apprentices/apprenticeships (in the energy, construction, and utilities CCCCO sector) as any other sector.
- Consequently, there may be significant opportunities to expand apprenticeships by exploring the possibility for traditional apprenticeships in other sectors and non-traditional apprenticeships in emerging fields.
- Yet, identifying non-traditional apprenticeable occupations is challenging, as exemplified by some of the more traditional-leaning CAI awarded programs.

Homogeny within Apprenticeships

- Because the bulk of apprentices and apprenticeships are traditional and in the building trades, most of the individuals in those apprenticeships are male.
- There are clear discrepancies in the ethnic composition of individuals registered in apprenticeships in relation to California's and Orange County's populations.
- Both DOL and DAS categorize apprentices by age using three groups. Unsurprisingly, more than two-thirds of all apprentices fall within the prime working ages of 25-54. However, it is notable that this group has at least 20% more apprentices compared to its share of the state or regional populations for both DOL and DAS apprentices.
- Expanding apprenticeship sectors and increasing non-traditional opportunities at community colleges could help mitigate these issues.
- Future research should include an occupational analysis of demographics to identify possible areas of inequity.

Lack of Metrics

- While the CAI was enacted as part of California's Education Code in 2015, funding did not begin until the 2021-22 academic year. Historically, it takes a minimum of two years to get a California community college Career Technical Education (CTE) program started then another year must pass before you can begin to collect metrics such as enrollment, headcount, retention, not to mention

student outcomes such as program completions/awards or employment metrics—which takes additional time. Therefore, it is too early to collect, let alone evaluate CAI's impact on the state.

- DataVista, a statewide data system supported by the California Community Colleges Chancellor's Office provides data on progress, success, employment, and earnings outcomes for California community college students. The dashboard was launched late October 2024, but as of the writing of this report, data for CTE students who attained apprenticeship journey status was not available. It is anticipated that data will be added to the tool in late Spring 2025. Once available, the information will be added to the next phase of the OC COE's Apprenticeship report series, which will focus on evaluating apprenticeships in Orange County.
- The unreliable data plus lack of metrics, amplifies the need for a tracking system community colleges could use for ongoing assessment of their apprenticeship programs. Currently, colleges do not provide public access to apprenticeship enrollment and rely on internal systems for that information. A regional dashboard combined with labor market information could be used by community college educators to continuously improve traditional and non-traditional apprenticeship opportunities.

APPENDIX A: DATA SOURCES & LIMITATIONS

There are several sources of data available for apprenticeship programs at California community colleges. However, there is no source that incorporates all data points into a single area for analysis. Exhibit 21 shows these sources, as well as an overview of which information is available. Exhibit 22 provides the URL links and date accessed for each data source.

Exhibit 21: Sources of Apprenticeship Data for California Community Colleges

	Data Source	Total # Apprentices	Industries/ CC Sectors	Program Sponsors/ Locations	Wages	Occupations	Apprentice Demographics	Traditional vs. Non-Traditional	CC Programs	CC Courses
DOL	Apprenticeship Dashboard	✓	✓	✓	✗	✓	✓	✗	✗	✗
DAS	Website homepage	✓	✓	✗	✗	✗	✗	✗	✗	✗
DAS	Program Search Tool	✗	✓	✓	✓	✗	✗	✗	✗	✗
DAS	Registration Dashboard	✓	✓	✓	✗	✓	✓	✗	✗	✗
CCCCO	COCI/DataMart	✗	✗	✗	✗	✗	✗	✗	✓	✓
CCCCO	CAI Award Letters	✗	✗	✗	✗	✓	✗	✗	✓	✗

✓ = Complete/Consistent Data ✓ = Incomplete/Inconsistent Data ✗ = No data Found

Exhibit 22: Data Sources, Pull Dates, and Links

	Data Source	Date Accessed	Link
DOL	Apprenticeship Dashboard	March 14, 2025	https://www.apprenticeship.gov/data-and-statistics/apprentices-by-state-dashboard
DAS	Website homepage	February 10, 2025	https://www.dir.ca.gov/das/das.html
DAS	Program Search Tool	February 10, 2025	https://www.dir.ca.gov/databases/das/aigstart.asp
DAS	Registration Dashboard	February 22, 2025	https://public.tableau.com/app/profile/california.apprenticeship/viz/RegistrationDashboard_16301055851260/RegistrationDashboard
CCCCO	COCI/DataMart	March 21, 2025	https://coci2.ccctechcenter.org/programs
CCCCO	CAI Award Letters	March 20, 2025	https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Workforce-and-Economic-Development/apprenticeship/ca-apprenticeship-initiative

APPENDIX B: ACTIVE COCI PROGRAMS

Exhibit 23 lists all active (49), revised (3), and approved (1) apprenticeship programs in Orange County categorized by sector and year, per the California Community Colleges Chancellor's Office Curriculum Inventory (COCI).

