Orange County Community Foundation

2026 Orange County Economic Opportunity Report

Orange County Department of Education · OCpathways · Coast Colleges · Orange County United Way · OC Workforce Development Board · AWDB Anaheim Workforce Development Board · Santa Ana Workforce Development Board

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Dear Orange County Stakeholders and Community Members,

It is with great enthusiasm and anticipation that we present the 2026 Orange County Economic Opportunity Report. This comprehensive report represents the culmination of a visionary initiative, spearheaded by the Orange County Community Foundation and supported by a remarkable coalition of regional leaders and organizations dedicated to fostering inclusive economic and workforce development.

A Collaborative Endeavor

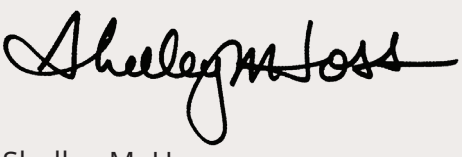
This initiative has brought together a dynamic partnership including the Coast Community College District, Orange County Department of Education, OC Pathways, and Orange County United Way. Each partner has contributed invaluable expertise and community connections to this endeavor – whether through workforce training, educational alignment, philanthropic investment, social impact, or regional coordination. Their collective efforts have ensured that this analysis is not only reflective of the real-world needs and opportunities of our community, but also that the implementation strategies proposed are deeply rooted in the local context.

Driving Systemic Change

The collaboration model exemplified in this initiative serves as an inspiring testament to the power of cross-sector partnerships in driving systemic change. By pooling resources, knowledge, and networks, we are better equipped to deliver meaningful outcomes for Orange County workers and residents. This report aims to provide a roadmap for sustainable economic growth and enhanced workforce opportunities that benefit all segments of our community.

As we look to the future, we invite you – our community partners, leaders, and residents – to join us in this journey. Together, we can create a vibrant economic landscape that uplifts every individual and fosters shared prosperity.

Sincerely,



Shelley M. Hoss
Chief Executive Officer
Orange County Community Foundation

Acknowledgments

PARTNERS

2026 ORANGE COUNTY ECONOMIC OPPORTUNITY REPORT TEAM

- Dr. Wallace Walrod, Chief Economic Advisor, Orange County Business Council
- Benjamin Palmer, Research Associate, TCCG Tech Coast Consulting Group
- Robert Walrod, Research Associate, TCCG Tech Coast Consulting Group
- Dr. C.J. Bishop, Senior Research Analyst, Golden West College
- Nancy Cook, Executive Director, Orange County Workforce Development Board
- OCDE/OC Pathways Team

Executive Summary: A Strategic Framework for Orange County's Future

Orange County's future economic vitality is inextricably linked to the strength and alignment of its educational talent pipeline to meet future talent demand. In an era defined by rapid technological change and evolving workforce demands, the journey from early education through postsecondary attainment (PK–16) functions as critical economic infrastructure.

This report draws insights from economic analysis (the demand) to educational system performance (the supply) to form a set of specific, actionable workforce investment strategies (the solution). The report also doesn't just present problems; it identifies and proposes economic opportunities, workforce investment imperatives, and key investment insights as it is designed to be a playbook for funders, educators, workforce professionals, business leaders, and policymakers to make effective investments. To build a prosperous and equitable future, Orange County must treat its educational pipeline as its most critical piece of economic infrastructure.

This study conceptualizes Orange County's "economic opportunity landscape" as a dynamic roadmap, moving beyond a simple inventory of jobs to identify the quality and accessibility of career pathways. This landscape is defined by its "terrain" – the high-wage, high-demand sectors driving growth – and the "pathways" our educational systems build to reach them. A core part of this analysis is also to identify systemic barriers, such as equity gaps or training bottlenecks, that must be addressed to ensure all residents can traverse this landscape and access the region's prosperity.

KEY FINDINGS

Alignment of Education and Workforce Needs:
The report highlights the necessity of aligning educational programs with the needs of high-demand sectors, ensuring that the workforce is equipped with relevant skills.

Investment in High-Growth Sectors:
Targeted investments in sectors such as technology, healthcare, and advanced manufacturing are crucial for driving economic growth and creating high-quality job opportunities.

Equity and Accessibility:
Addressing equity gaps is essential to ensure that all residents, regardless of background, have access to quality education and career opportunities. This involves overcoming systemic barriers and ensuring inclusive access to training programs.

Collaboration Across Sectors: Effective cross-sector collaboration is necessary to create a cohesive strategy that bridges the gap between educational institutions and industry needs, thereby fostering a robust talent pipeline.

Innovation and Adaptability:
Encouraging innovation within educational and workforce systems is vital to adapt to the rapidly changing economic landscape and technological advancements.

By focusing on these strategic priorities, Orange County can build a resilient economic future in which every community member has the opportunity to thrive and contribute to our region's prosperity.

The Orange County Equity Imperative

This study uses the 2025 **California Jobs First (CJF) Blueprint** as the analytical framework to assess Orange County's current and projected economic landscape. The analysis is designed to categorize the regional economy, identify future job and wage engines, and guide strategic workforce development investments through 2035. Launched in 2023, the CJF initiative is the state's first comprehensive, "bottom-up" economic development strategy, designed to foster sustainable, equitable, and resilient growth. It is built upon 13 distinct regional plans, with Orange County's strategy developed by an inclusive collaborative of business, labor, government, and community leaders.

The Four Foundational Industry Cluster Groups of the CJF Blueprint

A core component of the CJF initiative is its analytical framework, which, to guide investment opportunities, organizes a region's economy into four strategic, foundational industry cluster groupings. This report applies this framework to Orange County, while also examining how the region's educational pipeline prepares residents for success within these sectors:

Strengthen:
Historically strong, established sectors with robust infrastructure and a proven economic impact (e.g., Manufacturing, Tourism).

Accelerate:
High-growth sectors with significant potential for rapid expansion that could benefit from targeted investment (e.g., Life Sciences, High-Tech, Aerospace).

Bet:
Emerging, innovative sectors that could drive or fuel future innovation and require foundational support to scale (e.g., Clean Economy, Advanced AI).

Anchor:
Essential sectors that create jobs and economic growth while also supporting foundational community and workforce well-being (e.g., Healthcare, Education, Childcare).

The 2026 Orange County Economic Opportunity Report functions as a strategic response to the findings of the 2025 Orange County Equity Profile, developed by the USC Equity Research Institute, in partnership with Orange County Grantmakers. While the Equity Profile highlights that income inequality and racial disparities in earnings threaten the region's resiliency, this report identifies the specific economic engines required to reverse those trends.

The data is clear: To close the racial wealth gap, we cannot rely on the "Anchor" sectors alone; we must build deliberate bridges for all workers into the "Accelerate" and "Bet" sectors, where wages for Bachelor's degree holders can reach upwards of $199,000.

While the OC Equity Profile revealed that wages for many workers of color and those with less education are insufficient to meet the region's cost of living, this Economic Opportunity Report serves as the implementation roadmap to close those gaps. By identifying the high-wage "Accelerate" and "Bet" sectors, we can move beyond identifying disparities to actively constructing the infrastructure needed to solve them.

Education and Workforce Development as Economic Infrastructure: Connecting Demand to Supply

This report provides a comprehensive analysis of workforce trends and projections including employment, wages, and educational attainment. The goal is to equip stakeholders with actionable intelligence to guide investment, policy, and program development.

The analysis is meant to transform the conversation in Orange County from a discussion of economic problems to a plan for economic solutions via a clear new strategy that is essential for our region – **education and workforce development as economic infrastructure**. The economic opportunity goals outlined in Part 1 are not just aspirations; they are being actively addressed by Orange County's PK–16 talent pipeline (Part 2). The region has systematically built a robust educational infrastructure designed to cultivate the specific human capital required for its strategic economic foundations.

This report adopts an intersectional definition of equity that examines how race/ethnicity, gender, and geography interact with situational barriers like poverty, language acquisition, disability, and housing instability. We recognize that opportunity gaps are not random. They follow predictable patterns shaped by historical disinvestment and structural inequity. Disaggregating data across these dimensions allows us to identify precisely where the talent pipeline leaks, for whom, and why – transforming equity from an aspiration into an actionable investment strategy.

The data confirms that opportunity gaps in Orange County's Career Technical Education (CTE) system follow clear and predictable patterns shaped by the intersection of race/ethnicity, situational barriers, and geography. With a combined enrollment of **56,310 students**, North and Central Orange County serve the highest concentration of the county's students – predominantly representing low-income, multilingual, and historically underserved learners – yet these same regions have **fewer advanced ICT, Engineering, and high-wage STEM pathways** compared to South and Coastal regions. This geographic imbalance interacts with structural factors: **Hispanic/Latino and Asian students** participate heavily in ICT but experience uneven completion, while **Engineering pathways remain less diverse**, limiting access for students of color despite strong interest.

These patterns illustrate where the talent pipeline leaks and for whom. Students in under-resourced regions engage in CTE at high rates but face systemic barriers – limited pathway availability, fewer advanced STEM options, and uneven access to industry-aligned opportunities – that hinder persistence into high-growth careers. By disaggregating data across region, ethnicity, and sector, this report identifies the specific communities and pathways where investment is most urgently needed, enabling educators, philanthropists, and policymakers to turn equitable opportunity from a broad aspiration into a **targeted, actionable investment strategy**.

This report details the talent supply needed to meet that economic demand, proving that Orange County's education system functions as essential economic infrastructure. The region's future prosperity depends on simultaneously advancing two key goals:

1. **Scale Our Foundational Workforce:** Orange County must meet the massive, multi-level job demand in the **Anchor** sector (driven almost entirely by Healthcare), which serves as the region's primary engine for net job creation. The **Strengthen** group is also a large job generator of middle-skill job opportunities that is ripe for upskilling and re-skilling in sectors such as Manufacturing, Tourism, Financial and Professional, and Transportation and Logistics.
2. **Foster Inclusive Opportunity:** Orange County must create clear pathways for residents to access the high-wage, high-specialization jobs being created in the **Accelerate** and **Bet** sectors, which are the region's primary wage-growth engines by providing more advanced educational pathways at the Bachelor's and higher level.

The PK–16 talent pipeline is the foundation of these strategic sectors, actively training young talent to meet the county's particular talent demand. This report provides a detailed data analysis of this dual imperative, starting with talent demand, and demonstrating how Orange County's educational system, particularly its high-performing Career Technical Education (CTE) pathways, is directly aligned and a proven method to build a more equitable, resilient, and prosperous economy for all residents.

Strategic Recommendations for Workforce Investment

Based on this analysis, we have identified six essential strategies for workforce investment to build an equitable and prosperous future Orange County workforce.

Strategy 1:
Anchor Sector Capacity Expansion –
Scale High-Demand Healthcare Training

Why:
To meet the massive demand for essential healthcare workers and provide accessible pathways to stable, sustainable careers. The Healthcare sector is the region's undisputed job creator, projected to add 49,771 new jobs.

Action:
Dedicate significant funding to expand the capacity of community colleges and vocational training providers to meet the 16,989 middle-skill job demand in healthcare. Invest in expanding education and training capacity, especially for middle-skill healthcare roles to meet the massive projected job growth. This includes funding new cohorts, equipment, and faculty for short-term credentialing (e.g., Medical Assistants, Certified Nursing Assistants (CNAs)) and Associate's Degree programs (e.g., Licensed Vocational Nurses (LVNs), Technicians).

Strategy 2:
Re-Skilling and
Industry Transition

Why:
To ensure Orange County's existing middle-skill workers are not left behind as the economy changes but become economically resilient, we must build a bridge from contracting sectors (e.g., traditional Manufacturing) to high wage Accelerate sectors. This involves upskilling frontline workers in Strengthen sectors (like Tourism) and creating pathways for workers in contracting sectors (like traditional Manufacturing and Financial Services) to transition into high-demand roles that boost economic mobility in Accelerate sectors such as Aerospace, Life Sciences, and Clean Economy job opportunities.

Action:
Fund and incentivize cross-training programs, career-ladder development, and upskilling initiatives that connect high-wage firms with the existing frontline workforce to help them advance.

Strategy 3:
High-Skill
Talent Innovation

Why:
To secure the region's long-term competitive advantage in the high wage Accelerate (Life Sciences, High-Tech, Aerospace) and Bet (AI, Robotics) sectors. These sectors offer the highest wages, and we must build clear pathways for local, underrepresented talent to access them.

Action:
Invest in developing high-skill talent pipelines by funding scholarships, mentorships, and pipeline initiatives for underrepresented students and communities to ensure equitable access and pathways to high-wage innovation careers.

Strategy 4:
Scaling "Earn-and-Learn" Models

Why:
To provide critical, paid work experience that reduces student debt and directly connects training to employment. Registered apprenticeships and paid internships are proven, high-impact strategies for equity and workforce readiness.

Action:
Provide catalytic funding to expand and scale high-quality work-based learning, paid internships, and registered apprenticeships. Invest in the intermediary organizations and infrastructure needed to scale these earn-and-learn opportunities, particularly for vulnerable youth.

Strategy 5:
Targeted Equity Interventions and Demographic Alignment

Why:
To ensure that all students can complete their education, non-academic barriers must be addressed. Vulnerable students (low-income, foster youth, homeless students, English learners, and students with disabilities) cannot complete high-opportunity pathways if they lack transportation, food, or mental health support. Align specific demographic groups with high-growth and high-wage sectors where they are currently underrepresented to maximize regional economic output and household and community stability. These are economic necessities to prevent labor shortages in key sectors and close the wealth gap.

Action:
Fund programs that address these non-academic barriers and demographic disparities in Orange County's key industry sectors. This includes supporting transportation access, technology access, mental health services, and housing instability interventions that are crucial for ensuring CTE completion and equitable outcomes.

Strategy 6:
Foundational Workforce Stabilization in Childcare

Why:
To address the systemic market failure in the Childcare sector – the only sector projected to shrink – which creates a critical bottleneck for workforce participation across the entire economy.

Action:
Target investments in the Childcare sector to improve wages and professional development, and support "grow your own" initiatives in Education – programs designed to recruit, train, and retain teachers from within the local community, rather than trying to hire them from outside the region.

This report provides a detailed data analysis and workforce investment strategy to build a more equitable, resilient, and prosperous Orange County economy and workforce. Ultimately, this landscape analysis serves as a navigational chart, identifying the high-wage peaks of the innovation economy and the high-demand bedrock of Orange County's service sectors. By strategically aligning regional workforce investments to connect these economic destinations with the region's educational pathways, Orange County can build an economy that is not only resilient and competitive, but one that offers a tangible promise of mobility and prosperity to every resident.

PART ONE

Orange County's Current Economic Opportunity Landscape

KEY EQUITY PIPELINE DATA

CTE participation data demonstrates that the pipeline is successfully reaching the students who need it most:

Low-Income Students:
Represent 58 percent of CTE enrollment (55,938 students), a proportion that significantly exceeds their representation in the overall student population. For these students, CTE pathways are one of the most reliable routes to family-sustaining careers.

English Learners:
Account for 11 percent of CTE enrollment (10,993 students). CTE's hands-on, project-based learning provides an effective environment for simultaneously developing both technical skills and English proficiency.

Students with Disabilities:
Make up 11 percent of CTE enrollment (10,644 students). CTE aligns directly with IEP transition planning and prepares students for competitive integrated employment.

While participation is high, persistent completion gaps remain for the region's most vulnerable groups, including Foster Youth (489 enrolled) and Homeless Students (6,781 enrolled). These gaps highlight the critical need for targeted, data-driven investments.

Introduction: The California Jobs First Blueprint Strategic Sector Overview

The California Jobs First (CJF) Blueprint is the state's first real comprehensive economic development strategy that looks out for the next decade, designed to foster sustainable, equitable, and resilient growth. Developed in partnership with McKinsey and the Brookings Institution, it is a "bottom-up" initiative built from 13 distinct regional plans and developed by local collaboratives of business, labor, government, and community leaders, which directs state investment to support disinvested communities and ensure a just transition to a carbon-neutral future. It is rapidly being codified in legislation as the state's blueprint and investment roadmap across many state agencies.

To achieve this, the plan directs significant state investment and resources into key areas. This includes funding for "ready-to-go" projects, substantial support for apprenticeship and pre-apprenticeship programs, and targeted investments in strategic industry sectors, such as clean economy, high-tech, healthcare, and manufacturing. The blueprint is implemented by the California Jobs First Council, a group of state agencies working to streamline programs and align state efforts with the 13 regional strategies, ensuring that economic development is tailored to the unique strengths and needs of each part of the state.

The CJF Blueprint is designed to foster sustainable growth, innovation, and the creation of high-quality, accessible jobs over the next decade. Using CJF's Blueprint provides a roadmap for optimizing Orange County's workforce development analysis. By mirroring the CJF Blueprint's framework, Orange County can align its local strengths with state-level investment, ensuring that its economic strategy is both supported by future state investments and grounded in local realities.

Orange County's Current Economic Opportunity Landscape

STRATEGIC SECTION OVERVIEW

To understand this landscape is to map the terrain of our regional economy. This "economic opportunity landscape" is not a static list of employers; it is the dynamic system of industries, job roles, wage potentials, and skill requirements that defines the career possibilities for Orange County residents. This analysis provides a detailed map of that terrain, identifying not only the major job and wage engines (the "peaks") but also the critical pathways our residents use to access them (the "routes") and the systemic barriers that may stand in their way (the "gaps").

This section provides a comprehensive analysis of Orange County's economic and workforce landscape, designed to guide strategic investments through 2035. Using the California Jobs First (CJF) Blueprint as its analytical framework, this section starts by examining Orange County's economy by the CJF distinct industry cluster groups:

Strengthen:
These are historically strong, established sectors with robust infrastructure and a proven economic impact (e.g., Manufacturing, Tourism).

Accelerate:
These are high-growth, high-wage sectors with significant potential for rapid expansion that could benefit from additional or targeted investment (e.g., Life Sciences, High-Tech).

Bet:
These are emerging, innovative sectors that could drive or fuel future innovation and require foundational support or additional infrastructure to scale (e.g., Clean Economy, AI).

Anchor:
These are essential sectors that not only directly create jobs and economic growth but also support workforce and community well-being, providing foundational support for growth in other regional industries (e.g., Healthcare, Childcare, Education).

This analysis reveals a clear strategic direction for Orange County's future prosperity. The region must simultaneously achieve two goals:

1. **Scale Our Foundational Workforce:** Orange County must meet the massive, multi-level job demand in the Anchor sector, which serves as the region's primary engine for net job creation.

2. **Foster Inclusive Opportunity:** Orange County must create clear, equitable pathways for residents to access the high-wage, high-specialization jobs in the **Accelerate** and **Bet** sectors, which are the region's primary wage-growth engines.

This report finds that Orange County's robust PK–16 talent pipeline, particularly its Career Technical Education (CTE) system, is the single most powerful tool for achieving this dual imperative equitably.

CJF Blueprint: California's Strategic Sectors

Strengthen

- Creative Economy
  - Film, TV & the Arts
- Manufacturing
- Financial & Professional Services
- Tourism & Outdoor Recreation
- Working Lands & Water[3]
  - Agricultural Production
  - Food Processing
- Transport & Logistics

Accelerate

- Aerospace & Defense
  - Aircraft
  - Shipping
  - Space, Defense & Satellites
- Clean Economy[1]
  - Batteries
  - Onshore Wind
  - Solar
  - ZEVs
- Advanced & Precision Manufacturing
- Life Science
  - Medtech
  - Pharma / Biotech
- Working Lands & Water[3]
  - Agtech & Farm Equipment
- High-Tech[2]
  - Hardware
  - Semiconductors & Microelectronics
  - Software & Services

Bet

- Clean Economy[1]
  - Carbon Management
  - Critical Minerals
  - Hydrogen
  - Offshore Wind
- Working Lands & Water[3]
  - Bioeconomy
  - Blue Economy / Tech
- High-Tech[2]
  - Artificial Intelligence
  - Quantum
  - Robotics

Anchor

- Childcare
- Education & Skilled Workforce
- Healthcare
- Housing
- Infrastructure
  - Broadband
  - Transmission & Distribution
  - Transportation Infrastructure
  - Water

Source: California Governor's Office of Business and Economic Development, California Jobs First Economic Blueprint, February 2025

As presented in the table on page14, California's four primary strategic sectors include several subsectors that, in turn, include various industries. Some subsectors are present across two or three of the primary strategic sectors, including:

- **Clean Economy[1] (Accelerate and Bet)**
- **High-Tech[2] (Accelerate and Bet)**
- **Working Lands and Water[3] (Strengthen, Accelerate, and Bet)**

The Clean Economy is composed of subsectors including Batteries, Onshore Wind, Solar, and ZEVs. These subsectors include industries such as Battery Manufacturing, Wind Electric Power Generation, Solar Electric Power Generation, and Motor Vehicle Electrical and Electronic Equipment Manufacturing. Also present in the Bet strategic sector, this Clean Economy sector includes Carbon Management, Critical Minerals, Hydrogen, and Offshore Wind, which translates to industries including Environmental Consulting Services, Mining, Industrial Gas Manufacturing, and others. This split helps highlight how some Clean Economy sectors such as Batteries may be more established and, therefore belong to Accelerate, compared to Hydrogen which falls into the Bet strategic sector.

High-Tech also falls into both Accelerate and Bet, with subsectors including Hardware, Semiconductors, and Software Services, translating to established industries such as Computer Manufacturing, Semiconductor and Related Device Manufacturing, and Software Publishers. Within the Bet strategic sector, these industries reflect much more cutting-edge, emerging technologies and trends. High-Tech sectors within the Bet strategic sector include Artificial Intelligence, Quantum, and Robotics, which translate to industries such as Custom Computer Programming; R&D in Physical, Engineering, and Life Sciences; and Engineering.

Finally, Working Lands and Water appears across three strategic sectors including Strengthen, Accelerate, and Bet. Within the Strengthen strategic sector, this includes well-established subsectors such as Agriculture Production and Food Processing, translating to industries such as Crop Production and Food Manufacturing. Looking at Working Lands and Water in Accelerate, this is primarily tied to Agtech & Farm Equipment, tying in industries such as Agricultural Implement Manufacturing. Lastly, for the Bet sector, these sectors included Bioeconomy and Blue Economy/ Tech, which includes industries ranging from Biomass Electric Power Generation and R&D to Biotechnology to Deep Sea Transportation.

ORANGE COUNTY'S SECTOR STRATEGY: BUILDING ON CJF

This report's sector strategy mirrors the CJF Blueprint, categorizing its key industries to enable targeted investment and policy alignment. This approach ensures that the county's economic strategy is both visionary and grounded in local realities.

Orange County's sector strategy reflects the CJF Blueprint:

Strengthen:
Creative Economy and Tourism & Outdoor Recreation are well-established, historically strong sectors with established infrastructure that will continue to drive regional identity and revenue.

Accelerate:
Aerospace & Defense, Life Sciences, and the Clean Economy show strong growth potential and benefit from existing assets and talent pipelines and could benefit from additional investment.

Bet:
High-Tech and Clean Economy sectors are emerging as innovation hubs, requiring infrastructure and workforce development to scale.

Anchor:
Housing, Healthcare, Childcare, and Infrastructure are foundational to economic stability and support other sectors' growth. In other words, these sectors both directly create jobs and economic growth and support growth in other regional industries. This categorization enables targeted investment and policy alignment, ensuring that Orange County's economic strategy is both visionary and grounded in local realities.

Overall Analysis of Orange County's Talent Demand

This section provides a detailed breakdown of workforce indicators across strategic sectors, including:

- **Location Quotients (LQ):** Measuring sector concentration relative to national averages.
- **Employment:** Total jobs and compound annual growth rate (CAGR) trends by sector.
- **Wages:** Median and average earnings, highlighting equity and opportunity gaps.
- **Educational Attainment:** Workforce qualifications and alignment with sector needs. These indicators offer a data-driven foundation for strategic planning, helping stakeholders identify strengths, gaps, and opportunities for investment.

EACH OF THE FOUR SECTOR GROUPS PLAYS A VITAL ROLE IN STRUCTURING THIS WORKFORCE STRATEGY

Sector Group	2024 Employment	2024 Avg. Wage	Primary Function	Projected Employment Growth (CAGR), Next Decade	Projected Wage Growth (CAGR), Next Decade
Strengthen	758,862 jobs	$87,313	Broad base – the foundational economy, requiring efficiency and adaptation.	0.4%	2.6%
Anchor	409,251 jobs	$65,507	Essential, foundational community services and major job creators.	1.2%	2.0%
Accelerate	81,164 jobs	$145,475	High value growth – global, high-wage hubs driving technological advancement.	0.9%	3.4% (Highest)
Bet	20,969 jobs	$101,567	Emerging innovation, emerging technologies and specialized future sectors.	0.2%	2.5%

A more detailed breakdown demonstrates the four distinct roles each of the sectors will play in Orange County over the next 10 years. For example, including 2035 projections for comparison highlights the high current concentration in the Accelerate sector (LQ 1.78) growing to 1.92 over the next 10 years, indicating a strong regional specialization. Also note that the Anchor sector is projected to demonstrate the strongest employment growth (1.2 percent CAGR) over the next decade.

ORANGE COUNTY CJF STRATEGIC SECTORS – EMPLOYMENT CONCENTRATION, EMPLOYMENT, AND AVERAGE ANNUAL WAGES

	Employment Concentration		Employment			Average Annual Wages		
	2024	2035	2024	2035	CAGR	2024	2035	CAGR
Strengthen	0.97	0.97	758,862	790,101	*0.4%*	$87,313	$115,316	*2.6%*
Accelerate	1.78	1.92	81,164	89,196	*0.9%*	$145,475	$210,770	*3.4%*
Bet	0.85	0.85	20,969	21,506	*0.2%*	$ 101,567	$133,386	*2.5%*
Anchor	0.87	0.87	409,251	465,370	*1.2%*	$65,507	$81,210	*2.0%*

Educational Attainment Landscape

In 2024, Orange County's total employment across these sectors is concentrated in middle-skills (374,415 workers) and Bachelor's degree levels (311,326 workers), reflecting a large cohort available for upskilling.

The **Strengthen** sector employs the largest number of workers at lower-educational attainment tiers, while the **Accelerate** and **Bet** sectors have a high concentration of talent with Bachelor's degrees or higher. The **Anchor** sector contains large numbers of frontline jobs, particularly in Healthcare.

The following table shows the *proportion* of educational attainment within each sector.

ORANGE COUNTY CJF STRATEGIC SECTOR INDUSTRY GROUPS – PROPORTION OF EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Strengthen	8.6%	25.0%	20.0%	8.9%	*28.9%*	25.6%	8.8%	3.1%
Accelerate	4.1%	16.3%	17.0%	9.0%	*26.0%*	35.6%	15.0%	3.0%
Bet	2.1%	10.2%	14.2%	8.4%	*22.6%*	41.7%	19.5%	4.0%
Anchor	6.7%	20.3%	19.9%	12.0%	*31.9%*	22.5%	12.2%	6.4%

"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"

The next table provides the *raw number* of workers by education level, illustrating the scale of each sector's workforce.

ORANGE COUNTY CJF CALIFORNIA STRATEGIC SECTOR INDUSTRY GROUPS – RAW EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Strengthen	65,580	189,695	151,842	67,607	219,450	193,646	67,043	23,448
Accelerate	4,046	15,092	14,256	7,380	21,636	26,650	11,234	2,506
Bet	581	2,511	3,121	1,728	4,849	8,366	3,872	789
Anchor	37,243	95,588	82,058	46,421	128,479	82,664	43,151	22,125
Total	107,450	302,886	251,278	123,137	374,415	311,326	125,300	48,868

"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"

Workforce Demographic Landscape

Looking at the overall demographics of these key Orange County industries, we gain additional insight into, not only the composition of an industry's workforce, but also how broader current and projected demographic trends could impact these sectors.

GENDER DISTRIBUTION BY INDUSTRY

	Men	Women
Overall	**53.4%**	**46.6%**
Financial	52.0%	48.0%
Healthcare	29.1%	70.9%
Tourism	50.8%	49.2%
Manufacturing	64.8%	35.2%
Education	36.2%	63.8%
Housing	80.2%	19.8%
High-Tech	65.5%	34.5%
Life Science	55.8%	44.2%

	Men	Women
Overall	**53.4%**	**46.6%**
Aerospace & Defense	70.9%	29.1%
Creative Economy	56.0%	44.0%
Transportation/Logistics	73.3%	26.7%
Infrastructure	76.7%	23.3%
Working Lands & Water	58.4%	41.6%
Childcare	13.8%	86.2%
Cleantech	68.8%	31.2%

Source: Lightcast

Gender distribution revealed that, overall, approximately 53.4 percent of workers in Orange County's strategic sectors were men compared to 46.6 percent being women. This varied considerably between industries with sectors like Childcare and Healthcare being dominated by women, at 86.2 percent and 70.9 percent of workers, respectively; to industries like Housing and Infrastructure which were largely comprised of male workers at 80.2 percent and 76.7 percent, respectively. Other sectors like Tourism are more even split between men and women workers with men accounting for 50.8 percent of workers and women for 49.2 percent. While these distributions vary by industry, it is important that both men and women have access to the same opportunities in order to help improve financial equity while also driving regional economic growth and activity.

AGE GROUP DISTRIBUTION BY INDUSTRY

	14-18 Years	19-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65+ Years
Overall	**1.9%**	**8.7%**	**21.1%**	**21.4%**	**20.2%**	**17.5%**	**9.3%**
Financial	0.3%	4.8%	21.1%	23.7%	21.5%	18.1%	10.4%
Healthcare	0.5%	7.6%	21.3%	21.3%	21.3%	18.4%	9.6%
Tourism	7.8%	20.1%	21.5%	16.6%	14.1%	11.6%	8.1%
Manufacturing	0.4%	4.4%	18.0%	20.5%	22.9%	24.2%	9.6%
Education	3.1%	13.2%	21.6%	20.8%	18.3%	13.9%	9.1%
Housing	0.8%	6.0%	20.0%	23.5%	22.4%	18.2%	9.0%
High-Tech	0.2%	4.3%	22.9%	25.1%	22.3%	17.5%	7.8%
Life Science	0.1%	4.2%	21.6%	22.7%	23.2%	20.7%	7.5%
Aerospace & Defense	0.9%	6.3%	23.8%	22.7%	18.8%	16.0%	11.5%
Creative Economy	0.9%	6.3%	23.8%	22.7%	18.8%	16.0%	11.5%
Transportation/ Logistics	0.7%	8.7%	22.5%	21.5%	21.1%	17.9%	7.6%
Infrastructure	0.4%	5.9%	22.4%	23.9%	21.1%	17.7%	8.7%
Working Lands & Water	2.0%	9.5%	21.2%	20.4%	19.3%	17.5%	10.1%
Childcare	1.2%	12.4%	20.9%	18.7%	19.8%	18.0%	9.0%
Cleantech	0.2%	4.2%	28.5%	27.1%	18.7%	14.6%	6.6%

Source: Lightcast

The distribution of worker age groups by industry helps reveal which industries may be more accommodating or may be easier for young workers to break into due to a larger proportion of entry-level or low-skill employment opportunities. Tourism boasted the highest proportion of both 14-18 year olds (7.8 percent) and 19-24 year olds (20.1 percent) than any other sector, likely due to the large number of positions including Fast Food and Counter Workers, Waiters and Waitresses, or Amusement and Recreation Attendants. These occupations, while low-skill, are the first crucial steps in individuals' career ladders which can impart a range of important skills that are necessary for career growth including communication, management, and leadership. At the other end of the spectrum, industries such as Manufacturing had the highest proportion of 55-64 year olds at 24.2 percent while Aerospace & Defense and Creative Economy had the highest proportion of 65+ year olds both, at 11.5 percent of workers. Sectors with higher proportions of older workers may currently benefit from increased levels of knowledge and experience but could see potential headwinds as these workers, and their expertise, begin to retire.

RACE/ETHNICITY DISTRIBUTION BY INDUSTRY

	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander	Two or More Races	Black or African American	Asian	Hispanic or Latino	White
Overall	**0.2%**	**0.3%**	**2.4%**	**3.3%**	**19.9%**	**31.6%**	**42.2%**
Financial	0.2%	0.3%	2.9%	0.4%	19.5%	27.5%	49.2%
Healthcare	0.2%	0.4%	2.3%	4.5%	28.2%	30.6%	33.8%
Tourism	0.3%	0.4%	2.7%	4.5%	14.3%	36.9%	41.0%
Manufacturing	0.2%	0.3%	1.6%	2.6%	26.5%	31.2%	37.7%
Education	0.2%	0.3%	3.2%	5.4%	15.9%	27.5%	47.5%
Housing	0.3%	0.3%	1.6%	2.9%	6.2%	38.1%	50.6%
High-Tech	0.2%	0.3%	2.7%	3.0%	19.4%	26.9%	47.5%
Life Science	0.2%	0.3%	2.0%	2.6%	28.2%	30.1%	36.6%
Aerospace & Defense	0.3%	0.3%	2.5%	3.3%	30.7%	22.2%	40.9%
Creative Economy	0.2%	0.2%	4.0%	5.0%	12.3%	21.2%	57.0%
Transportation/ Logistics	0.3%	0.5%	2.1%	8.3%	12.7%	29.3%	46.9%
Infrastructure	0.3%	0.3%	2.0%	2.9%	12.3%	39.0%	43.1%
Working Lands & Water	0.3%	0.3%	2.5%	3.7%	18.7%	32.1%	42.5%
Childcare	0.2%	0.3%	2.6%	4.2%	18.5%	30.0%	44.2%
Cleantech	0.2%	0.3%	2.2%	3.5%	24.6%	27.1%	42.1%

Source: Lightcast

Breaking sector employment by race and ethnicity also reveals some interesting trends. Orange County's Asian communities are the least represented in Housing (6.2 percent) yet see larger proportions in Aerospace & Defense (30.7 percent), Healthcare (28.2 percent), and Life Sciences (28.2 percent). At the same time, the region's Hispanic or Latino populations are overrepresented in industries such as Infrastructure (39.0 percent), Housing (38.1 percent), and Tourism (36.9 percent). While American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander were both somewhat evenly represented across all measured sectors, Black or African American communities in Orange County were focused in Transportation/Logistics (8.3 percent), Education (5.4 percent), and Creative Economy (5.0 percent). Overall, Orange County's White population is concentrated in Creative Economy (57.0 percent), Housing (50.6 percent), and Financial (49.2 percent).

