



CENTER OF EXCELLENCE
FOR LABOR MARKET RESEARCH
ORANGE COUNTY

2024

ORANGE COUNTY SECTOR PROFILES: TRENDS & IMPACTS



**ORANGE COUNTY
REGIONAL CONSORTIUM**

**WORKFORCE
DEVELOPMENT ALLIANCE**



An Executive Summary
Published March 2025

TABLE OF CONTENTS

INTRODUCTION.....	3
2024 Sector Profile Labor Market Research	3
Key Occupations Driving Employment.....	3
TRENDS IN SECTOR PROFILES	4
Green Jobs	4
Green Job Community College Considerations.....	5
Automation	6
Automation Community College Considerations.....	7
Artificial Intelligence.....	8
Where Automation and AI Intersect	8
Artificial Intelligence Community College Considerations	9
Workforce and Skill Shortages.....	9
Mitigating Workforce and Skill Shortages	11
Workforce and Skill Shortages Considerations for Community Colleges.....	11
Appendix A: Key Occupations Driving Employment for all Sectors By Skill-Level then.....	12
Appendix B: End Notes.....	36

INTRODUCTION

Between July and December of 2024, the Orange County Center of Excellence (OC COE) published the [2024 Sector Profiles](#); a series of 12 reports and supplemental appendices that provided a comprehensive analysis of Orange County's occupational landscape within the California community college sector framework. The 2024 Sector Profiles offer historical and projected labor market insights while building upon foundational research established in the [Orange County Labor Market Overview](#).¹ Listed by rank, per the Orange County Region in consultation with the Orange County Labor Market Overview and a corresponding regional survey of community colleges and key partners, the series includes the following sectors:

1. [Health](#)
2. [ICT/Digital Media](#)
3. [Business and Entrepreneurship](#)
4. [Education and Human Development](#)
5. [Energy, Construction, and Utilities](#)
6. [Other/Unassigned](#)
7. [Life Sciences and Biotechnology](#)
8. [Advanced Manufacturing](#)
9. [Retail, Hospitality, and Tourism](#)
10. [Advanced Transportation and Logistics](#)
11. [Agriculture, Water, Environmental Technologies](#)
12. [Public Safety](#)

2024 Sector Profile Labor Market Research

Each sector profile includes an analysis of traditional and real-time labor market information in Orange County. Traditional labor market research contains data related to the number of jobs (the count of individuals currently in an occupation), annual openings (the number of individuals that will need to be hired annually), skills-level analysis (the education required for an occupation), and earnings (entry-level through experienced hourly wages). Real-time labor market data includes online job postings over a 12-month period to show the frequency of postings by occupation as well as the most requested employers, job titles, and skills for each sector.

In addition to the labor market research, literature reviews were conducted for each sector to provide nuanced information on sector-specific developments and external factors impacting them..

While there were a number of underlying dynamics and intricacies shaping all sectors in Orange County as identified in the Sector Profiles, four trends stood out: artificial intelligence, automation, green jobs, as well as workforce and skill shortages. This Executive Summary highlights key trends to help community colleges and regional stakeholders in Orange County better serve students and address workforce needs.

Key Occupations Driving Employment

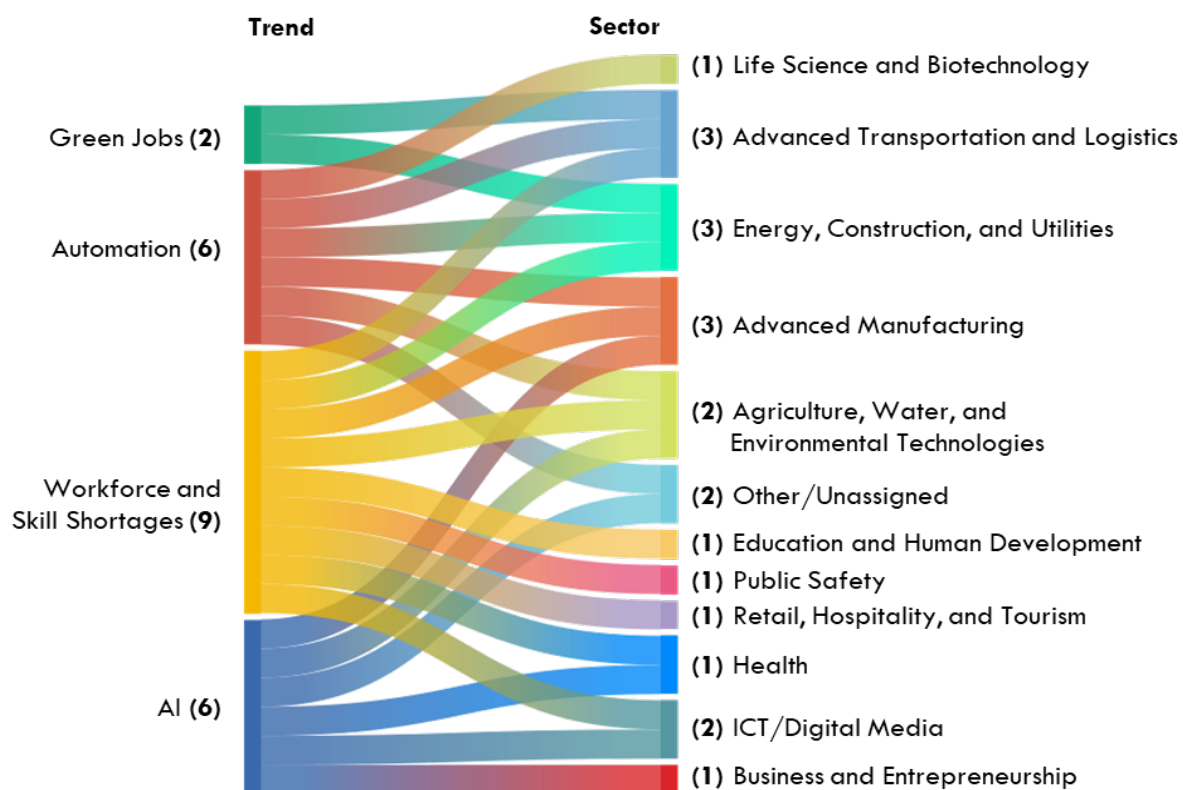
In each sector there were occupations that had more jobs, more openings, and higher growth than the others. The OC COE bundled these occupations together into a section titled: *Key Occupations Driving Employment*. Commonalities in job- and skills-type were used to group the occupations to further study them and their potential effect on the region. Oftentimes it was discovered that new legislation, licensure, or technology were behind the increase in metrics. It is worth noting that while wages were not part of the criteria determining whether or not an occupation qualified to be a "key occupation driving employment", earnings were included in the 2024 Sector Profiles' subsequent analysis of each group for reference.

In total, there were 162 Key Occupations Driving Employment across all sectors (listed in [Appendix A](#) of this report). Of which, 130 were highlighted in the aforementioned Orange County Labor Market Overview, which was a criteria-based analysis. The 162 Key Occupations Driving Employment account for 15% of the total number of occupations in the federal Bureau of Labor Statistics (BLS) Standard Occupational Classification (SOC) system and 29% (47) are on the U.S. News & World Report's 100 Best Jobs of 2024 list.

TRENDS IN SECTOR PROFILES

The *Trends in Occupational Demand and Key Occupations Driving Employment* section in each sector profile highlights industry and occupation trends within their respective sector. However, several overarching themes such as green jobs, automation, artificial intelligence and workforce and skill shortages, emerged across multiple sectors. These recurring topics reflect broader labor market shifts and evolving industry demands. Exhibit 1 shows an overview of these key trends and which sectors they impact.

Exhibit 1: Key Trends Alignment with Sectors



Green Jobs

Green Jobs are defined by BLS as one of the following:

- “Jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources.
- Jobs in which workers’ duties involve making their establishment’s production processes more environmentally friendly or use fewer natural resources.”²

In the Advanced Transportation and Logistics as well as the Energy, Construction and Utilities Sector Profiles, Green Jobs are defined using O*NET’s classifications of the Green Economy and Green Jobs.^{3 4} Although Green Jobs were referenced in only 2 of the 12 Sector Profiles, their impact on both sectors is substantial, particularly within Orange County. The Orange County’s draft Climate Action Plan, published in August 2024, highlights the region’s strong presence in green technology, with employment in this sector being 50% higher than the California state average. Additionally, the Orange County Workforce Development Board (OCWDB) identifies the county as a key hub for green transportation, with a notably higher employment concentration in this industry compared to the rest of the state.⁵ Green Jobs account for 56% of total jobs in Advanced Transportation and Logistics, and 78% of total jobs in the Energy,

Construction, and Utilities in Orange County. Exhibit 2 compares the number of 2022 Jobs with 2027 Jobs and shows the 2022-27 % Change between Non-Green and Green Jobs for Advanced Transportation and Logistics.

