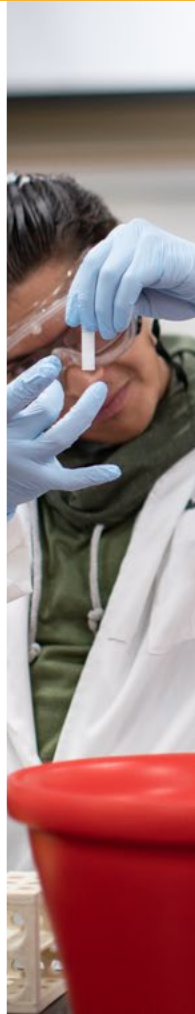


ORANGE COUNTY SECTOR ANALYSIS PROJECT EXECUTIVE SUMMARY



November

2021

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



POWERED BY



California
Community
Colleges



Orange County Community Colleges

**ORANGE
COUNTY**
CAREER EDUCATION



SECTOR OVERVIEW

This Sector Profile highlights key points from all eight Priority and Emerging Sectors in Orange County as well as from the Orange County (OC) Sector Analysis Project – a research report conducted by the OC Center of Excellence for Labor Market Research in 2019, prior to the COVID-19 pandemic. To better understand the post-COVID-19 recession labor market, this Sector Profile includes updated data for all eight Priority and Emerging Sectors in Orange County. These eight sectors are: Advanced Manufacturing; Advanced Transportation and Logistics; Business and Entrepreneurship; Energy, Construction and Utilities; Health; ICT and Digital Media; Life Sciences and Biotechnology; and Retail, Hospitality and Tourism. Orange County comprises 10.2% of all employment in these sectors in California. In 2019, 54% of students who exited or graduated from CTE community college programs in the Orange County region were employed within six months after exit.

Data Points



1,404,754
people employed in OC



0.4% (5,462)
5-year projected job change



96,186
businesses in OC



10.3%
of the sectors' employment
in California is from OC



\$82,657
average earnings per job



10.1%
of the sectors' businesses
in California are from OC

Data Points Summary

These eight sectors account for 1,404,757 jobs in the Orange County region and 10.3% of all jobs in these sectors in California. There are approximately 96,186 individual businesses in the region, which make up 10.1% of all the businesses for all sectors in California. These sectors are projected to increase by 0.4% (5,462 jobs) in the next five years in Orange County. The average earnings per job are \$82,657.



Local Employers

Vyaire Medical
Orange County
Transportation Authority
Veros Credit

The Irvine Company LLC
MemorialCare
Blizzard Entertainment

Alcon
Monarch Beach Resort



TOP MIDDLE-SKILL JOBS

Middle-skill jobs are occupations that community college students would be best prepared for after obtaining a certificate or degree. The top 20 middle-skill jobs across all eight sectors are included below, along with corresponding entry-level and median hourly wages.

Middle-Skill Jobs Attainable with a Community College Education, Orange County (2020-2025)