The Wage Premium by Educational Attainment

The 2024 data confirms a significant return on educational investment, but this return varies dramatically by sector. Across the region, wages rise steadily from an average of $47,025 for workers with less than a high school diploma to $150,294 for those with a doctoral/professional degree.

As the following table details, the **Accelerate sector posts the highest wages at every education level**. A key strategic insight is that **the greatest immediate return for workforce development is moving middle-skill workers into Accelerate roles**. An Associate's degree or some college in this sector yields an average of $125,902 – more than double the $59,927 return for the same education in the Anchor sector.

Note that the data shows that while education provides a premium, the *Orange County Equity Profile* shows that racial disparities persist even at higher education levels. This reinforces our recommendation for Strategy 5: Targeted Equity Interventions and Demographic Alignment – it's not just about getting a degree; it's about ensuring underrepresented groups have access to the specific high-wage sectors (High-Tech/Life Sciences) rather than just lower-wage sectors.

ORANGE COUNTY CJF STRATEGIC SECTOR INDUSTRY GROUPS – ANNUAL WAGES BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree
Strengthen	$46,873	$58,925	$74,281	$117,622	$149,810
Accelerate	$79,447	$99,874	$125,902	$199,363	$253,920
Bet	$69,198	$86,989	$109,660	$173,644	$221,163
Anchor	$37,815	$47,538	$59,927	$94,892	$120,860
Total	$47,025	$59,115	$74,521	$118,002	$150,294

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

Workforce Demand & Educational Attainment Analysis

Data for Orange County in 2024 confirms a significant wage premium for education. However, this return on educational investment varies dramatically across the region's different strategic sectors.

Accelerate sectors offer the highest pay at every educational level (e.g., $199,363 for a Bachelor's degree), while the Anchor sectors consistently post the lowest wages (e.g., $37,815 for less than high school). The Strengthen and Bet groups fall between these extremes. This highlights a key insight for workforce development: **The greatest immediate return comes from moving middle-skill workers into higher-value Accelerate roles.**

Looking Ahead to 2035 – Projected Job Changes by Education Attainment

Analysis of projected changes between 2024 and 2035 reveals the critical job and wage engines that must shape future investment. The demand for workers will shift differently across the four groups, as detailed in the table below.

PROJECTED JOB GROWTH BY EDUCATION (2024-2035)

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Strengthen	2,679	7,801	6,258	2,783	9,041	7,983	2,763	973
Accelerate	441	1,599	1,437	734	2,171	2,515	1,054	252
Bet	21	80	81	44	125	196	96	19
Anchor	3,759	11,307	11,394	7,149	18,544	11,799	6,570	4,141
Total	6,901	20,787	19,171	10,709	29,880	22,492	10,482	5,385

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

Anchor:
Will see the largest absolute job increases across all education levels, especially in the middle-skills (+18,544) and Bachelor's degree (+11,799) bands, driven by Healthcare demand.

Accelerate:
Growth is skewed toward higher education, with many new jobs for those with Bachelor's (+2,515) and Master's (+1,054) degrees. There is also meaningful middle-skill growth (+2,171).

Strengthen:
Shows modest growth across all tiers, with the strongest gains for those with high school diplomas (+7,801) and middle skills (+9,041).

Bet:
Job growth is small but highly concentrated at the Bachelor's (+196) and Master's (+96) levels, reinforcing its role as a targeted innovation pipeline.

The Primary Job Engines: Healthcare and Tourism & Outdoor Recreation

The Anchor sector is projected to add the most jobs of any group, with an increase of 56,119 positions by 2035. **This growth is overwhelmingly driven by the Healthcare subsector**, which is the single most critical engine for net job creation in the county. As the tables below show, Healthcare is projected to add 49,771 new jobs and will be the highest growth sector for middle-skill, Bachelor's, and Master's degree-level jobs.

Following Healthcare in terms of job creation over the next decade is Tourism and Outdoor Recreation, part of the Strengthen cluster group; a later section of this report analyzes that sector.

MAJOR JOB CREATION ENGINES

Sector Subgroup	2024 Employment	Projected 2035 Employment	Net New Jobs	Employment CAGR
Healthcare (Anchor)	241,484	291,255	+49,771	1.7%
Tourism & Outdoor Recreation (Strengthen)	244,155	273,891	+29,736	1.1%

WORKFORCE DEMAND AND EDUCATIONAL ATTAINMENT ANALYSIS – NET JOB GROWTH NEXT 10 YEARS

Future workforce strategy must focus on building and scaling Orange County's Healthcare pipeline, as it drives net job growth across all educational attainment levels.

Skill Level	Highest Growth Sector	Net Job Growth
Middle Skills	Healthcare	+16,989
Bachelor's Degree	Healthcare	+10,055
Master's Degree	Healthcare	+5,431

The Primary Wage and Growth Engines: Accelerate and Bet

While Anchor creates the most jobs, the Accelerate and Bet sectors fuel wage and job growth. The Accelerate sector is projected to have the highest wage growth (3.4 percent CAGR), while the Clean Economy (under the Accelerate sector) has the fastest projected employment growth rate (5.0 percent CAGR). The High-Tech subsector (within Accelerate) shows unmatched salary potential, with a projected average wage of $254,970 by 2035.

HIGHEST WAGE AND EMPLOYMENT GROWTH SECTORS IN THE NEXT 10 YEARS

Sector Subgroup	2024 Avg. Wage	Projected 2035 Avg. Wage	Wage CAGR	Employment CAGR	Key Finding
High-Tech (Accelerate)	$147,415	$254,970	5.1%	0.5%	**Unmatched salary potential for high-skilled workers.**
Clean Economy (Accelerate)	$108,128	$124,995	1.3%	5.0%	**Fastest projected employment growth rate of all subsectors.**
Life Science (Accelerate)	$138,886	$194,347	3.1%	1.0%	**High concentration (LQ 3.27) drives premium wages.**
Accelerate (Group Avg.)	$145,475	$210,770	3.4%	0.9%	**Highest projected wage growth across all sector groups.**

PROJECTED WAGE GROWTH BY EDUCATION (2024-2035)

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree	2024-2035 CAGR
Strengthen	$61,983	$77,919	$98,226	$155,537	$198,102	2.6%
Accelerate	$111,178	$139,762	$176,186	$278,986	$355,333	3.4%
Bet	$98,300	$123,573	$155,779	$246,671	$314,175	2.5%
Anchor	$47,898	$60,212	$75,904	$120,193	$153,084	2.0%
Total	$61,855	$77,758	$98,023	$155,217	$197,694	2.5%

"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"

By 2035, wages are projected to increase across all sectors, but the gap will widen. The Accelerate sector is projected to reach an average of $355,333 for professional degree holders, while the Anchor sector's average for the same degree will be $153,084.

This data reinforces the policy implication to expand career ladders within Anchor sectors while scaling STEM and advanced technical training for Accelerate and Bet sectors.

Strengthen:
This group is expected to add 31,239 jobs by 2035. The largest gains are projected for those with a high school diploma or equivalent and a Bachelor's degree. This group is expected to see moderate growth in employment and wages. Projections indicate an annual growth of 0.4 percent in employment and 2.6 percent in wages. A significant portion of its workforce has a high school diploma or equivalent, or a Bachelor's degree.

Accelerate:
This group is forecast to add 8,032 jobs, with the highest growth for employees holding a Bachelor's or Master's degree. This group is projected for strong employment growth and substantial wage increases. Employment is forecast to grow by 0.9 percent annually, with wages increasing by a notable 3.4 percent annually. This workforce is highly educated, with over 35 percent holding a Bachelor's degree.

Bet:
The group is projected to add 537 jobs, with most new positions being for those with Bachelor's and Master's degrees. This group is anticipated to have the slowest employment growth at just 0.2 percent annually, though wages are expected to grow by 2.5 percent annually. It stands out for having the highest proportion of employees with Bachelor's and Master's degrees.

Anchor:
This group is expected to add the most jobs, with an increase of 56,119 positions. The biggest gains are anticipated for those with a high school diploma, some college education, and a Bachelor's degree. As the largest group in terms of employment, it's projected to grow its workforce by 1.2 percent annually. Wages are expected to grow by 2.0 percent annually. The workforce's educational background is diverse, with significant percentages holding associate's degrees and some college education.

KEY FINDING

Education provides a clear wage premium across the region, but the return on investment is dramatically different depending on the strategic sector.

CRITICAL INSIGHT

A worker's industry sector can have as much, or more, impact on their earnings as their educational attainment.

- Accelerate sectors consistently offer the highest wages at *every* education level.
- Anchor sectors consistently offer the lowest wages at *every* education level.

STRATEGIC ACTION

To maximize wage mobility, workforce development programs should focus on moving middle-skill workers into Accelerate roles.

- **Example:** An Associate's degree in the Accelerate sector yields an average wage ($125,902) that is more than double the return for the same degree in the Anchor sector.

Projections for 2035 indicate that the wage gap between different economic sectors will continue to widen. The Accelerate (3.4 percent CAGR) and Bet (2.5 percent CAGR) sectors are forecast to see the most rapid wage growth, with top-end pay for professional degrees projected to reach $355,333 and $314,175, respectively. In contrast, the Strengthen (2.6 percent CAGR) and Anchor (2.0 percent CAGR) sectors will experience more moderate gains. By 2035, Anchor sectors will remain the lowest paying, with wages projected to range from $47,898 for those without a high school diploma to $153,084 for professional degree holders.

These divergent futures require distinct strategic priorities. For the high-growth Accelerate and Bet sectors, the focus must be on scaling advanced-technical and STEM training, expanding industry-academic partnerships, and creating equity-focused programs so local residents can access these high-return jobs. For the broader Strengthen and Anchor sectors, the policy implication is to improve mobility and living standards from within. This involves preserving middle-skill pipelines (e.g., apprenticeships), expanding career ladders for essential workers through stackable credentials, and upskilling the existing service-sector workforce.

Strategic Landscape: Investing in the Four CJF Categories

This report's strategy is built on first understanding the current and projected impacts of the four distinct CJF high-level categories, each requiring a different approach from a workforce investment perspective:

Accelerate:
High-wage, high-growth sectors (e.g., Life Sciences, Aerospace) that drive specialization and regional competitiveness.

> **Focus:**
> Building equitable pathways for local talent to access these elite jobs, which for the most part require at least a Bachelor's degree. Please see the 2026 Orange County Community Indicators report for a deep dive into educational attainment disparities such as dropout rates, graduation rates, and UC/CSU eligibility rates, an excellent measure of college prep trends.

Bet:
Emerging, high-skill fields (e.g., AI, Robotics, Clean Economy) that represent the region's future high-wage frontier.

> **Focus:**
> Investing in equitable pathways to ensure access to emerging industries of the future, which for the most part require at least a Bachelor's degree. Please see the 2026 Orange County Community Indicators Report for a deep dive into educational attainment disparities such as dropout rates, graduation rates, and UC/CSU eligibility rates, an excellent measure of college prep trends.

Strengthen:
The broad, stabilizing base of the economy (e.g., Manufacturing, Financial Services) that provides middle-income opportunities.

> **Focus:**
> Re-skilling and upskilling workers from contracting subsectors to prevent displacement and transition them into high-demand roles.

Anchor:
Foundational community services (e.g., Healthcare, Education, Childcare, Housing) that form the essential support system for the entire community.

> **Focus:**
> Strengthening the essential workforce by investing in training capacity to meet the largest volume of job demand, especially in Healthcare.

Data Deep Dive: Where the Jobs Will Be (2024-2035)

To translate these broad sector trends into actionable workforce intelligence, the following tables break down the "Best Opportunities" for Orange County residents across three critical educational attainment levels: High School, Middle Skills, and Bachelor's Degrees. By comparing current employment against projected 2035 growth and wage trajectories, these data points highlight where high-volume stability (such as in Healthcare and Tourism) meets high-wage potential (such as in High-Tech and Manufacturing). This granular view reveals precisely which subsectors offer the strongest economic promise for residents at every stage of their educational journey.

Best Opportunities by Educational Attainment Level

The tables provided below highlight current and projected employment as well as current and projected salaries out to 2035 by educational attainment and industry. This helps to highlight which subsectors may provide residents or workers with the best opportunities for employment and salaries while also allowing them to see the potential differences in future industry growth. These tables also shed light on the added potential benefit of additional educational attainment through Middle Skills, which includes residents with "some college, no degree" and Associate's degrees, or Bachelor's degrees.

For instance, Tourism and Healthcare are both expected to generate over 10,000 new jobs by 2035 for workers with a high school diploma or equivalent while other industries, such as Manufacturing and Financial and Professional Services, are slated to see a decline of approximately 500 jobs each. Additionally, while sectors such as High-Tech will see relatively little job growth, salaries are expected to see generous increases.

THESE INDUSTRIES AND OPPORTUNITIES, AND THEIR POTENTIAL TOP OCCUPATIONS IN 2035, ARE DISCUSSED IN MORE DETAIL IN APPENDIX A.

BEST OPPORTUNITIES – HIGH SCHOOL

	Current Jobs	Salary	Growth 2035	Salary 2035	CAGR
Overall	**302,896**	**$59,115**	**24,364**	**$77,758**	**2.5%**
Tourism	83,050	$25,660	10,115	$35,340	3.0%
Healthcare	48,916	$44,775	10,082	$54,353	1.8%
Manufacturing	45,642	$74,507	-558	$107,296	3.4%
Financial	39,887	$82,236	-476	$109,167	2.6%
Housing	36,610	$57,485	742	$80,078	3.1%
Transportation/ Logistics	15,060	$42,165	2,148	$51,738	1.9%
Life Science	9,342	$87,451	1,130	$117,411	2.7%
Education	4,901	$32,344	537	$44,158	2.9%
Working Lands & Water	4,220	$59,345	69	$82,777	3.0%
Aerospace & Defense	3,724	$90,494	223	$124,801	3.0%
Infrastructure	3,270	$80,367	-6	$100,121	2.0%
High-Tech	2,828	$127,952	92	$190,554	3.7%
Creative	2,458	$52,174	162	$63,345	1.8%
Childcare	1,891	$26,539	-48	$36,979	3.1%
Cleantech	1,097	$83,937	152	$97,030	1.3%

BEST OPPORTUNITIES – MIDDLE SKILLS

	Current Jobs	Salary	Growth 2035	Salary 2035	CAGR
Overall	**374,414**	**$74,521**	**30,548**	**$98,023**	**2.5%**
Healthcare	82,429	$56,444	16,989	$68,518	1.8%
Financial	77,379	$103,668	-923	$137,618	2.6%
Tourism	74,809	$32,347	9,112	$44,550	3.0%
Manufacturing	47,024	$93,925	-574	$135,259	3.4%
Housing	29,726	$72,467	603	$100,947	3.1%
Transportation/ Logistics	12,401	$53,154	1,769	$65,222	1.9%
Life Science	11,043	$110,243	1,335	$148,010	2.7%
Education	9,398	$40,773	1,030	$55,667	2.9%
Aerospace & Defense	6,553	$114,078	392	$157,326	3.0%
High-Tech	6,271	$158,446	179	$235,550	3.7%
Creative	5,117	$65,772	337	$79,853	1.8%
Infrastructure	4,143	$101,312	-7	$126,214	2.0%
Working Lands & Water	3,903	$74,811	128	$104,349	3.0%
Childcare	2,783	$33,455	-72	$46,617	3.1%
Cleantech	1,435	$99,102	250	$114,561	1.3%

BEST OPPORTUNITIES – BACHELOR'S DEGREE

	Current Jobs	Salary	Growth 2035	Salary 2035	CAGR
Overall	**311,327**	**$118,002**	**29,946**	**$155,217**	**2.5%**
Financial	102,756	$164,155	-1,227	$217,914	2.6%
Healthcare	48,787	$89,377	10,056	$108,496	1.8%
Tourism	39,373	$51,221	4,796	$70,544	3.0%
Manufacturing	36,162	$148,727	-442	$214,178	3.4%
Education	14,023	$64,563	1,537	$88,146	2.9%
Housing	13,548	$114,750	275	$159,847	3.1%
High-Tech	11,000	$247,513	11,283	$369,138	3.7%
Life Science	10,382	$174,566	1,255	$234,370	2.7%
Aerospace & Defense	9,706	$180,639	580	$249,122	3.0%
Creative	8,781	$104,147	579	$126,446	1.8%
Transportation/ Logistics	5,160	$84,168	736	$103,278	1.9%
Infrastructure	3,888	$160,426	-7	$199,857	2.0%
Working Lands & Water	3,520	$118,462	227	$165,235	3.0%
Childcare	2,418	$52,976	-62	$73,816	3.1%
Cleantech	1,823	$176,120	360	$203,592	1.3%

Our analysis of projected job growth by 2035 reveals a clear and urgent story. **The Anchor sector, driven almost entirely by Healthcare, will create more new jobs than all other sectors combined. While Accelerate and Bet categories create high-wage, high-skill jobs, their net job creation is smaller and highly concentrated at the Middle Skill, Bachelor's level, and above. The Anchor sector, by contrast, creates a massive volume of jobs at every single education level.**

Projected Net Job Growth by Skill Level (2024-2035)

Anchor Group:

- **Total Middle-Skill Jobs (Some College/Associate's Degree): +18,544**
- *Interpretation:* This is the single largest opportunity for community-focused investment. The demand for accessible, middle-skill healthcare roles is massive.
- *Other Levels:* +3,759 (Less than HS), +11,307 (HS), +11,799 (BA), +10,711 (Graduate)

Accelerate Group:

- **Total Middle-Skill Jobs (Some College/Associate's Degree): +2,171**
- *Interpretation:* Growth is heavily skewed toward high-skill roles.
- *Other Levels*: +441 (HS/Less), +2,515(BA), +1,306 (Graduate)

Strengthen Group:

- **Total Middle-Skill Jobs (Some College/Associate's Degree): +9,041**
- *Interpretation:* Represents a meaningful base of middle-skill jobs that must be preserved and upgraded.

Bet Group:

- **Total Middle-Skill Jobs (Some College/Associate's Degree): +125**
- *Interpretation:* This is a small, elite sector. Investment here is about innovation, not volume.

Healthcare: Orange County's Workforce Investment Imperative

The data is unequivocal: **The Healthcare sector is the most critical job creator in the county, projected to add 49,771 new jobs by 2035.** This growth is not limited to doctors and nurses. Crucially, **it includes 16,989 middle-skill positions**, such as medical assistants, licensed vocational nurses (LVNs), and technicians.

This presents the most urgent and direct opportunity for community-focused workforce investment. These are stable, middle-class careers that are accessible via community college and vocational training. **The primary bottleneck is not demand for workers, but the training capacity to produce them.**

Deeper Dive Analysis: A Workforce Investment Strategy for Orange County's Strengthen Sectors

The Strengthen cluster group presents a two-sided story. Despite being the county's largest employer, it has the slowest overall growth (0.4 percent CAGR). This flat growth hides a deep, structural transformation: Low-skill, high-volume sectors are growing, while high-wage, high-skill sectors are shedding lower-level jobs and desperately seeking advanced talent.

KEY INSIGHTS:

1. **Volume Engine vs. The Wage Engine:** The Strengthen group is defined by a sharp divide.
    - **Volume: Tourism & Outdoor Recreation** is the primary growth engine, projected to add over 29,000 new jobs. It is also the lowest-paying sector, with a 2024 average wage of just $37,655.
    - **Wages: Financial & Professional Services** and **Manufacturing** are the high-wage engines ($120,681 and $109,338 average wages, respectively). Both are projected to have negative job growth, but this is deceptive. They are shedding thousands of low-skill jobs while creating thousands of new, high-skill jobs at the Bachelor's, Master's, and Doctoral levels.
2. **Dominant "Middle-Skills" & HS Demand:** The largest net growth in jobs is at the lower end of the skill ladder: 7,801 new jobs are projected for those with a High School Diploma and 9,041 for those with "Middle Skills." This demand is almost entirely driven by the Tourism and Transportation & Logistics sectors.
3. **"Up-or-Out" Transformation**: The high-wage sectors are transforming, not just shrinking. Financial & Professional Services is projected to lose over 1,300 "Middle-Skills" jobs while gaining over 750 jobs for Master's and Doctoral graduates. This is a clear signal of automation and upskilling.
4. **Mobility Challenge:** The core workforce investment challenge is that the sector creating the most jobs (Tourism) pays the least. A worker with a Bachelor's degree in Tourism ($51,221) earns less than a high school graduate in Manufacturing ($74,507). The OC Equity Profile notes that wages for many workers of color are insufficient to afford the local cost of living. This is most visible in the "Strengthen" sector, particularly Tourism, where the average wage is $37,655. Because this sector is a primary entry point for the region's diverse workforce, the low wage ceiling creates a structural barrier to equity. This validates the urgent need for Strategy 2: Re-Skilling and Industry Transition – moving workers from these high-volume, low-wage roles into the high-demand technical pathways identified in this Economic Opportunity landscape analysis.

Recommended Workforce Investment Focus:

Investment must be two-pronged: one strategy for *volume* and one for *value*.

- **Scale High-Volume On-Ramps:** Fund and scale entry-level ("High School") and "Middle-Skills" training pipelines for the Tourism and Transportation & Logistics sectors. This is the largest, most scalable opportunity to connect residents with immediate employment.
- **Invest in Career Mobility:** Because Tourism wages are low, pair entry-level training with "next step" programs that create mobility pathways. This includes funding upskilling from "Middle-Skills" to a Bachelor's or creating bridges out of low-wage roles and into higher-paying sectors.
- **Fund the High-Skill Transformation:** Support the transformation of Financial Services and Manufacturing by funding advanced degree (MA, PhD) pathways, R&D partnerships, and upskilling programs to move incumbent workers into the high-demand, high-wage jobs being created.

Strengthen Sector Spotlight: Employment and Wage Projections (2024-2035)

THE STRENGTHEN GROUP IS THE LARGEST EMPLOYER IN THE REGION, WITH OVER 758,000 JOBS, BUT ITS GROWTH IS NEARLY FLAT AT 0.4 PERCENT CAGR. THIS IS DUE TO A DEEP DIVIDE BETWEEN ITS SUBSECTORS.

	Employment Concentration		Employment			Average Annual Wages		
	2024	2035	2024	2035	CAGR	2024	2035	CAGR
Creative Economy	1.14	1.17	20,596	21,954	*0.6%*	$76,565	$92,958	*1.8%*
Manufacturing	1.14	1.10	159,249	157,303	*-0.1%*	$109,338	$157,456	*3.4%*
Financial & Professional Services	1.27	1.16	285,446	282,039	*-0.1%*	$120,681	$160,202	*2.6%*
Tourism & Outdoor Recreation	1.56	1.67	244,155	273,891	*1.1%*	$37,655	$51,861	*3.0%*
Working Lands & Water	0.26	0.25	10,586	10,546	*0.0%*	$57,880	$73,282	*2.2%*
Transportation & Logistics	0.48	0.50	38,830	44,368	*1.2%*	$61,877	$75,926	*1.9%*
Strengthen	0.97	0.97	758,862	790,101	*0.4%*	$87,313	$115,316	*2.6%*

KEY TAKEAWAYS:

- **Growth Drivers:** Transportation & Logistics (1.2 percent CAGR) and Tourism & Outdoor Recreation (1.1 percent CAGR) are the only two sectors with significant job growth.
- **High-Wage Anchors:** Financial & Professional Services and Manufacturing are the largest high-wage employers, but both are projected to see slight employment declines.
- **Stark Wage Divide:** There is a profound wage gap. The average wage in Financial & Professional Services ($120,681) is more than *three times* the average wage in Tourism ($37,655).
- **Manufacturing's Wage Growth:** Despite flat job growth, Manufacturing has the fastest-growing wages (3.4 percent CAGR), indicating it is becoming a more productive, high-skill sector.

Strengthen – Talent Demand: Current Employment by Educational Attainment (2024)

The **Strengthen** cluster is built on a foundation of "Middle-Skills" and High School Diploma workers, who together make up 53.9 percent of the entire workforce.

STRENGTHEN – PROPORTION OF EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Creative Economy	2.8%	11.9%	16.2%	8.6%	24.8%	42.6%	15.0%	2.8%
Manufacturing	9.3%	28.7%	20.2%	9.4%	29.5%	22.7%	8.1%	1.7%
Financial & Professional Services	2.7%	14.0%	17.9%	9.2%	27.1%	36.0%	14.0%	6.3%
Tourism & Outdoor Recreation	14.5%	34.0%	22.2%	8.4%	30.6%	16.1%	3.9%	0.8%
Working Lands & Water	23.1%	34.1%	18.1%	7.6%	25.7%	13.4%	3.1%	0.7%
Transportation & Logistics	11.9%	38.8%	23.4%	8.5%	31.9%	13.3%	3.4%	0.7%
Strengthen	8.6%	25.0%	20.0%	8.9%	28.9%	25.6%	8.8%	3.1%

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Creative Economy	576	2,458	3,343	1,774	5,117	8,781	3,080	584
Manufacturing	14,854	45,642	32,115	14,909	47,024	36,162	12,935	2,632
Financial & Professional Services	7,691	39,877	51,097	26,283	77,379	102,756	39,855	17,888
Tourism & Outdoor Recreation	35,401	83,050	54,289	20,520	74,809	39,373	9,523	1,998
Working Lands & Water	2,442	3,608	1,911	808	2,719	1,414	332	72
Transportation & Logistics	4,617	15,060	9,087	3,314	12,401	5,160	1,319	273
Strengthen	65,580	189,695	151,842	67,607	219,450	193,646	67,043	23,448

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

KEY TAKEAWAYS:

- **Broad Accessibility:** This cluster provides the most on-ramps for non-degreed workers. Tourism and Transportation have the largest proportions of workers with a high school diploma or less.
- **Largest "Middle-Skills" Base:** Financial & Professional Services (77,379 jobs) and Tourism (74,809 jobs) are the largest employers of "Middle-Skills" workers.
- **High-Skill Hubs:** Creative Economy (42.6 percent BA) and Financial & Professional Services (36.0 percent BA) are the most dependent on a 4-year degree.

Strengthen – Future Focus: Job Growth by Education Level (2024-2035)

This data is the most critical for investment, as it shows where new jobs are being created and old ones are being lost.

CHANGE IN EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024-2035

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Creative Economy	37	139	223	90	313	662	267	54
Manufacturing	(623)	(1,442)	(760)	(236)	(996)	51	229	34
Financial & Professional Services	(38)	(1,398)	(1,875)	(683)	(2,558)	(1,168)	301	1,137
Tourism & Outdoor Recreation	3,758	9,661	6,868	2,671	9,539	5,862	1,510	292
Working Lands & Water	(160)	30	34	12	45	7	5	1
Transportation & Logistics	705	2,213	1,299	457	1,756	692	178	40
Strengthen	3,677	9,204	5,788	2,311	8,099	6,107	2,490	1,558

"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"

KEY INSIGHTS:

- **Tourism & Logistics Job Boom:** These two sectors drive almost all growth. Tourism is the dominant force, adding over 29,000 jobs, primarily at the High School (9,661 jobs) and "Middle-Skills" (9,539 jobs) levels. Transportation & Logistics adds nearly 4,000 jobs, also concentrated at these levels.

- **"Great Upskilling" in Finance:** Financial & Professional Services is undergoing a seismic shift due to automation. It is projected to lose 2,558 "Middle-Skills" jobs and 1,398 High School jobs. Simultaneously, it is gaining 1,137 Doctoral/Professional jobs and 301 Master's jobs. Investment here must be at the graduate level.

- **Manufacturing's Niche Demand:** Like Finance, Manufacturing is shedding over 2,400 High School and "Middle-Skills" jobs while adding a few hundred highly skilled jobs at the Master and Doctoral levels.

- **Volume Opportunity:** The largest net growth for the entire Strengthen group is for High School Diplomas (9,204 new jobs) and "Middle Skills" (8,099 new jobs). This is the high-volume target for workforce investment.

Strengthen – Wages & Economic Mobility

The data shows clear but highly divergent financial returns for education. The primary challenge is the low wage ceiling in the highest-growth sector**.**

ANNUAL WAGES BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree
Creative Economy	$41,504	$52,174	$65,772	$104,147	$132,648
Manufacturing	$59,269	$74,507	$93,925	$148,727	$189,427
Financial & Professional Services	$65,417	$82,236	$103,668	$164,155	$209,077
Tourism & Outdoor Recreation	$20,412	$25,660	$32,347	$51,221	$65,237
Working Lands & Water	$30,041	$37,764	$47,606	$75,383	$96,013
Transportation & Logistics	$33,541	$42,165	$53,154	$84,168	$107,201
Strengthen	$46,873	$58,925	$74,281	$117,622	$149,810

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

STRENGTHEN – ANNUAL WAGES BY EDUCATIONAL ATTAINMENT, 2035

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree	2024-2035 CAGR
Creative Economy	$50,390	$63,345	$79,853	$126,446	$161,049	1.8%
Manufacturing	$85,352	$107,296	$135,259	$214,178	$272,790	3.4%
Financial & Professional Services	$86,840	$109,167	$137,618	$217,914	$277,548	2.6%
Tourism & Outdoor Recreation	$28,112	$35,340	$44,550	$70,544	$89,849	3.0%
Working Lands & Water	$40,032	$50,324	$63,439	$100,455	$127,945	2.6%
Transportation & Logistics	$41,157	$51,738	$65,222	$103,278	$131,541	1.9%
Strengthen	$61,983	$77,919	$98,226	$155,537	$198,102	2.6%

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

KEY TAKEAWAYS:

- **Tourism Wage Trap:** This is the central workforce investment challenge. The highest-growth sector, Tourism, pays the least at *every single education level*. Its Bachelor's degree wage ($51,221) is lower than the high school diploma wage in Manufacturing, Financial Services, or the Creative Economy.

- **"Middle-Skills" Pay Bump:** On average, moving from a High School Diploma ($58,925) to a "Middle Skills" credential ($74,281) results in an immediate wage increase of $15,356 per year. This is a high-impact, high-volume target for workforce programs.

- **Bachelor's Degree Premium:** The leap to a Bachelor's degree is even more profound, yielding an average wage of $117,622 – a $43,341 annual increase over the "Middle-Skills" average.

- **Highest Returns:** The highest wages are in Financial & Professional Services and Manufacturing. Workforce investment in pathways to these sectors, even if lower volume, will produce the greatest economic mobility per person.

Deeper Dive Analysis: A Workforce Investment Strategy for Orange County's Accelerate Sectors

The data, which projects employment, educational demand, and wages from 2024 to 2035, reveals critical opportunities for investment in workforce development.

KEY INSIGHTS:

1. **High-Growth Sectors:** The Clean Economy (Accelerate) is the fastest-growing employer, projected to expand at a 5.0 percent CAGR. High-Tech and Agtech show the fastest-growing wages, both at 5.1 percent CAGR, signaling strong drivers of economic mobility.

2. **High-Skill Demand:** The largest demand for new jobs between 2024 and 2035 is for workers with Bachelor's degrees (a projected 2,908 new jobs) and Master's degrees (1,356 new jobs).

3. **"Middle-Skills" Gap:** The "Middle-Skills" bracket (defined as "Some College, No Degree" and "Associate's degree") represents the next major area of opportunity, with a combined demand for 1,824 new jobs over the next decade.

4. **Wage Premium:** The Accelerate group is a high-wage cluster, with an average 2024 wage of $145,475. However, the growth trajectory varies significantly by sector. The return on education is exceptionally high. In 2024, a "Middle-Skills" worker earns, on average, $26,028 more per year than a high school graduate. A Bachelor's degree holder earns $73,461 more than a "Middle-Skills" worker.

Recommended Workforce Investment Focus:

Workforce investment is uniquely positioned to build the talent pipelines required for these high-wage, high-demand sectors. Investment should be prioritized in two key areas:

- **Building the "Middle-Skills" Bridge:** Fund and scale programs that move workers from a high school diploma to "Some College" or Associate's credentials, particularly in the Life Science and Clean Economy sectors.

- **Expanding the Bachelor's Pipeline:** Partner with educational institutions and industry to increase access and completion of Bachelor's degrees, addressing the single largest source of new job demand, especially in Life Science, Clean Economy, and High-Tech.

Accelerate Sector Spotlight: Employment and Wage Projections (2024-2035)

	Employment Concentration		Employment			Average Annual Wages		
	2024	2035	2024	2035	CAGR	2024	2035	CAGR
Aerospace & Defense	2.05	2.01	25,915	27,465	*0.5%*	$153,083	$213,384	*3.1%*
Clean Economy	0.99	1.16	1,136	1,944	*5.0%*	$108,128	$124,995	*1.3%*
Life Science	3.27	3.67	39,029	43,748	*1.0%*	$138,886	$194,347	*3.1%*
Working Lands & Water / Agtech & Farm Equipment	0.12	0.16	109	155	*3.3%*	$94,370	$162,967	*5.1%*
High-Tech	2.46	2.58	14,976	15,884	*0.5%*	$147,415	$254,970	*5.1%*
Accelerate	1.78	1.92	81,164	89,196	*0.9%*	$145,475	$210,770	*3.4%*

Key Takeaways:

- **Highest Employment Growth:** The Clean Economy (Accelerate) is the clear leader in projected job growth, expanding by 5.0 percent annually. This signals a critical need for a new talent pipeline.
- **Highest Wage Growth:** High-Tech and Working Lands/Agtech show the fastest-growing wages (5.1 percent CAGR), making them powerful engines for economic mobility.
- **Largest Employers:** Life Science (39,029 jobs) and Aerospace & Defense (25,915 jobs) form the current backbone of the Accelerate workforce and will require a steady talent supply to maintain their base.