Exhibit 2: Non-Green vs. Green Advanced Transportation and Logistics Jobs in Orange County, 2022-2027

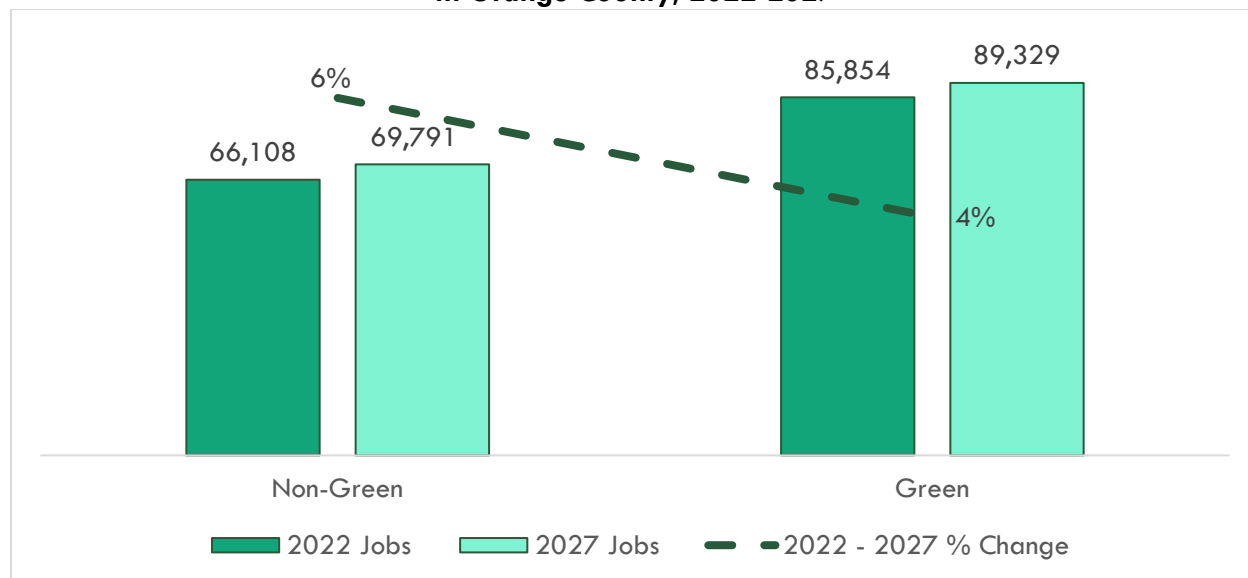
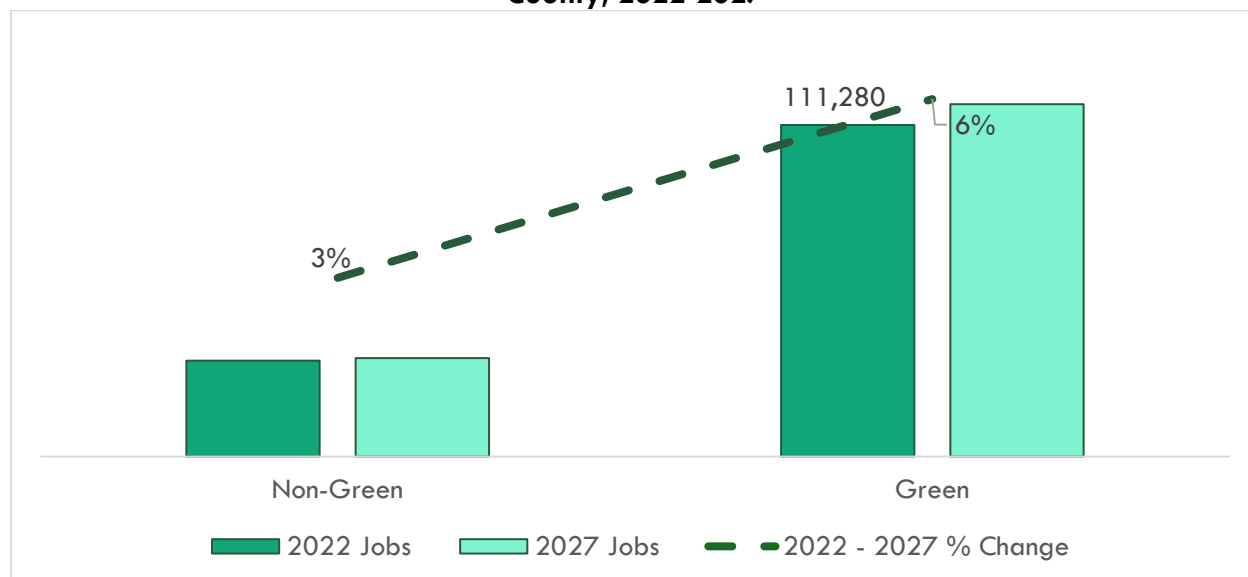


Exhibit 3 compares the number of 2022 Jobs with 2027 Jobs and shows the 2022-27 % Change between Non-Green and Green Jobs for Advanced Transportation and Logistics.

Exhibit 3: Non-Green vs. Green Advanced Transportation and Logistics Jobs in Orange County, 2022-2027



Green Job Community College Considerations

Community colleges could evaluate opportunities to align workforce training programs with the growing demand for Green Jobs across multiple sectors. In Advanced Transportation and Logistics, the increasing adoption of zero-emission vehicles (ZEV) includes electric, hybrid, and hydrogen fuel-cell technology. Community colleges offering automotive technology programs could integrate specialized training on zero-emission vehicles to equip students with the skills necessary to maintain and repair these vehicles. Those

colleges that have already begun specialized zero-emission vehicle training programs may want to consider targeted marketing campaigns with regional partners, like the OCWDB, to attract new students.

Similarly, in the Energy, Construction, and Utilities sector, ongoing efforts to greenhouse gas emissions are expected to increase demand for skilled workers such as electricians, solar panel installers, and wind turbines technicians. Expanding electrical and related training programs to integrate renewable energy systems, electrification technologies, and energy-efficient infrastructure could meet the increasing need for these skilled workers.



Automation

Automation continues to reshape workforce demands across multiple sectors, particularly in occupations involving predictable and routine tasks. While automation can lead to job displacement in some sectors, it also transforms the workforce by shifting demand toward skills in technology, problem-solving, and human-centric roles that machines cannot easily replicate. The Orange County Labor Market Overview evaluated automation risk using the Lightcast Automation Index (LAI)⁶, where a score above 100 indicates a higher-than-average likelihood of automation replacing certain job functions. The sectors most at risk include Retail, Hospitality, and Tourism (LAI: 105.7), Energy, Construction, and Utilities (LAI: 105.3), and Advanced Transportation and Logistics (LAI: 99.9). Automation trends were referenced in half of the 2024 Sector Profiles; it is being integrated across multiple sectors to address skill gaps and workforce shortages, enhance building automation, and increase operational efficiency. Exhibit 4 shows the summation of automation trends within each sector.

Exhibit 4: Sectors Utilizing Automation 7, 8, 9, 10, 11

Advanced Manufacturing

- According to a national survey by Rockwell Automation, which included over 1,500 manufacturers, 42% of respondents are adopting more automation to overcome labor shortages and skill gaps.
- According to a national survey by Deloitte, "manufacturing respondents were able to use automation to help fill 16% of open jobs."

Advanced Transportation and Logistics

- To mitigate supply chain and logistics worker shortages, companies are heavily investing in artificial intelligence to automate repetitive tasks, enabling employees to concentrate on more complex work.

Agriculture, Water, and Environmental Technology

- California is leveraging robotics and artificial intelligence, such as automated irrigation, harvesting, and crop management systems, to address labor shortages, improve water efficiency, and optimize agricultural operations.