Exhibit 23: COCI Apprenticeship Programs by Sector, Status, and Year Approved

Status	Year Approved	Institution	Program Title	Award Type	TOP Code and Title	Program Control Number
ADVANCED MANUFACTURING						
Active	2000	Santiago Canyon College	Apprenticeship: Maintenance Mechanic I	A.S. Degree	0945.00 Industrial Systems Technology and Maintenance	16839
Active	2000	Santiago Canyon College	Apprenticeship: Maintenance Mechanic II	A.S. Degree	0945.00 Industrial Systems Technology and Maintenance	11982
Active	2000	Santiago Canyon College	Apprenticeship: Surveying, Chief of Party	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0957.30 Surveying	21666
Active	2000	Santiago Canyon College	Apprenticeship: Surveying, Chief of Party	A.S. Degree	0957.30 Surveying	11990
Active	2002	Santiago Canyon College	Apprenticeship: Surveying, Chainman	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0957.30 Surveying	21667
Active	2002	Santiago Canyon College	Apprenticeship: Surveying, Chainman	A.S. Degree	0957.30 Surveying	13230
Active	2007	Santiago Canyon College	Apprenticeship: Operating Engineers, Special Inspector	A.S. Degree	0956.80 Industrial Quality Control	17688
Revision	2007	Santiago Canyon College	Apprenticeship: Operating Engineers, Special Inspector	Certificate of Achievement requiring 16 to less than 30 semester units or 24 to less than 45 quarter units	0956.80 Industrial Quality Control	21665

Status	Year Approved	Institution	Program Title	Award Type	TOP Code and Title	Program Control Number
ADVANCED TRANSPORTATION & LOGISTICS						
Active	2000	Santiago Canyon College	Apprenticeship: Operating Engineers, Heavy Equipment Operator	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0947.30 Heavy Equipment Operation	21655
Active	2007	Santiago Canyon College	Apprenticeship: Operating Engineers, Heavy Duty Repairman	A.S. Degree	0947.20 Heavy Equipment Maintenance	17687
Active	2007	Santiago Canyon College	Apprenticeship: Operating Engineers, Plant Equipment/Rock, Sand & Gravel Operator	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0947.30 Heavy Equipment Operation	21656
Active	2007	Santiago Canyon College	Apprenticeship: Operating Engineers, Plant Equipment/Rock, Sand & Gravel Operator	A.S. Degree	0947.30 Heavy Equipment Operation	17686
Active	2012	Santiago Canyon College	Apprenticeship: Operating Engineers, Construction Safety Inspector	A.S. Degree	0947.30 Heavy Equipment Operation	31503
Active	2012	Santiago Canyon College	Apprenticeship: Operating Engineers, Construction Safety Inspector	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0947.30 Heavy Equipment Operation	31574
Revision	2007	Santiago Canyon College	Apprenticeship: Operating Engineers, Heavy Duty Repairer	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0947.20 Heavy Equipment Maintenance	21654
BUSINESS & ENTREPRENEURSHIP						
Active	2000	Santiago Canyon College	Apprenticeship: Cosmetology	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	3007.00 Cosmetology and Barbering	11991

Status	Year Approved	Institution	Program Title	Award Type	TOP Code and Title	Program Control Number
EDUCATION & HUMAN DEVELOPMENT						
Active	2024	Santiago Canyon College	Apprenticeship in Early Childhood, AS	A.S. Degree	1305.00 Child Development/ Early Care and Education	44326
Active	2024	Santiago Canyon College	Apprenticeship in Early Childhood, CA	Certificate of Achievement requiring 16 to less than 30 semester units or 24 to less than 45 quarter units	1305.00 Child Development/ Early Care and Education	44174
ENERGY, CONSTRUCTION, & UTILITIES						
Active	2000	Santiago Canyon College	Apprenticeship Carpentry, Millwrighting	A.S. Degree	0952.50 Mill and Cabinet Work	11986
Active	2000	Santiago Canyon College	Apprenticeship: Carpentry, Drywall Finisher	A.S. Degree	0952.80 Drywall and Insulation	13234
Active	2000	Santiago Canyon College	Apprenticeship: Carpentry, Drywall Finisher	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.80 Drywall and Insulation	21663
Active	2000	Santiago Canyon College	Apprenticeship: Carpentry, Drywall/Lather	A.S. Degree	0952.80 Drywall and Insulation	11988
Active	2000	Santiago Canyon College	Apprenticeship: Carpentry, Drywall/Lather	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.80 Drywall and Insulation	21664
Active	2000	Santiago Canyon College	Apprenticeship: Carpentry, Millwrighting	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.50 Mill and Cabinet Work	21662
Active	2000	Santiago Canyon College	Apprenticeship: Electricity, Industrial	A.S. Degree	0952.20 Electrical	11985
Active	2000	Santiago Canyon College	Apprenticeship: Electricity, Industrial	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.20 Electrical	21661