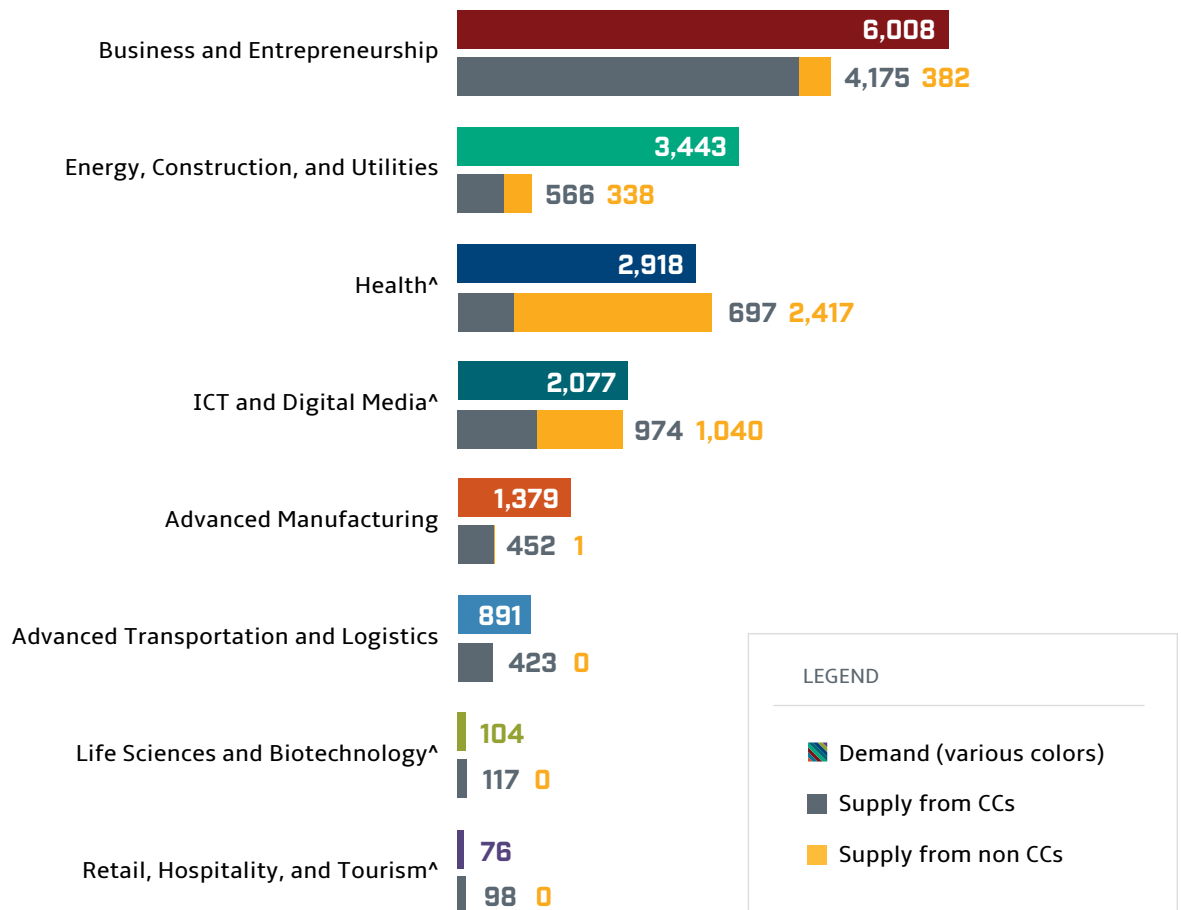
SOC Code	SOC Occupational Title	Sector	Demand Annual Openings	Entry-Level Wage 25th Percentile	Median Wage
13-1198	Project Management Specialists and Business Operations Specialists, All Other*	Business and Entrepreneurship	2,102	\$25.66	\$36.47
43-1011	First-Line Supervisors of Office and Administrative Support Workers	Business and Entrepreneurship	1,598	\$23.01	\$29.26
29-1141	Registered Nurses*	Health	1,530	\$42.91	\$52.37
47-2111	Electricians	Energy, Construction, and Utilities	1,139	\$25.09	\$35.51
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	Energy, Construction, and Utilities	685	\$30.37	\$39.96
29-2061	Licensed Practical and Licensed Vocational Nurses	Health	642	\$26.00	\$30.44
15-1232	Computer User Support Specialists	ICT and Digital Media	588	\$21.39	\$27.35
43-6011	Executive Secretaries and Executive Administrative Assistants	Business and Entrepreneurship	571	\$27.78	\$33.98
13-2072	Loan Officers	Business and Entrepreneurship	528	\$21.91	\$29.95
15-1299	Computer Occupations, All Other	ICT and Digital Media	472	\$27.19	\$38.70
51-1011	First-Line Supervisors of Production and Operating Workers	Advanced Manufacturing	454	\$23.33	\$30.69
11-9021	Construction Managers	Energy, Construction, and Utilities	446	\$32.27	\$48.40
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Energy, Construction, and Utilities	440	\$23.97	\$31.47
11-3011	Administrative Services and Facilities Managers	Business and Entrepreneurship	334	\$36.80	\$51.47
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	Advanced Transportation and Logistics	307	\$32.65	\$42.44
13-1151	Training and Development Specialists	Business and Entrepreneurship	284	\$25.00	\$34.23
29-2018	Clinical Laboratory Technologists and Technicians	Health	256	\$21.82	\$29.53
13-1031	Claims Adjusters, Examiners, and Investigators	Business and Entrepreneurship	242	\$28.28	\$37.69
47-2073	Operating Engineers and Other Construction Equipment Operators	Energy, Construction, and Utilities	233	\$30.60	\$42.46
13-1051	Cost Estimators	Business and Entrepreneurship	231	\$26.86	\$36.17

LABOR MARKET DEMAND, PROGRAM SUPPLY, AND SUPPLY GAPS

Top middle-skill jobs are defined as occupations with the most labor market demand, stable employment growth, and entry-level wages at or above the living wage, as determined by the California Family Needs Calculator. The living wage for a single adult in Orange County is currently \$20.63.¹ Comparing labor market demand with program supply suggests that all sectors have supply gaps for the top middle-skill jobs in the Orange County region. Labor market demand is defined as the number of average annual job openings per year that employers expect to fill for a particular occupation. Program supply is the number of awards (e.g., degrees, certificates) from community colleges and other training providers.