Energy, Construction, and Utilities

- In support of efforts to reduce greenhouse emissions, there are potential opportunities for building automation, which utilizes sensors and controls to regulate key utilities.

Life Science and Biotechnology

- Advances in contact testing and automated systems may decrease the demand for lab technologists and technicians.

Other/Unassigned

- Lawyers use automation for legal research, e-discovery, document review, and drafting low-complexity documents.

Automation Community College Considerations

To address skills gaps in Advanced Transportation and Logistics and Advanced Manufacturing sectors, community colleges could collaborate with local employers to develop nontraditional apprenticeships and customized training programs. This includes logistics and supply chain training to address workforce bottlenecks and manufacturing and machining programs that provide hands-on experience aligned with employer needs.

In the Life Science and Biotechnology sector, mitigating workforce shortages will require expanding training programs for medical laboratory scientists and medical laboratory technicians. Educational institutions could establish advanced training programs and degree pathways focused on complex testing methods and laboratory processes.



Artificial Intelligence

While automation primarily assists with predictable and routine tasks, artificial intelligence (AI), utilizing computer systems and algorithms, has the capability to perform more complex functions that traditionally required human intelligence like learning, decision-making, and language processing. According to IBM, AI is defined as “a field which combines computer science and robust datasets to enable problem-solving.”¹² AI trends were referenced in half of the 2024 Sector Profiles.

AI is being integrated across multiple sectors to streamline financial operations, manage electronic health records, optimize work environments, and enhance legal contract review and litigation processes. Exhibit 5 summarizes AI trends within sectors.

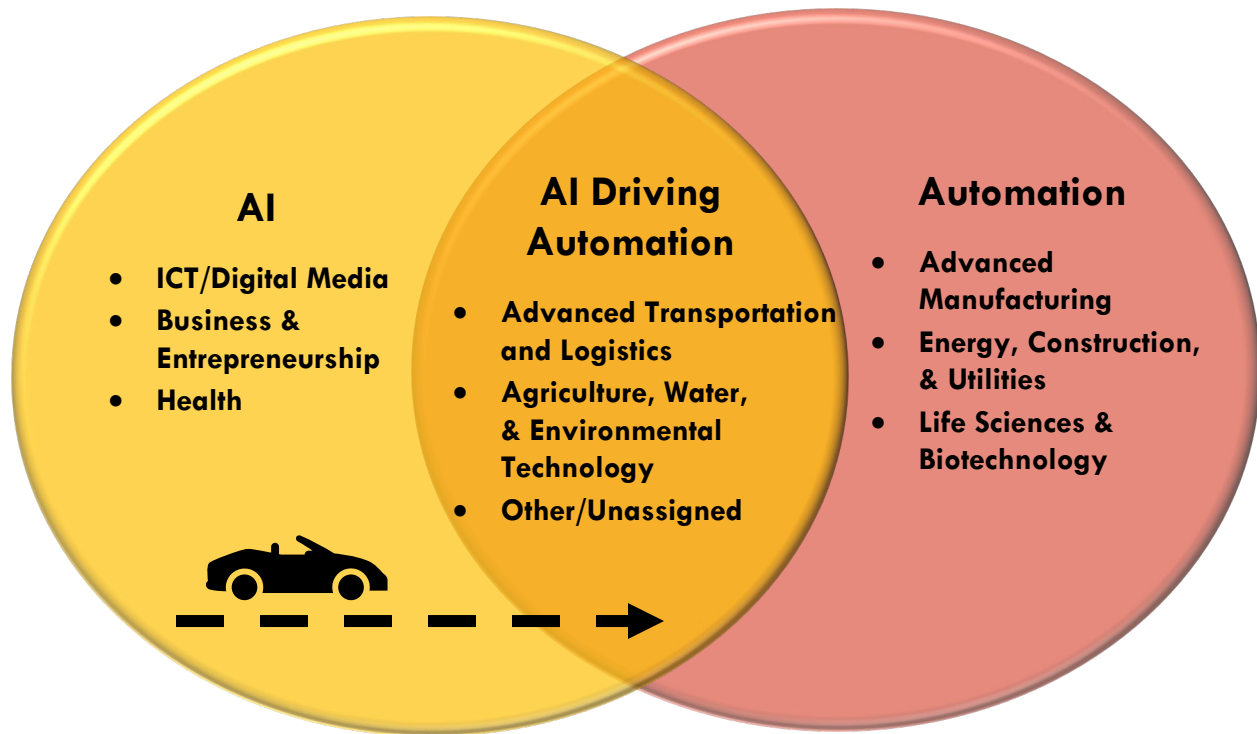
Exhibit 5: Sectors Utilizing Artificial Intelligence ^{13, 14, 15, 16}

Advanced Transportation and Logistics
<ul style="list-style-type: none">• As stated in the previous section, to mitigate supply chain logistics workers shortages, companies are heavily investing in artificial intelligence to automate repetitive tasks, enabling employees to concentrate on more complex work.
Agriculture, Water, and Environmental Technologies
<ul style="list-style-type: none">• As stated in the previous section, California is leveraging robotics and artificial intelligence, such as automated irrigation, harvesting, and crop management systems, to address labor shortages, improve water efficiency, and optimize agricultural operations.
Business and Entrepreneurship
<ul style="list-style-type: none">• Financial technology, or fintech, is designed to assist business, entrepreneurs, and individuals in effectively managing their financial processes and operations. It functions using advanced software and algorithms that can be accessed on both computers and mobile devices.
Health
<ul style="list-style-type: none">• Despite the widespread of Certified Electronic Health Records, ongoing technology advance continue to shape the healthcare landscape. A 2023 survey by the American Health Information Management Association revealed that 75% of respondents emphasized the importance of upskilling the health information workforce, especially considering the growing use of AI and machine learning tools.
ICT/Digital Media
<ul style="list-style-type: none">• The majority (95%) of online job postings for AI positions requested a bachelor's, masters, or doctoral program.• Between 2016 and 2018, approximately 13% of workers that were employed at companies had utilized AI, and this percentage is expected to grow.
Other/Unassigned
<ul style="list-style-type: none">• Legal professionals leverage AI to review contracts and develop litigation strategies.

Where Automation and AI Intersect

Automation and AI often intersect, as AI enhances automation by enabling more adaptive and intelligent processes. Exhibit 6 shows where automation and AI overlap across multiple sectors.

Exhibit 6: Sector Trends for AI and Automation



Last year, Lightcast published, *The Rising Storm: Building a Future-Ready Workforce to Withstand the Looming Labor Shortage*¹⁷. This report examined the possibility of automation and AI being utilized to address the imminent labor shortages expected throughout the United States. Based on their combined research of job postings and case study of Japan, who they state has been successfully mitigating their own labor shortage, the report surmises that the industries: healthcare, construction, food and hospitality, as well as utilities, have the most immediate need of workers but will not be the ones whose jobs are most impacted by automation and/or especially AI, which aligns with the 2024 Sector Profiles research.

Artificial Intelligence Community College Considerations

The increasing integration of AI across sectors highlights the growing need for AI-related skills in the workforce. Students in all CTE programs would benefit from having generative AI concepts contextualized to their area of study. Community colleges offering coursework in computer programming and data analytics will need to incorporate AI skills to align with industry technology trends; however, it is worth noting that only 5% of AI-related job postings reported in the 2024 Sector Profiles require less than a bachelor's degree. This suggests that transfer pathways may be an important consideration for students pursuing AI-related jobs. "Artificial intelligence may augment tasks, but won't replace anyone's job anytime soon."¹⁸