Status	Year Approved	Institution	Program Title	Award Type	TOP Code and Title	Program Control Number
Active	2000	Santiago Canyon College	Apprenticeship: Power Lineman	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0934.40 Electrical Systems and Power Transmission	21652
Active	2000	Santiago Canyon College	Apprenticeship: Power Lineman	A.S. Degree	0934.40 Electrical Systems and Power Transmission	11981
Active	2002	Santiago Canyon College	Apprenticeship: Carpentry, Concrete	A.S. Degree	0952.10 Carpentry	13235
Active	2002	Santiago Canyon College	Apprenticeship: Carpentry, Concrete	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.10 Carpentry	21657
Active	2002	Santiago Canyon College	Apprenticeship: Carpentry, Finish Carpentry	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.10 Carpentry	21658
Active	2002	Santiago Canyon College	Apprenticeship: Carpentry, Finish Carpentry	A.S. Degree	0952.10 Carpentry	13231
Active	2002	Santiago Canyon College	Apprenticeship: Carpentry, Framing	A.S. Degree	0952.10 Carpentry	13232
Active	2002	Santiago Canyon College	Apprenticeship: Carpentry, Framing	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.10 Carpentry	21659
Active	2002	Santiago Canyon College	Apprenticeship: Carpentry, Tilt-Up	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.10 Carpentry	21660
Active	2002	Santiago Canyon College	Apprenticeship: Carpentry, Tilt-Up	A.S. Degree	0952.10 Carpentry	13233
Active	2009	Santiago Canyon College	Apprenticeship: Electricity, Sound Installer	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.20 Electrical	19587
Active	2009	Santiago Canyon College	Apprenticeship: Electricity, Sound Installer	A.S. Degree	0952.20 Electrical	19588

Status	Year Approved	Institution	Program Title	Award Type	TOP Code and Title	Program Control Number
Active	2009	Santiago Canyon College	Apprenticeship: Electricity, Sound Technician	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.20 Electrical	19589
Active	2009	Santiago Canyon College	Apprenticeship: Electricity, Sound Technician	A.S. Degree	0952.20 Electrical	19590
Active	2010	Santiago Canyon College	Apprenticeship: Electricity, Intelligent Transportation Systems Electrician	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.20 Electrical	22270
Active	2010	Santiago Canyon College	Apprenticeship: Electricity, Intelligent Transportation Systems Electrician	A.S. Degree	0952.20 Electrical	22271
Active	2012	Santiago Canyon College	Apprenticeship: Carpentry, Acoustical Tile	A.S. Degree	0952.80 Drywall and Insulation	31107
Active	2012	Santiago Canyon College	Apprenticeship: Carpentry, Pile Driver	A.S. Degree	0952.10 Carpentry	31588
Active	2012	Santiago Canyon College	Apprenticeship: Carpentry, Pile Driver	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.10 Carpentry	31589
Active	2012	Santiago Canyon College	Apprenticeship: Carpentry, Plastering	A.S. Degree	0952.60 Masonry, Tile, Cement, Lath and Plaster	31705
Active	2012	Santiago Canyon College	Apprenticeship: Carpentry, Plastering	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.60 Masonry, Tile, Cement, Lath and Plaster	31706
Active	2016	Santiago Canyon College	Apprenticeship Carpentry, Insulator	Certificate of Achievement: 18 or greater semester (or 27 or greater quarter) units	0952.80 Drywall and Insulation	35234
Active	2016	Santiago Canyon College	Apprenticeship Carpentry, Insulator	A.S. Degree	0952.80 Drywall and Insulation	35233
Revision	2012	Santiago Canyon College	Apprenticeship: Carpentry, Acoustical Installer	Certificate of Achievement: 18 or greater semester (or	0952.80 Drywall and Insulation	31109

Status	Year Approved	Institution	Program Title	Award Type	TOP Code and Title	Program Control Number
				27 or greater quarter) units		
ICT & DIGITAL MEDIA						
Active	2018	Fullerton College	Computer Technician Apprentice Skills	Certificate of Achievement: 12 to fewer than 18 semester(or 18 to fewer than 27 quarter) units	0702.00 Computer Information Systems	37099
Active	2018	Fullerton College	Office Applications Apprentice	Certificate of Achievement: 18 or greater semester(or 27 or greater quarter) units	0702.00 Computer Information Systems	37173
Approved	2023	North Orange Adult	Google IT Support Professional Pre-Apprenticeship	Noncredit program	0702.00 Computer Information Systems	43318

APPENDIX C: END NOTES

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Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and the report findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

FOR LABOR MARKET RESEARCH

ORANGE COUNTY

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