All Sectors Top Middle-Skill Jobs in Orange County: Labor Market Demand vs. Program Supply



(Please note: * indicates that the occupation has an oversupply of labor, ^ indicates that the occupation's demand has been met, and N/A indicates that no community college program reported awards for this occupation or no community college program is available for this occupation.)

¹ The living wage as determined by the California Family Need Calculator is the hourly wage that a single adult needs to earn to meet basic needs in Orange County. <https://insightccd.org/family-needs-calculator/>

MIDDLE-SKILL JOBS WITH ENTRY-LEVEL WAGES BELOW THE REGIONAL LIVING WAGE

While it is important to understand which top middle-skill jobs have opportunities for increased program supply, it is also important to consider middle-skill occupations that have entry-level wages below the regional living wage, currently at \$20.63, but median wages near or above it. Since wages generally increase from entry-level to median earnings with additional experience and training, students could potentially earn self-sustaining wages with additional apprenticeship or work-based learning opportunities.



49,487

annual job openings
(labor market demand)



9,789

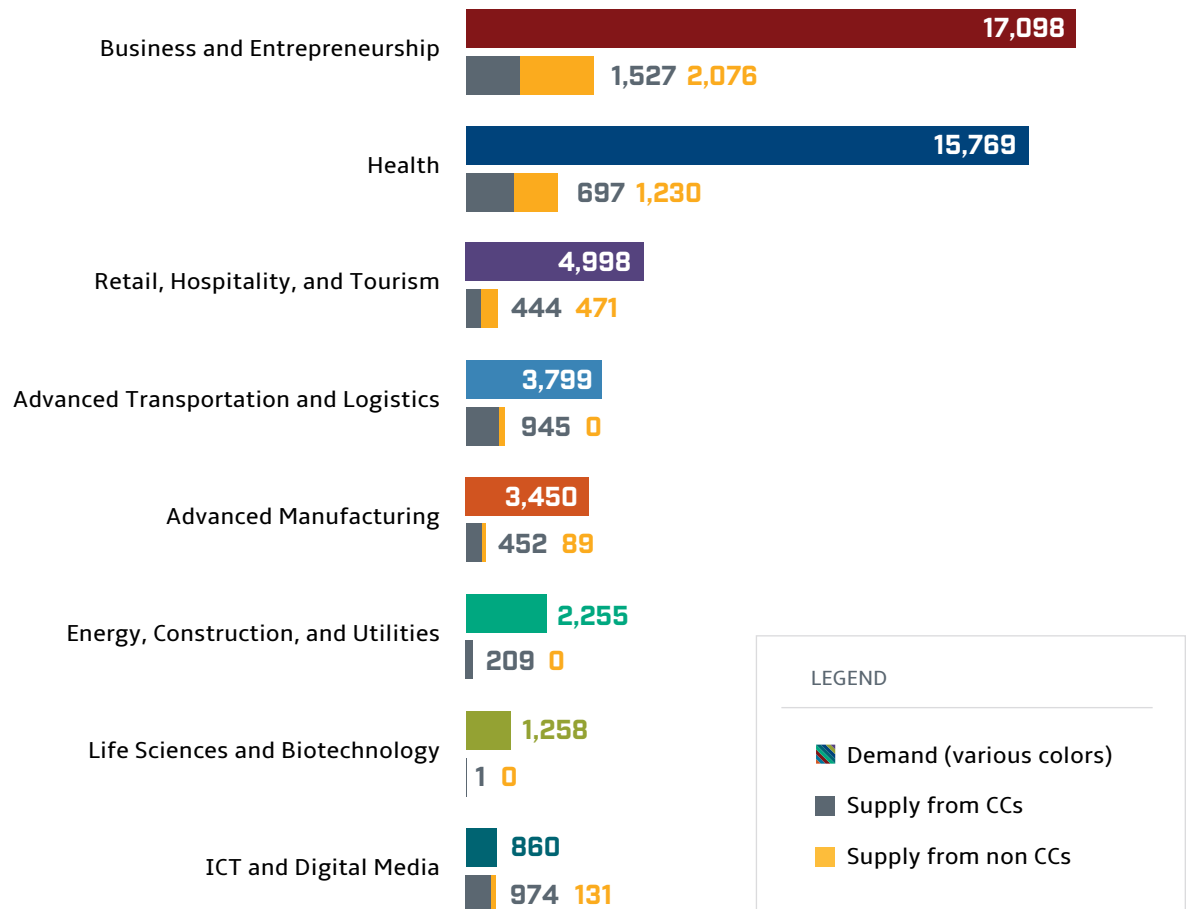
average annual program awards
(labor market supply)