Accelerate – Talent Demand: Current Employment by Educational Attainment (2024)

Understanding the current educational makeup of the Accelerate workforce identifies where existing talent pipeline demand is strong and where vulnerabilities lie. The data shows a heavy reliance on highly skilled, educated workers.

PROPORTION OF EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Aerospace & Defense	3.2%	14.4%	16.4%	8.9%	25.3%	37.5%	16.8%	2.8%
Clean Economy	3.3%	14.2%	16.5%	8.8%	25.3%	37.7%	16.7%	2.8%
Life Science	7.0%	23.9%	18.9%	9.4%	28.3%	26.6%	10.7%	3.4%
Working Lands & Water / Agtech & Farm Equipment	16.5%	47.2%	21.2%	7.4%	28.6%	6.6%	0.9%	0.3%
High-Tech	2.7%	12.1%	16.0%	8.8%	24.8%	40.9%	16.7%	2.8%
Accelerate	4.3%	16.7%	17.0%	9.0%	26.0%	35.2%	14.6%	3.0%

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

ACCELERATE – RAW EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Aerospace & Defense	839	3,724	4,256	2,297	6,553	9,706	4,360	734
Clean Economy	37	162	188	100	288	428	190	32
Life Science	2,751	9,342	7,390	3,653	11,043	10,382	4,184	1,327
Working Lands & Water / Agtech & Farm Equipment	18	51	23	8	31	7	1	0
High-Tech	401	1,813	2,399	1,323	3,721	6,127	2,500	414
Accelerate	4,046	15,092	14,256	7,380	21,636	26,650	11,234	2,506

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

KEY TAKEAWAYS:

- **"Middle Skills" Are Essential:** The "Middle Skills" workforce (combining "Some college, no degree" and "Associate's degree") is a substantial part of the labor pool, representing 26.0 percent of all Accelerate jobs.
- **Bachelor's Degree Dependence:** High-Tech (40.9 percent) and Aerospace & Defense (37.5 percent) are the most dependent on workers with a Bachelor's degree.
- **Sector-Specific Needs: Life Science** currently employs the largest raw number of "Middle Skills" workers (11,043), while **Working Lands/Agtech is the most accessible for those with a high school diploma or less.**

Accelerate – Future Focus: Job Growth by Education Level (2024-2035)

CHANGE IN EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024-2035

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Aerospace & Defense	50	223	255	137	392	581	261	44
Clean Economy	26	115	134	71	205	305	135	23
Life Science	333	1,129	893	442	1,335	1,255	506	160
Working Lands & Water / Agtech & Farm Equipment	8	22	10	3	13	3	0	0
High-Tech	24	110	146	80	226	372	152	25
Accelerate	441	1,599	1,437	734	2,171	2,515	1,054	252

"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"

KEY INVESTMENT INSIGHTS:

- **Bachelor's & Master's Imperative:** The strongest demand is at the highest education levels. A projected 2,515 new jobs will require a Bachelor's degree, and 1,054 will require a Master's degree. This demand is highest in Life Science, Aerospace & Defense, and High-Tech.
- **"Middle Skills" Opportunity:** This is the next major growth area. There is a combined projected need for 2,171 new "Middle Skills" jobs (1,437 for "Some college" and 734 for Associate's).
- **Sectoral Focus for Middle Skills:** The "Middle Skills" job growth is concentrated in Life Science (1,035 new jobs) and Aerospace & Defense (223 new jobs). These sectors are ideal targets for workforce investment programs focused on community college and certification pathways.
- **Upskilling Is Critical:** There is projected *negative* growth for jobs requiring less than a high school diploma in the large Aerospace & Defense sector, highlighting the need for upskilling programs for incumbent workers.

Wages & Economic Mobility

The data provides a clear and compelling financial case for investing in educational pathways. The wage premiums for credentials are substantial, representing a direct route to economic mobility for Orange County residents.

Accelerate – Wages & Economic Mobility

ANNUAL WAGES BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree
Aerospace & Defense	$71,986	$90,494	$114,078	$180,639	$230,072
Clean Economy	$94,106	$118,301	$149,133	$236,148	$300,771
Life Science	$69,566	$87,451	$110,243	$174,566	$222,337
Working Lands & Water / Agtech & Farm Equipment	$54,868	$68,975	$86,951	$137,684	$175,363
High-Tech	$117,180	$147,307	$185,697	$294,047	$374,515
Accelerate	$79,447	$99,874	$125,902	$199,363	$253,920

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

ACCELERATE – ANNUAL WAGES BY EDUCATIONAL ATTAINMENT, 2035

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree	2024-2035 CAGR
Aerospace & Defense	$99,277	$124,801	$157,326	$249,122	$317,296	3.0%
Clean Economy	$173,929	$218,646	$275,629	$436,451	$555,889	5.7%
Life Science	$93,398	$117,411	$148,010	$234,370	$298,507	2.7%
Working Lands & Water / Agtech & Farm Equipment	$78,911	$99,199	$125,052	$198,017	$252,206	3.4%
High-Tech	$173,362	$217,934	$274,731	$435,029	$554,079	3.6%
Accelerate	$111,178	$139,762	$176,186	$278,986	$355,333	3.4%

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

KEY TAKEAWAYS:

- **"Middle-Skills" Pay Bump:** In 2024, the average "Middle-Skills" worker earns $125,902, a significant $26,028 more per year than a high school graduate ($99,874). This is a clear, high-impact target for workforce programs.
- **Bachelor's Degree Premium:** The leap to a Bachelor's degree is even more profound, with an average wage of $199,363, or $73,461 more than the "Middle-Skills" average.
- **Fastest Growing Wages:** The Clean Economy sector shows the highest projected wage growth CAGR (5.7 percent) across all educational levels. This indicates intense competition for talent and a sustainable, high-paying career path.
- **High-Tech Leads in Pay:** High-Tech remains the most lucrative sector at every educational level, with a Bachelor's degree holder, for example, projected to earn $435,029 by 2035.

Deeper Dive Analysis: A Workforce Investment Strategy for Orange County's Bet Sectors

This report analyzes the three industry groups in the Bet cluster: Clean Economy, High-Tech, and Working Lands & Water. The data, projecting from 2024 to 2035, reveals a unique challenge: This is not a story of job *quantity*, but of job *quality* and extreme *upskilling*.

The Bet sector group will have minimal net employment growth (0.2 percent CAGR). However, it features high average wages ($101,567) and demands an exceptionally high-skilled workforce.

KEY INSIGHTS:

1. **A "Quality Over Quantity" Sector:** Do not be misled by the flat 0.2 percent job growth. This cluster is experiencing a rapid *skill-based transformation*. The demand for low-skill jobs is evaporating, while projected hiring for high-skill roles remains strong.

2. **Bachelor's & Master's Focus:** This is the most educated workforce cluster. Over 65 percent of the current workforce holds a Bachelor's degree or higher. The future demand reflects this: The largest number of projected openings are for Bachelor's degrees (196) and Master's degrees (96).

3. **High-Tech Paradox:** The Bet High-Tech sector is projected to shrink in employment (-0.2 percent CAGR), but its average wages are the highest ($148,028) and are growing the fastest (4.0 percent CAGR). This indicates a sector that is becoming more productive, exclusive, and lucrative.

4. **Massive Wage Premiums:** The financial return on education in this sector is enormous. On average, a "Middle-Skills" worker earns $22,671 more per year than a high school graduate. A Bachelor's degree holder earns a staggering $63,984 more than a "Middle-Skills" worker.

Recommended Workforce Investment Focus:

Workforce investment in this cluster should be highly targeted, focusing on advanced education and upskilling, not broad-based entry-level training.

- **Fund Advanced Degree Pathways**: Invest in university partnerships, scholarships, and R&D-aligned fellowships to build the pipeline for the 292 projected openings at the Bachelor's and Master's levels, especially in Working Lands & Water.

- **Support the "Middle-Skills" Bridge:** Fund targeted programs to move incumbent workers or new trainees into the 82 "Middle-Skills" openings. This represents a high-impact opportunity to move a worker from an $87,000 job to a $110,000 job.

Bet Sector Spotlight: Employment and Wage Projections (2024-2035)

The Bet group is a small, high-wage cluster defined by specialization. Its total employment is projected to remain nearly flat, but the wage and skill compositions are changing dramatically.

	Employment Concentration		Employment			Average Annual Wages		
	2024	2035	2024	2035	CAGR	2024	2035	CAGR
Clean Economy	0.80	0.88	4,487	4,667	*0.4%*	$90,321	$115,091	*2.2%*
High-Tech	0.94	0.82	11,303	11,097	*-0.2%*	$148,028	$227,345	*4.0%*
Working Lands & Water	0.81	0.85	5,179	5,743	*0.9%*	$85,371	$113,358	*2.6%*
Bet	0.85	0.85	20,969	21,506	*0.2%*	$101,567	$133,386	*2.5%*

Key Takeaways:

- **Flat Overall Growth:** The cluster as a whole is growing at just 0.2 percent CAGR, adding only ~500 net new jobs over 11 years.
- **High-Tech Paradox:** High-Tech has the highest wages ($148,028) and fastest wage growth (4.0 percent CAGR), yet it is projected to *lose* jobs (-0.2 percent CAGR). This signals a shift toward higher productivity and automation, requiring fewer but more skilled (and Better paid) workers.
- **Modest Growth Driver:** Working Lands & Water is the primary source of job growth, adding over 500 jobs at a 0.9 percent CAGR.

BET – TALENT DEMAND: CURRENT EMPLOYMENT BY EDUCATIONAL ATTAINMENT (2024)

The Bet workforce is, by a wide margin, the most highly educated in the region. This high skill floor is the defining characteristic of the cluster.

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Clean Economy	6.3%	20.9%	17.8%	7.7%	25.6%	31.1%	13.6%	2.6%
High-Tech	1.5%	9.0%	14.2%	8.4%	22.6%	43.1%	19.7%	4.1%
Working Lands & Water	2.4%	10.8%	13.9%	8.4%	22.3%	40.5%	19.9%	4.1%
Bet	2.1%	10.2%	14.2%	8.4%	22.6%	41.7%	19.5%	4.0%

"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"

BET – RAW EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Clean Economy	282	936	800	347	1,147	1,394	610	118
High-Tech	177	1,015	1,601	949	2,549	4,873	2,229	458
Working Lands & Water	122	560	720	433	1,153	2,099	1,032	212
Bet	581	2,511	3,121	1,728	4,849	8,366	3,872	789

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

KEY TAKEAWAYS:

- **Dominated by High-Skill:** Over 65 percent of the Bet workforce holds a Bachelor's degree or higher (41.7 percent BA, 19.5 percent MA, 4.0 percent Doctoral).
- **High-Tech & Water Lead:** The High-Tech and Working Lands & Water sectors are particularly skill intensive, with over 40 percent of their workforce at the Bachelor's level alone.
- **Clean Economy Exception:** Clean Economy is the most accessible sector in this cluster, with a larger base of "Middle-Skills" (25.6 percent) and High School (20.9 percent) workers.

Bet – Future Focus: Job Growth by Education Level (2024-2035)

Projected Hiring Demand (2024-2035)

While net job growth is flat, "job churn" and upskilling are creating significant demand for high-level talent. This table shows the projected *openings* that will need to be filled.

CHANGE IN EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024-2035

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Clean Economy	11	37	32	14	46	56	24	5
High-Tech	(3)	(19)	(29)	(17)	(47)	(89)	(41)	(8)
Working Lands & Water	13	61	78	47	126	229	112	23
Bet	21	80	81	44	125	196	96	19

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

KEY INVESTMENT INSIGHTS:

- **BA/MA Is the Target:** The overwhelming demand is at the top of the skill ladder. Workforce investment should be aimed at the 196 Bachelor's degree and 96 Master's degree openings.
- **"Middle-Skills" Niche:** A clear, high-impact opportunity exists to fund pathways for the 125 "Middle-Skills" openings. This is the most viable on-ramp for those without a 4-year degree.
- **Sector Demand:** This high-skill demand is concentrated in Working Lands & Water (112 BA openings) and Clean Economy (56 BA openings).

Bet – Wages & Economic Mobility

The Bet cluster offers some of the highest wages in the region, and the financial return for completing educational pathways is exceptionally high.

ANNUAL WAGES BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree
Clean Economy	$53,796	$67,628	$85,252	$134,995	$171,937
High-Tech	$81,033	$101,867	$128,415	$203,341	$258,987
Working Lands & Water	$56,715	$71,296	$89,877	$142,318	$181,264
Bet	$69,198	$86,989	$109,660	$173,644	$221,163

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

BET – ANNUAL WAGES BY EDUCATIONAL ATTAINMENT, 2035

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree	2024-2035 CAGR
Clean Economy	$65,503	$82,344	$103,804	$164,371	$209,353	1.8%
High-Tech	$122,290	$153,731	$193,795	$306,869	$390,847	3.8%
Working Lands & Water	$78,598	$98,806	$124,556	$197,232	$251,206	3.0%
Bet	$98,300	$123,573	$155,779	$246,671	$314,175	2.5%

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

KEY TAKEAWAYS:

- **Enormous Wage Premiums:** The case for educational investment is clear.
  - **HS to "Middle-Skills":** A worker gains an average of $22,671 annually (from $86,989 to $109,660).
  - **"Middle-Skills" to BA:** A worker gains an average of $63,984 annually (from $109,660 to $173,644).
- **High-Tech is the Pacesetter:** High-Tech pays the most at every educational level, from $81,033 for those with less than a HS diploma to $203,341 for those with a Bachelor's degree.
- **Fastest Growing Wages:** High-Tech wages are projected to grow the fastest (3.8 percent CAGR), meaning these roles will become even more critical for regional economic mobility.

Deeper Dive Analysis: A Workforce Investment Strategy for Orange County's Anchor Sectors

The Childcare, Education & Skilled Workforce, Healthcare, Housing, and Infrastructure sectors comprise the Anchor sector. These sectors provide essential services that allow the entire regional economy to function. The data, projecting from 2024 to 2035, reveals profound challenges and clear opportunities for workforce investment.

KEY INSIGHTS:

1. **Healthcare Engine:** The Healthcare sector is the undisputed Anchor of this group. It is the largest employer (241,484 jobs), the fastest-growing (1.7 percent CAGR), and will be the source of nearly 50,000 new jobs; the vast majority of all growth in this cluster.

2. **"Middle-Skills" Volume:** Unlike High-Tech sectors, the Anchor group's greatest *volume* of new job demand is at the "Middle-Skills" level (18,544 projected new jobs) and the High School Diploma level (11,307 new jobs). This presents a massive opportunity to fund accessible on-ramps to stable careers.

3. **The Childcare Crisis:** The Childcare sector is a critical exception. It is projected to *shrink* (-0.2 percent CAGR) and has the lowest average wage ($38,946). This signals a market failure in an essential service, creating a critical area of need for workforce investment intervention to stabilize the workforce and support innovation.

4. **Clear Wage Ladders:** The data shows a clear financial return for education. On average, a "Middle-Skills" worker earns $12,389 more per year than a high school graduate, and a Bachelor's degree holder earns $34,965 more than a "Middle-Skills" worker.

RECOMMENDED WORKFORCE INVESTMENT FOCUS:

Workforce investment is essential for shoring up these foundational sectors. Investment should be prioritized in two key areas:

- **Scaling the Healthcare Pipeline:** Fund and scale entry-level (High School) and "Middle-Skills" (Associate's, certifications) training programs for the Healthcare sector. This is the single largest, most scalable opportunity to move residents into family-sustaining careers.

- **Stabilizing the Childcare Workforce:** Invest in new models, upskilling, and policy advocacy to address the systemic wage and employment crisis in the Childcare sector, which underpins the workforce participation for all other sectors.

The Anchor group, employing 409,251 people, is the foundational workforce of Orange County. Its growth is steady (1.4 percent CAGR) and driven by essential community needs, though this masks deep disparities between sectors.

Anchor Sector Spotlight: Employment and Wage Projections (2024-2035)

	Employment Concentration		Employment			Average Annual Wages		
	2024	2035	2024	2035	CAGR	2024	2035	CAGR
Childcare	0.59	0.58	9,319	9,080	*-0.2%*	$38,946	$54,267	*3.1%*
Education & Skilled Workforce	1.19	1.22	41,247	45,770	*1.0%*	$47,464	$64,802	*2.9%*
Healthcare	0.98	1.06	241,484	291,255	*1.7%*	$65,706	$79,762	*1.8%*
Housing	1.11	1.10	103,052	105,140	*0.4%*	$80,364	$99,726	*2.0%*
Infrastructure	0.49	0.40	14,149	14,125	*0.0%*	$113,763	$157,505	*3.0%*
Anchor	0.87	0.87	409,251	465,370	*1.4%*	$65,507	$81,210	*2.0%*

KEY TAKEAWAYS:

- **Healthcare Dominance:** Healthcare is the largest employer (241,484 jobs) and will add the most jobs (over 49,000) by 2035. It is the primary engine of growth for this entire group.
- **Childcare Contraction:** The Childcare sector is projected to lose jobs (-0.2 percent CAGR). This is a five-alarm fire for workforce development, as a shrinking childcare sector directly impacts the labor participation of parents in all other industries.
- **Wage Polarization:** There is a stark divide in wages. Infrastructure ($113,763) pays the highest average wage but has 0.0 percent job growth. Childcare ($38,946) pays the lowest, highlighting a critical challenge for talent retention and economic mobility.

Anchor – Talent Demand: Current Employment by Educational Attainment (2024)

The Anchor workforce is defined by its reliance on “Middle Skills” and its role as an entry point for the entire labor market.

PROPORTION OF EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate’s Degree	Middle Skills*	Bachelor’s Degree	Master’s Degree	Doctoral or Professional Degree
Childcare	6.1%	20.3%	19.4%	10.4%	29.9%	25.9%	15.5%	2.3%
Education & Skilled Workforce	2.5%	11.9%	14.9%	7.9%	22.8%	34.0%	24.4%	4.5%
Healthcare	6.6%	20.3%	20.8%	13.4%	34.1%	20.2%	10.9%	7.9%
Housing	18.2%	33.5%	19.5%	7.4%	26.8%	16.0%	4.7%	0.8%
Infrastructure	6.9%	23.1%	19.2%	10.0%	29.3%	27.5%	11.2%	2.1%
Anchor	6.7%	20.3%	19.9%	12.0%	31.9%	22.5%	12.2%	6.4%

**“Middle Skills” includes occupations whose educational attainment includes both “Some College, No Degree” and “Associate’s Degrees”*

ANCHOR – RAW EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Childcare	568	1,891	1,811	971	2,782	2,418	1,445	214
Education & Skilled Workforce	1,022	4,901	6,127	3,271	9,398	14,023	10,065	1,838
Healthcare	15,930	48,916	50,188	32,242	82,429	48,787	26,349	19,073
Housing	18,753	36,610	21,211	8,515	29,726	13,548	3,712	703
Infrastructure	971	3,270	2,721	1,422	4,143	3,888	1,581	297
Anchor	37,243	95,588	82,058	46,421	128,479	82,664	43,151	22,125

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

KEY TAKEAWAYS:

- **"Middle Skills" Is the Core:** The "Middle Skills" bracket (combining "Some college" and Associate's) is the largest educational bloc in the Anchor workforce, with 126,300 jobs.
- **Healthcare's "Middle-Skills" Size:** The Healthcare sector alone employs 82,346 "Middle-Skills" workers. This is the single most critical talent pipeline for workforce investment.
- **Key Entry Point:** The Housing sector has the highest proportion of workers with less than a high school diploma (18.2 percent), followed by Healthcare (6.6 percent). These sectors are crucial on-ramps for new and underserved populations.

Anchor – Future Focus: Job Growth by Education Level (2024-2035)

This data shows where the new job openings will be, highlighting the most effective targets for workforce development funding.

CHANGE IN EMPLOYMENT BY EDUCATIONAL ATTAINMENT, 2024-2035

	Less than High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Middle Skills*	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
Childcare	(15)	(49)	(46)	(25)	(71)	(62)	(37)	(5)
Education & Skilled Workforce	112	537	672	359	1,030	1,538	1,104	202
Healthcare	3,283	10,082	10,344	6,645	16,989	10,055	5,431	3,931
Housing	380	742	430	173	602	275	75	14
Infrastructure	(2)	(6)	(5)	(2)	(7)	(7)	(3)	(1)
Anchor	3,759	11,307	11,394	7,149	18,544	11,799	6,570	4,141

"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"

KEY INVESTMENT INSIGHTS:

- **Volume Opportunity:** The largest number of new jobs is projected for those with a High School Diploma (11,307) and "Middle Skills" (18,544). This is a high-volume, high-impact area for investment, with Healthcare driving nearly all of this demand.
- **Healthcare Engine:** Healthcare will create the vast majority of new jobs at every single education level. Any investment in this sector will have a direct and significant impact.
- **Critical On-Ramp:** The Anchor group is projected to create 3,759 new jobs for individuals with less than a high school diploma. Nearly all of these (3,283) are in Healthcare. This is a powerful, scalable pathway for those with the highest barriers to employment.
- **Childcare Upskilling Problem:** Childcare is projected to *lose* jobs at every level. This suggests a need for upskilling the existing workforce, not just adding new workers.

Anchor – Wages & Economic Mobility

The financial returns for education in the Anchor sectors are clear, providing scalable ladders out of poverty and into sustainable careers.

ANNUAL WAGES BY EDUCATIONAL ATTAINMENT, 2024

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree
Childcare	$21,111	$26,539	$33,455	$52,976	$67,473
Education & Skilled Workforce	$25,729	$32,344	$40,773	$64,563	$82,232
Healthcare	$35,617	$44,775	$56,444	$89,377	$113,835
Housing	$45,729	$57,485	$72,467	$114,750	$146,152
Infrastructure	$63,931	$80,367	$101,312	$160,426	$204,327
Anchor	$37,815	$47,538	$59,927	$94,892	$120,860

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

ANCHOR – ANNUAL WAGES BY EDUCATIONAL ATTAINMENT, 2035

	Less than High School Diploma	High School Diploma or Equivalent	Middle Skills*	Bachelor's Degree	Professional / Doctoral Degree	2024-2035 CAGR
Childcare	$29,416	$36,979	$46,617	$73,816	$94,017	3.1%
Education & Skilled Workforce	$35,127	$44,158	$55,667	$88,146	$112,268	2.9%
Healthcare	$43,236	$54,353	$68,518	$108,496	$138,187	1.8%
Housing	$63,700	$80,078	$100,947	$159,847	$203,590	3.1%
Infrastructure	$79,644	$100,121	$126,214	$199,857	$254,549	2.0%
Anchor	$47,898	$60,212	$75,904	$120,193	$153,084	2.0%

**"Middle Skills" includes occupations whose educational attainment includes both "Some College, No Degree" and "Associate's Degrees"*

KEY TAKEAWAYS:

- **"Middle-Skills" Pay Bump:** On average, moving from a High School Diploma ($47,538) to a "Middle Skills" credential ($59,927) results in an immediate wage increase of $12,389 per year.
- **Bachelor's Degree Premium:** The leap to a Bachelor's degree is even more significant, yielding an average wage of $94,892 – a $34,965 annual increase over the "Middle-Skills" average.
- **Healthcare Ladder:** Healthcare provides the most scalable pathway. A worker can enter with a HS diploma ($44,775) and, with workforce investment funded "Middle-Skills" training, move to $56,444. A Bachelor's degree opens the door to $89,377 careers.
- **Childcare Wage Crisis:** The wages in Childcare are alarmingly low across the board. A worker with a Bachelor's degree in Childcare ($52,976) earns *less* than a "Middle-Skills" worker in Healthcare, Housing, or Infrastructure. This is a systemic challenge requiring more than just individual training.

PART TWO

The Orange County Talent Pipeline Supply

The Orange County Talent Pipeline Supply

INTRODUCTION: EDUCATION AS ECONOMIC INFRASTRUCTURE

This section analyzes Orange County's Preschool through Postsecondary (PK–16) education system as a primary driver of the regional workforce and economy. It is intended for educators, workforce development professionals, policymakers, business leaders, and philanthropic partners. The analysis examines economic opportunity pathways and identifies strategic areas for workforce investment.

The Orange County PK–16 talent pipeline is framed as critical economic infrastructure essential for regional innovation, competitiveness, and shared prosperity. This analysis is situated within the California Jobs First Regional Investment Initiative, which prioritizes aligning education with the needs of strategic industries. The data shows the system is not a peripheral track but a central component of the educational experience, creating a substantial, diverse, and aligned talent pool.

Orange County's PK–16 Talent Pipeline: A Summary of Performance and Impact

Orange County's Career Technical Education (CTE) system demonstrates exceptionally strong performance, with participation rates and economic alignment that significantly exceed state averages.

- **Broad Participation:** 48 percent of Orange County high school students (approximately 97,000) are enrolled in CTE pathways.
- **Direct Economic Alignment:** 65 percent of these CTE students are concentrating on pathways designated as high-demand and high-wage, directly supplying talent to critical sectors like Healthcare, Information and Communication Technologies (ICT), and Engineering.

Key Economic and Educational Outcomes

The system delivers measurable economic value to families and prepares students for both college and careers, proving that a strong CTE focus enhances, rather than detracts from, postsecondary readiness.

- **Proven Postsecondary Success:** CTE is a powerful driver for college access. 78 percent of Orange County CTE concentrators transition to 2- or 4-year institutions, a rate that far exceeds state averages.
- **Significant Economic Impact:** The 19,368 students participating in dual enrollment (earning college credit while in high school) create over $26 million in annual college cost savings for families, making higher education more attainable.
- **Workforce-Ready Skills:** Students earned 9,175 industry-recognized credentials annually. These credentials (such as Certified Nursing Assistant (CNA), Emergency Medical Technician (EMT), CompTIA A+, and ServSafe) provide tangible, portable validation of skills that reduces employer training costs and improves immediate workforce readiness.

Connecting Students to Industry: Work-Based Learning (WBL)

The talent pipeline connects directly to industry through high-quality work-based learning (WBL) programs. These initiatives provide students with real-world experience, professional skills, and a clear pathway to employment.

- **Internships:** 1,387 students participate in extended workplace experiences.
- **Job Shadows:** 150 students participate in job shadows for critical career exploration.
- **Registered Apprenticeships:** While currently smaller at 51 students, the apprenticeship model is a "gold standard" with a 97 percent retention rate. It serves as a proven, scalable model for other sectors.

A Pipeline for Inclusive Prosperity and Equity

A primary goal of the pipeline is fostering inclusive prosperity. The data shows the system is a primary tool for economic mobility, effectively serving Orange County's most vulnerable populations.

CTE enrollment demonstrates a deep commitment to equity, with participation rates for key groups often exceeding their proportion of the general student population:

- **Low-Income Students:** 58 percent of CTE students (55,938) are from low-income households.
- **English Learners:** 11 percent of CTE students (10,993) are English Learners.
- **Students with Disabilities:** 11 percent of CTE students (10,644) are Students with Disabilities.
- **Vulnerable Youth:** The system provides critical pathways to stability and careers for 489 foster youth and 6,781 students experiencing homelessness.

For these students, the CTE pipeline provides a clear, supported, and accessible pathway to high-demand, family-sustaining careers.

Equity Imperatives

While participation for vulnerable students is high, the data identifies an equity imperative to address persistent completion gaps that especially affect foster youth and homeless students, highlighting a critical area for continued focus and support.

CTE Concentrators and Completers by Sector

The report details participation across 15 industry sectors. A “concentrator” is a student who has engaged significantly in a pathway, while a “completer” has finished the full sequence of courses.

Industry Sector	Concentrators	Completers
Arts, Media & Entertainment	19,935	2,381
Health Science & Medical Tech	8,974	2,175
Information & Comm. Tech (ICT)	8,191	1,071
Hospitality, Tourism & Rec	6,984	1,413
Engineering & Architecture	5,122	1,057
Business & Finance	4,054	633
Public Services	3,313	590
Transportation	3,130	835

Industry Sector	Concentrators	Completers
Building & Construction Trades	2,903	323
Marketing, Sales & Services	2,801	598
Education, Child Dev & Family	2,597	528
Manufacturing & Product Dev	1,643	268
Agriculture & Natural Resources	1,595	382
Fashion & Interior Design	420	33
Energy, Environment & Utilities	269	17

Work-Based Learning (WBL) Participation

WBL provides students with authentic workplace experiences:

- **Internships:** 1,387 students
- **Apprenticeships:** 51 students (with a 97 percent retention rate)
- **Job Shadows:** 150 students

Postsecondary Transition Data

WBL provides students with authentic workplace experiences:

- **78 Percent of CTE Concentrators Transition to College:** This high rate demonstrates that CTE enhances, rather than detracts from, college readiness.
- **Sector-Specific Transitions:**
  - **Health Science:** Over 2,100 concentrators transitioned to postsecondary programs, representing nearly 93 percent of completers.
  - **Information and Communication Technologies (ICT):** Over 1,500 concentrators transitioned to postsecondary programs.
  - **Engineering & Architecture:** 707 concentrators transitioned to postsecondary programs.

Race/Ethnicity, Gender, and Geographic: Enrollment and Completions

RACE/ETHNICITY BREAKDOWNS

Industry Sector	CTE Enrollment	CTE Concentrators (taken at least one CTE course)	Completers (completed 2 courses with a pathway)	Concentrator Rate	Completion Rate
American Indian / Alaska Native	123	65	13	52.8%	10.6%
Asian	18,427	7,494	2,335	40.7%	12.7%
Black / African American	1,292	561	114	43.4%	8.8%
Hispanic / Latino	47,682	22,222	5,109	46.6%	10.7%
Multiracial	7,593	3,151	834	41.5%	11.0%
Native Hawaiian / Pacific Islander	279	120	23	43.0%	8.2%
Unknown	776	333	66	42.9%	8.5%
White	20,195	9,120	2,377	45.1%	11.8%

Race/Ethnicity Breakdowns by Sector:

- ICT pathways draw high interest from Hispanic/Latino and Asian students across the county, yet persistence and completion patterns show continued need for culturally responsive supports and academic scaffolds to ensure students from all backgrounds successfully transition into high-wage tech careers.

- Engineering & Architecture programs show lower enrollment from Hispanic/Latino and Black students compared to their overall representation in the region, highlighting the need to expand access to early STEM exploration and Strengthen culturally relevant recruitment into high-demand engineering pathways.

- Health Science & Medical Technology

    - One of the **most ethnically diverse sectors**, with strong participation from Hispanic/Latino, Asian, and multiracial students.

    - This sector often serves as a successful entry point into **college pathways and dual enrollment**, especially for first-generation students.

    - Completion and concentrator rates tend to be higher than in STEM disciplines.

- Education, Child Development & Family Services

    - High participation from **Hispanic/Latino students and multilingual learners**.

    - Represents an opportunity to expand pathways that lead to local teacher pipelines, counseling roles, and early childhood careers.

GEOGRAPHIC BREAKDOWN: GRADES 7–12 CTE ENROLLMENT ONLY

Region	CTE Enrollment	CTE Completers	Notes (Enrollment + Ethnicity Highlights)
North OC	33,235	3,408	Largest CTE participation in the county, with strong student interest in ICT, Engineering, and AME. Ethnic diversity is high, with large representation of Hispanic/Latino and Asian students fueling pathway demand.
Central OC	23,075	3,204	High engagement from multilingual learners and historically underserved populations. Strong participation in Health Science, Education, and STEM foundations, reflecting the region's diverse and resilient student population.
South OC	22,843	2,091	Steady growth in Engineering, Biomed, and advanced ICT sectors. Ethnic diversity is increasing, with rising participation from students of color in high-wage, high-skill pathways.
Coastal OC	17,214	2,168	Strong enrollment in ICT, AME, and digital media. Trends show a blend of suburban and multilingual communities, with growing representation across Hispanic/Latino, Asian, and multiracial student groups.

EQUITY DATA: ENROLLMENT AND COMPLETION

CTE serves as a key lever for economic mobility, though completion gaps persist for the most vulnerable groups.

Student Group	CTE Enrollment	Concentrators	Completers	% of Total CTE Enrollment
Low-Income Students	55,938	25,249	7,842	58%
English Learners (EL)	10,993	5,293	1,072	11%
Students with Disabilities (SWD)	10,644	5,053	1,200	11%
Homeless Students	6,781	3,201	773	7%
Foster Youth	489	257	41	1%

The data shows that while participation for vulnerable groups is strong, there is a significant drop-off between enrollment and completion, particularly for foster youth.

Strategic Investment Opportunities

The report identifies clear opportunities for workforce investment to catalyze systemic change:

1. **Scale High-Demand Healthcare Training:** Invest in expanding capacity for middle-skill healthcare roles (e.g., Nursing, Allied Health) to meet the massive projected job growth (+49,771).
2. **Ensure Equitable Access to High-Wage "Accelerate" Careers:** Fund scholarships, mentorship, and pipeline initiatives for underrepresented students in Life Sciences, High-Tech, and Aerospace (which have an average wage of $145,475).
3. **Stabilize Essential "Anchor" Workforces:** Target investments in the Childcare sector to improve wages and professional development, and support "grow your own" initiatives in Education – programs designed to recruit, train, and retain teachers from within the local community, rather than trying to hire them from outside the region.
4. **Boost Economic Mobility in "Strengthen" Sectors:** Fund career-ladder training in sectors like Tourism (+29,736 projected jobs) to help frontline workers advance.
5. **Expand High-Quality Work-Based Learning:** Invest in intermediaries to scale paid internships and registered apprenticeships.
6. **Support Wraparound Services for Equity:** Fund programs that address non-academic barriers (e.g., transportation, technology, mental health, housing) for vulnerable students (e.g., low-income, EL, SWD, foster youth, homeless) to improve completion rates.