Workforce and Skill Shortages

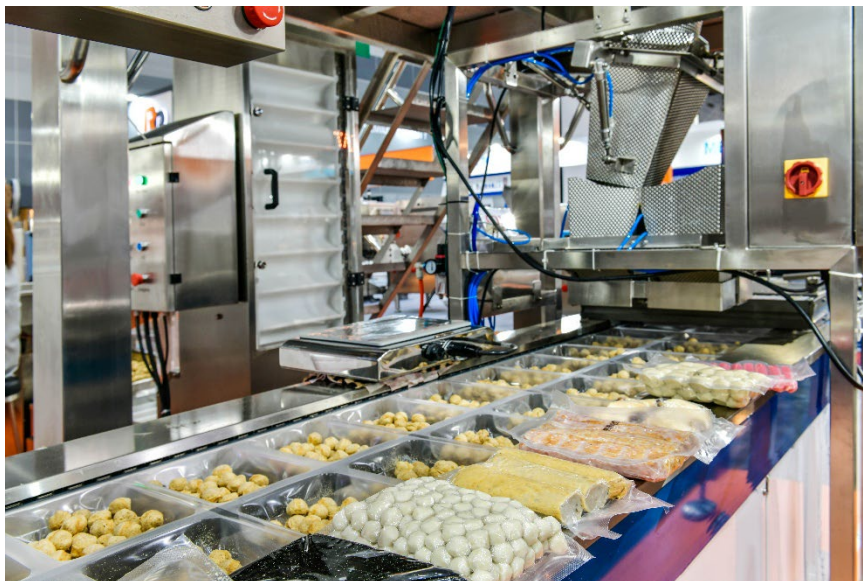
Workforce and skill shortages vary across sectors, with contributing factors such as an aging workforce and population, high turnover and burnout rates, low wages, training and educational bottlenecks, and the lingering effects of the COVID-19 Pandemic on some sectors. Workforce and skills gaps were referenced in nine of the 12 Sector Profiles. Exhibit 7 breaks down some of the specific contributing factors for workforce and skill shortages within each impacted sector profile.

Exhibit 7: Workforce and Skill Shortages Factors Overview ^{19, 20, 21, 22}

Aging Workforce and Population	<ul style="list-style-type: none"> • Advance Manufacturing: <ul style="list-style-type: none"> • In Orange County, 51% of workers in machine-related occupations are 50 and older, which mirrors national trends. • Shortage of computer numerical controlled (CNC) machinists. • Health: <ul style="list-style-type: none"> • Shortage of allied health professions: physician's assistants, medical assistants, and home health aides; especially given that in California, the over 65-population is projected to account for almost 20% of the state's population in 2030. This means that more people are aging and will need various types of medical support.
High Turnover and Burnout	<ul style="list-style-type: none"> • Education and Human Development: <ul style="list-style-type: none"> • A 2022 survey of over 4,600 California teachers revealed that 40% had considered leaving their positions, with 57% identifying burnout as the primary reason for their decision. • Health: <ul style="list-style-type: none"> • U.S. nursing workforce lost over 100,000 individuals, leading to staffing shortages and increased workloads between 2019 and 2022. • Due to shortages, dentists are taking on additional tasks which are typically completed by assistants and/or hygienists. • Public Safety: <ul style="list-style-type: none"> • Law enforcement experiencing high turnover rates. The number of sworn officers per 100,000 residents has dropped to its lowest since 1994.
Low Wages	<ul style="list-style-type: none"> • Health <ul style="list-style-type: none"> • Allied Health occupations as well as home health and personal care aids are experiencing low wages related to low reimbursement rates from public and private insurances. • Education and Human Development <ul style="list-style-type: none"> • A national survey of over 3,400 paraprofessionals (i.e., paraeducators, teacher aides, and instructional aides) found that 71% were likely to leave their positions within a year, citing low wages as the primary factor.
Training and Educational Bottlenecks	<ul style="list-style-type: none"> • Health: <ul style="list-style-type: none"> • As a result of the COVID-19 Pandemic, enrollment has been declining for dental assisting programs while rebounding for dental hygiene programs. • According to an American Dental Association survey, 43% of dentist reported a shortage of qualified Dental Assistants (31-9091) and 8% for Dental Hygienists (29-1292). • ICT/Digital Media: <ul style="list-style-type: none"> • Studies indicates cybersecurity shortages, and suggests existing training programs do not adequately prepare students for critical skilled roles. • Public Safety: <ul style="list-style-type: none"> • The shortage of firefighters, paramedics and EMTs have led Southern California agencies to implement additional benefits, career development opportunities, and cover the cost of paramedic training.
COVID-19 Pandemic	<ul style="list-style-type: none"> • Public Safety: <ul style="list-style-type: none"> • American Lifeguard Association and American Red Cross reported shortage of lifeguards due to pools being closed during the Pandemic. • Retail, Hospitality, Tourism: <ul style="list-style-type: none"> • Shortages of hotel workers ranging from housekeepers to front desk clerks and managers despite travel spending and tourism fully recovering.

Mitigating Workforce and Skill Shortages

Employers are utilizing a myriad of strategies to mitigate workforce and skill shortages. The 2024 Sector Profiles highlighted ways automation is being leveraged to positively impact shortages in three sectors: Agriculture, Water, and Environmental Technology; Advanced Manufacturing; as well as Advanced Transportation and Logistics by reshaping workforce demands for occupations involving predictable and routine tasks. As automation reshapes various industries, it creates new opportunities by increasing the demand for technological expertise, problem-solving abilities, and human-focused roles that machines struggle to replicate.



Towards the end of 2024, Lightcast produced, *The Rising Storm: Building a Future-Ready Workforce to Withstand the Looming Labor Shortage*²³, a report that quantifies a roughly six-million worker shortfall in the United States by the end of this decade. Lightcast attributes this shortfall to a variety of reasons with the main reason being the aging workforce and decrease in labor force participation. The report outlines four potential solutions that could be used to mitigate workforce shortage, one of which is automation. However, the report warns that, other than the IT jobs that are designing the AI and automation programs, the biggest impact in terms of number of jobs, will be to lower-paying occupations such as fast-food workers and call centers. Their research further states that this will enable those low-wage workers to retrain for opportunities in higher-paying, less menial work.

Workforce and Skill Shortages Considerations for Community Colleges

Workforce shortages driven by skills gaps—including an aging workforce, training and educational bottlenecks, and the lasting effects of the COVID-19 pandemic—highlight the need for expanded training programs in key sectors such as Health, ICT/Digital Media, Public Safety, Advanced Manufacturing, and Retail, Hospitality, and Tourism. Community colleges can strengthen partnerships with employers to develop apprenticeships, internships, and hands-on training programs, ensuring that students acquire the necessary skills to meet industry demands.

While high turnover, burnout, and low wages are factors community colleges may not directly influence, monitoring these trends can provide valuable insights into industry conditions, better-preparing students for the realities of the workforce.

CONCLUSION

The 2024 Sector Profiles highlighted several trends impacting community college sectors over the next few years. Many of these trends intersect and may be used jointly to mitigate present and future workforce needs. These trends also highlight the vast number of collaborative opportunities community colleges and industry partners could forge with the goal of preparing students for well-paying career paths.