39,698

supply gap (number of
awards needed to close the gap)

All Sectors Middle-Skill Jobs in Orange County with Entry-Level Wages Below the Regional Living Wage



(Please note: * indicates that the occupation has an oversupply of labor, ^ indicates that the occupation's demand has been met, and N/A indicates that no community college program reported awards for this occupation or no community college program is available for this occupation.)

Entry-Level and Median Wages for Middle-Skill Jobs in Orange County with Entry-Level Wages Below the Regional Living Wage

SOC Code	SOC Occupational Title	Sector	Demand Annual Openings	Entry-Level Wage 25th Percentile	Median Wage Above the Living Wage
31-1128	Home Health and Personal Care Aides	Health	8,653	\$13.12	\$13.90
43-4051	Customer Service Representatives	Business and Entrepreneurship	2,735	\$15.28	\$18.73
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Business and Entrepreneurship	2,358	\$16.91	\$21.46
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Business and Entrepreneurship	2,100	\$18.61	\$23.68
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	Business and Entrepreneurship	1,543	\$20.60	\$31.17
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	Business and Entrepreneurship	1,416	\$19.22	\$28.05
41-1011	First-Line Supervisors of Retail Sales Workers	Retail, Hospitality, and Tourism	1,244	\$14.69	\$18.38
49-9071	Maintenance and Repair Workers, General	Advanced Manufacturing	1,196	\$16.51	\$22.05
31-1131	Nursing Assistants	Health	1,180	\$15.94	\$18.33
47-2031	Carpenters	Energy, Construction, and Utilities	1,145	\$19.54	\$29.01
53-3032	Heavy and Tractor-Trailer Truck Drivers	Advanced Transportation and Logistics	1,119	\$19.14	\$23.91
43-6013	Medical Secretaries and Administrative Assistants	Health	1,090	\$17.79	\$21.78
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	Retail, Hospitality, and Tourism	1,064	\$13.91	\$16.93
31-9092	Medical Assistants	Health	1,015	\$15.32	\$18.11
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	Advanced Transportation and Logistics	925	\$11.02	\$15.42
39-5012	Hairdressers, Hairstylists, and Cosmetologists^	Business and Entrepreneurship	907	\$12.41	\$14.36
41-3021	Insurance Sales Agents	Business and Entrepreneurship	835	\$18.31	\$24.66
39-9031	Exercise Trainers and Group Fitness Instructors	Retail, Hospitality, and Tourism	806	\$14.68	\$23.33
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	Life Sciences and Biotechnology	796	\$15.50	\$19.70
39-9032	Recreation Workers	Retail, Hospitality, and Tourism	786	\$13.77	\$15.79

KEY FINDINGS & RECOMMENDATIONS

Between July and August 2019, focus groups comprised of stakeholders from the community colleges and industry experts met to review the labor market demand and program supply for middle-skill jobs in Orange County's Priority and Emerging Sectors. The objectives of the focus groups were to identify labor market supply gaps in middle-skill jobs and provide intelligence as to how they are working to close supply gaps, as well as the challenges they encounter in their programs. The following summarizes the findings and recommendations for all eight sectors.



66,383

annual job openings
(labor market demand)



21,469

average annual program awards
(labor market supply)



44,914

supply gap
(awards needed to close the gap)



Key Finding



Recommendation

1

Retention and success rates are high for courses in all sectors, but program completion numbers are low: Community colleges in Orange County are undersupplying for middle-skill jobs in all sectors. Nearly 7.4% of all students enrolled in CTE programs completed a degree or certificate, or attained apprenticeship journey-level status, in the 2019-2020 academic year. Students often take one or two courses to gain additional skills, then exit the community college system or they find a job before completing their program. These explanations suggest that some programs may be oversized, meaning that they require more courses than necessary for students to gain the needed skills to obtain employment.