Regional Impact Synthesis

65 PERCENT OF CTE STUDENTS IN HIGH-DEMAND, HIGH WAGE PATHWAYS

Orange County's strategic focus on high-demand, high-wage career pathways ensures that CTE investments translate into economic mobility for students and talent supply for regional employers. The 65 percent figure represents students concentrating in sectors with projected strong job growth and wages sufficient to support middle-class quality of life.

Defining High-Demand, High-Wage

High-Demand sectors meet multiple criteria for advancement opportunities:

- Projected employment growth exceeding regional average
- Large number of annual job openings (including replacement of retiring workers)
- Persistent employer reports of difficulty filling positions
- Alignment with California Jobs First strategic sectors
- Regional economic development priorities

High-Wage pathways offer:

- Entry-level wages at or above $15-$18 per hour
- Mid-career wages exceeding $25 per hour or $50,000 annually
- Clear advancement pathways to higher compensation
- Livable wages sufficient for housing, family support, and economic stability in Orange County's high cost-of-living environment

Sectors Meeting High-Demand, High-Wage Criteria

The following sectors represent the 65 percent of CTE students in high-demand, high-wage pathways:

1. Health Science and Medical Technology (11% of enrollment)
2. Information and Communication Technologies (10%)
3. Engineering and Architecture (6%)
4. Business and Finance (5%)
5. Hospitality, Tourism, and Recreation (9% - meets criteria for advancement opportunities)
6. Manufacturing and Product Development (2%)
7. Education, Child Development, and Family Services (3%)

While wage levels can be a challenge in some occupations in the tourism industry, the sector does provide high advancement potential. Combined, these sectors represent approximately 63,700 students or 65 percent of total CTE enrollment.

What About the Other 35 Percent?

The remaining 35 percent of CTE students concentrate on sectors including:

- Arts, Media, and Entertainment (26% of total enrollment)
- Public Services (4%)
- Transportation (4%)
- Agriculture and Natural Resources (3%)
- Building and Construction Trades (3%)
- Marketing, Sales, and Services (3%)
- Energy, Environment, and Utilities (0.3%)
- Fashion and Interior Design (0.4%)

These sectors include:

- Exploratory participation (Arts, Media, Entertainment) where students develop creativity and explore interests without necessarily pursuing careers
- Moderate-wage sectors (Transportation, Construction) that still offer middle-class wages and career stability
- Emerging sectors (Energy, Environment) with strong future growth potential
- Specialized career interests (Fashion, Design) serving niche markets

Importantly, the goal is not to push all students into identical career paths but to ensure the majority access high-opportunity careers while preserving space for diverse interests and pathways.

ORANGE COUNTY TALENT SUPPLY FOR THE FOUR CJF ECONOMIC GROUPS

Orange County's educational pipeline is not generic; it is specifically tailored to feed the four strategic foundations of the economy.

1. Anchor Group (Healthcare, Education, Childcare)

Demand: The Anchor sector is the region's primary job creation engine, projected to add 49,771 new healthcare jobs by 2035, including 16,989 middle-skill roles. This sector also faces a crisis in the Childcare workforce, which is essential for all other sectors to function.

Supply: The talent pipeline can meet this massive demand.

- **Healthcare:** The Health Science and Medical Technology pathway is one of the largest and most critical, with 10,313 students enrolled.
  - It produces 2,175 completers annually.
  - It has a 93 percent postsecondary transition rate, feeding directly into the community college and university programs that create licensed nurses and technicians.
  - Students are earning the exact credentials needed for middle-skill jobs, such as Certified Nursing Assistant (CNA) and Emergency Medical Technician (EMT).
- **Education & Childcare:** To address teacher shortages and the childcare crisis, the Education, Child Development, and Family Services pathway enrolls 2,838 students, creating a "grow your own" local pipeline for the region's essential educators.

2. Accelerate Group (High-Tech, Life Sciences, Aerospace)

Demand: The Accelerate sector is the region's high-wage leader, paying an average of $145,475. It requires a steady supply of high-skill talent in technology and engineering.

Supply: The CTE system provides the foundational STEM pipeline for these elite jobs.

- **High-Tech:** The Information and Communication Technologies (ICT) pathway enrolls 10,033 students. It prepares them for high-demand, high-wage careers in cybersecurity, software development, and network administration.
- **Engineering & Aerospace:** The Engineering and Architecture pathway enrolls 5,996 students. This pathway is a critical pipeline for university engineering programs, supplying talent to the region's world-class Aerospace & Defense and Life Sciences (MedTech) clusters.

3. Strengthen Group (Tourism, Manufacturing, Finance)

Demand: This group is defined by a dual need – a high-volume workforce for Tourism & Outdoor Recreation (projected +29,736 jobs) and a high-skill, high-wage workforce for Manufacturing and Financial Services.

Supply: The pipeline is structured to serve both needs.

- **Tourism:** The Hospitality, Tourism, and Recreation pathway enrolls 8,562 students. It produces 1,413 completers annually, preparing a workforce for one of the region's largest employers.
- **Manufacturing:** The Manufacturing and Product Development pathway (1,986 students) and Building and Construction Trades pathway (3,169 students) create a pipeline of skilled technicians for advanced manufacturing and skilled trades roles.
- **Finance:** The Business and Finance pathway enrolls 4,773 students, providing foundational talent in accounting, finance, and business operations.

4. Bet Group (Clean Economy)

Demand: The Bet sectors are emerging fields, with the Clean Economy (Accelerate) subsector showing the fastest projected employment growth (5.0 percent CAGR).

Supply: The education system is adapting to meet this future demand.

- The Energy, Environment, and Utilities pathway (269 students) is an emerging pipeline aligned directly with the state's Clean Economy goals. This represents a key area for future investment and growth to develop the talent for solar, energy efficiency, and environmental technology roles.

Orange County's Local Workforce Development Boards: Essential Economic Backbone

Local Workforce Development Boards (WDBs) function as the strategic governance and regional infrastructure for Orange County's public workforce system under the federal Workforce Innovation and Opportunity Act (WIOA), the primary source of public investment in workforce development. Acting as regional conveners, these boards align public sector investment, educational systems, employers, and community resources with dynamic labor market trends.

In Orange County, this governance structure is decentralized across three distinct jurisdictions to ensure localized oversight and responsiveness:

- **The Anaheim Workforce Development Board:** Overseen by the City of Anaheim.
- **The Santa Ana Workforce Development Board:** Overseen by the City of Santa Ana.
- **The Orange County Workforce Development Board:** Overseen by the County of Orange, serving Orange County's remaining municipalities and unincorporated communities.

OPERATIONAL FRAMEWORK: CONNECTING WORKFORCE SUPPLY AND DEMAND AT THE LOCAL LEVEL

The primary mandate of workforce boards is to synchronize workforce supply (jobseeker skills) with industry demand (employer requirements). This is executed through two primary operational pillars.

1. Talent Supply and Participant Services

Service delivery is administered through American Job Centers of California (formerly One-Stop Centers), which are physical locations where jobseekers can access individual career services, job searches, employment assistance and placement, and education and training opportunities. Eligibility and enrollment follow standardized WIOA intake processes, prioritizing populations with the highest barriers to economic mobility:

- **Priority Populations:** Strategic focus is placed on low-income adults, public assistance recipients, veterans, dislocated workers affected by economic shifts, and youth (ages 14–24) facing employment barriers.
- **Service Delivery Model:** Participants utilize Career Specialists to develop Individual Employment Plans. Interventions include:
  - **Occupational Training:** Curriculum linked directly to high-demand industries.
  - **Work-Based Learning:** Utilization of apprenticeships and on-the-job training models.
  - **Supportive Services:** Funding for non-academic barriers, such as transportation, childcare, and certification costs, to ensure program retention and completion.

2. Business Services and Industry Engagement

Workforce Boards also serve as an intermediary for regional employers, providing infrastructure to support industry capacity and mitigate economic contraction.

- **Sector Strategies:** Implementation of sector-based partnerships to align training pipelines with real-time industry requirements.
- **Rapid Response:** Deployment of services to assist employers and workers during facility closures or layoffs.
- **Labor Market Intelligence:** Dissemination of data regarding wage trends and occupational demand to inform business decision-making.
- **Upskilling Investments:** Provision of wage reimbursement subsidies for Incumbent Worker Training and On-the-Job Training (OJT) to offset the costs of workforce development.

SYSTEM ALIGNMENT AND POLICY

Workforce Boards also function as the alignment mechanism between economic development agencies and the education system (K-12, community colleges, and adult education). By leveraging data on credential attainment and employment outcomes, the boards ensure accountability and facilitate evidence-based resource allocation. This coordinated approach establishes a framework for regional economic resilience, ensuring public funds drive measurable labor market outcomes.

PART THREE

Final Concluding Strategic Recommendations: Six Strategies for Workforce Investment

Final Concluding Strategic Recommendations – Six Strategies for Workforce Investment

Based on this analysis, we recommend six strategies for workforce investment to build an equitable and prosperous future workforce.

Strategy 1: Scale High-Demand Healthcare Training

- **Why:** To meet the massive, growing demand for essential healthcare workers and provide accessible pathways to stable, middle-class careers for thousands of residents. Because healthcare both provides essential services for Orange County residents and creates accessible, sustainable, lucrative jobs.

- **Action:** Dedicate significant funding to expand the capacity of Community College and vocational training programs.

- **Key Initiatives:**

  - Fund new cohorts, equipment, and faculty for short-term credentialing (e.g., Medical Assistants) and Associate's Degree programs (e.g., LVNs, Techs).

  - Support "stackable credential" models that allow frontline workers in entry-level roles to up-skill into higher level positions.

- **Target:** Increase graduation capacity in healthcare-related middle-skill programs by 2030 to help meet the +16,989 job demand.

Strategy 2: Re-skilling and Industry Transition

- **Why:** To ensure Orange County's existing middle-skill workers are not left behind as the economy changes. We must build a bridge from contracting sectors (e.g., traditional Manufacturing) to high wage Accelerate sectors. Because upskilling mid-career workers can help them transition into lucrative, growing Accelerate sectors.

- **Action:** Fund and incentivize cross-training programs that connect high-wage firms with the existing workforce.

- **Key Initiatives:**

  - Implement programs for firms in Manufacturing and Financial Services to re-skill their workers for roles in Accelerate subsectors (e.g., Aerospace, Life Science R&D).

- **Target:** Preserve high-wage jobs in contracting sectors by providing pathways for re-skilling.

Strategy 3: High-Skill Talent Innovation

- **Why:** To secure the region's long-term competitive advantage in the high-tech, high-wage Bet sectors and create equitable opportunities for local talent to lead in these fields. Because innovative sectors like Aerospace, Life Science, AI, and Robotics offer high wages, significant growth potential, and opportunities for Orange County to create competitive advantages.
- **Action:** Invest in the high-skill equitable talent pipelines by funding partnerships between industry and academia.
- **Key Initiatives:**
  - Establish equitable pathways for Bet High-Tech (e.g., AI, Robotics) to Accelerate Better access to these emerging well-paying job opportunities among a wider circle of student and jobseeker talent.
  - Create targeted scholarships, internships, and retraining programs for mid-career workers to move into these higher-skill roles.
- **Target:** Increase and diversify the talent pipeline to take advantage of these well-paying job opportunities, using the Orange County Equity Profile's "Median Hourly Wage" data as the baseline metric the region is trying to move.

Strategy 4: Scaling "Earn-and-Learn" Models

- **Why:** To directly connect training to employment and reduce student debt. While current programs achieve a 97 percent retention rate, they reach only 1.6 percent of CTE students. Scaling is essential to ensure students don't have to choose between learning and earning. Because apprenticeships and paid apprentices are accessible and proven pathways to career success, especially for disadvantaged residents.
- **Action:** Provide catalytic funding to expand paid internships and registered apprenticeships and the intermediary infrastructure to manage them.
- **Key Initiatives:**
  - **Scale Registered Apprenticeships:** Expand the youth apprenticeship model beyond trades into Manufacturing and Healthcare.
  - **Subsidize Paid Internships:** Create a fund to subsidize wages for interns in small-to-mid-sized businesses, removing equity barriers for low-income students.
  - **Support Intermediaries:** Fund the administrative "backbone" organizations that handle liability and recruitment to reduce employer burden.
- **Target:** Increase participation in intensive work-based learning.

Strategy 5: Targeted Equity Interventions and Demographic Alignment

- **Why:** To help vulnerable students overcome non-academic barriers such as housing, transportation, and food insecurity that prevent completion. Because addressing student's non-academic barriers is crucial to their academic and career success.
- **Action:** Fund flexible, rapid-response programs that remove specific financial barriers to credential completion.
- **Key Initiatives:**
  - **Emergency Barrier Removal Funds:** Establish flexible funds to cover immediate costs (e.g., car repairs, bus passes, certification fees) that cause drop-outs.
  - **Foster Youth Transition Support:** Fund dedicated liaisons to navigate housing and mental health support during the transition to postsecondary training.
  - **Digital & Physical Access:** Invest in transportation and technology stipends to ensure equitable access to hybrid learning.
- **Target:** Reduce the completion gap between the general student population and vulnerable groups.

Strategy 5a: Strengthen Early Recruitment Pipelines Beginning in Middle School

- **Why:** Early awareness correlates with sector enrollment patterns – especially for STEM and Health.
- **Actions:**
  - Launch feeder middle school programs focused on ICT, Engineering, Health, and Trades.
  - Provide middle school career days based on the demographic gaps found in each sector.
  - Use interactive experiences (VR simulations, maker labs, touring labs) to diversify interest early.

Strategy 5b: Re-engage Hispanic Males in Health Science (They Represent Only 31%)

- **Why:** Hispanic males are 31% of Health vs. 69% Hispanic females—the largest gender gap across all sectors.
- **Actions:**
  - Create targeted outreach (hands-on demos, EMT/paramedic pathways, behavioral health internships).
  - Recruit Hispanic male health professionals as student ambassadors.
  - Develop micro-internships in high-energy, high-demand health roles (sports medicine, emergency response, medical tech).

Strategy 5c: Expand Participation of Females in Male-Dominated High-Wage Sectors (Construction, Engineering, ICT, Transportation)

- **Why:** These sectors are **65–95% male**, especially Construction and Transportation**.**
- **Actions:**
  - Offer Girls in STEM/Trades summer academies.
  - Provide female-only intro cohorts in ICT, Engineering, and Construction.
  - Partner with women-led industry groups (Women in Tech, NAWIC, Women in Manufacturing).
  - Build mentorship pipelines connecting female students to female industry professionals.

Strategy 6: Foundational Workforce Stabilization in Childcare

- **Why:** To address the systemic market failure in the Childcare sector. This essential service is the only one projected to shrink, and its low-wage crisis creates a critical bottleneck that directly impacts labor participation for parents in all other economic sectors. Workforce investment intervention is required for stabilization and innovation. Because the projected decline in the childcare workforce could have significant consequences for the rest of the economy and the rest of the county.
- **Action:**

  Invest in new models, upskilling, and policy advocacy to stabilize the Childcare workforce. The focus must be on reversing the sector's contraction and addressing the wage crisis that makes it unsustainable.

- **Key Initiatives:**
  - Fund pilot programs and new models designed to increase the sector's financial stability and raise its alarmingly low wages.
  - Support policy advocacy aimed at addressing the systemic challenges highlighted by the wage data (e.g., a Bachelor's degree in Childcare pays less than a "Middle-Skills" credential in Healthcare).
  - Invest in upskilling programs for the existing workforce, as the data shows the only (minor) job growth is at the Master's level, while jobs at all lower levels are projected to be lost.
- **Target:** Reverse the projected negative employment CAGR of -0.2 percent and fund innovative models to address the wage gap, ensuring the stability of the foundational workforce that enables all other sectors to function.

The 2026 Orange County Economic Opportunity Report confirms that our region's future prosperity will not be determined by chance, but by design. By overlaying the economic "terrain" of labor demand against the "pipeline" of talent supply, a clear dual imperative has emerged for philanthropists, business leaders, policymakers, and educators.

First, scale our workforce capacity. The data is unequivocal: The Anchor sector, driven by Healthcare, is the region's primary engine for job creation, projected to add nearly 50,000 new jobs by 2035. Simultaneously, the region faces a critical bottleneck in the Childcare sector – the only industry projected to shrink – which threatens the workforce participation of the entire county. The immediate workforce investment priority is to invest in the training capacity required to fill these essential roles and stabilize the workforce that supports all other industries.

Second, democratize growth sectors, especially those that are tech-related. The Accelerate and Bet sectors (such as High-Tech, Life Sciences, and the Clean Economy) offer the region's highest wage premiums, with salaries in High-Tech growing to over $250,000 by 2035. However, these sectors are exclusive, heavily reliant on advanced degrees. The strategic imperative is to build equitable bridges – through scholarships, internships, and apprenticeships – that ensure students from Orange County's diverse communities can access these high-altitude destinations.

This report finds that Orange County has already laid the groundwork to make this happen by building a clear education infrastructure advantage. With 48% of high school students enrolled in Career Technical Education (CTE) and 58% of them concentrating in high-growth sectors, our education system is functioning as true economic infrastructure. From the 19,000 students earning early college credit to the 97% retention rate in youth apprenticeships, the pipeline is proven and effective.

The path forward is clear: **The gap between current performance and future potential is where workforce investment must intervene.** By targeting investments into the six strategies outlined in this report, from expanding healthcare training capacity to funding wraparound services for foster and homeless youth, Orange County can remove the systemic barriers that create friction in this pipeline.

Ultimately, this report presents the 2026 Orange County Economic Opportunity Report as a clear, navigable map. It has charted the high-wage destinations of the Accelerate and Bet sectors and the high-demand, foundational terrain of the Anchor and Strengthen sectors. The analysis confirms that the region's prosperity is not a matter of chance, but of design. By strategically investing in the talent pipelines detailed in this report, Orange County's leaders can build the essential infrastructure – the pathways, bridges, and on-ramps – needed to guide all residents to a share in that prosperity, ensuring the landscape of opportunity is open to everyone. By focusing on these strategic foundations, the region can build a more equitable, resilient, and prosperous economy that creates high-quality, accessible jobs for all its residents.

2026

Appendix A: Best Opportunities by Industry

Aerospace and Defense

INDUSTRY OVERVIEW

Orange County has long been a vital hub of California's world-renowned Aerospace & Defense (A&D) industry. Within that industry, Orange County has carved out a specialized and indispensable role in designing and manufacturing the high-value electronics, satellite systems, and advanced components that power defense and space exploration.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County is home to iconic facilities such as Boeing's Huntington Beach campus, which played a central role in the Apollo, Space Shuttle, and International Space Station programs. It remains a center for advanced space and defense systems today, with the presence of top Aerospace and Defense contractors supporting a network of small-to-midsize machine shops, electronics manufacturers, and engineering firms in cities including Irvine, Anaheim, Fullerton, and Costa Mesa. The county is a hotspot for corporate R&D; contractors spend billions on developing cutting-edge technologies in Orange County, from next-generation radar and sensing systems to unmanned vehicle controls.

CURRENT HIGH-DEMAND ROLES

The sector employs thousands of Orange County residents in high-paying roles, with compensation often 50 percent higher than the average private-sector wage.

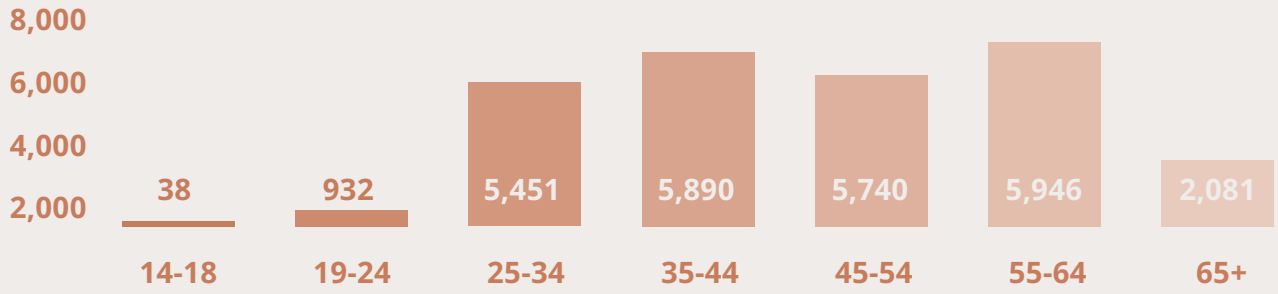
EMERGING FUTURE CAREERS

The $440 billion global space and defense sector is key for Orange County. Local companies are leaders in producing satellite payloads, GPS and navigation systems, guidance electronics, and secure communications. In the $420 billion global aircraft market, Orange County excels in manufacturing flight control systems, hydraulic components, and advanced composite materials used in both commercial and military aircraft.

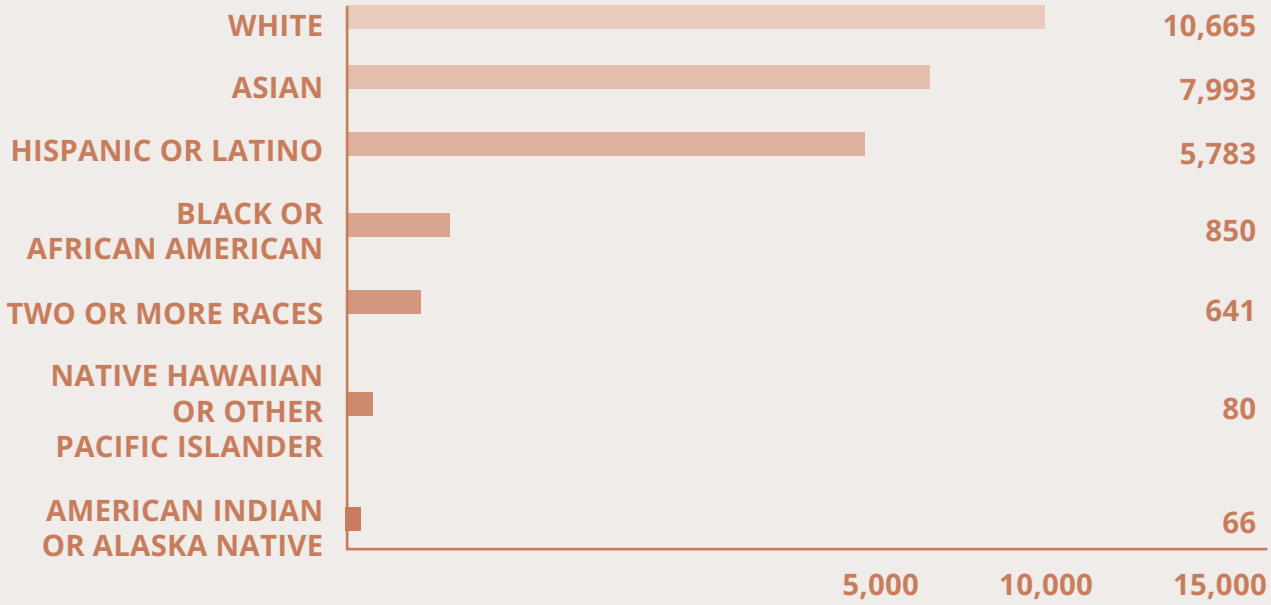
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

The A&D sector provides significant opportunities for economic mobility. Over a third of the industry's top occupations do not typically require a four-year bachelor's degree, creating accessible career pathways for many residents. Local universities are critical to the talent pipeline; the engineering schools at UC Irvine (UCI) and California State University, Fullerton (CSUF), along with technical programs at community colleges, such as Orange Coast College, provide a steady stream of skilled engineers, technicians, and programmers.

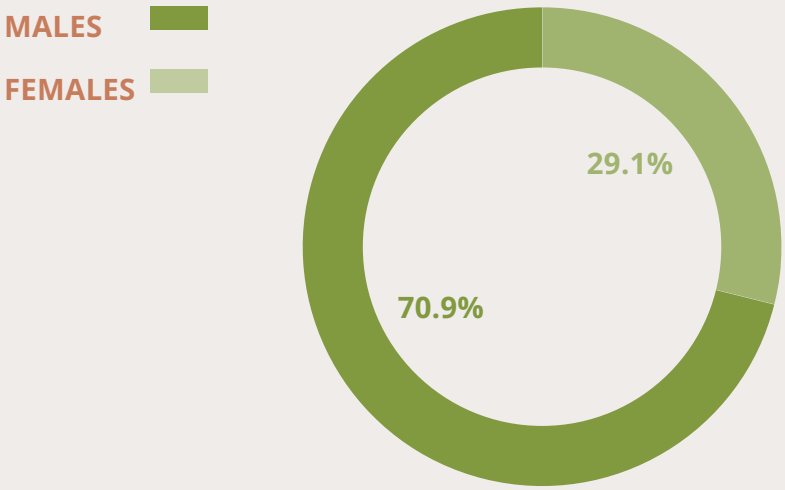
ORANGE COUNTY AEROSPACE AND DEFENSE INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 45.9 YEARS



ORANGE COUNTY AEROSPACE AND DEFENSE INDUSTRY BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY AEROSPACE AND DEFENSE INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Aerospace and Defense Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 3,724
2035: 3,947
CAGR %: 0.5%

Wages

2025: $90,494
2035: $124,801

Top Cities by Job Postings – Last 12 Months

1. Garden Grove
2. Irvine
3. Santa Ana
4. Los Alamitos
5. Huntington Beach

Top Employer by Job Postings – Last 12 Months

1. Safran
2. Arrowhead Products
3. Adient Aerospace
4. Global IT Resources
5. Acara

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Miscellaneous Assemblers and Fabricators (271; $45,153)
2. Inspectors, Testers, and Sorters (198; $50,655)
3. CNC Tool Operators (164; $55,088)
4. Machinists (161; $50,182)
5. Aircraft Structure Assemblers (67; $48,391)

Top 5 Jobs in 2035

1. Miscellaneous Assemblers and Fabricators (231; $62,269)
2. Inspectors, Testers, and Sorters (177; $69,857)
3. CNC Tool Operators (138; $75,970)
4. Machinists (154; $69,204)
5. Aircraft Structure Assemblers (66; $66,734)

Top Jobs Emerging Over Next Decade

1. Sales Representatives of Services (+21)
2. Industrial Machinery Mechanics (+6)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Hand Tools
2. Micrometer
3. Blueprinting
4. Calipers
5. Data Entry

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Transportation – Aviation Pathway
2. OCDE – Transportation CTE – Systems Diagnostics, Service, and Repair
3. Canyon High School – Aviation Pathway

Career Progression

Most Frequent Prior Jobs

1. Production Workers, All Other
2. Retail Salesperson
3. Laborers and Freight, Stock

Most Frequent Next Job

1. CNC Tool Programmers
2. Inspectors, Testers, and Sorters
3. CNC Tool Operators

Aerospace and Defense Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 6,553
2035: 6,945
CAGR: 0.5%

Wages

2025: $114,078
2035: $157,326

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Costa Mesa
3. Huntington Beach
4. Garden Grove
5. Cypress

Top Employer by Job Postings – Last 12 Months

1. Anduril Industries
2. Safran
3. Adient Aerospace
4. Boeing
5. Rolls-Royce

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Computer User Support Specialists (316; $70,948)
2. Aircraft Mechanics and Service Technicians (167; $79,560)
3. Computer Network Support Specialists (54, $74,085)
4. Electrical Engineering Technologists (46; $83,556)
5. Engineering Technologists (39; $73,849)

Top 5 Jobs in 2035

1. Computer User Support Specialists (404; $97,842)
2. Aircraft Mechanics and Service Technicians (168; $109,718)
3. Computer Network Support Specialists (65; $102,168)
4. Electrical Engineering Technologists (38; $115,229)
5. Engineering Technologists (36; $101,843)

Top Jobs Emerging Over Next Decade

1. Computer User Support Specialists (+87)
2. Computer Network Support Specialists (+12)
3. Avionics Technicians (+10)
4. Telecommunications Equipment Installers (+7)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Export Control
2. Hand Tools
3. Electronics
4. Test Equipment
5. Soldering

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange Coast College – Aviation Science; Airframe and Powerplant
2. Cypress College – UAS/UAV Drone Operator
3. Fullerton College – Fullerton Drone Lab

Career Progression

Most Frequent Prior Jobs

1. Military-Only Occupations
2. Avionics Technicians
3. Inspectors, Testers

Most Frequent Next Job

1. General and Operations Managers
2. First-Line Supervisors of Mechanics
3. Military-Only Occupation

Aerospace and Defense Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 9,706
2035: 10,286
CAGR: 0.5%

Wages

2025: $180,639
2035: $249,122

Top Cities by Job Postings – Last 12 Months

1. Costa Mesa
2. Irvine
3. Huntington Beach
4. Garden Grove
5. Seal Beach

Top Employer by Job Postings – Last 12 Months

1. Anduril Industries
2. Safran
3. Boeing
4. Supernal
5. Raytheon Technologies

CAREER OPPORTUNITIES

Top 5 Jobs

1. Software Developers (1,556; $154,184)
2. Business Operations Specialists (404; $79,308)
3. Computer and Information Systems Managers (343; $188,744)
4. Computer Occupations, All Other (277; $98,672)
5. Aerospace Engineers (355; $142,093)

Top 5 Jobs in 2035

1. Software Developers (1,870; $212,630)
2. Business Operations Specialists (405; $109,371)
3. Computer and Information Systems Managers (428; $260,290)
4. Computer Occupations, All Other (329; $136,076)
5. Computer Systems Analysts (338; $172,687)

Top Jobs Emerging Over Next Decade

1. Software Developers (+314)
2. Computer and Information Systems Managers (+85)
3. Computer Systems Analysts (+69)
4. Computer Occupations, All Other (+51)
5. Management Analysts (+39)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Computer Science
2. Supply Chain
3. Electrical Engineering
4. Project Management
5. Continuous Improvement Process

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – School of Education – Samueli School of Engineering – Department of Mechanical and Aerospace Engineering
2. CSUF – College of Engineering and Computer Science – Mechanical Engineering

Career Progression

Most Frequent Prior Jobs

1. Software Developers
2. Civil Engineers
3. Electrical Engineers

Most Frequent Next Job

1. Mechanical Engineers
2. Architectural and Engineering Managers
3. Industrial Engineers

Childcare

INDUSTRY OVERVIEW

Childcare is essential infrastructure that powers Orange County's entire economy. A robust and accessible system of early care and education allows parents and caregivers to participate in the workforce, directly fueling the productivity of every other strategic sector, from High-Tech to Tourism. Investing in quality childcare is a direct investment in both the county's current economic output and long-term workforce development.

INDUSTRY GROWTH AND DEMAND DRIVERS

Quality, affordable childcare helps determine region's economic health and competitiveness. Access to childcare is directly linked to labor force participation, especially for women; the sector functions as a multi-billion-dollar economic engine by enabling hundreds of thousands of parents to go to work, earn wages, and contribute to the tax base.

CURRENT HIGH-DEMAND ROLES

The childcare industry employs thousands of Orange County residents as teachers, aides, and administrators, creating a range of accessible jobs. The childcare workforce, however, faces significant challenges such as low wages and high turnover. Local and state initiatives focus on providing professional development, training, and increased compensation to stabilize this vital field.

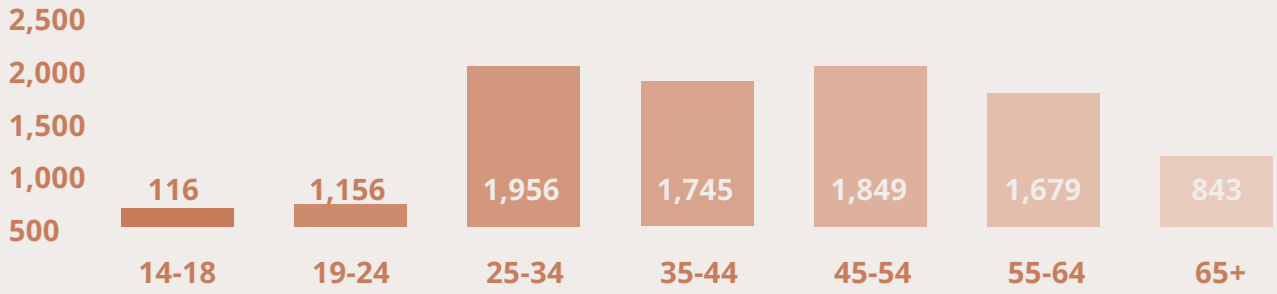
EMERGING FUTURE CAREERS

High-quality early learning environments are crucial for developing children's cognitive and social-emotional skills. These skills are foundational to long-term educational and career success.