APPENDIX A: KEY OCCUPATIONS DRIVING EMPLOYMENT FOR ALL SECTORS BY SKILL-LEVEL THEN

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Advanced Manufacturing	Below Middle-Skill	51-3092	Food Batchmakers*	885	945	60	7%	139	\$15.04	\$15.97	\$19.20	High school diploma or equivalent	None	Moderate-term on-the-job training
	Middle-Skill	49-9041	Industrial Machinery Mechanics	2,481	2,658	177	7%	260	\$24.22	\$30.66	\$38.64	High school diploma or equivalent	None	Long-term on-the-job training
		51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	751	833	81	11%	100	\$17.66	\$18.40	\$22.14	High school diploma or equivalent	None	Moderate-term on-the-job training
	Above Middle-Skill	17-2112	Industrial Engineers^	3,205	3,464	259	8%	255	\$40.38	\$50.25	\$64.51	Bachelor's degree	None	None
Advanced Transportation & Logistics	Below Middle-Skill	53-3033	Light Truck Drivers*#	10,758	11,571	813	8%	1,471	\$18.08	\$20.64	\$25.73	High school diploma or equivalent	None	Short-term on-the-job training
		53-3031	Driver/Sales Workers*	4,264	4,851	587	14%	649	\$15.61	\$17.57	\$22.81	High school diploma or equivalent	None	Short-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Advanced Transportation & Logistics	Below Middle-Skill	43-5021	Couriers and Messengers*	2,321	2,882	561	24%	389	\$12.56	\$17.66	\$20.45	High school diploma or equivalent	None	Short-term on-the-job training
		53-3053	Shuttle Drivers and Chauffeurs*	1,512	1,805	294	19%	278	\$15.36	\$17.37	\$21.03	No formal educational credential	None	Short-term on-the-job training
		53-3054	Taxi Drivers*	2,079	2,253	174	8%	266	\$8.11	\$13.97	\$22.23	No formal educational credential	None	Short-term on-the-job training
		53-3051	Bus Drivers, School*	982	1,115	133	14%	189	\$23.46	\$24.60	\$27.09	No formal educational credential	None	Short-term on-the-job training
	Middle-Skill	13-1081	Logisticians#	2,617	2,985	368	14%	316	\$30.26	\$38.23	\$49.44	Bachelor's degree	None	None
		43-5011	Cargo and Freight Agents	731	803	72	10%	101	\$16.97	\$22.39	\$28.23	High school diploma or equivalent	None	Short-term on-the-job training
Agriculture, Water & Environmental Technologies	Below Middle-Skill	39-2021	Animal Caretakers*	3,096	3,866	770	25%	793	\$14.00	\$15.17	\$18.09	High school diploma or equivalent	None	Short-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Agriculture, Water & Environmental Technologies	Middle-Skill	31-9096	Veterinary Assistants and Laboratory Animal Caretakers	1,490	1,648	159	11%	333	\$16.91	\$17.23	\$20.38	High school diploma or equivalent	None	Short-term on-the-job training
		29-2056	Veterinary Technologists and Technicians#	985	1,140	155	16%	134	\$17.79	\$22.08	\$25.53	Associate's degree	None	None
Business and Entrepreneurship	Middle-Skill	11-1021	General and Operations Managers#	28,261	30,309	2,048	7%	2,957	\$37.02	\$54.10	\$81.04	Bachelor's degree	5 years or more	None
		43-4171	Receptionists and Information Clerks	9,023	9,896	873	10%	1,474	\$16.45	\$17.80	\$19.19	High school diploma or equivalent	None	Short-term on-the-job training
		39-5012	Hairdressers, Hairstylists, and Cosmetologists	6,988	7,996	1,008	14%	1,232	\$13.66	\$16.43	\$24.23	Postsecondary nondegree award	None	None
		39-5092	Manicurists and Pedicurists#	6,652	8,065	1,413	21%	1,204	\$14.00	\$14.87	\$15.68	Postsecondary nondegree award	None	None
		39-5094	Skincare Specialists	1,911	2,274	363	19%	362	\$14.13	\$16.61	\$30.89	Postsecondary nondegree award	None	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Business and Entrepreneurship	Above Middle-Skill	13-1161	Market Research Analysts and Marketing Specialists^#	12,149	13,313	1,164	10%	1,476	\$26.39	\$32.59	\$47.13	Bachelor's degree	None	None
		11-3031	Financial Managers^#	11,599	12,445	846	7%	1,055	\$53.14	\$75.06	\$100.74	Bachelor's degree	5 years or more	None
		11-9151	Social and Community Service Managers^#	2,240	2,549	309	14%	269	\$27.08	\$34.67	\$49.23	Bachelor's degree	Less than 5 years	None
		15-2031	Operations Research Analysts^#	894	1,005	111	12%	87	\$31.09	\$38.84	\$51.70	Bachelor's degree	None	None
		13-1131	Fundraisers^	703	793	90	13%	86	\$24.70	\$29.92	\$38.92	Bachelor's degree	None	None
		13-2061	Financial Examiners^	625	690	65	10%	65	\$29.88	\$39.39	\$51.20	Bachelor's degree	None	Long-term on-the-job training
Education and Human Development	Below Middle-Skill	25-3021	Self-Enrichment Teachers*	7,006	8,516	1,510	22%	1,181	\$15.26	\$21.35	\$34.59	High school diploma or equivalent	Less than 5 years	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Education and Human Development	Middle-Skill	25-9045	Teaching Assistants, Except Postsecondary	10,546	11,402	856	8%	1,452	\$17.54	\$19.00	\$22.49	Some college, no degree	None	None
		25-2011	Preschool Teachers, Except Special Education	4,685	5,124	439	9%	612	\$16.65	\$17.47	\$22.44	Associate's degree	None	None
		25-9044	Teaching Assistants, Postsecondary	1,579	1,705	125	8%	216	\$15.36	\$16.99	\$22.52	Bachelor's degree	None	None
		25-2012	Kindergarten Teachers, Except Special Education	589	642	53	9%	76	\$36.87	\$51.47	\$52.49	Bachelor's degree	None	None
	Above Middle-Skill	25-3041	Tutors^	7,881	9,023	1,142	14%	1,466	\$14.24	\$16.08	\$19.66	Bachelor's degree	None	None
		25-2021	Elementary School Teachers, Except Special Education^#	11,508	12,383	875	8%	1,034	\$31.74	\$46.20	\$51.38	Bachelor's degree	None	None
		25-3031	Substitute Teachers, Short-Term^	5,679	6,159	480	8%	769	\$18.56	\$22.95	\$31.27	Bachelor's degree	None	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Education and Human Development	Above Middle-Skill	25-2031	Secondary School Teachers, Except Special and Career/Technical Education^#	7,286	7,898	611	8%	631	\$30.88	\$39.18	\$48.54	Bachelor's degree	None	None
		21-1021	Child, Family, and School Social Workers^	4,572	5,043	471	10%	535	\$22.24	\$29.90	\$36.77	Bachelor's degree	None	None
		13-1151	Training and Development Specialists^	3,511	3,789	278	8%	387	\$23.00	\$32.80	\$44.27	Bachelor's degree	Less than 5 years	None
		21-1012	Educational, Guidance, and Career Counselors and Advisors^#	3,445	3,694	249	7%	342	\$26.44	\$29.65	\$45.67	Master's degree	None	None
		21-1013	Marriage and Family Therapists^	2,955	3,327	372	13%	323	\$21.64	\$23.90	\$33.89	Master's degree	None	Internship/residency
		25-2022	Middle School Teachers, Except Special and Career/Technical Education^#	3,376	3,663	288	9%	311	\$36.31	\$46.60	\$49.74	Bachelor's degree	None	None
		21-1019	Counselors, All Other^	2,309	2,548	240	10%	293	\$16.92	\$18.02	\$21.83	Master's degree	None	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Education and Human Development	Above Middle-Skill	25-3099	Teachers and Instructors, All Other^	1,768	1,937	169	10%	244	\$26.19	\$35.38	\$47.40	Bachelor's degree	None	None
		11-9032	Education Administrators, Kindergarten through Secondary^	2,001	2,175	174	9%	189	\$49.60	\$61.89	\$70.09	Master's degree	5 years or more	None
		25-9031	Instructional Coordinators^	1,192	1,350	158	13%	147	\$23.84	\$34.51	\$48.75	Master's degree	5 years or more	None
		21-1099	Community and Social Service Specialists, All Other^	1,070	1,179	109	10%	143	\$15.82	\$20.11	\$26.81	Bachelor's degree	None	None
		25-2052	Special Education Teachers, Kindergarten and Elementary School^	1,405	1,508	103	7%	127	\$31.06	\$42.13	\$48.86	Bachelor's degree	None	None
		11-9039	Education Administrators, All Other^	895	1,024	130	14%	97	\$30.82	\$43.57	\$57.51	Bachelor's degree	Less than 5 years	None
		25-4022	Librarians and Media Collections Specialists^	657	732	75	11%	83	\$27.92	\$36.61	\$45.94	Master's degree	None	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Education and Human Development	Above Middle-Skill	25-2059	Special Education Teachers, All Other^	866	934	69	8%	79	\$22.15	\$35.53	\$44.50	Bachelor's degree	None	None
		25-2058	Special Education Teachers, Secondary School^	740	805	65	9%	69	\$36.91	\$47.56	\$50.47	Bachelor's degree	None	None
Energy, Construction, and Utilities	Below Middle-Skill	49-9071	Maintenance and Repair Workers, General*	14,804	15,981	1,176	8%	1,725	\$18.43	\$22.89	\$29.13	High school diploma or equivalent	None	Moderate-term on-the-job training
		47-2181	Roofers*	2,587	2,783	196	8%	290	\$27.79	\$30.34	\$38.14	No formal educational credential	None	Moderate-term on-the-job training
	Middle-Skill	47-2111	Electricians#	8,976	9,956	980	11%	1,159	\$24.26	\$35.18	\$47.09	High school diploma or equivalent	None	Apprenticeship
		49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	4,537	4,910	374	8%	519	\$23.80	\$31.23	\$41.18	Postsecondary nondegree award	None	Long-term on-the-job training
	Above Middle-Skill	11-9021	Construction Managers^#	6,302	6,818	516	8%	601	\$35.84	\$52.02	\$71.59	Bachelor's degree	None	Moderate-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Energy, Construction, and Utilities	Above Middle-Skill	17-2051	Civil Engineers^	5,357	5,806	449	8%	463	\$38.75	\$49.51	\$64.75	Bachelor's degree	None	None
		17-1011	Architects, Except Landscape and Naval^	3,207	3,467	261	8%	282	\$30.19	\$45.62	\$61.59	Bachelor's degree	None	Internship/residency
		19-2041	Environmental Scientists and Specialists, Including Health^	645	703	58	9%	73	\$32.92	\$43.51	\$54.30	Bachelor's degree	None	None
Health	Below Middle-Skill	51-9082	Medical Appliance Technicians*	1,082	1,160	78	7%	164	\$16.86	\$23.01	\$23.51	High school diploma or equivalent	None	Moderate-term on-the-job training
		39-9041	Residential Advisors*	626	723	98	16%	134	\$16.78	\$19.20	\$22.41	High school diploma or equivalent	None	Short-term on-the-job training
	Middle-Skill	31-1128	Home Health and Personal Care Aides#	55,559	69,312	13,753	25%	12,093	\$14.05	\$15.05	\$15.63	High school diploma or equivalent	None	Short-term on-the-job training
		29-1141	Registered Nurses#	25,617	27,982	2,365	9%	1,996	\$48.32	\$60.39	\$67.22	Bachelor's degree	None	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Health	Middle-Skill	31-9092	Medical Assistants#	10,273	11,587	1,315	13%	1,775	\$18.29	\$19.26	\$22.82	Postsecondary nondegree award	None	None
		31-1131	Nursing Assistants	9,304	10,378	1,073	12%	1,683	\$18.63	\$19.45	\$22.68	Postsecondary nondegree award	None	None
		43-6013	Medical Secretaries and Administrative Assistants	10,356	11,322	966	9%	1,438	\$18.07	\$22.55	\$26.13	High school diploma or equivalent	None	Moderate-term on-the-job training
		31-9091	Dental Assistants	6,521	7,261	740	11%	1,132	\$18.31	\$22.08	\$22.89	Postsecondary nondegree award	None	None
		31-9011	Massage Therapists#	4,618	5,410	792	17%	831	\$14.91	\$22.89	\$36.47	Postsecondary nondegree award	None	None
		29-2061	Licensed Practical and Licensed Vocational Nurses#	6,721	7,395	674	10%	704	\$30.74	\$32.68	\$38.23	Postsecondary nondegree award	None	None
		21-1093	Social and Human Service Assistants	4,327	4,998	672	16%	659	\$17.33	\$21.20	\$26.32	High school diploma or equivalent	None	Short-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Health	Middle-Skill	31-9097	Phlebotomists	1,816	2,158	342	19%	348	\$21.67	\$23.97	\$27.21	Postsecondary nondegree award	None	None
		29-1292	Dental Hygienists#	3,126	3,525	398	13%	296	\$51.60	\$53.54	\$62.10	Associate's degree	None	None
		31-9099	Healthcare Support Workers, All Other	1,595	1,771	176	11%	272	\$18.35	\$22.83	\$28.86	High school diploma or equivalent	None	None