To increase completion rates of students in CTE programs, colleges could re-work oversized programs or consider moving these programs to enhanced noncredit. Noncredit certificates are included in the Strong Workforce Program (SWP) metrics, Student Success metrics, and the Vision for Success. Enhanced noncredit programs could be a way to satisfy student needs for short-term programs and still benefit colleges. Additionally, college faculty, deans, and the Regional Employer Engagement Team should review program and course data to determine the specific barriers that prevent students from successfully completing a program (e.g., challenging introductory courses and differing prerequisite across colleges for higher level courses). Strong Workforce Program (SWP) funds could be invested at the college level to address students' specific barriers to course/program retention and completion.

2

Tracking employment outcomes for students is difficult, time consuming, and not consistent across all colleges: Several faculty and administrators shared stories about individual students with successful employment outcomes, but reported that it is difficult to track outcomes for all students. Tracking outcomes for students that took one or two classes but did not complete a degree or certificate is particularly difficult.

To better understand employment outcomes for students, colleges should invest more resources to promote and use the California Community Colleges Chancellor's Office (CCCCO)-approved CTE Outcomes Survey (CTEOS). Since this system has been in place for eight years, it is already established as a validated tracking system for student outcome data. By informing faculty and students about the CTEOS and its purpose, it is possible for the region to increase its response return rate. This information could help colleges better understand outcomes for all students and provide valuable data on students who leave a program before completing a degree or certificate.



Key Finding

3

Orange County community colleges face similar challenges to expanding programs across all colleges: Orange County community colleges have courses and programs that are at capacity due to a lack of physical lab space. They also do not have steady and ongoing financial resources for new equipment and maintenance for that equipment. Additionally, community colleges have trouble finding industry professionals with teaching experience and face long program development and curriculum approval timelines, making it difficult to quickly respond to employer needs and rapid changes in economic conditions, such as those posed by the coronavirus disease (COVID-19) pandemic. These challenges hinder the community colleges' ability to increase program capacity and close supply gaps.

4

Knowledge, Skills, and Abilities (KSAs) for the sector have not been validated by employers: The OC Sector Analysis Project brief examines job gaps but does not explore the specific KSAs taught at the colleges and compare them to the labor market's demand for Advanced Manufacturing KSAs.



Recommendation

While it is difficult to address these structural issues, Orange County community colleges should leverage existing regional Strong Workforce Program projects and other initiatives such as Perkins V and could focus their finite resources on items that would be most effective for students. For instance, colleges should collaborate with Orange County's Regional Employment Engagement Team to connect with employers and find out which equipment is most important to the training of their prospective employees. Additionally, colleges could collaborate with the OC Careers in Education Pathway Collaborative project, which is part of the Teacher Preparation Pipeline initiative, to provide professional development for newly hired faculty.

To determine if the region's community colleges are training for the right KSAs, the Regional Employer Engagement Team should convene employers in a "regional advisory group" where employers can review program KSAs, provide feedback, and validate the KSAs' current relevance and demand in the labor market.



MORE ABOUT THE CENTERS OF EXCELLENCE

The Centers of Excellence (COE) for Labor Market Research deliver regional workforce research and technical expertise to California Community Colleges for program decision-making and resource-development. This information has proven valuable to colleges in beginning, revising, or updating economic development and Career Education (CE) programs, strengthening grant applications, assisting in the accreditation process, and in supporting strategic planning efforts.

The Centers of Excellence Initiative is funded in part by the Chancellor's Office, California Community Colleges, Economic and Workforce Development Program. The Orange County COE is fully funded by the Orange County Regional Strong Workforce Program allocation. The Centers aspire to be the leading source of regional workforce information and insight for California Community Colleges. More information about the Centers of Excellence is available at coecc.net.

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For the full report, visit Orange County at coecc.net.

Sources

Demand data is pulled from Emsi, a software program that consolidates data from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS), and other government agencies.

Program supply data is drawn from two systems: Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP).

Important Disclaimer

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 such as those from the Orange County Center of Excellence for Labor Market Research and Cal-PASS Plus LaunchBoard. 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 college/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.

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