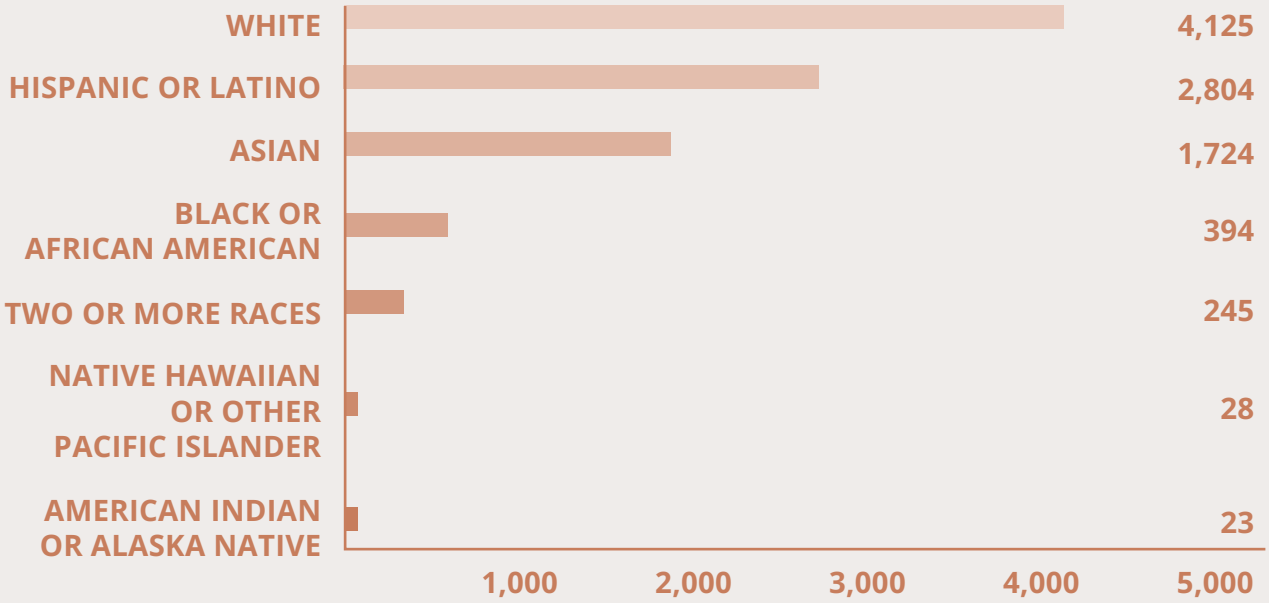
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

Orange County's Education, Child Development, and Family Services pathway represents a strategic response to these workforce challenges. It includes teacher preparation courses, early childhood education, child development, and social services programs. Students gain hands-on experience through classroom observations, tutoring, and in some cases, paid work in childcare centers and after-school programs. Many students complete coursework that prepares them for community college and university programs.

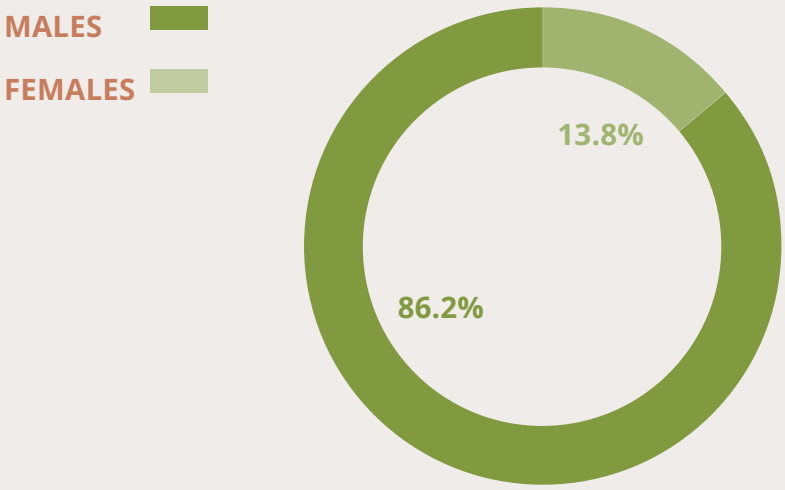
ORANGE COUNTY CHILDCARE INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 43.2 YEARS



ORANGE COUNTY CHILDCARE INDUSTRY BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY CHILDCARE INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Childcare Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 1,891
2035: 1,843
CAGR: -0.2%

Wages*

2025: $26,539
2035: $36,979

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Anaheim
4. Costa Mesa
5. San Clemente

Top Employer by Job Postings – Last 12 Months

1. YMCA
2. Bright Horizons
3. Good Samaritan
4. Behavioral Health Works
5. Childtime Learning Centers

*Includes part-time workers

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Childcare Workers (1,008; $34,549)
2. Home Health and Personal Care Aides (72; $33,467)
3. Social and Human Service Assistants (29; $47,466)
4. Office Clerks, General (28; $37,710)
5. Secretaries and Administrative Assistants (18; $51,439)

Top 5 Jobs in 2035

1. Childcare Workers (856; $48,140)
2. Home Health and Personal Care Aides (73; $46,633)
3. Social and Human Service Assistants (32; $66,138)
4. Office Clerks, General (22; $52,546)
5. Secretaries and Administrative Assistants (17; $71,674)

Top Jobs Emerging Over Next Decade

1. Social and Human Service Assistant (+15)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Preschool Education
2. Working With Children
3. Psychology
4. Child Development
5. Early Childhood Education

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Education, Child Development, and Family Services
2. OCDE – Education, Child Development, and Family Services CTE – Child Development Pathway
3. Villa Park High School – Child Development Pathway

Career Progression

Most Frequent Prior Jobs

1. Retail Salespersons
2. Waiters and Waitresses
3. Fast Food Workers

Most Frequent Next Job

1. Teaching Assistants
2. Preschool Teachers
3. Special Education Teachers

Childcare Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 2,783
2035: 2,711
CAGR: -0.2%

Wages

2025: $33,455
2035: $46,617

Top Cities by Job Postings – Last 12 Months

1. Huntington Beach
2. Irvine
3. Stanton
4. Tustin
5. La Habra

Top Employer by Job Postings – Last 12 Months

1. Good Samaritan
2. YMCA
3. Bright Horizons
4. Learning Experience
5. Olive Crest

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Preschool Teachers (661; $43,098)
2. Teaching Assistants (257; $45,094)
3. Bookkeeping Clerks (17, $56,680)
4. Computer Network Support Specialists (4; $74,090)
5. Computer User Support Specialists (4; $70,949)

Top 5 Jobs in 2035

1. Preschool Teachers (694; $60,052)
2. Teaching Assistants (252; $62,834)
3. Bookkeeping Clerks (16, $78,978)
4. Computer Network Support Specialists (4; $103,236)
5. Computer User Support Specialists (4; $98,860)

Top Jobs Emerging Over Next Decade

1. Preschool Teachers (+33)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Child Development
2. Preschool Education
3. Nursing
4. Treatment Planning
5. Early Childhood Ed.

Advancing Through Educational Opportunities – Key Educational Institutions

1. Fullerton College – Child Development and Educational Studies
2. Saddleback College – School of Humanities and Social Sciences; Family and Consumer Sciences
3. Santa Ana College – Child Development and Educational Studies

Career Progression

Most Frequent Prior Jobs

1. Teaching Assistants
2. Special Education Teachers
3. Childcare Workers

Most Frequent Next Job

1. Child, Family, and School Social Workers
2. Secondary School Teachers
3. Elementary School Teachers

Childcare Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 2,418
2035: 2,356
CAGR: -0.2%

Wages

2025: $52,976
2035: $73,816

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Stanton
4. Anaheim
5. Tustin

Top Employer by Job Postings – Last 12 Months

1. KinderCare Education
2. Good Samaritan
3. YMCA
4. Behavioral Health Works
5. Young Scholars

CAREER OPPORTUNITIES

Top 5 Jobs

1. Education and Childcare Administrators (124; $58,906)
2. Child, Family, and School Social Workers (115; $72,946)
3. Social and Community Managers (48; $73,486)
4. Behavioral Disorder, Mental Health Counselors (32; $57,283)
5. Substitute Teachers, Short-Term (27; $55,994)

Top 5 Jobs in 2035

1. Education and Childcare Administrators (43; $82,079)
2. Child, Family, and School Social Workers (119; $101,642)
3. Social and Community Managers (51; $102,396)
4. Behavioral Disorder, Mental Health Counselors (39; $79,818)
5. Substitute Teachers, Short-Term (26; $78,021)

Top Jobs Emerging Over Next Decade

1. Behavioral Disorder, Mental Health Counselors (+32)
2. Child, Family, and School Social Workers (+10)
3. Social and Community Managers (+7)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Child Development
2. Psychology
3. Working With Children
4. Preschool Education
5. Social Work

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – School of Social Ecology – Child Development and Psychology
2. CSUF – Child and Adolescent Studies
3. Chapman University – Attallah College of Educational Studies

Career Progression

Most Frequent Prior Jobs

1. Substance Abuse Counselors
2. Special Education Teachers
3. Healthcare Social Workers

Most Frequent Next Job

1. Medical and Health Services Managers
2. Training and Development Specialists
3. Registered Nurses

Clean Economy

INDUSTRY OVERVIEW

Orange County is a vital hub for innovation, design, and deployment within California's Clean Economy. While not a primary producer of utility-scale wind or solar energy, the county excels as a corporate and engineering nerve center, particularly in the Zero-Emission Vehicle (ZEV), battery storage, and smart grid sectors. It can leverage its affluent consumer base, highly skilled tech workforce, and concentration of automotive headquarters to help meet California's 2045 climate goals.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County is home to the North American headquarters for major EV brands like Hyundai, Kia, and Genesis, along with significant design and operational centers for Rivian and Lucid Motors. Orange County-based innovators in the $125 billion global battery market include Enevate, who are developing next-generation silicon-dominant battery technology for rapid charging, and Swell Energy, a leader in deploying residential and commercial energy storage systems crucial for grid stability. The clean economy has a powerful employment multiplier of 5.0, meaning every job created in the sector supports five additional jobs in the broader regional economy. This creates a powerful engine for Orange County.

CURRENT HIGH-DEMAND ROLES

The sector provides well-paying careers in engineering, software design, project management, finance, sales, and advanced manufacturing, many of which come with better benefits than the private sector average.

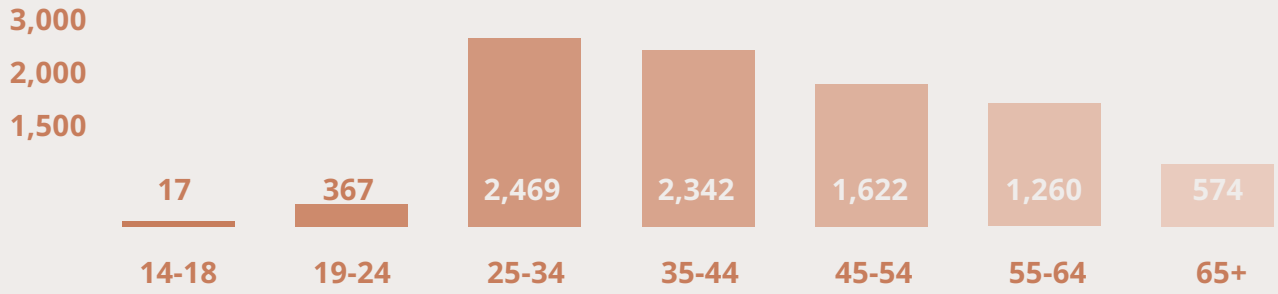
EMERGING FUTURE CAREERS

Orange County is home to premier research institutions that are solving key clean energy challenges. For instance, UC Irvine's Advanced Power and Energy Program (APEP) is a national leader in sustainable energy systems, while its National Fuel Cell Research Center is at the forefront of hydrogen and electrochemical technologies.

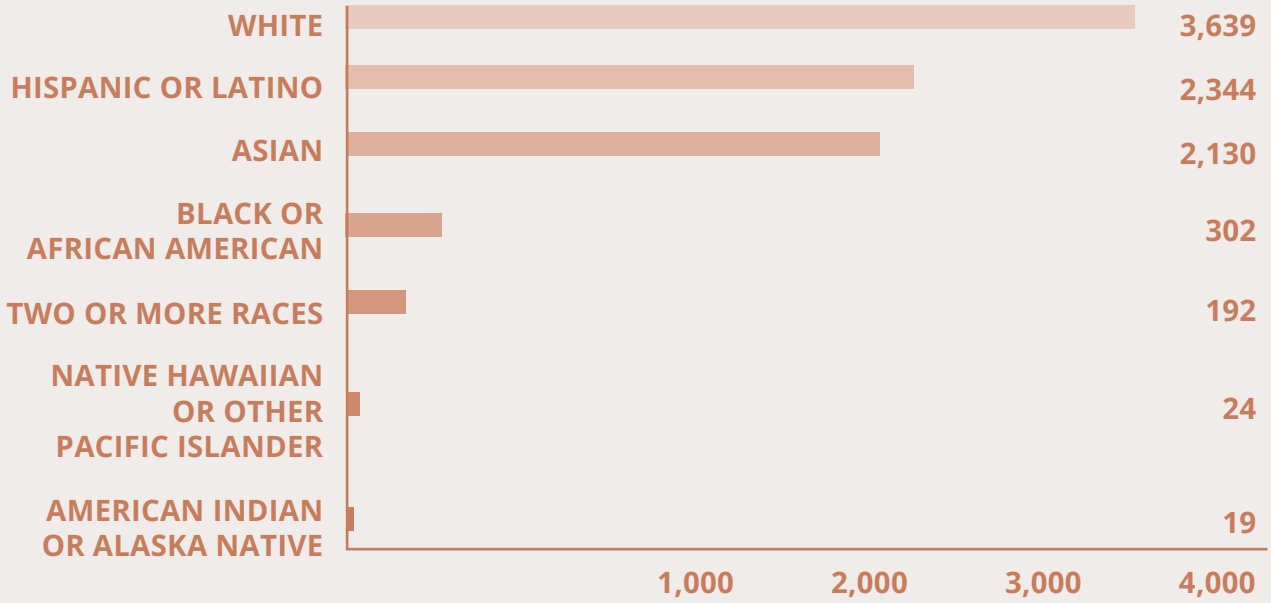
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

OC Pathways is working to expand Energy, Environment, and Utilities pathways through partnerships with utility companies, renewable energy firms, and environmental consulting companies. The region's registered apprenticeship infrastructure provides a vehicle for creating earn-and-learn pathways in solar installation, energy efficiency, and environmental technology: fields where immediate workforce demand exceeds supply.

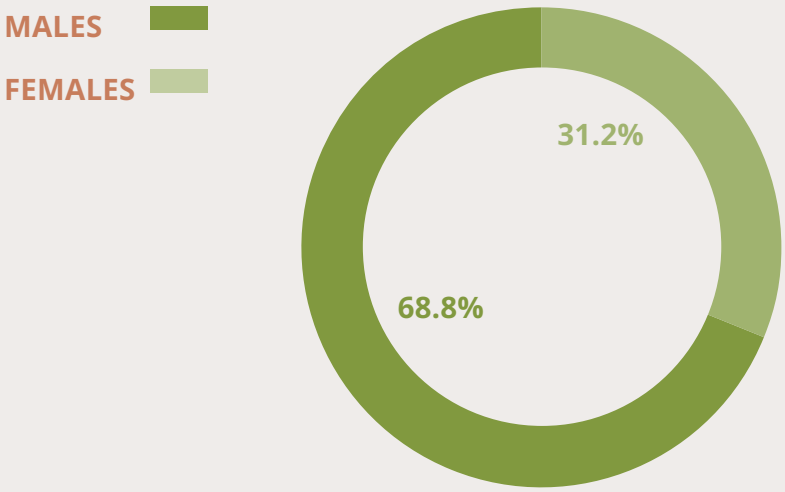
ORANGE COUNTY CLEAN ECONOMY INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 42.7 YEARS



ORANGE COUNTY CLEAN ECONOMY INDUSTRY BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY CLEAN ECONOMY INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Clean Economy Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 1,097
2035: 1,249
CAGR: 1.2%

Wages

2025: $83,937
2035: $97,030

Top Cities by Job Postings – Last 12 Months

1. Costa Mesa
2. Anaheim
3. Irvine
4. Santa Ana
5. Westminster

Top Employer by Job Postings – Last 12 Months

1. Honda
2. Toyota Motor
3. Rivian
4. Freedom Forever
5. Stellantis

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Miscellaneous Assemblers and Fabricators (368; $45,153)
2. Solar Photovoltaic Installers (37; $61,339)
3. Electrical and Electromechanical Assemblers (34; $76,087)
4. Electricians (26; $76,522)
5. Industrial Machinery Mechanics (24; $74,379)

Top 5 Jobs in 2035

1. Miscellaneous Assemblers and Fabricators (634; $52,197)
2. Solar Photovoltaic Installers (161; $70,905)
3. Electricians (78; $88,458)
4. Electrical and Electromechanical Assemblers (64; $88,977)
5. Industrial Machinery Mechanics (47; $85,982)

Top Jobs Emerging Over Next Decade

1. Miscellaneous Assemblers and Fabricators (+266)
2. Solar Photovoltaic Installers (+124)
3. Electricians (+52)
4. Electrical and Electromechanical Assemblers (+30)
5. Industrial Machinery Mechanics (+23)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Voltage
2. Surface-Mount Technology
3. Distribution Board
4. Lighting Systems
5. Electrical Networks

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Engineering and Architecture CTE
2. OCDE – Energy, Environment, and Utilities – Energy and Power Technology

Career Progression

Most Frequent Prior Jobs

1. Production Workers, All Other
2. Retail Salespersons
3. Laborers and Freight, Stock

Most Frequent Next Job

1. Project Management Specialists
2. Maintenance and Repair Workers
3. First-line Supervisors of Construction Trades and Extraction

Clean Economy Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

1. 2025: 1,435
2. 2035: 1,685
3. CAGR: 1.5%

Wages

2025: $99,102
2035: $114,561

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Costa Mesa
3. Santa Ana
4. Anaheim
5. Cypress

Top Employer by Job Postings – Last 12 Months

1. Toyota Motor
2. Air Liquide
3. Honda
4. Rivian
5. Mitsubishi

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Heavy and Tractor-Trailer Truck Drivers (76; $59,826)
2. Computer User Support Specialists (11; $70,948)
3. Engineering Technologists, All Other (9; $73,849)
4. Automotive Service Technicians (5; $61,950)
5. Mechanical Engineering Technologists (5; $138,447)

Top 5 Jobs in 2035

1. Heavy and Tractor-Trailer Truck Drivers (73; $69,158)
2. Engineering Technologists, All Other (15; $85,369)
3. Computer User Support Specialists (14; $82,015)
4. Mechanical Engineering Technologists (9; $138,447)
5. Automotive Service Technicians (8; $71,613)

Top Jobs Emerging Over Next Decade

1. Engineering Technologists, All Other (+6)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Lubrication
2. Hardware Troubleshooting
3. CompTIA Network+
4. TCP/IP
5. Automotive Tech

Advancing Through Educational Opportunities – Key Educational Institutions

1. Fullerton College – Environmental Sciences
2. Orange Coast College – Environmental Science and Ecology
3. Santiago Canyon College – Waste and Wastewater Technology

Career Progression

Most Frequent Prior Jobs

1. Customer Service Representatives
2. Precision Instrument and Equipment Repairers
3. Sales Representatives

Most Frequent Next Job

1. General and Operations Managers
2. Training and Development Specialists
3. First-Line Supervisors of Mechanics

Clean Economy Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 1,823
2035: 2,183
CAGR: 1.7%

Wages

2025: $176,120
2035: $203,592

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Anaheim
4. Tustin
5. Cypress

Top Employer by Job Postings – Last 12 Months

1. Rivian
2. Honda
3. Ford
4. Mitsubishi
5. Toyota Motor

CAREER OPPORTUNITIES

Top 5 Jobs

1. Management Analysts (218; $103,366)
2. Market Research Analysts and Marketing Specialists (90; $77,411)
3. Software Developers (70; $154,190)
4. Project Management Specialists (67; $104,684)
5. General and Operations Managers (65; $126,198)

Top 5 Jobs in 2035

1. Management Analysts (240; $119,489)
2. Project Management Specialists (112; $121,013)
3. Market Research Analysts and Marketing Specialists (107; $89,486)
4. Software Developers (106; $178,235)
5. General and Operations Managers (93; $145,883)

Top Jobs Emerging Over Next Decade

1. Project Management Specialists (+45)
2. Software Developers (+36)
3. General and Operations Managers (+28)
4. Management Analysts (+23)
5. Market Research Analysts and Marketing Specialists (+17)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Finance
2. Corporate Governance
3. Cloud Services
4. Networking Hardware
5. Data Privacy

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – Samueli School of Engineering – Environmental Engineering
2. CSUF – College of Humanities and Social Sciences – Environmental Studies
3. Chapman University – Schmid College of Science and Technology – Environmental Science and Policy

Career Progression

Most Frequent Prior Jobs

1. Sales Managers
2. Computer Occupations, All Other
3. Financial and Investment Analyst

Most Frequent Next Job

1. Chief Executives
2. Marketing Managers
3. Sales Managers

Creative Economy

INDUSTRY OVERVIEW

Orange County possesses a dynamic and globally influential Creative Economy distinct from that of neighboring Los Angeles. While the region benefits from its proximity to Hollywood, it has cultivated its own world-leading strengths in interactive entertainment (video games), action sports apparel and media, and world-class performing arts. This ecosystem is an engine for high-wage job creation, cultural enrichment, and innovation.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County is an epicenter of the global video game industry: home to iconic studios such as Blizzard Entertainment (World of Warcraft, Overwatch) and Obsidian Entertainment (The Outer Worlds). The county is also a hub for action sports lifestyle, with notable surf and skate brands such as Vans, Hurley, and Volcom. This industry extends far beyond apparel to include brand design, international marketing, and high-quality media and film production. In terms of performing arts, the Segerstrom Center for the Arts hosts blockbuster Broadway tours, the South Coast Repertory is a Tony Award-winning theater, and Pageant of the Masters is a festival of living paintings come to life.

CURRENT HIGH-DEMAND ROLES

The sector supports a wide array of professions, from game designers, animators, and software engineers to graphic designers, brand managers, and the many skilled artists, actors, and technicians who power the performing arts.

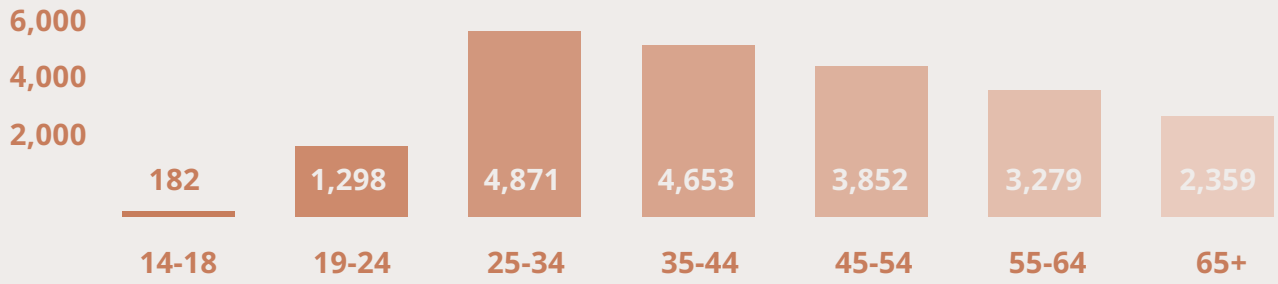
EMERGING FUTURE CAREERS

Orange County employers in design, digital media, and content creation report ongoing demand for skilled workers with both technical proficiency and creative problem-solving abilities. Many completers pursue postsecondary education in film, design, and digital arts at Chapman University; California State University, Fullerton; and community college digital media programs, while others enter the workforce directly through production assistant roles, graphic design positions, or freelance creative work.

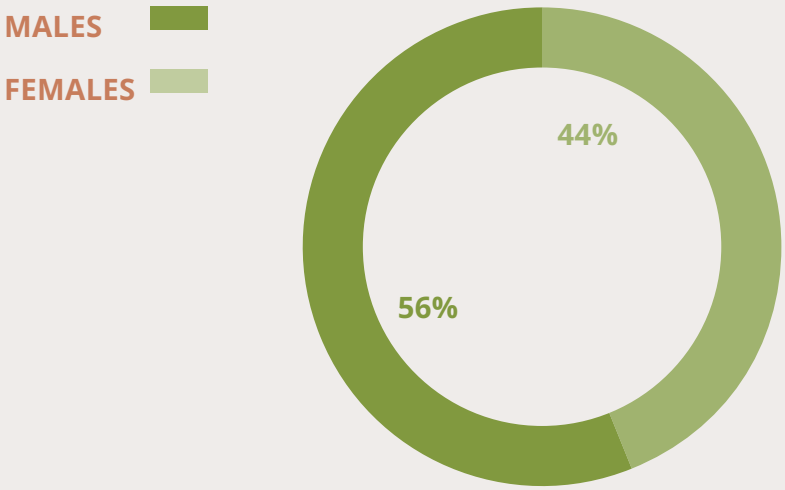
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

The Arts, Media, and Entertainment pathway reflects the exploratory nature of many arts courses, where students sample creative disciplines as part of general education or personal interest without necessarily pursuing them as career pathways. This is appropriate and valuable: Arts education develops creativity, problem-solving, and communication skills that transfer to any career while also allowing students to discover authentic career interests.

ORANGE COUNTY CREATIVE ECONOMY INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 44.4 YEARS



ORANGE COUNTY CREATIVE ECONOMY INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Creative Economy Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 2,458
2035: 2,620
CAGR: 0.6%

Wages

2025: $52,174
2035: $63,345

Top Cities by Job Postings – Last 12 Months

1. Anaheim
2. Irvine
3. Santa Ana
4. Huntington Beach
5. Buena Park

Top Employer by Job Postings – Last 12 Months

1. Disney
2. Apartments.com
3. Cherry Agency
4. BEPC

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Photographers (26; $57,822)
2. Advertising Sales Agents (22; $57,345)
3. Production, Planning, and Expediting Clerks (19; $61,130)
4. Self-Enrichment Teachers (15; $45,825)
5. Lighting Technicians (10; $73,960)

Top 5 Jobs in 2035

1. Photographers (32; $70,200)
2. Advertising Sales Agents (18; $69,620)
3. Self-Enrichment Teachers (16; $55,634)
4. Production, Planning, and Expediting Clerks (13; $74,215)
5. Lighting Technicians (11; $89,792)

Top Jobs Emerging Over Next Decade

1. Photographers (+7)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Culinary Education
3. Auditing
4. Production Process
5. Restaurant Operation

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Arts, Media and Entertainment
2. OCDE – Arts, Media and Entertainment CTE – Design, Visual and Media Arts, Performing Arts, Game Design and Integration
3. Orange County School of the Arts

Career Progression

Most Frequent Prior Jobs

1. Retail Salesperson
2. Camera Operators
3. Graphic Designers

Most Frequent Next Job

1. Marketing Managers
2. Editors
3. Interior Designers

Creative Economy Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 5,117
2035: 5,454
CAGR: 0.6%

Wages

2025: $65,772
2035: $79,853

Top Cities by Job Postings – Last 12 Months

1. Anaheim
2. Irvine
3. Newport Beach
4. Cypress
5. Fullerton

Top Employer by Job Postings – Last 12 Months

1. Disney
2. Pure Salt Interiors
3. Lionakis
4. CSA Group

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Architectural and Civil Drafters (249; $75,496)
2. Actors (62; $64,103)
3. Sound Engineering Technicians (51; $69,549)
4. Audio and Visual Technicians (50, $56,960)
5. Broadcast Technicians (14; $67,285)

Top 5 Jobs in 2035

1. Architectural and Civil Drafters (247; $91,657)
2. Actors (72; $77,825)
3. Sound Engineering Technicians (62; $84,436)
4. Audio and Visual Technicians (58, $69,153)
5. Broadcast Technicians (21; $81,688)

Top Jobs Emerging Over Next Decade

1. Actors (+11)
2. Sound Engineering Technicians (+11)
3. Audio and Visual Technicians (+7)
4. Broadcast Technicians (+7)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Communication
2. Detail Oriented
3. Operations
4. Leadership
5. Organizational Skills

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange Coast College – Media Arts and Creative Entertainment
2. Fullerton College – Associate in Arts
3. Saddleback College – Schools of Arts, Media, Performance, and Design

Career Progression

Most Frequent Prior Jobs

1. Architects, Except Landscape and Naval
2. Secretaries and Administrative Assistants
3. Project Management Specialists

Most Frequent Next Job

1. Producers and Directors
2. Interior Designers
3. Writers and Authors

Creative Economy Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 8,781
2035: 9,360
CAGR: 0.6%

Wages

2025: $104,147
2035: $126,446

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Anaheim
3. Newport Beach
4. Costa Mesa
5. Santa Ana

Top Employer by Job Postings – Last 12 Months

1. Disney
2. LPA
3. TBWA Chiat/Day
4. Gensler
5. Cherry Agency

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Graphic Designers (923; $69,367)
2. Interior Designers (570; $70,744)
3. Architects, Except Landscape and Naval (507; $101,210)
4. Writers and Authors (481; $60,253)
5. Fine Artists, Including Painters and Sculptors (288; $31,108)

Top 5 Jobs in 2035

1. Graphic Designers (934; $84,216)
2. Interior Designers (705; $85,888)
3. Architects, Except Landscape and Naval (536; $122,876)
4. Writers and Authors (503; $73,151)
5. Fine Artists, Including Painters and Sculptors (362; $37,767)

Top Jobs Emerging Over Next Decade

1. Interior Designers (+135)
2. Fine Artists, Including Painters and Sculptors (+74)
3. Architects, Except Landscape and Naval (+29)
4. Writers and Authors (+22)
5. Graphic Designers (+11)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Autodesk Revit
3. Marketing
4. Construction Management
5. AutoCAD

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – Claire Trevor School of the Arts
2. CSUF – College of the Arts
3. Chapman University – College of Performing Arts

Career Progression

Most Frequent Prior Jobs

1. News Analysts
2. Public Relations Managers
3. Graphic Designers

Most Frequent Next Job

1. Producers and Directors
2. Editors
3. Marketing Manager

Education and Skilled Workforce

INDUSTRY OVERVIEW

Orange County's education sector is a nationally acclaimed "cradle-to-career" ecosystem that provides a talent pipeline for its thriving innovation economy. From its consistently top-ranked K–12 districts and robust community college system to its world-class universities, Orange County has a strong educational foundation for every other industry.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County is served by 27 public school districts, many of which are recognized statewide and nationally for academic excellence, high graduation rates, and innovative College and Career Readiness programs. The Orange County Department of Education (OCDE) provides support and leadership to ensure a high-quality educational foundation for all students. Its post-secondary education includes UC Irvine, a premier research institution and member of the prestigious Association of American Universities (AAU); California State University, Fullerton, one of the largest and most diverse universities in the CSU system and a primary engine of the regional workforce; and Chapman University, a top-ranked private institution. The county's nine community colleges provide workforce development and social mobility via career education in high-demand fields, affordable associate degrees, and the leading transfer pathway to the UC and CSU systems.

CURRENT HIGH-DEMAND ROLES

Education is one of Orange County's largest and most stable employment sectors, supporting tens of thousands of jobs for teachers, professors, researchers, administrators, and support staff.

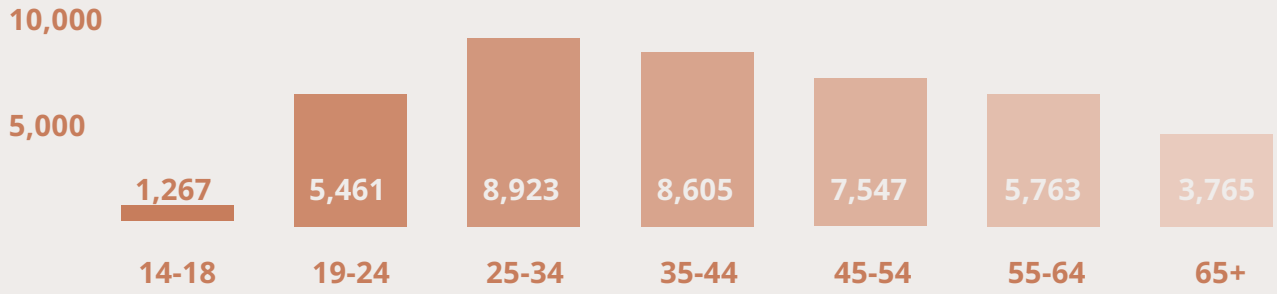
EMERGING FUTURE CAREERS

As California invests in universal transitional kindergarten and expanded preschool access, demand for early childhood educators will continue to grow, making this pathway increasingly critical for regional economic development and family support services.

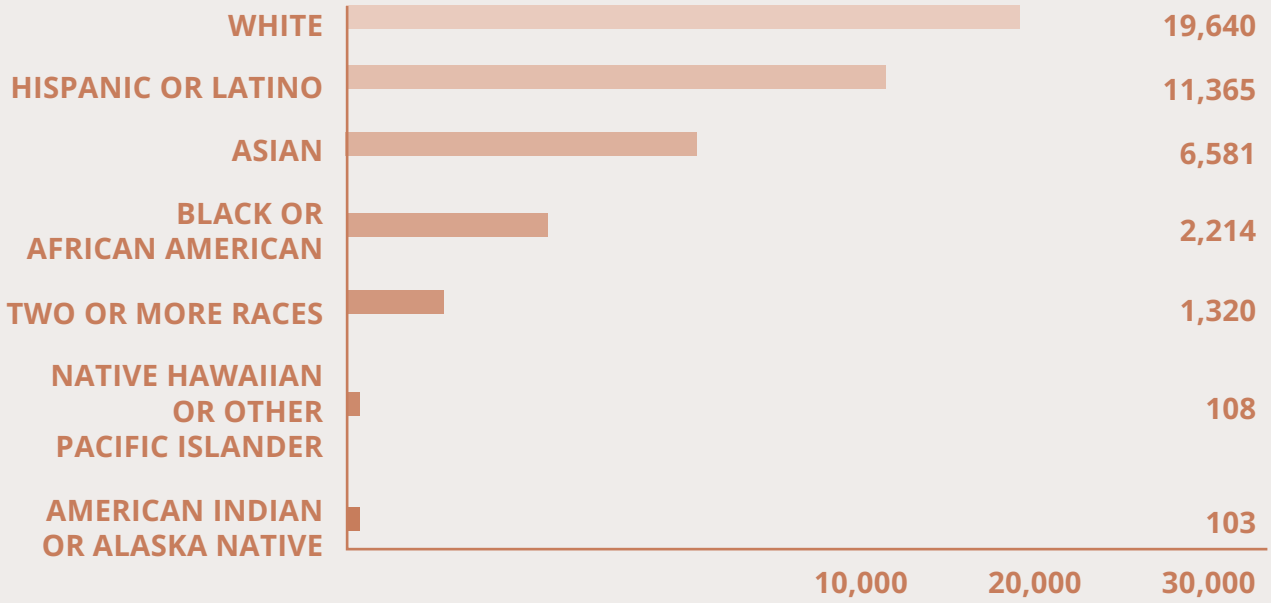
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

This pathway includes teacher preparation courses, early childhood education, child development, and social services programs. Students gain hands-on experience through classroom observations, tutoring, and, in some cases, paid work in childcare centers and after-school programs. Many students complete coursework that prepares them for community college ECE programs or transfer to universities with teacher preparation programs.