		29-2042	Emergency Medical Technicians	1,958	2,297	339	17%	229	\$16.78	\$17.35	\$23.10	Postsecondary nondegree award	None	None
		51-9081	Dental Laboratory Technicians	1,454	1,576	122	8%	227	\$18.57	\$26.91	\$37.72	High school diploma or equivalent	None	Moderate-term on-the-job training
		29-2072	Medical Records Specialists#	2,252	2,416	164	7%	198	\$21.39	\$28.19	\$35.07	Postsecondary nondegree award	None	None
		31-2021	Physical Therapist Assistants#	932	1,141	209	22%	185	\$32.65	\$38.65	\$42.52	Associate's degree	None	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Health	Middle-Skill	29-2099	Health Technologists and Technicians, All Other	1,851	2,059	208	11%	180	\$19.17	\$23.43	\$29.31	Postsecondary nondegree award	None	None
		31-2022	Physical Therapist Aides	907	1,016	110	12%	156	\$14.95	\$16.11	\$17.95	High school diploma or equivalent	None	Short-term on-the-job training
		29-2034	Radiologic Technologists and Technicians	1,675	1,905	230	14%	142	\$31.42	\$42.54	\$51.72	Associate's degree	None	None
		29-2081	Opticians, Dispensing	1,060	1,213	153	14%	126	\$20.76	\$21.58	\$28.67	High school diploma or equivalent	None	Long-term on-the-job training
		21-1094	Community Health Workers#	808	919	111	14%	115	\$18.36	\$21.81	\$27.09	High school diploma or equivalent	None	Short-term on-the-job training
		29-2053	Psychiatric Technicians	822	973	152	18%	107	\$18.92	\$23.27	\$28.71	Postsecondary nondegree award	Less than 5 years	Short-term on-the-job training
		31-9093	Medical Equipment Preparers	645	701	57	9%	106	\$21.55	\$24.76	\$30.81	High school diploma or equivalent	None	Moderate-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Health	Middle-Skill	29-1126	Respiratory Therapists#	1,212	1,335	124	10%	91	\$36.60	\$39.51	\$48.81	Associate's degree	None	None
		29-2032	Diagnostic Medical Sonographers#	822	963	141	17%	76	\$45.46	\$51.65	\$62.80	Associate's degree	None	None
		29-2055	Surgical Technologists	808	892	84	10%	74	\$28.31	\$31.04	\$38.81	Postsecondary nondegree award	None	None
	Above Middle-Skill	11-9111	Medical and Health Services Managers^#	4,314	5,239	925	21%	553	\$40.87	\$61.10	\$81.26	Bachelor's degree	Less than 5 years	None
		21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors^#	3,363	4,202	839	25%	513	\$20.80	\$23.88	\$37.37	Bachelor's degree	None	None
		29-1123	Physical Therapists^#	2,741	3,134	392	14%	207	\$45.50	\$48.34	\$59.33	Doctoral or professional degree	None	None
		29-1171	Nurse Practitioners^#	1,696	2,239	543	32%	207	\$58.95	\$75.56	\$81.90	Master's degree	None	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Health	Above Middle-Skill	21-1023	Mental Health and Substance Abuse Social Workers^	1,461	1,706	245	17%	191	\$27.04	\$38.23	\$46.91	Master's degree	None	Internship/residency
		29-1127	Speech-Language Pathologists^#	1,659	1,956	298	18%	167	\$39.16	\$48.81	\$60.59	Master's degree	None	Internship/residency
		21-1022	Healthcare Social Workers^	1,184	1,383	199	17%	158	\$30.01	\$37.26	\$48.89	Master's degree	None	Internship/residency
		29-1071	Physician Assistants^#	1,502	1,792	290	19%	149	\$59.36	\$68.09	\$79.07	Master's degree	None	None
		29-1021	Dentists, General^#	3,058	3,300	243	8%	142	\$29.77	\$72.68	\$137.00	Doctoral or professional degree	None	None
		29-1122	Occupational Therapists^#	1,511	1,707	196	13%	132	\$46.37	\$48.94	\$57.16	Master's degree	None	None
		19-1042	Medical Scientists, Except Epidemiologists^	1,535	1,680	145	9%	127	\$46.34	\$51.75	\$62.49	Doctoral or professional degree	None	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Health	Above Middle-Skill	19-3039	Psychologists, All Other^	1,104	1,239	135	12%	107	\$28.87	\$47.21	\$72.68	Master's degree	None	Internship/residency
		29-1031	Dietitians and Nutritionists^#	1,153	1,267	114	10%	102	\$14.93	\$35.28	\$41.68	Bachelor's degree	None	Internship/residency
		19-3033	Clinical and Counseling Psychologists^#	774	935	161	21%	87	\$38.24	\$55.37	\$67.96	Doctoral or professional degree	None	Internship/residency
		29-1041	Optometrists^#	1,336	1,531	195	15%	81	\$35.36	\$58.91	\$65.76	Doctoral or professional degree	None	None
		21-1029	Social Workers, All Other^	634	696	62	10%	74	\$21.95	\$28.44	\$38.62	Bachelor's degree	None	None
		29-1229	Physicians, All Other^	1,481	1,622	141	10%	72	\$53.62	\$118.74	\$139.43	Doctoral or professional degree	None	Internship/residency
		21-1015	Rehabilitation Counselors^	614	661	48	8%	68	\$15.27	\$16.31	\$21.52	Master's degree	None	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
ICT/Digital Media	Below Middle-Skill	27-2031	Dancers*	838	930	93	11%	170	\$16.54	\$18.70	\$23.23	No formal educational credential	None	Long-term on-the-job training
		27-2099	Entertainers and Performers, Sports and Related Workers, All Other*	624	706	82	13%	91	\$18.18	\$20.15	\$33.78	No formal educational credential	None	Short-term on-the-job training
	Middle-Skill	27-4021	Photographers	2,262	2,553	290	13%	270	\$14.96	\$26.95	\$48.75	High school diploma or equivalent	None	Moderate-term on-the-job training
		27-2011	Actors	1,677	1,875	199	12%	262	\$14.05	\$14.15	\$20.93	Some college, no degree	None	Long-term on-the-job training
		15-1255	Web and Digital Interface Designers	1,940	2,118	178	9%	204	\$25.00	\$33.93	\$54.97	Bachelor's degree	None	None
		15-1254	Web Developers#	1,151	1,266	115	10%	112	\$23.61	\$38.31	\$54.27	Bachelor's degree	None	None
		27-4011	Audio and Video Technicians	579	665	86	15%	76	\$21.24	\$30.64	\$47.06	Postsecondary nondegree award	None	Short-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
ICT/Digital Media	Above Middle-Skill	15-1252	Software Developers^#	18,171	20,123	1,952	11%	1,649	\$50.42	\$64.14	\$80.79	Bachelor's degree	None	None
		15-2051	Data Scientists^#	2,151	2,496	345	16%	233	\$34.97	\$48.14	\$69.22	Bachelor's degree	None	None
		15-1253	Software Quality Assurance Analysts and Testers^	2,194	2,383	189	9%	200	\$37.59	\$49.96	\$61.92	Bachelor's degree	None	None
		15-1212	Information Security Analysts^#	1,181	1,386	205	17%	133	\$45.67	\$59.61	\$70.68	Bachelor's degree	Less than 5 years	None
Life Sciences and Biotechnology	Middle-Skill	29-2018	Clinical Laboratory Technologists and Technicians#	3,512	4,050	538	15%	368	\$23.26	\$28.44	\$40.75	Bachelor's degree	None	None
		49-9062	Medical Equipment Repairers	868	938	69	8%	108	\$23.02	\$30.90	\$40.61	Associate's degree	None	Moderate-term on-the-job training
Other	Below Middle-Skill	37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners*	32,432	35,934	3,502	11%	5,472	\$14.45	\$15.93	\$18.59	No formal educational credential	None	Short-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Other	Below Middle-Skill	39-3091	Amusement and Recreation Attendants*	12,209	14,492	2,282	19%	3,991	\$14.06	\$14.30	\$14.60	No formal educational credential	None	Short-term on-the-job training
		37-2012	Maids and Housekeeping Cleaners*	16,793	18,494	1,701	10%	2,797	\$14.39	\$16.50	\$19.78	No formal educational credential	None	Short-term on-the-job training
		35-9021	Dishwashers*	6,273	6,988	715	11%	1,269	\$15.01	\$15.57	\$16.29	No formal educational credential	None	Short-term on-the-job training
		39-3031	Ushers, Lobby Attendants, and Ticket Takers*	1,789	2,171	382	21%	633	\$14.05	\$14.36	\$14.89	No formal educational credential	None	Short-term on-the-job training
		53-6021	Parking Attendants*	2,278	2,532	254	11%	400	\$14.20	\$14.81	\$15.11	No formal educational credential	None	Short-term on-the-job training
		51-6011	Laundry and Dry-Cleaning Workers*	1,373	1,485	112	8%	230	\$14.40	\$15.81	\$17.19	No formal educational credential	None	Short-term on-the-job training
	Middle-Skill	39-9031	Exercise Trainers and Group Fitness Instructors	4,612	5,405	793	17%	1,046	\$15.29	\$22.93	\$35.51	High school diploma or equivalent	None	Short-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Other	Middle-Skill	23-2011	Paralegals and Legal Assistants [#]	4,124	4,680	555	13%	582	\$25.27	\$30.40	\$40.11	Associate's degree	None	None
		27-3091	Interpreters and Translators	948	1,104	156	16%	135	\$20.09	\$29.09	\$42.86	Bachelor's degree	None	None
	Above Middle-Skill	23-1011	Lawyers [^] [#]	12,715	13,882	1,167	9%	855	\$48.58	\$72.15	\$101.75	Doctoral or professional degree	None	None
		27-2022	Coaches and Scouts [^]	2,810	3,450	640	23%	533	\$15.30	\$20.98	\$31.50	Bachelor's degree	None	None
		21-2011	Clergy [^]	2,213	2,360	147	7%	240	\$27.70	\$31.93	\$41.08	Bachelor's degree	None	Moderate-term on-the-job training
		27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators [^]	1,251	1,481	230	18%	188	\$6.21	\$17.51	\$31.02	Bachelor's degree	None	Long-term on-the-job training
	Below Middle-Skill	33-9099	Protective Service Workers, All Other [*]	3,026	3,233	207	7%	859	\$14.81	\$16.57	\$17.73	High school diploma or equivalent	None	Short-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Public Safety	Below Middle-Skill	33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers*	1,644	2,018	375	23%	552	\$14.46	\$16.07	\$17.42	No formal educational credential	None	Short-term on-the-job training
		33-9091	Crossing Guards and Flaggers*	685	737	52	8%	164	\$15.74	\$22.19	\$29.17	No formal educational credential	None	Short-term on-the-job training
	Middle-Skill	33-9032	Security Guards	13,241	14,681	1,439	11%	2,214	\$16.54	\$17.70	\$19.09	High school diploma or equivalent	None	Short-term on-the-job training
		33-2011	Firefighters#	1,416	1,528	112	8%	139	\$30.68	\$36.39	\$52.72	Postsecondary nondegree award	None	Long-term on-the-job training
Retail, Hospitality & Tourism	Below Middle-Skill	35-3023	Fast Food and Counter Workers*	39,669	45,133	5,465	14%	10,232	\$14.60	\$15.71	\$16.21	No formal educational credential	None	Short-term on-the-job training
		35-3031	Waiters and Waitresses*	23,912	27,275	3,364	14%	5,861	\$14.02	\$14.36	\$16.01	No formal educational credential	None	Short-term on-the-job training
		35-2014	Cooks, Restaurant*#	14,660	18,559	3,899	27%	3,294	\$15.87	\$16.90	\$17.82	No formal educational credential	Less than 5 years	Moderate-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Retail, Hospitality & Tourism	Below Middle-Skill	35-2021	Food Preparation Workers*	10,951	12,054	1,103	10%	2,226	\$14.85	\$16.08	\$17.04	No formal educational credential	None	Short-term on-the-job training
		35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers*	7,570	8,650	1,080	14%	1,685	\$14.24	\$14.41	\$15.71	No formal educational credential	None	Short-term on-the-job training
		35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop*	5,256	6,060	804	15%	1,520	\$14.01	\$14.25	\$15.86	No formal educational credential	None	Short-term on-the-job training
		35-3011	Bartenders*	5,861	7,012	1,151	20%	1,333	\$14.02	\$14.46	\$16.54	No formal educational credential	None	Short-term on-the-job training
		39-9032	Recreation Workers*##	4,519	5,130	611	14%	1,091	\$14.82	\$15.65	\$16.99	High school diploma or equivalent	None	Short-term on-the-job training
		43-4081	Hotel, Motel, and Resort Desk Clerks*	2,797	3,235	439	16%	624	\$14.76	\$16.70	\$18.26	High school diploma or equivalent	None	Short-term on-the-job training
		35-9099	Food Preparation and Serving Related Workers, All Other*	1,970	2,212	241	12%	523	\$14.55	\$15.11	\$17.71	No formal educational credential	None	Short-term on-the-job training

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Retail, Hospitality & Tourism	Below Middle-Skill	35-3041	Food Servers, Nonrestaurant*	2,563	2,862	299	12%	489	\$15.69	\$16.91	\$18.23	No formal educational credential	None	Short-term on-the-job training
		35-2012	Cooks, Institution and Cafeteria*	1,983	2,270	286	14%	381	\$17.49	\$18.70	\$22.33	No formal educational credential	None	Short-term on-the-job training
		51-3011	Bakers*	2,355	2,523	167	7%	380	\$15.46	\$16.59	\$17.33	No formal educational credential	None	Long-term on-the-job training
		39-9099	Personal Care and Service Workers, All Other*	1,172	1,366	194	17%	255	\$14.13	\$15.80	\$19.14	High school diploma or equivalent	None	Short-term on-the-job training
		39-3011	Gambling Dealers*	776	1,106	330	42%	226	\$14.02	\$14.44	\$16.43	High school diploma or equivalent	None	Short-term on-the-job training
	Middle-Skill	35-1012	First-Line Supervisors of Food Preparation and Serving Workers	13,821	16,032	2,211	16%	2,765	\$16.73	\$19.16	\$21.22	High school diploma or equivalent	Less than 5 years	None
		11-9051	Food Service Managers	4,338	4,772	434	10%	653	\$19.69	\$27.44	\$34.86	High school diploma or equivalent	Less than 5 years	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Retail, Hospitality & Tourism	Middle-Skill	37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	2,318	2,629	311	13%	343	\$18.02	\$22.54	\$29.90	High school diploma or equivalent	Less than 5 years	None
		35-1011	Chefs and Head Cooks	1,987	2,272	285	14%	340	\$22.49	\$29.87	\$38.25	High school diploma or equivalent	5 years or more	None
		39-1014	First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services	1,583	1,920	336	21%	281	\$16.04	\$19.60	\$23.65	High school diploma or equivalent	Less than 5 years	None
		39-1022	First-Line Supervisors of Personal Service Workers	981	1,168	186	19%	177	\$17.25	\$21.18	\$25.34	High school diploma or equivalent	Less than 5 years	None
		39-7018	Tour and Travel Guides	654	700	46	7%	141	\$14.61	\$15.47	\$19.37	High school diploma or equivalent	None	Moderate-term on-the-job training
		43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	948	1,013	65	7%	130	\$15.60	\$16.13	\$20.45	High school diploma or equivalent	None	Short-term on-the-job training
		11-9081	Lodging Managers	627	714	87	14%	94	\$19.80	\$28.29	\$41.93	High school diploma or equivalent	Less than 5 years	None