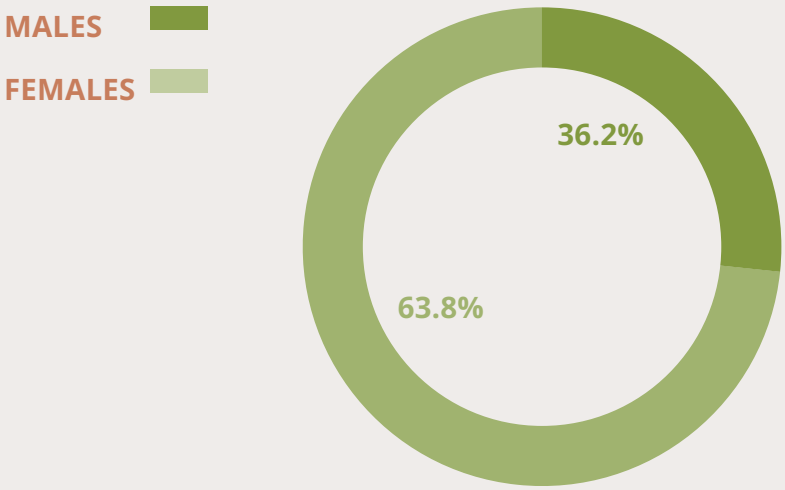
ORANGE COUNTY EDUCATION AND SKILLED WORKFORCE INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 41.7 YEARS



ORANGE COUNTY EDUCATION AND SKILLED WORKFORCE INDUSTRY BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY EDUCATION AND SKILLED WORKFORCE INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Education and Skilled Workforce Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 4,901
2035: 5,438
CAGR: 1.0%

Wages

2025: $32,344
2035: $44,158

Top Cities by Job Postings – Last 12 Months

1. Orange
2. Santa Ana
3. Anaheim
4. Irvine
5. Cypress

Top Employer by Job Postings – Last 12 Months

1. Santa Ana Unified School District
2. University of California
3. UC Irvine
4. North Orange County Community College District
5. Irvine Unified School District

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Self-Enrichment Teachers (727; $45,825)
2. Office Clerks, General (283; $47,100)
3. Secretaries and Administrative Assistants (181; $51,428)
4. Childcare Workers (147; $34,552)
5. Exercise Trainers and Instructors (69; $54,482)

Top 5 Jobs in 2035

1. Self-Enrichment Teachers (834; $62,564)
2. Office Clerks, General (279; $64,305)
3. Exercise Trainers and Instructors (222; $74,383)
4. Secretaries and Administrative Assistants (218; $70,215)
5. Childcare Workers (155; $47,173)

Top Jobs Emerging Over Next Decade

1. Exercise Trainers and Instructors (+153)
2. Self-Enrichment Teachers (+107)
3. Secretaries and Administrative Assistants (+37)
4. Childcare Workers (+8)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Office Equipment
2. Punctuation and Capitalization
3. Working With Children
4. Special Education

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Education, Child Development, and Family Services
2. OCDE – Education, Child Development, and Family Services CTE
3. North Orange County Community College District – Teaching Preparation Program

Career Progression

Most Frequent Prior Jobs

1. Coaches and Scouts
2. Retail Salespersons
3. Teaching Assistants

Most Frequent Next Job

1. Secondary School Teachers
2. Coaches and Scouts
3. Postsecondary Teachers

Education and Skilled Workforce Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 9,398
2035: 10,428
CAGR: 1.0%

Wages

2025: $40,773
2035: $55,667

Top Cities by Job Postings – Last 12 Months

1. Fountain Valley
2. Orange
3. Anaheim
4. Costa Mesa
5. Irvine

Top Employer by Job Postings – Last 12 Months

1. Coast Community College District
2. North Orange County Community College District
3. South Orange County Community College District
4. UC Irvine
5. University of California

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Teaching Assistants, Postsecondary (528; $38,132)
2. Preschool Teachers, Except Special Education (134; $43,095)
3. Computer User Support Specialists (53, $70,948)
4. Computer Network Support Specialists (8; $74,085)
5. Human Resources Assistant (7; $78,219)

Top 5 Jobs in 2035

1. Teaching Assistants, Postsecondary (534; $52,060)
2. Preschool Teachers, Except Special Education (139; $58,837)
3. Computer User Support Specialists (52; $96,864)
4. Computer Network Support Specialists (7; $101,147)
5. Human Resources Assistant (6; $106,792)

Top Jobs Emerging Over Next Decade

1. Teaching Assistants, Postsecondary (+6)
2. Preschool Teachers, Except Special Education (+5)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Student Services
2. Administrative Support
3. Socioeconomics
4. Higher Education
5. Demonstration Skills

Advancing Through Educational Opportunities – Key Educational Institutions

1. Fullerton College – Child Development and Educational Studies
2. Saddleback College – School of Humanities and Social Sciences; Family and Consumer Sciences
3. Santa Ana College – Child Development and Educational Studies

Career Progression

Most Frequent Prior Jobs

1. Secondary School Teachers
2. Tutors
3. Special Education Teachers

Most Frequent Next Job

1. Secondary School Teachers
2. Training and Development Specialists
3. Postsecondary Teachers

Education and Skilled Workforce Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 14,023
2035: 15,560
CAGR: 1.0%

Wages

2025: $64,563
2035: $88,146

Top Cities by Job Postings – Last 12 Months

1. Orange
2. Irvine
3. Fullerton
4. Cypress
5. Costa Mesa

Top Employer by Job Postings – Last 12 Months

1. UC Irvine
2. University of California
3. California State University, Fullerton
4. Coast Community College District
5. North Orange County Community College District

CAREER OPPORTUNITIES

Top 5 Jobs

1. Tutors (1,770; $40,817)
2. Coaches and Scouts (702; $43,965)
3. Elementary School Teachers, Except Special Education (701; $99,204)
4. Secondary School Teachers, Except Special and CTE (480; $96,792)
5. Teachers and Instructors, All Other (413; $95,832)

Top 5 Jobs in 2035

1. Tutors (1,923; $55,727)
2. Coaches and Scouts (859; $60,025)
3. Elementary School Teachers, Except Special Education (678; $135,441)
4. Secondary School Teachers, Except Special and CTE (476; $132,149)
5. Teachers and Instructors, All Other (415; $130,837)

Top Jobs Emerging Over Next Decade

1. Coaches and Scouts (+158)
2. Tutors (+153)
3. Education Administrators, All Other (+16)
4. Educational Instruction and Library Workers (+8)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Student Services
2. Nursing
3. Talent Management
4. Accounting

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – School of Education – Masters of Educational Sciences
2. CSUF – College of Education
3. Chapman University – Attallah College of Educational Studies

Career Progression

Most Frequent Prior Jobs

1. Substitute Teachers
2. Teaching Assistants
3. Athletes and Sports Competitors

Most Frequent Next Job

1. Secondary School Teachers
2. Training and Development Specialists
3. Special Education Teachers

Financial and Professional Services

INDUSTRY OVERVIEW

The Financial & Professional Services sector is a cornerstone of Orange County's high-performing economy. It provides the essential capital, strategic advice, and operational expertise that enable the county's world-leading industries – from MedTech and High-Tech to Manufacturing – to innovate, expand, and thrive.

INDUSTRY GROWTH AND DEMAND DRIVERS

The county's sector is defined by its sophistication and deep integration with the local innovation economy. While it has a strong banking and insurance presence, its biggest strengths are in investment and wealth management, anchored by global giants such as PIMCO in Newport Beach. Orange County is also a major hub for real estate finance and capital, reflecting its dynamic property market.

CURRENT HIGH-DEMAND ROLES

The sector supports tens of thousands of local jobs, with careers in fields such as financial analysis, accounting, law, and management consulting. These careers offer high average wages, comprehensive benefits packages, and significant opportunities for upward mobility and professional growth. Thus, the health of this sector directly supports the overall prosperity of the entire region.

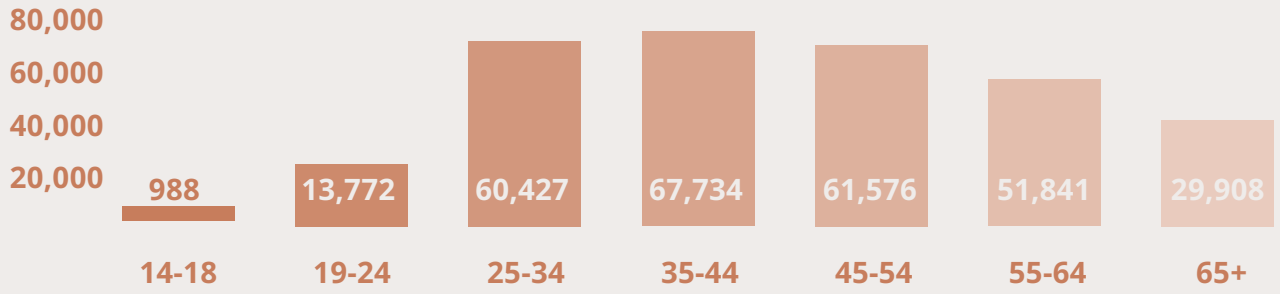
EMERGING FUTURE CAREERS

Many Orange County business pathways emphasize entrepreneurship and small business development, reflecting the region's strong entrepreneurial culture. Students develop business plans, operate school-based enterprises, and participate in competitions like DECA and Future Business Leaders of America, building both confidence and practical business skills.

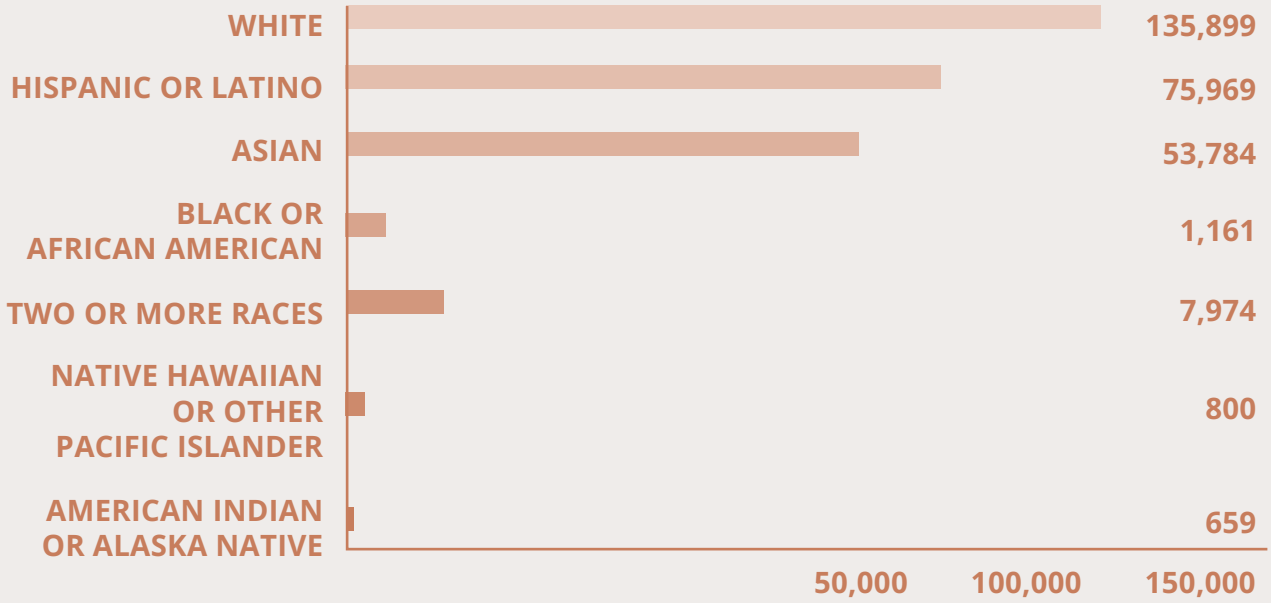
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

Business and Finance pathways provide students with versatile, transferable skills applicable across virtually every industry sector. Orange County's diverse economy, which spans professional services, retail, technology, healthcare administration, and hospitality, creates abundant career opportunities for students with business acumen. The Business and Finance pathway typically includes coursework in accounting principles, business law, economics, marketing, financial literacy, and, increasingly, business analytics and digital commerce. Students develop both technical skills (QuickBooks, Excel, financial modeling) and professional competencies (communication, teamwork, ethical decision-making) with transferable value across multiple sectors.

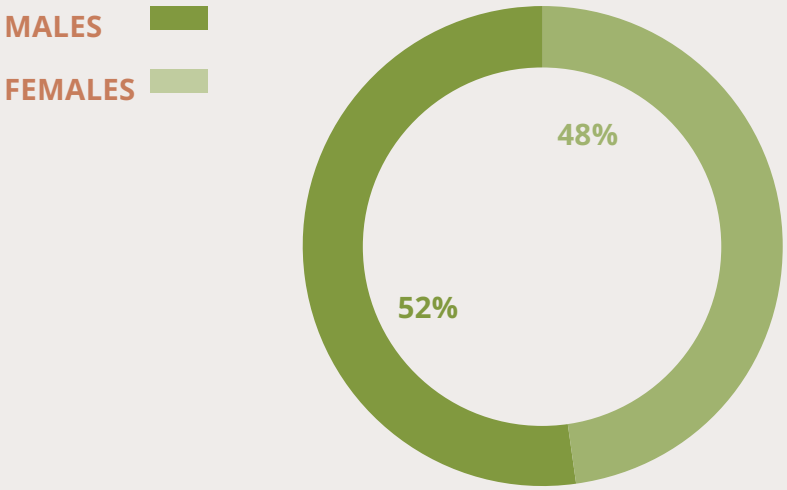
ORANGE COUNTY FINANCE AND PROFESSIONAL SERVICES INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 45.4 YEARS



ORANGE COUNTY FINANCE AND PROFESSIONAL SERVICES INDUSTRY BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY FINANCE AND PROFESSIONAL SERVICES INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Financial and Professional Services Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 39,877
2035: 39,401
CAGR: -0.1%

Wages

2025: $82,236
2035: $109,167

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Costa Mesa
4. Anaheim
5. Orange

Top Employer by Job Posting – Last 12 Months

1. Synchrony
2. Bank of America
3. OneMain Financial
4. JPMorgan Chase

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Office Clerks, General (1,917; $47,100)
2. Property, Real Estate, and Community Association Managers (1,498; $76,381)
3. Customer Service Representatives (1,433; $47,547)
4. Insurance Sales Agent (1,210; $66,578)
5. Real Estate Sales Agents (996; $64,485)

Top 5 Jobs in 2035

1. Office Clerks, General (1,588; $62,526)
2. Property, Real Estate, and Community Association Managers (1,481; $101,397)
3. Insurance Sales Agent (1,203; $88,382)
4. Real Estate Sales Agents (1,002; $85,605)
5. Customer Service Representatives (710; $63,119)

Top Jobs Emerging Over Next Decade

1. Real Estate Sales Agents (+6)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Loans
2. Auditing
3. Marketing
4. Financial Services
5. Office Equipment

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Business and Finance – Business Management Pathway
2. OCDE – Business and Finance CTE – Business Management, Financial Services, International Business
3. Garden Grove Unified School District – Business Management

Career Progression

Most Frequent Prior Jobs

1. Real Estate Brokers
2. Sales Representatives
3. Retail Salespersons

Most Frequent Next Job

1. Market Research Analysts and Marketing Specialists
2. Sales Managers
3. Secretaries and Administrative Assistants

Financial and Professional Services Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 77,379
2035: 76,456
CAGR: -0.1%

Wages

2025: $103,668
2035: $137,618

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Anaheim
3. Santa Ana
4. Costa Mesa
5. Orange

Top Employer by Job Postings – Last 12 Months

1. Bank of America
2. Anduril Industries
3. UnitedHealth Group
4. Optum
5. Alliant Insurance Services

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Bookkeeping and Auditing Clerks (2,854; $56,671)
2. Paralegals and Legal Assistants (1,803; $56,627)
3. Computer User Support Specialists (982; $70,948)
4. Architectural and Civil Drafters (763; $75,496)
5. Computer Network Support Specialists (177; $74,090)

Top 5 Jobs in 2035

1. Bookkeeping and Auditing Clerks (2,731; $75,233)
2. Paralegals and Legal Assistants (1,969; $75,173)
3. Computer User Support Specialists (1,051; $94,185)
4. Architectural and Civil Drafters (764; $100,223)
5. Computer Network Support Specialists (185; $98,355)

Top Jobs Emerging Over Next Decade

1. Paralegals and Legal Assistants (+166)
2. Computer User Support Specialists (+69)
3. Computer Network Support Specialists (+8)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Auditing
2. Accounting
3. Invoicing
4. Loans
5. Project Management

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange Coast College – Business and Computing Division
2. Saddleback College – Business Administration
3. Fullerton College – Business and CIS Division

Career Progression

Most Frequent Prior Jobs

1. Secretaries and Administrative Assistants
2. Retail Salespersons
3. Training and Development Specialist

Most Frequent Next Job

1. Producers and Directors
2. General and Operations Managers
3. Market Research Analysts

Financial and Professional Services Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 102,756
2035: 101,529
CAGR: -0.1%

Wages

2025: $164,155
2035: $217,914

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Costa Mesa
3. Newport Beach
4. Santa Ana
5. Orange

Top Employer by Job Postings – Last 12 Months

1. Anduril Industries
2. Pacific Life
3. Deloitte
4. First American Financial
5. Synchrony

CAREER OPPORTUNITIES

Top 5 Jobs

1. Accountants and Auditors (6,490; $91,818)
2. Management Analysts (4,618; $103,366)
3. Software Developers (4,435; $154,184)
4. Securities Services Sales Agents (3,642; $74,527)
5. General and Operations Managers (2,303; $126,198)

Top 5 Jobs in 2035

1. Accountants and Auditors (6,732; $121,890)
2. Management Analysts (4,846; $137,219)
3. Software Developers (4,786; $204,682)
4. General and Operations Managers (1,854; $167,529)
5. Securities Services Sales Agents (2,868; $98,936)

Top Jobs Emerging Over Next Decade

1. Software Developers (+351)
2. Accountants and Auditors (+242)
3. Management Analysts (+227)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Marketing
3. Finance
4. Accounting
5. Auditing

Advancing Through Educational Opportunities – Key Educational Institutions

1. UC Irvine – Paul Merage School of Business
2. California State University, Fullerton – College of Business and Economics
3. Chapman University – Argyros College of Business and Economics

Career Progression

Most Frequent Prior Jobs

1. Computer Occupations, All Other
2. Web Developers
3. Financial and Investment Analysts

Most Frequent Next Job

1. General and Operations Managers
2. Financial Managers
3. Chief Executives

Healthcare

INDUSTRY OVERVIEW

Orange County's healthcare sector is a nationally recognized hub for clinical excellence, medical innovation, and patient-centered care. A sophisticated, integrated ecosystem that combines world-class hospital systems with the county's only academic medical center, it drives advancements in treatment and research. This sector is one of the region's largest employers and also serves as the critical proving ground for Orange County's globally renowned MedTech industry, creating a powerful, self-reinforcing cycle of life-saving innovation and economic growth.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County's Healthcare sector has seen significant expansion in recent years due to world-class organizations, growing industry clusters, and a continually aging population that requires increased products and services. Its established and emerging industry clusters include Medical Devices and Life Sciences, which act as significant regional economic drivers while also providing residents with high-paying, innovative occupations.

CURRENT HIGH-DEMAND ROLES

Healthcare occupations span the entire career ladder, from surgeons and researchers to nurses, medical assistants, lab technicians, and administrative staff. Current in-demand occupations across the region reflect accelerating demand for healthcare services both in and out of healthcare settings. Home Health and Personal Care Aides and Registered Nurses are the largest occupations and have the highest job postings over the past year.

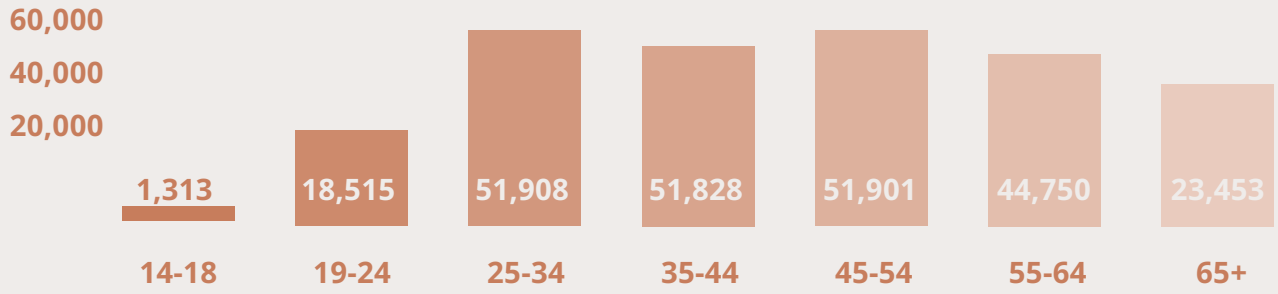
EMERGING FUTURE CAREERS

With Orange County's aging population becoming a larger and larger proportion of the regional population requiring more and more services, Home Health and Personal Care Aides are likely to be the most rapidly growing occupation in this sector. Technological innovation makes occupations such as Health Information Technologists and Medical Registrars and Health Informatics Specialists increasingly important as more processes move into the digital realm.

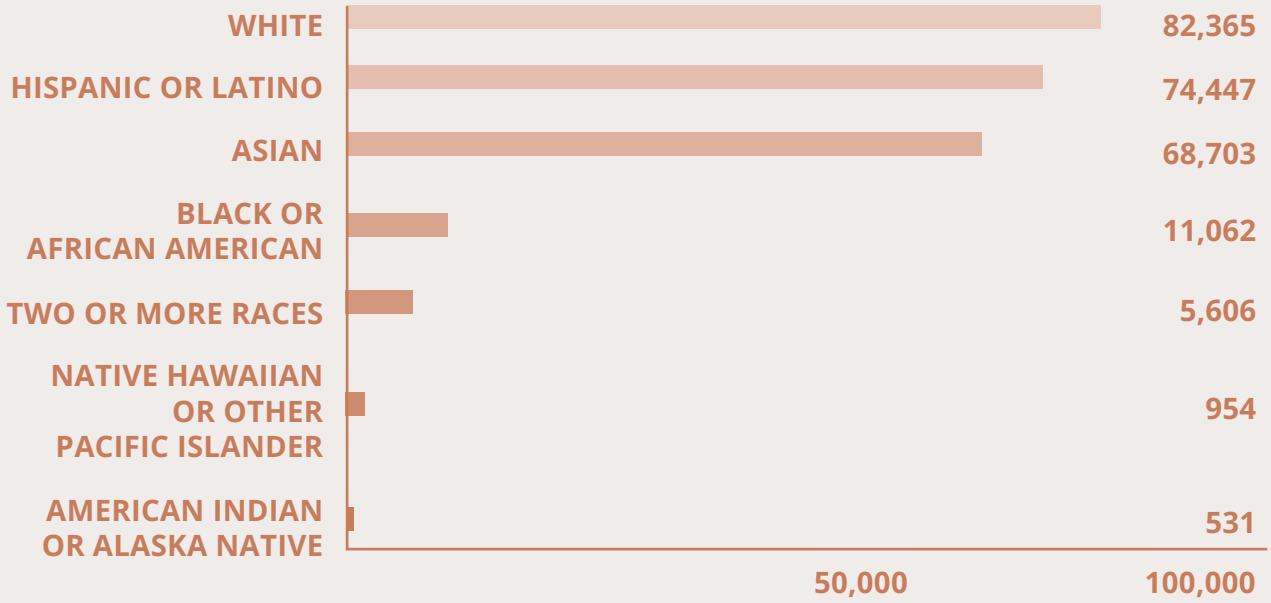
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

The region cultivates its own talent through a strong educational pipeline. 10,313 students, or 11 percent of total Orange County Career Technical Education (CTE) students, are currently enrolled in Health Science and Medical Technology. UC Irvine's School of Medicine and the Sue & Bill Gross School of Nursing, along with numerous other university and community college programs, train thousands of future healthcare professionals, ensuring a skilled and compassionate workforce for years to come.

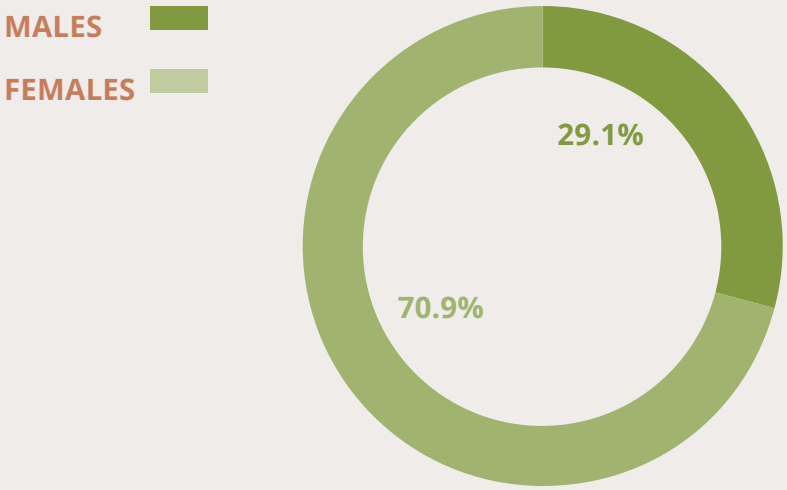
ORANGE COUNTY HEALTHCARE INDUSTRY
BREAKDOWN BY AGE GROUP / MEDIAN AGE: 44.6 YEARS



ORANGE COUNTY HEALTHCARE INDUSTRY
BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY HEALTHCARE INDUSTRY
BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Healthcare Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 48,916
2035: 58,998
CAGR: 1.7%

Wages

2025: $44,775
2035: $54,353

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Orange
3. Anaheim
4. Santa Ana
5. Newport Beach

Top Employer by Job Postings – Last 12 Months

1. Hoag Health System
2. Redwood Family Care Network
3. CHOC
4. Oakmont Management Group
5. Kaiser Permanente

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Home Health and Personal Care Aides (20,363; $33,469)
2. Medical Secretaries and Administrative Assistants (2,568; $51,751)
3. Healthcare Support Workers (205; $55,856)
4. Pharmacy Technicians (159; $48,003)
5. Opticians (138; $57,845)

Top 5 Jobs in 2035

1. Home Health and Personal Care Aides (27,431; $40,627)
2. Medical Secretaries and Administrative Assistants (2,818; $62,822)
3. Healthcare Support Workers (227; $67,796)
4. Pharmacy Technicians (178; $58,275)
5. Opticians (162; $70,220)

Top Jobs Emerging Over Next Decade

1. Home Health and Personal Care Aides (+7,069)
2. Medical Secretaries and Administrative Assistants (+250)
3. Opticians, Dispensing (+25)
4. Healthcare Support Workers, All Other (+22)
5. Pharmacy Technicians (+19)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Medical Terminology
2. Medical Records
3. Nursing
4. Electronic Medical Record
5. Medical Assistance

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange Unified School District – Health Science & Medical Technology – Patient Care
2. Orange Unified School District – Health Science & Medical Technology – Sports Medicine
3. North Orange County ROP Vocational Nurse Training Program

Career Progression

Most Frequent Prior Jobs

1. Nursing Assistants
2. Health Technologists and Technicians
3. Medical Assistants

Most Frequent Next Job

1. Registered Nurses
2. Medical and Health Services Managers
3. Health Technologists and Technicians

Healthcare Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 82,429
2035: 99,418
CAGR: 1.7%

Wages

2025: $56,444
2035: $68,518

Top Cities by Job Postings – Last 12 Months

1. Orange
2. Santa Ana
3. Irvine
4. Anaheim
5. Newport Beach

Top Employer by Job Postings – Last 12 Months

1. ScionHealth
2. Hoag Health System
3. Providence
4. CHOC
5. KPC Health

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Medical Assistants (5,557; $46,765)
2. Licensed Practical and Vocational Nurses (4,462; $80,309)
3. Nursing Assistants (3,249; $48,172)
4. Dental Assistants (3,455; $48,540)
5. Dental Hygienists (1,520; $110,325)

Top 5 Jobs in 2035

1. Medical Assistants (6,704; $56,761)
2. Licensed Practical and Vocational Nurses (4,940; $97,489)
3. Nursing Assistants (3,739; $58,479)
4. Dental Assistants (3,982; $58,933)
5. Dental Hygienists (1,787; $133,924)

Top Jobs Emerging Over Next Decade

1. Medical Assistant (+1,148)
2. Dental Assistants (+527)
3. Nursing Assistants (+490)
4. Licensed Practical and Vocational Nurses (+477)
5. Dental Hygienist (+268)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Nursing
2. Nursing Care
3. Medical Records
4. Nursing Process
5. Discharge Planning

Advancing Through Educational Opportunities – Key Educational Institutions

1. Santa Ana College – Health Sciences
2. Saddleback College – School of Health and Wellness Programs and Degrees
3. Cypress College – Health Science

Career Progression

Most Frequent Prior Jobs

1. Medical and Health Services Managers
2. Health Technologists and Technicians
3. Nursing Assistants

Most Frequent Next Job

1. Medical and Health Services Managers
2. Registered Nurses
3. Health Technologists and Technicians

Healthcare Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 48,787
2035: 58,843
CAGR: 1.7%

Wages

2025: $89,377
2035: $108,496

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Orange
3. Anaheim
4. Santa Ana
5. Newport Beach

Top Employer by Job Postings – Last 12 Months

1. ScionHealth
2. Hoag Health System
3. Providence
4. CHOC
5. Yale New Haven Health

CAREER OPPORTUNITIES

Top 5 Jobs

1. Registered Nurses (10,121; $132,649)
2. Clinical Laboratory Technologists (1,013; $64,244)
3. Dietitians and Nutritionists (239; $93,306)
4. Therapists, All Other (123; $72,457)
5. Exercise Physiologists (24; $57,500)

Top 5 Jobs in 2035

1. Registered Nurses (11,457; $161,027)
2. Clinical Laboratory Technologists (1,066; $77,987)
3. Dietitians and Nutritionists (290; $113,270)
4. Therapists, All Other (158; $87,970)
5. Exercise Physiologists (30; $69,790)

Top Jobs Emerging Over Next Decade

1. Registered Nurses (+1,337)
2. Clinical Laboratory Technologists (+53)
3. Dietitians and Nutritionists (+50)
4. Therapists, All Other (+35)
5. Exercise Physiologists (+6)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Medication Administration
2. Medical Surgical Nursing
3. Acute Care
4. Treatment Planning
5. Performance Improvement

Advancing Through Educational Opportunities – Key Educational Institutions

1. California State University, Fullerton – Public Health
2. UC Irvine – Joe C. Wen School of Population & Public Health
3. Chapman University – Health Sciences

Career Progression

Most Frequent Prior Jobs

1. Medical and Health Services Managers
2. Health Technologists and Technicians
3. Nursing Assistants

Most Frequent Next Job

1. Medical and Health Services Managers
2. Nurse Practitioners
3. Postsecondary Teachers

High-Tech

INDUSTRY OVERVIEW

Orange County's high-tech sector is a dynamic and mature cornerstone of the regional economy, marking the county as a globally recognized innovation hub. Orange County has forged a powerful identity with deep expertise in semiconductors, a world-class video game development cluster, and a thriving Software as a Service (SaaS) ecosystem. Anchored by major corporate campuses, particularly in the city of Irvine, and fueled by top-tier research from local universities, Orange County's high-tech sector drives prosperity and productivity.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County is a major force in several of the world's most valuable technology markets, designing and producing the foundational technology that powers global communication and innovation. The county is a leader in designing chips for communications, including WiFi, 5G, and the Internet of Things (IoT), and a rapidly growing hub for business-to-business (B2B) software, cybersecurity, and cloud services. Additionally, OC's MedTech industry blends hardware, software, and life sciences.

CURRENT HIGH-DEMAND ROLES

Currently, occupations such as Software Developers, Civil Engineers, Electrical Engineers, and Computer Systems Engineers/Architects see the highest demand in the region.

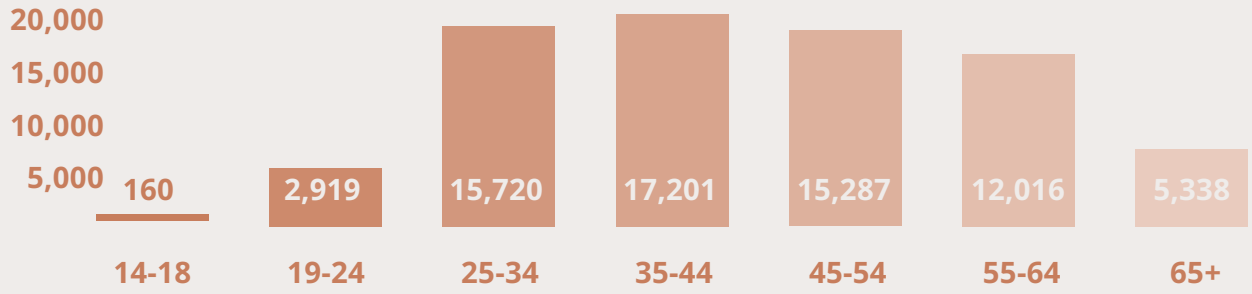
EMERGING FUTURE CAREERS

Cutting-edge subsectors including Artificial Intelligence (AI), Quantum Computing, and Robotics continue to grow; as will new, highly specialized emerging occupations such as Prompt Engineers, Robotics Engineers, and Quantum Hardware Engineers.

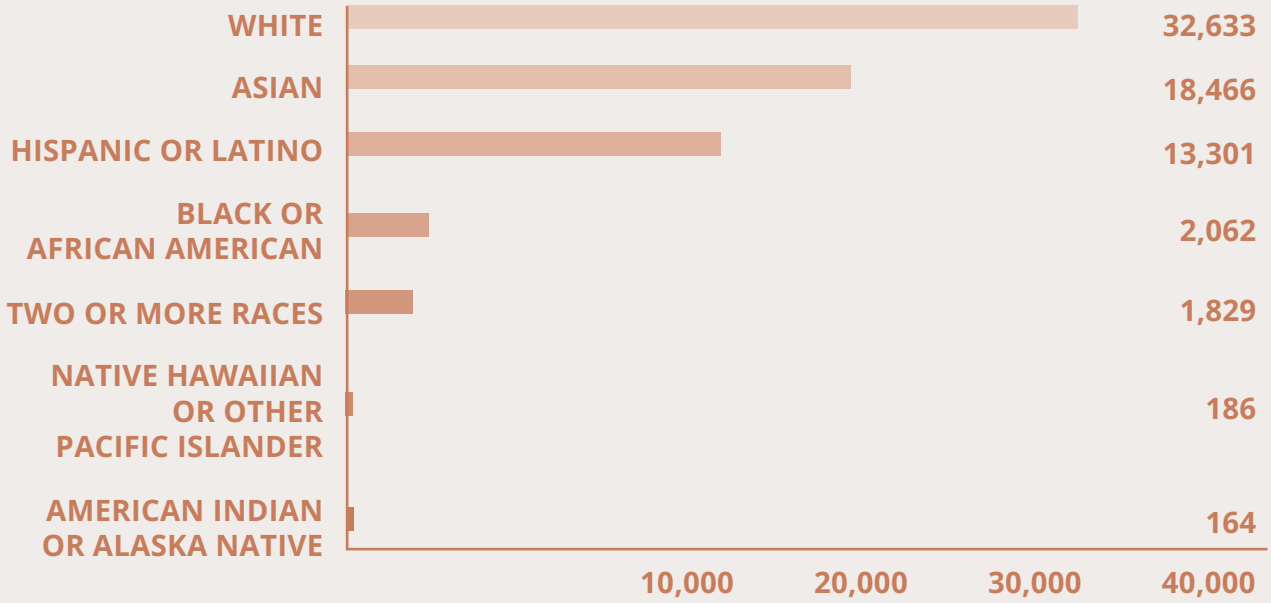
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

Information and Community Technologies (ICT) students transition to computer science, information systems, and cybersecurity programs at community colleges and universities. ICT pathways increasingly incorporate artificial intelligence, machine learning, cloud computing, and Internet of Things (IoT) technologies, thereby preparing students for the cutting edge of technical innovation while building foundational programming and systems thinking skills.

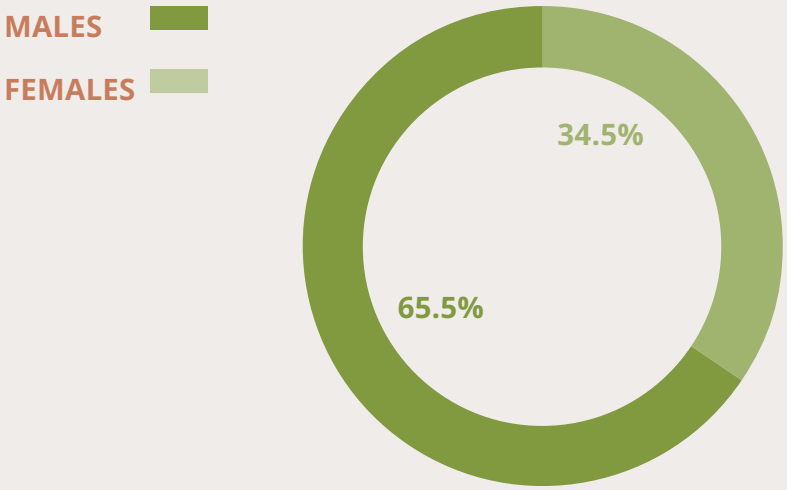
ORANGE COUNTY HIGH-TECH INDUSTRY
BREAKDOWN BY AGE GROUP / MEDIAN AGE: 44.5 YEARS



ORANGE COUNTY HIGH-TECH INDUSTRY
BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY HIGH-TECH INDUSTRY
BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

High-Tech Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 2,828
2035: 2,920
CAGR: 0.3%

Wages

2025: $127,952
2035: $190,554

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Costa Mesa
4. Orange
5. Tustin

Top Employer by Job Postings – Last 12 Months

1. Belcan
2. Boeing Encore Interiors
3. Yardi Systems
4. Mindlance

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Electrical and Electromechanical Assemblers (818; $83,556)
2. Sales Representatives of Services (295; $77,861)
3. Office Clerks (241; $47,100)
4. Miscellaneous Assemblers and Fabricators (240; $45,153)
5. Inspectors, Testers, and Sorters (208; $50,655)

Top 5 Jobs in 2035

1. Electrical and Electromechanical Assemblers (864; $124,436)
2. Sales Representatives of Services (295; $115,954)
3. Miscellaneous Assemblers and Fabricators (252; $67,244)
4. Office Clerks (224; $70,144)
5. Inspectors, Testers, and Sorters (213; $75,438)

Top Jobs Emerging Over Next Decade

1. Electrical and Electromechanical Assemblers (+45)
2. Industrial Machinery Mechanics (+14)
3. Semiconductor Processing Technicians (+13)
4. Miscellaneous Assemblers and Fabricators (+12)
5. First-Line Supervisors of Production Workers (+11)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Blueprinting
2. Performance Review
3. Hand Tools
4. On-The-Job Training

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Information Communication Technology
2. OCDE – Information and Communication Technologies; Manufacturing and Product Development CTE
3. Capistrano Unified School District – Robotics/ Biotechnology

Career Progression

Most Frequent Prior Jobs

1. Production Workers, All Other
2. Electrical and Electronics Installers
3. Laborers and Freight, Stock

Most Frequent Next Job

1. Industrial Engineering Technologists
2. Electric Engineering Technologists
3. Precision Instrument Equipment Repairers

High-Tech Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 6,271
2035: 6,450
CAGR: 0.3%

Wages

2025: $158,446
2035: $235,550

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Costa Mesa
4. Newport Beach
5. Anaheim

Top Employer by Job Postings – Last 12 Months

1. Anduril Industries
2. Tower Semiconductor
3. Boeing Encore Interiors
4. Belcan
5. HDR

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Computer User Support Specialists (825; $70,948)
2. Architectural and Civil Drafters (344; $75,496)
3. Electrical Engineering Technologists (212; $83,556)
4. Civil Engineering Technologists (170; $80,925)
5. Computer Network Support Specialists (137; $74,085)

Top 5 Jobs in 2035

1. Computer User Support Specialists (892; $105,659)
2. Architectural and Civil Drafters (327; $112,433)
3. Electrical Engineering Technologists (185; $124,436)
4. Computer Network Support Specialists (162; $110,331)
5. Civil Engineering Technologists (146; $120,517)

Top Jobs Emerging Over Next Decade

1. Computer User Support Specialists (+67)
2. Computer Network Support Specialists (+9)
3. Industrial Engineer Technologist (+7)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Auditing
3. Hand Tools
4. Electronics
5. Test Equipment

Advancing Through Educational Opportunities – Key Educational Institutions

1. Santa Ana College – Computer Information Systems
2. Fullerton College – Technology and Engineering
3. Orange Coast College – Technology Division

Career Progression

Most Frequent Prior Jobs

1. Computer Occupations, All Other
2. Customer Service Representatives
3. Computer Systems Analysts

Most Frequent Next Job

1. Network and Computer Systems Administrators
2. Software Developers
3. General and Operations Managers

High-Tech Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 11,000
2035: 11,283
CAGR: 0.3%

Wages

2025: $247,513
2035: $369,138

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Costa Mesa
3. Orange
4. Santa Ana
5. Newport Beach

Top Employer by Job Postings – Last 12 Months

1. Anduril Industries
2. AECOM
3. WSP Global
4. Apple
5. Skyworks

CAREER OPPORTUNITIES

Top 5 Jobs

1. Software Developers (2,982; $154,184)
2. Civil Engineers (2,385; $105,323)
3. Project Management Specialists (1,068; $104,684)
4. Computer and Information Systems Managers (869; $188,744)
5. Computer Occupations, All Other (785; $98,672)

Top 5 Jobs in 2035

1. Software Developers (3,122; $229,619)
2. Civil Engineers (2,367; $156,852)
3. Project Management Specialists (1,099; $155,900)
4. Computer Occupations, All Other (812; $146,948)
5. Computer and Information Systems Managers (971; $281,086)

Top Jobs Emerging Over Next Decade

1. Software Developers (+140)
2. Computer and Information Systems Managers (+102)
3. Data Scientists (+60)
4. Project Management Specialists (+31)
5. Computer Occupations, All Other (+27)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Computer Science
3. Electrical Engineering
4. Marketing
5. Business Development

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – Donald Bren School of Information and Computer Sciences
2. CSUF – College of Engineering and Computer Science – Applied Computer Science
3. Chapman University – Keck Center for Science and Engineering

Career Progression

Most Frequent Prior Jobs

1. Computer User Support Specialists
2. Project Management Specialists
3. Web Developers

Most Frequent Next Job

1. General and Operations Managers
2. Management Analysts
3. Chief Executives

Housing

INDUSTRY OVERVIEW

As one of the nation's most desirable places to live, Orange County faces a significant challenge in providing an adequate and affordable supply of homes for its diverse workforce. Addressing the region's housing crisis is a top economic priority, as the availability of housing directly impacts the ability of all other strategic sectors to attract and retain the talent needed to thrive.

INDUSTRY GROWTH AND DEMAND DRIVERS

Residential construction, real estate, property management, and related trades comprise a major Orange County industry that supports tens of thousands of local jobs and generates billions in economic activity.

CURRENT HIGH-DEMAND ROLES

Construction trade pathways in Orange County include carpentry, electrical, plumbing, HVAC, masonry, and construction management. These programs combine classroom instruction in construction principles, mathematics, and blueprint reading with hands-on training in school-based construction labs and, increasingly, through work-based learning opportunities with local contractors and construction companies.

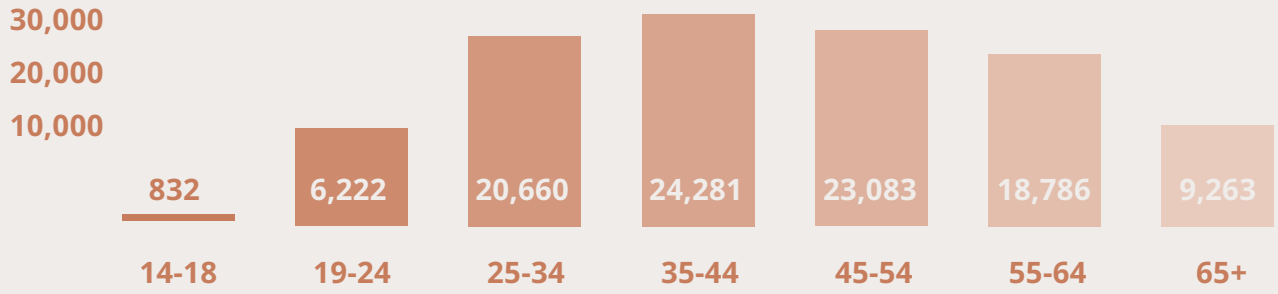
EMERGING FUTURE CAREERS

OC Pathways is working to expand construction pathway enrollment through enhanced partnerships with construction employers, connections to registered apprenticeship programs, and targeted outreach to women and underrepresented groups in the trades. The relatively low completion numbers (323) indicate significant opportunity for growth as regional construction demand remains strong.

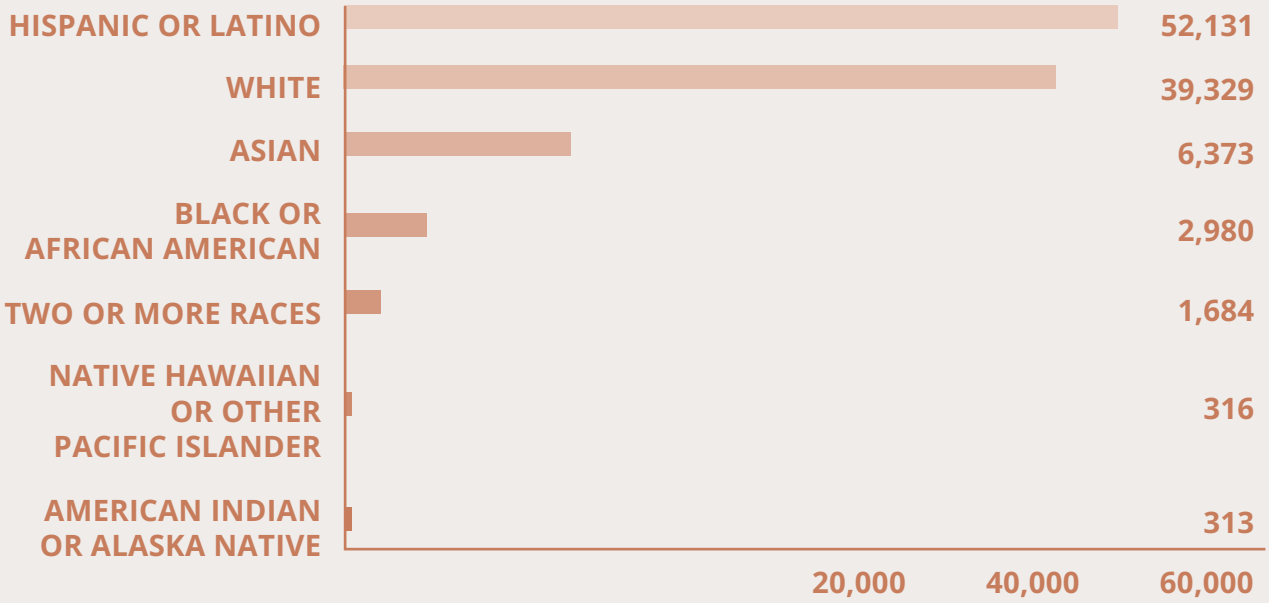
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

Building trades represent one of the most accessible pathways to middle-class earnings without a four-year degree requirement. Entry-level positions in construction trades in Orange County typically start at $18-$22 per hour, with experienced journey-level workers earning $30-$45+ per hour. Apprenticeships through organizations such as LA/OC Building & Construction Trades allow workers to earn while learning and avoid student debt while building both skills and income. Many students also transition directly into registered apprenticeships with construction trade unions or enter the workforce via construction companies seeking entry-level workers. Others pursue associate degrees in construction management or architecture at community colleges, preparing for supervisory and project management roles.

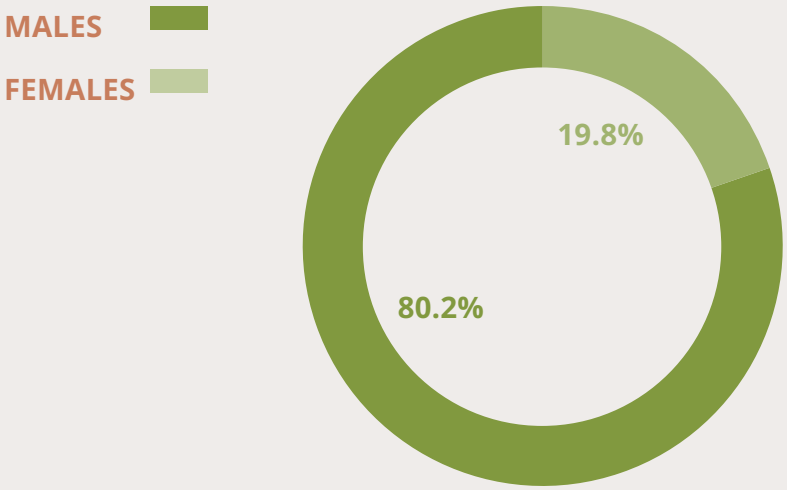
ORANGE COUNTY HOUSING INDUSTRY
BREAKDOWN BY AGE GROUP / MEDIAN AGE: 44.9 YEARS



ORANGE COUNTY HOUSING INDUSTRY
BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY HOUSING INDUSTRY
BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Housing Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 36,610
2035: 37,352
CAGR: 0.2%

Wages

2025: $57,485
2035: $80,078

Top Cities by Job Postings – Last 12 Months

1. Anaheim
2. Irvine
3. Orange
4. Cypress
5. Huntington Beach

Top Employer by Job Postings – Last 12 Months

1. ABM Industries
2. Raymond Handling Solutions
3. Johnson Controls
4. EMCOR Group
5. Tri Systems

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Carpenters (4,052; $74,012)
2. Construction Laborers (3,063; $57,007)
3. Electricians (2,785; $76,523)
4. First-Line Supervisors of Construction Trades and Extraction Workers (2,273; $99,427)
5. Painters, Construction, and Maintenance (1,968; $55,772)

Top 5 Jobs in 2035

1. Carpenters (4,403; $103,097)
2. Electricians (3,216; $106,597)
3. Construction Laborers (2,948; $79,411)
4. First-Line Supervisors of Construction Trades and Extraction Workers (2,331; $138,499)
5. Painters, Construction, and Maintenance (2,033; $77,689)

Top Jobs Emerging Over Next Decade

1. Electricians (+431)
2. Plumbers, Pipefitters, and Steamfitters (+182)
3. Construction, Laborers (+153)
4. Roofers (+113)
5. Painters, Construction and Maintenance (+65)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. HVAC
2. Construction
3. Project Management
4. Effective Communication

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Building and Construction Trades, Residential and Commercial Construction
2. OCDE – Building and Construction Trades CTE
3. LA/OC Building and Construction Trades Apprenticeships

Career Progression

Most Frequent Prior Jobs

1. Laborers and Freight, Stock
2. Retail Salespersons
3. Maintenance and Repair Workers, General

Most Frequent Next Job

1. Project Management Specialists
2. First-Line Supervisors of Construction Trades and Extraction Workers
3. Construction Managers

Housing Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 29,726
2035: 30,329
CAGR: 0.2%

Wages

2025: $72,467
2035: $100,947

Top Cities by Job Postings – Last 12 Months

1. Anaheim
2. Irvine
3. Huntington Beach
4. Cypress
5. Orange

Top Employer by Job Postings – Last 12 Months

1. Johnson Controls
2. Rosendin
3. Airtech
4. KZ Companies
5. EMCOR Group

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Heating, Air Conditioning, and Refrigeration Mechanics (1,413; $69,473)
2. Telecommunications Equipment Installers and Repairers (141; $81,166)
3. Architectural and Civil Drafters (73; $75,496)
4. Electrical and Electronics Drafters (35; $73,721)
5. Mechanical Drafters (26; $78,987)

Top 5 Jobs in 2035

1. Heating, Air Conditioning, and Refrigeration Mechanics (1,600; $96,775)
2. Telecommunications Equipment Installers and Repairers (139; $113,062)
3. Architectural and Civil Drafters (75; $105,165)
4. Electrical and Electronics Drafters (34; $102,692)
5. Mechanical Drafters (26; $110,027)

Top Jobs Emerging Over Next Decade

1. Heating, Air Conditioning, and Refrigeration Mechanics (+187)
2. Heavy and Tractor-Trailer Truck Drivers (+25)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Construction
3. Subcontracting
4. HVAC
5. Accounting

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange Coast College – Construction Technology
2. Fullerton College – Construction Technology and Construction Management
3. LA/OC Building and Construction Trades Apprenticeships

Career Progression

Most Frequent Prior Jobs

1. Drafters, All Other
2. Project Management Specialists
3. Maintenance and Repair Workers, General

Most Frequent Next Job

1. General and Operations Managers
2. Architects
3. Mechanical Engineers

Housing Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 13,548
2035: 13,823
CAGR: 0.2%

Wages

2025: $114,750
2035: $159,847

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Anaheim
3. Costa Mesa
4. Santa Ana
5. Garden Grove

Top Employer by Job Postings – Last 12 Months

1. ABM Industries
2. Southland Industries
3. EMCOR Group
4. Rosendin
5. Johnson Controls

CAREER OPPORTUNITIES

Top 5 Jobs

1. Construction Managers (1,053; $114,106)
2. Project Management Specialists (950; $104,684)
3. General and Operations Managers (819; $126,198)
4. Managers, All Other (581; $128,104)
5. Cost Estimators (406; $84,559)

Top 5 Jobs in 2035

1. Construction Managers (1,110; $158,948)
2. Project Management Specialists (965; $145,822)
3. General and Operations Managers (847; $175,791)
4. Managers, All Other (586; $178,447)
5. Cost Estimators (393; $117,790)

Top Jobs Emerging Over Next Decade

1. Construction Managers (+58)
2. General and Operations Managers (+28)
3. Project Management Specialists (+15)
4. Occupational Health and Safety Specialists (+6)
5. Managers, All Other (+5)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Construction
3. HVAC
4. Subcontracting
5. Construction Management

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – Samueli School of Engineering – Department of Civil and Environmental Engineering
2. CSUF – College of Engineering and Computer Science – Civil Engineering
3. Chapman University – Schmid College of Science and Technology – Mathematics and Civil Engineering

Career Progression

Most Frequent Prior Jobs

1. General and Operations Managers
2. Management Analysts
3. Civil Engineers

Most Frequent Next Job

1. Chief Executives
2. Managers, All Other
3. Training and Development Specialists

Infrastructure

INDUSTRY OVERVIEW

Infrastructure is the physical backbone of Orange County's economy and quality of life; this complex and constantly evolving network of transportation corridors, water systems, energy grids, and digital networks enables every other strategic sector to function. Strategic, forward-thinking investment in infrastructure is the primary determinant of the region's ability to move goods, connect people, attract business, and ensure a sustainable and prosperous future.

INDUSTRY GROWTH AND DEMAND DRIVERS

Investment in infrastructure directly translates into economic growth, competitiveness, and community well-being. The county's freeway and rail systems, for instance, connect its manufacturing base to the nearby Ports of Los Angeles and Long Beach and the national supply chain. Reliable and high-capacity infrastructure, from clean water and a stable power grid to high-speed broadband, is a prerequisite for attracting and retaining the county's world-class employers and innovators. The planning, construction, and maintenance of the region's infrastructure supports thousands of jobs in construction, engineering, and public administration.

CURRENT HIGH-DEMAND ROLES

There are significant opportunities at all educational levels. Currently in-demand jobs range from Telecommunications Installers and Drafters for residents with "mixed skills" to Civil and Electrical Engineers for those who received their Bachelor's degree.

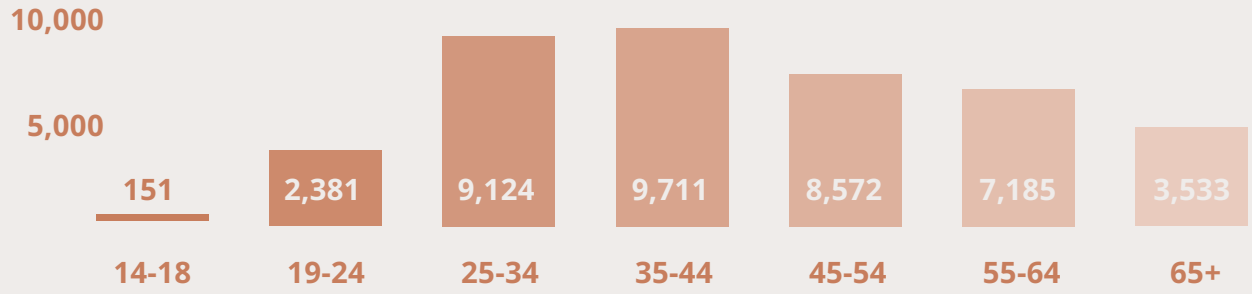
EMERGING FUTURE CAREERS

The rising importance of AI has led to large investments in data centers, which require both considerable amounts of energy and water to run effectively. This will likely result in a near-term rise in demand for occupations ranging from pipefitters, who install massive water lines feeding the data centers, to solar installers who provide solar energy.

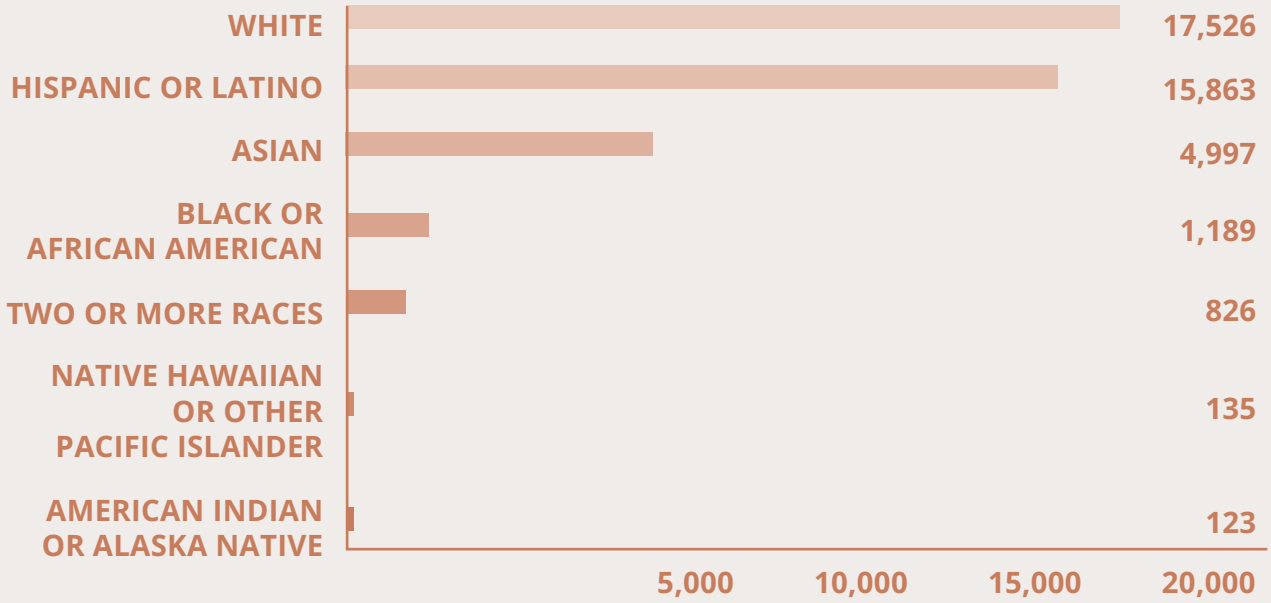
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

Engineering and Architecture pathways serve as a critical STEM pipeline for Orange County's innovation economy. Engineering pathways typically include coursework in engineering design, computer-aided design (CAD), robotics, electronics, and engineering principles. Many programs utilize Project Lead The Way (PLTW) curriculum or equivalent project-based learning approaches that engage students in authentic engineering challenges. Students design and build prototypes, compete in robotics competitions, and in some cases participate in industry-sponsored design challenges.

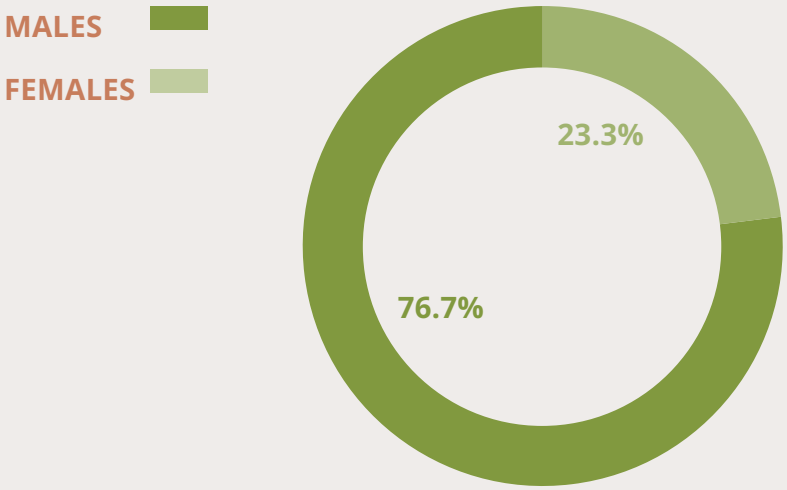
ORANGE COUNTY INFRASTRUCTURE INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 44.4 YEARS



ORANGE COUNTY INFRASTRUCTURE INDUSTRY BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY INFRASTRUCTURE INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Infrastructure Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 3,270
2035: 3,264
CAGR: -0.02%

Wages

2025: $80,367
2035: $100,121

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Anaheim
3. Santa Ana
4. Orange
5. Buena Park

Top Employer by Job Postings – Last 12 Months

1. Belcan
2. ABM Industries
3. VCI Construction
4. Kanaan Communications

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Operating Engineers and Other Operators (337; $93,995)
2. Helpers – Electricians (243; $46,405)
3. Telecommunications Line Installers (157; $98,176)
4. Electrical Power-Line Installers (173; $130,458)
5. Solar Photovoltaic Installers (119; $61,339)

Top 5 Jobs in 2035

1. Operating Engineers and Other Operators (338; $117,098)
2. Helpers – Electricians (249; $64,235)
3. Electrical Power-Line Installers (190; $162,523)
4. Telecommunications Line Installers (156; $122,307)
5. Solar Photovoltaic Installers (145; $76,416)

Top Jobs Emerging Over Next Decade

1. First-Line Supervisors of Construction Trade and Extraction Workers (+30)
2. Solar Photovoltaic Installers (+26)
3. Electrical Power-Line Installers (+18)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Effective Communication
2. On-The-Job Training
3. Performance Review

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Transportation; Engineering and Architecture
2. OCDE – Transportation; Energy, Environment, and Utilities CTE
3. Orange CTE – Transportation

Career Progression

Most Frequent Prior Jobs

1. Maintenance and Repair Workers, General
2. Production Workers, All Other
3. Retail Salespersons

Most Frequent Next Job

1. First-Line Supervisors of Construction Trades and Extraction Workers
2. Electrical Engineering Technicians
3. Precision Instrument Equipment Repairers

Infrastructure Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 4,143
2035: 4,136
CAGR: -0.02%

Wages

2025: $101,312
2035: $126,214

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Anaheim
4. Brea
5. Orange

Top Employer by Job Postings – Last 12 Months

1. Belcan
2. HDR
3. Sargent and Lundy
4. Rosendin
5. HNTB

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Architectural and Civil Drafters (333; $75,504)
2. Civil Engineering Technologists (171; $80,933)
3. Telecommunications Equipment Installers (149; $81,162)
4. Electrical and Electronics Drafters (91; $73,715)
5. Electrical Engineering Technologist (81; $67,080)

Top 5 Jobs in 2035

1. Architectural and Civil Drafters (318; $94,062)
2. Civil Engineering Technologists (163; $100,825)
3. Telecommunications Equipment Installers (136; $101,110)
4. Electrical and Electronics Drafters (85; $91,834)
5. Electrical Engineering Technologist (80; $83,568)

Top Jobs Emerging Over Next Decade

1. Heavy and Tractor-Trailer Drivers (+24)
2. Audiovisual Equipment Installers and Repairers (+6)
3. Wind Turbine Service Technicians (+6)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Construction
3. AutoCAD
4. Accounting
5. Auditing

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange Coast College – Construction Technology
2. Fullerton College – Construction, Drafting, Engineering
3. Santiago Canyon College – Engineering

Career Progression

Most Frequent Prior Jobs

1. Precision Instrument Equipment Repairers
2. Maintenance and Repair Workers, General
3. Laborers and Freight, Stock

Most Frequent Next Job

1. General and Operations Managers
2. Project Management Specialists
3. First-Line Supervisors of Mechanics

Infrastructure Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 3,888
2035: 3,881
CAGR: -0.02%

Wages

2025: $160,426
2035: $199,857

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Orange
3. Santa Ana
4. Anaheim
5. Costa Mesa

Top Employer by Job Postings – Last 12 Months

1. AECOM
2. ABM Industries
3. WSP Global
4. Stantec
5. HDR

CAREER OPPORTUNITIES

Top 5 Jobs

1. Project Management Specialists (754; $104,684)
2. Electrical Engineers (392; $136,572)
3. Architectural and Engineering Managers (308; $183,893)
4. General and Operations Managers (292; $126,198)
5. Construction Managers (207; $114,106)

Top 5 Jobs in 2035

1. Project Management Specialists (749; $130,414)
2. Electrical Engineers (402; $170,140)
3. Architectural and Engineering Managers (306; $254,551)
4. General and Operations Managers (290; $157,216)
5. Construction Managers (215; $142,153)

Top Jobs Emerging Over Next Decade

1. Electrical Engineers (+10)
2. Construction Managers (+7)
3. Data Scientists (+6)
4. Information Security Analysts (+5)
5. Occupational Health and Safety Specialists (+5)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Construction
3. Civil Engineering
4. Business Development
5. AutoCAD

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – Samueli School of Engineering – Department of Civil and Environmental Engineering
2. CSUF – College of Engineering and Computer Science – Civil Engineering
3. Chapman University – Schmid College of Science and Technology – Mathematics and Civil Engineering

Career Progression

Most Frequent Prior Jobs

1. Project Management Specialists
2. Industrial Engineers
3. Architectural and Engineering Managers

Most Frequent Next Job

1. General and Operations Managers
2. Management Analysts
3. Chief Executives

Life Sciences

INDUSTRY OVERVIEW

Orange County is a global capital of Medical Technology (MedTech). While other California regions are known for early-stage biotech research, Orange County has distinguished itself as the world's premier hub for designing, manufacturing, and commercializing life-saving medical devices. This robust "concept-to-commercialization" ecosystem is anchored by world-leading companies, a specialized workforce, and a tight-knit network of university and industry partners, making Orange County a cornerstone of the regional economy and a critical driver of global healthcare innovation.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County's innovation is driven by a unique infrastructure built to nurture new ideas and grow startups. The Cove at UC Irvine serves as the physical heart of the ecosystem, bringing together university researchers, entrepreneurs, and venture capitalists under one roof to accelerate the development of new technologies. Octane OC is a nationally recognized accelerator that plays a critical role in launching and scaling MedTech startups, connecting them with capital and mentorship to grow into the next generation of industry leaders. UC Irvine's top-tier schools of engineering, medicine, and business work closely with local industry leaders like Edwards Lifesciences on joint research projects and provide a steady talent pipeline.