Sector	Skill Level	SOC	Occupation	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Retail, Hospitality & Tourism	Above Middle-Skill	13-1121	Meeting, Convention, and Event Planners^	1,462	1,646	184	13%	196	\$19.83	\$26.34	\$35.52	Bachelor's degree	None	None
		11-9072	Entertainment and Recreation Managers, Except Gambling^	938	1,061	122	13%	135	\$22.18	\$26.89	\$41.71	Bachelor's degree	Less than 5 years	None

APPENDIX B: END NOTES

-
- ¹ “Orange County Labor Market Overview,” Orange County Center of Excellence for Labor Market Research, last modified November 16, 2023, <https://coeccc.net/orangecounty/2023/11/orange-county-labor-market-overview/>.
 - ² U.S. Bureau of Labor Statistics. “Measuring Green Jobs.” n.d. <https://www.bls.gov/green/home.htm>.
 - ³ “Orange County Sector Profile: Advanced Transportation and Logistics,” Orange County Center of Excellence for Labor Market Research, last modified November 14, 2024, <https://coeccc.net/orange-county/2024/11/oc-sector-profile-advanced-transportation-and-logistics/>.
 - ⁴ “Orange County Sector Profile: Energy, Construction, and Utilities,” Orange County Center of Excellence for Labor Market Research, last modified September 4, 2024, <https://coeccc.net/orange-county/2024/08/oc-sector-profile-energy-construction-and-utilities/>.
 - ⁵ “Preliminary Climate Action Plan 2024.”
 - ⁶ “Automation Index Methodology,” Lightcast Knowledge Base, n.d. <https://kb.lightcast.io/en/articles/6957638-automation-index-methodology>.
 - ⁷ “9th Annual State of Smart Manufacturing Report,” Rockwell Automation, last modified 2024, <https://www.rockwellautomation.com/content/dam/rockwellautomation/documents/pdf/campaigns/state-of-smart-2024/9th-annual-state-of-smartmanufacturing-report-en.pdf>.
 - ⁸ “Creating Pathways for Tomorrow’s Workforce Today,” Deloitte Insights, last modified May 4, 2021, <https://www2.deloitte.com/us/en/insights/industry/manufacturing/manufacturing-industrydiversity.html>.
 - ⁹ “What Is Building Automation?,” Cisco, accessed August 27, 2024, <https://www.cisco.com/c/en/us/solutions/enterprise-networks/what-is-building-automation.html>.
 - ¹⁰ “Addressing the Clinical Laboratory Workforce Shortage,” ASCLS, last modified April 8, 2021, <https://ascls.org/addressing-the-clinical-laboratory-workforce-shortage/>.
 - ¹¹ Grace Lau, “Top 5 Legal Technology Trends You Need to Know,” American Bar Association, last modified July 11, 2022, https://www.americanbar.org/groups/business_law/resources/business-law-today/2022-july/top-5-legal-technology-trends/.
 - ¹² “What is Artificial Intelligence (AI)?” IBM - United States, accessed August 2, 2023, <https://www.ibm.com/topics/artificial-intelligence>.
 - ¹³ “Financial Technology (Fintech): Its Uses and Impact on Our Lives,” Investopedia, last modified March 17, 2025, <https://www.investopedia.com/terms/f/fintech.asp>.
 - ¹⁴ “The Impact of Artificial Intelligence on the Future of Workforces in the European Union and the United States of America,” The White House, accessed August 2, 2023, <https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf>.
 - ¹⁵ “Health Information Workforce Shortages Persist As AI Shows Promise: AHIMA Survey Reveals,” AHIMA, accessed July 10, 2024, <https://www.ncbi.nlm.nih.gov/books/NBK218850/>.
 - ¹⁶ *Ibid.*
 - ¹⁷ Lightcast. *The Rising Storm: Building a Future-Ready Workforce to Withstand the Looming Labor Shortage*. Lightcast, 2024. <https://lightcast.io/resources/research/the-rising-storm>.
 - ¹⁸
 - ¹⁹ Madeline Will, “Paraprofessionals: As the ‘Backbones’ of the Classroom, They Get Low Pay, Little Support,” Education Week, last modified July 12, 2022, <https://www.edweek.org/leadership/paraprofessionals-as-the-backbones-of-the-classroom-they-get-low-pay-little-support/2022/06>.
 - ²⁰ “Dental Workforce Shortages: Data to Navigate Today’s Labor Market,” American Dental Association, accessed July 10, 2024, https://www.ada.org/-/media/project/ada-organization/ada/adaorg/files/resources/research/hpi/dental_workforce_shortages_labor_market.

²¹ “As California Grapples with Teacher Shortage, Statewide Survey Finds Major Barriers for Building & Sustaining Teaching Profession,” California Teachers Association, last modified September 27, 2022, <https://www.cta.org/press-release/as-ca-grapples-with-teacher-shortage-statewide-survey-finds-major-barriers-for-building-sustaining-teaching-profession>.

²² Augusta Saraiva, "Why U.S. Hotels Are Missing More Than 238,000 Employees," Los Angeles Times, last modified September 22, 2023, <https://www.latimes.com/business/story/2023-09-22/why-u-s-hotels-are-missing-more-than-238-000-employees>.

²³ *Ibid.*



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.

The OC COE would like to acknowledge and thank Juan Madrigal as well as former OC COE Assistant Director, Jacob Poore, for their work and contributions to the [2024 Sector Profiles](#).

Prepared by the Orange County Center of Excellence for Labor Market Research:

Jesse Crete, Ed. D, Director

Danielle Alarid, Interim Special Programs Director

Diego Mosquera, Interim Research Coordinator

Ashlie Garcia, Research Analyst



[Orange County COE - Visit us online](#)

**ORANGE COUNTY
REGIONAL CONSORTIUM**

**WORKFORCE
DEVELOPMENT ALLIANCE**