CURRENT HIGH-DEMAND ROLES

Over the past year, Marketing Managers, Industrial Engineers, and Medical and Health Services Managers have seen the largest number of jobs postings in Orange County. These occupations are focused in detailed industries including Surgical and Medical Instrument Manufacturing, Pharmaceutical Preparation Manufacturing, and Dental Laboratories.

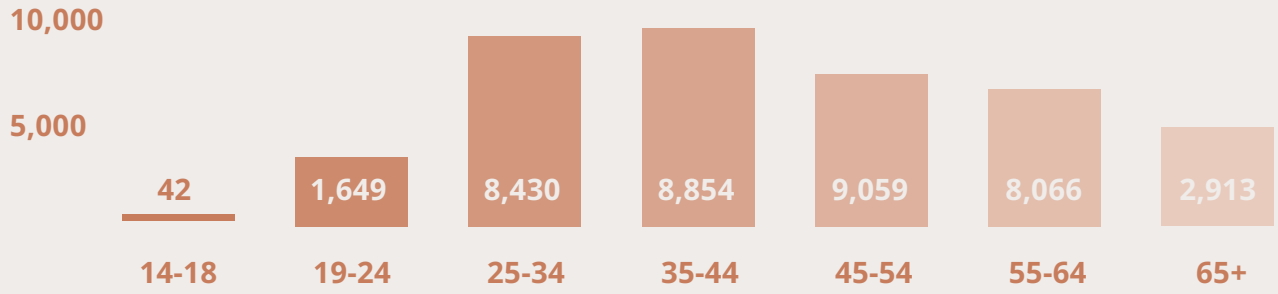
EMERGING FUTURE CAREERS

Already a hub for innovation, as new technologies emerge and are adopted, Orange County's Life Sciences sector will likely drive new, innovative job creation for the region. Occupations which integrate these new and emerging technologies and processes are likely to be highly lucrative yet highly specialized.

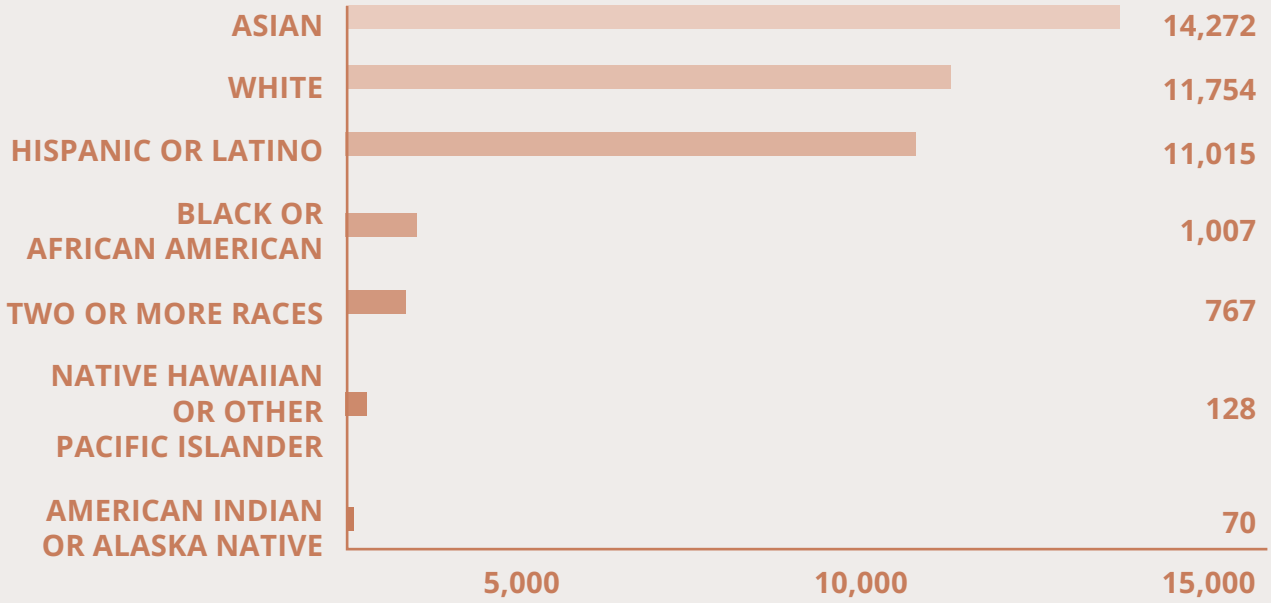
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

Because of its strong manufacturing base, the MedTech industry offers numerous career opportunities that don't require a four-year degree. Over a third of the top occupations in areas such as quality control, specialized assembly, and lab technicians are accessible pathway roles that offer high potential for advancement.

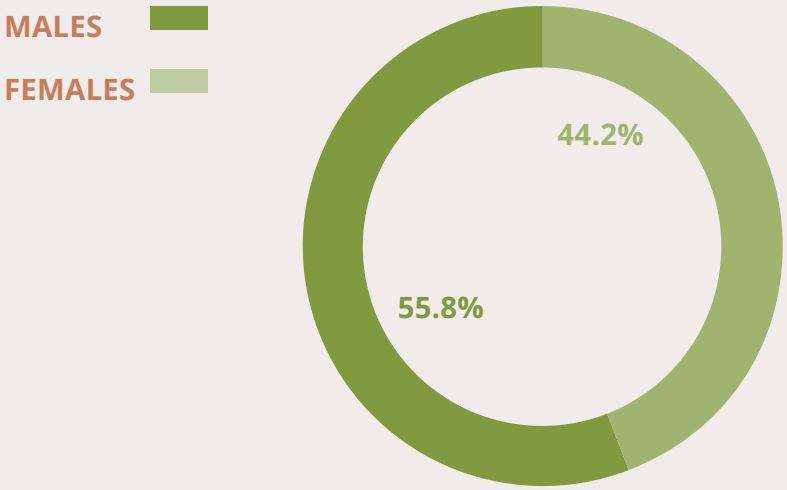
ORANGE COUNTY LIFE SCIENCE INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 45.3 YEARS



ORANGE COUNTY LIFE SCIENCE INDUSTRY BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE COUNTY LIFE SCIENCE INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Life Science Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 9,342
2035: 10,472
CAGR: 1.0%

Wages

2025: $87,451
2035: $117,411

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Rancho Santa Margarita
3. Lake Forest
4. Tustin
5. Aliso Viejo

Top Employer by Job Postings – Last 12 Months

1. EssilorLuxottica
2. Glidewell Dental
3. Applied Medical Resources Corporation
4. Medtronic
5. Edwards Lifesciences

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Dental Lab Technicians (381; $49,948)
2. Sales Representatives, Wholesale (145; $73,466)
3. Molding, Casting Machine Setters (119; $64,897)
4. Ophthalmic Laboratory Technicians (76; $56,971)
5. Medical Appliance Technicians (65; $64,450)

Top 5 Jobs in 2035

1. Dental Lab Technicians (413; $76,486)
2. Sales Representatives, Wholesale (148; $98,630)
3. Molding, Casting Machine Setters (136; $87,127)
4. Ophthalmic Laboratory Technicians (87; $76,486)
5. Medical Appliance Technicians (74; $86,526)

Top Jobs Emerging Over Next Decade

1. Miscellaneous Assemblers and Fabricators (+287)
2. Electrical and Electromechanical Assemblers (+143)
3. Dental Lab Technicians (+32)
4. Molding, Casting Machine Setters (+16)
5. Ophthalmic Laboratory Technicians (+11)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Medical Devices
2. Good Manufacturing Practices
3. Standard Operating Procedures
4. Environment Health and Safety
5. General Mathematics

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Health Science & Medical Technology
2. OCDE – Health Science and Medical Technology CTE
3. Orange High School – Biotechnology Pathway

Career Progression

Most Frequent Prior Jobs

1. Production Workers, All Other
2. Retail Salespersons
3. Laborers and Freight, Stock

Most Frequent Next Job

1. Market Research Analysts
2. Customer Service Representatives
3. First-line Supervisors of Production and Operating Workers

Life Science Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 11,043
2035: 12,378
CAGR: 1.0%

Wages

2025: $110,243
2035: $148,010

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Orange
3. Anaheim
4. Aliso Viejo
5. Lake Forest

Top Employer by Job Postings – Last 12 Months

1. Edwards Lifesciences
2. Medtronic
3. Grifols
4. Johnson & Johnson
5. AbbVie

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Electrical Engineering Technologists (79; $56,790)
2. Industrial Engineering Technologists (62; $79,289)
3. Life, Physical, and Social Science Technicians (61; $76,191)
4. Computer User Support Specialists (56; $70,948)
5. Medical Equipment Repairers (55; $72,344)

Top 5 Jobs in 2035

1. Electrical Engineering Technologists (99; $83,556)
2. Industrial Engineering Technologists (83; $106,449)
3. Medical Equipment Repairers (67; $101,233)
4. Computer User Support Specialists (64; $95,250)
5. Life, Physical, and Social Science Technicians (62; $102,289)

Top Jobs Emerging Over Next Decade

1. Industrial Engineering Technologists (+21)
2. Electrical Engineering Technologists (+20)
3. Medical Equipment Repairers (+12)
4. Engineering Technologists, All Other (+10)
5. CNC Tool Programmers (+8)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Medical Devices
2. Quality Management Systems
3. Pharmaceuticals
4. Project Management
5. Technical Support

Advancing Through Educational Opportunities – Key Educational Institutions

1. Irvine Valley College – Life Sciences & Technologies
2. Saddleback College – Biology; Health Sciences
3. Golden West / Orange Coast College – Biological Sciences

Career Progression

Most Frequent Prior Jobs

1. Inspectors, Testers, and Sorters
2. Clinical Laboratory Technologists
3. Chemical Technicians

Most Frequent Next Job

1. Chemists
2. Industrial Production Managers
3. Industrial Engineers

Life Science Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 10,382
2035:11,637
CAGR: 1.0%

Wages

2025: $174,566
2035: $234,370

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Lake Forest
3. Brea
4. Aliso Viejo
5. Santa Ana

Top Employer by Job Postings – Last 12 Months

1. Edwards Lifesciences
2. AbbVie
3. Johnson & Johnson
4. Medtronic
5. Abbott Laboratories

CAREER OPPORTUNITIES

Top 5 Jobs

1. Software Developers (453; $154,184)
2. Industrial Engineers (440; $110,883)
3. General and Operations Managers (244; $126,198)
4. Managers, All Other (226; $128,104)
5. Business Operations Specialists, All Other (204; $79,308)

Top 5 Jobs in 2035

1. Software Developers (559; $206,998)
2. Industrial Engineers (591; $148,865)
3. General and Operations Managers (283; $169,425)
4. Managers, All Other (244; $171,985)
5. Business Operations Specialists, All Other (225; $106,473)

Top Jobs Emerging Over Next Decade

1. Industrial Engineers (+151)
2. Software Developers (+106)
3. Mechanical Engineers (+76)
4. General and Operations Managers (+39)
5. Electrical Engineers (+46)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Medical Devices
2. Marketing
3. Project Management
4. New Product Development
5. Pharmaceuticals

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – Dunlop School of Biological Sciences
2. CSUF – College of Natural Sciences and Mathematics – Biological Science
3. Chapman University – Health Sciences

Career Progression

Most Frequent Prior Jobs

1. Computer Occupations, All Other
2. Web Developers
3. Data Scientists

Most Frequent Next Job

1. Architectural and Engineering Managers
2. Database Administrators
3. General and Operations Managers

Manufacturing

INDUSTRY OVERVIEW

Orange County is national leader in advanced and precision manufacturing. While California has a diverse manufacturing economy, Orange County's unique strength lies in its high-value, high-tech production capabilities. The county serves as the physical manufacturing engine for its other key strategic sectors, turning Life Sciences and High-Tech innovations into tangible, world-class products. This focus on complex, high-specification goods makes manufacturing an economic cornerstone.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County's manufacturing sector is defined by its specialization in industries that demand accuracy, cutting-edge technology, and a highly skilled workforce including:

- Medical Devices: The county is a global hub for producing complex medical devices, including artificial heart valves, patient monitoring, and ophthalmic equipment.
- Aerospace & Defense Components: Supporting its robust A&D sector, OC manufacturers produce critical, high-value components such as guidance systems, communication modules, and advanced electronics.
- Computer & Electronic Products: The county is a key player in the tech supply chain, manufacturing semiconductors, circuit boards, and electronic components.

CURRENT HIGH-DEMAND ROLES

Orange County's most in-demand manufacturing jobs include Production Workers, All Other; Industrial Engineers; and Inspectors, Testers, Sorters, Samplers, and Weighers.

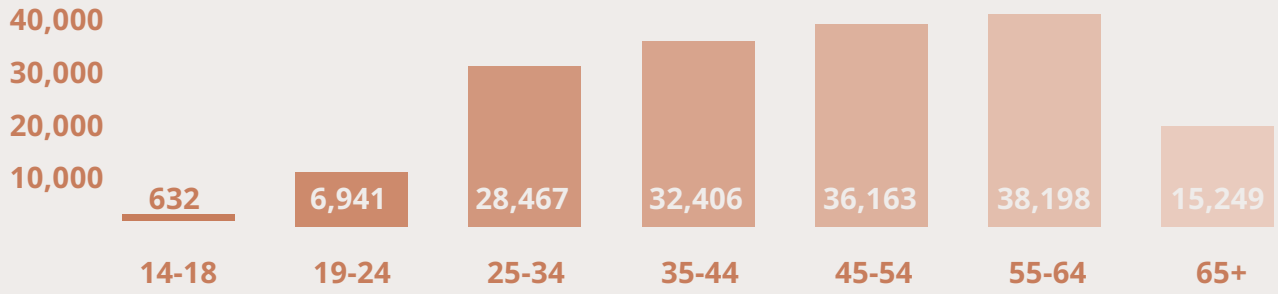
EMERGING FUTURE CAREERS

Despite the advances of automation and AI systems, there remain significant opportunities alongside these new and emerging technologies. As new systems are adopted and implemented, such as 3D printing and robotics, occupations such as Additive Manufacturing Technicians and Robotics Technicians are likely to see accelerated growth.

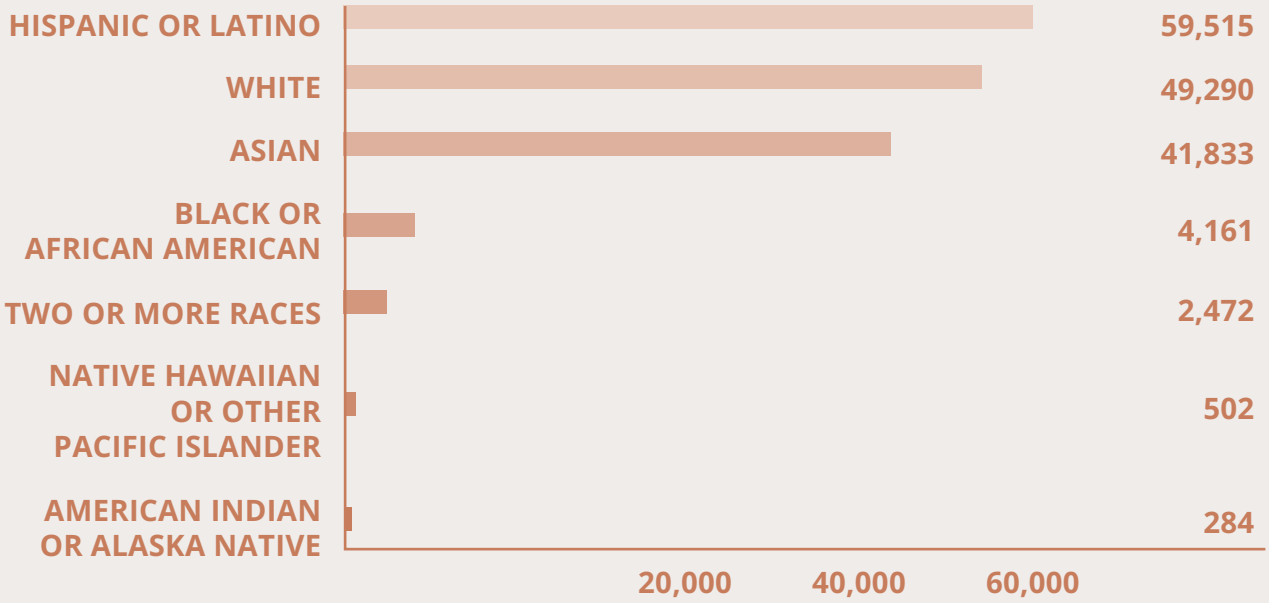
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

Students often earn OSHA safety certifications and may complete welding certifications or manufacturing skill standards credentials. Students typically pursue multiple pathways: Some enter manufacturing employment directly in technician or apprentice roles, while others pursue associate degrees in manufacturing technology/industrial technology at community colleges or enter university engineering programs with manufacturing specializations.

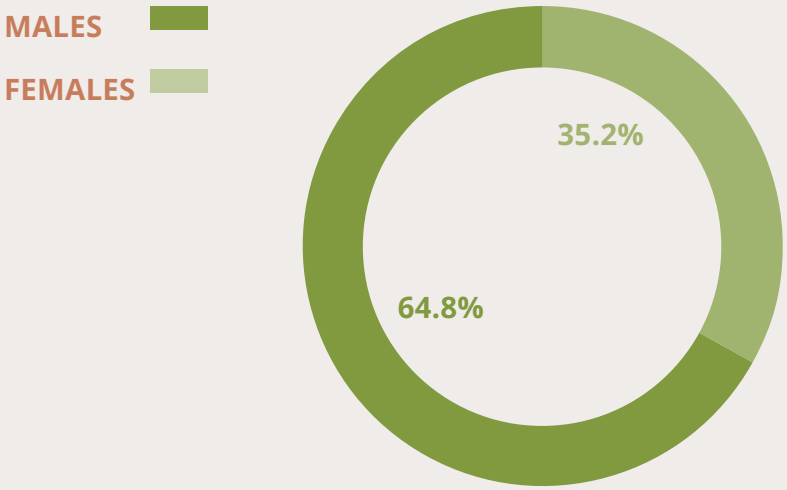
ORANGE MANUFACTURING INDUSTRY
BREAKDOWN BY AGE GROUP / MEDIAN AGE: 46.9 YEARS



ORANGE MANUFACTURING INDUSTRY
BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE MANUFACTURING INDUSTRY
BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Manufacturing Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 45,642
2035: 45,084
CAGR: -0.1%

Wages

2025: $74,507
2035: $107,296

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Anaheim
4. Brea
5. Huntington Beach

Top Employer by Job Postings – Last 12 Months

1. EssilorLuxottica
2. Hyundai Motor Company
3. The Coca-Cola Company
4. Glidewell Dental
5. Safran

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Miscellaneous Assemblers and Fabricators (5,302; $45,153)
2. Electrical Assemblers (2,895; $42,301)
3. Inspectors, Testers, Sorters, Samplers, and Weighers (1,851; $50,655)
4. First-Line Supervisors of Production and Operating Workers (1,799; $73,451)
5. Laborers and Freight, Stock (2,080; $39,948)

Top 5 Jobs in 2035

1. Miscellaneous Assemblers and Fabricators (5,926; $65,024)
2. Electrical Assemblers (2,955; $60,916)
3. Laborers and Freight, Stock (1,982; $57,528)
4. Inspectors, Testers, and Sorters (1,812; $72,947)
5. First-Line Supervisors of Production and Operating Workers (1,806; $105,776)

Top Jobs Emerging Over Next Decade

1. Miscellaneous Assemblers and Fabricators (+624)
2. Industrial Machinery Mechanics (+102)
3. Electrical Assemblers (+60)
4. Multiple Machine Tool Setters (+62)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Warehousing
2. Machinery
3. Micrometer
4. Calipers
5. Hand Tools

Advancing Through Educational Opportunities – Key Educational Institutions

1. OCDE – Manufacturing and Product Development
2. Santa Ana College – Manufacturing Technology Certifications
3. Orange USD – Engineering and Architecture

Career Progression

Most Frequent Prior Jobs

1. Production Workers, All Other
2. Retail Salespersons
3. Laborers and Freight, Stock

Most Frequent Next Job

1. Production Workers, All Other
2. General and Operations Managers
3. Inspectors, Testers, and Sorters

Manufacturing Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 47,024
2035: 46,450
CAGR: -0.1%

Wages

2025: $93,925
2035: $135,259

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Anaheim
3. Santa Ana
4. Cypress
5. Brea

Top Employer by Job Postings – Last 12 Months

1. Edwards Lifesciences
2. Siemens
3. L3Harris Technologies
4. Bridgestone Corporation
5. Medtronic

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Electrical Engineering Technologists (384; $83,556)
2. Industrial Engineering Technologists (194; $79,289)
3. Engineering Technologists, All Other (184; $73,849)
4. Chemical Technicians (90; $52,303)
5. Mechanical Engineering Technologists (90; $76,970)

Top 5 Jobs in 2035

1. Electrical Engineering Technologists (390; $120,327)
2. Industrial Engineering Technologists (221; $114,183)
3. Engineering Technologists, All Other (192; $106,348)
4. Chemical Technicians (87; $75,320)
5. Mechanical Engineering Technologists (100; $110,843)

Top Jobs Emerging Over Next Decade

1. Industrial Engineering Technologists (+27)
2. Medical Equipment Repairers (+10)
3. Engineering Tech (+8)
4. Food Science Technicians (+5)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Auditing
2. Project Management
3. Medical Devices
4. Electronics
5. Continuous Improvement Process

Advancing Through Educational Opportunities – Key Educational Institutions

1. Santiago Canyon College – 3D Printing/Advanced Manufacturing
2. Santa Ana College – Manufacturing Technology
3. Cypress College – Engineering Technology

Career Progression

Most Frequent Prior Jobs

1. Production Workers, All Other
2. Maintenance and Repair Workers
3. Precision Instrument and Equipment Repairers

Most Frequent Next Job

1. General and Operations Managers
2. Industrial Engineers
3. Mechanical Engineers

Manufacturing Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 36,162
2035: 35,720
CAGR: -0.1%

Wages

2025: $148,727
2035: $214,178

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Anaheim
3. Santa Ana
4. Brea
5. Huntington Beach

Top Employer by Job Postings – Last 12 Months

1. Edwards Lifesciences
2. Rivian
3. AbbVie
4. Safran
5. Johnson & Johnson

CAREER OPPORTUNITIES

Top 5 Jobs

1. Software Developers (1,339; $154,184)
2. Industrial Engineers (1,326; $110,883)
3. General and Operations Managers (920; $126,198)
4. Industrial Production Managers (740; $124,892)
5. Business Operations Specialists, All Other (733; $79,308)

Top 5 Jobs in 2035

1. Software Developers (1,368; $222,037)
2. Industrial Engineers (1,507; $159,680)
3. General and Operations Managers (940; $181,734)
4. Industrial Production Managers (736; $179,854)
5. Business Operations Specialists, All Other (719; $114,209)

Top Jobs Emerging Over Next Decade

1. Industrial Engineers (+181)
2. Mechanical Engineers (+74)
3. Logisticians (+37)
4. Computer and Information Systems Managers (+30)
5. Software Developers (+29)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Marketing
3. Finance
4. New Product Development
5. Continuous Improvement Process

Advancing Through Educational Opportunities – Key Educational Institutions

1. UC Irvine – Advanced and Additive Manufacturing
2. California State University, Fullerton – Advanced Manufacturing Engineering
3. Chapman University – Advanced Design and Fabrication

Career Progression

Most Frequent Prior Jobs

1. Computer Occupations, All Other
2. Project Manager Specialists
3. Training and Development Specialists

Most Frequent Next Job

1. Chief Executives
2. Producers and Directors
3. Sales Managers

Tourism and Outdoor Recreation

INDUSTRY OVERVIEW

Orange County is a world-renowned, top-tier global travel destination and a cornerstone of California's tourism economy. From the Anaheim Resort District to world-famous beaches, the county's tourist destinations attract millions of visitors every year, generating billions of dollars for the local economy and supporting a massive and diverse workforce.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County welcomes over 50 million visitors annually; these visitors generate more than $23 billion in local economic activity. This, in turn, generates over $1.5 billion in state and local tax revenues each year, which helps fund essential public services such as public safety, infrastructure, and parks for residents.

CURRENT HIGH-DEMAND ROLES

Culinary pathways are particularly popular, with students earning ServSafe Food Handler certifications and developing professional cooking skills. Orange County's diverse culinary scene, from fine dining to food trucks, creates opportunities for students to explore various culinary career paths.

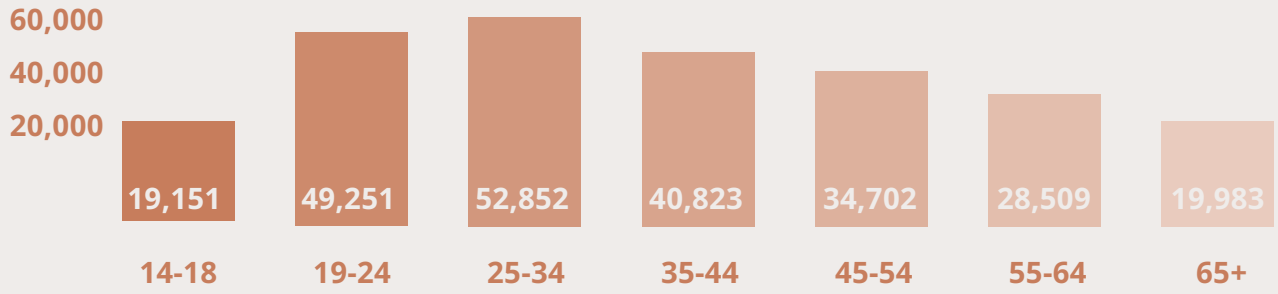
EMERGING FUTURE CAREERS

While entry-level hospitality positions often start at modest wages, the sector offers clear advancement pathways. Students who combine hospitality experience with postsecondary education in hospitality management can advance to supervisory, management, and executive positions with strong compensation. Orange County restaurant managers, hotel general managers, and event directors can earn $60,000-$100,000+ annually.

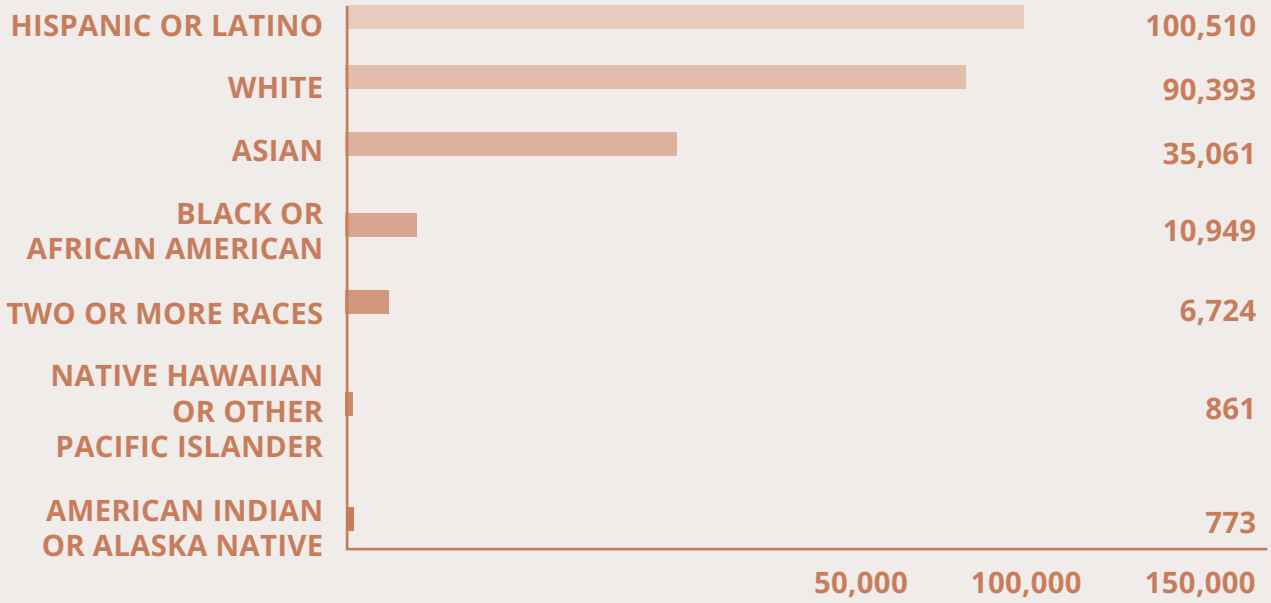
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

This pathway includes culinary arts, hotel and lodging management, travel and tourism, recreation management, and event planning. Students develop both technical skills (food preparation, hospitality operations, customer service) and professional competencies (communication, teamwork, problem-solving) in multiple ways: through classroom instruction, school-based enterprises (student-run restaurants and cafes), and work-based learning experiences with hospitality employers including job shadows, internships, and registered apprenticeships.

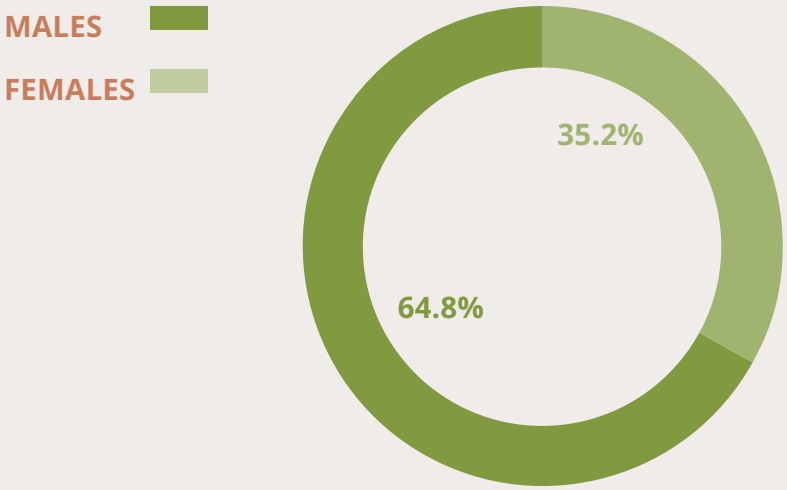
ORANGE TOURISM AND OUTDOOR RECREATION INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 38.3 YEARS



ORANGE TOURISM AND OUTDOOR RECREATION INDUSTRY BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE TOURISM AND OUTDOOR RECREATION INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Tourism and Outdoor Recreation Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 83,050
2035: 93,165
CAGR: 1.1%

Wages*

2025: $25,660
2035: $35,340

Top Cities by Job Postings – Last 12 Months

1. Anaheim
2. Newport Beach
3. Irvine
4. Dana Point
5. Costa Mesa

Top Employer by Job Postings – Last 12 Months

1. Marriott International
2. Aimbridge Hospitality
3. 24 Hour Fitness
4. Lifetime Fitness

*Includes part-time workers

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Fast Food and Counter Workers (14,312; $35,117)
2. Waiters and Waitresses (9,212; $33,537)
3. Cooks, Restaurant (7,087; $42,309)
4. Cooks, Fast Food (6,560; $34,940)
5. Amusement and Recreation Attendant (2,919; $33,879)

Top 5 Jobs in 2035

1. Fast Food and Counter Workers (16,672; $48,366)
2. Waiters and Waitresses (9,786; $46,191)
3. Cooks, Restaurant (8,521; $58,272)
4. Cooks, Fast Food (6,157; $48,123)
5. Amusement and Recreation Attendant (3,458; $46,662)

Top Jobs Emerging over next decade

1. Fast Food and Counter Workers (+2,360)
2. Cooks, Restaurant (+1,434)
3. First-Line Supervisors of Food Preparation and Serving Workers (+596)
4. Waiters and Waitresses (+574)
5. Amusement and Recreation (+539)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Restaurant Operation
2. Food Safety and Sanitation
3. Cash Register
4. Cash Handling
5. Safety Training

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Culinary Arts Pathway
2. OCDE – Hospitality, Tourism, and Recreation CTE
3. Cypress College – Hospitality Management

Career Progression

Most frequent prior jobs

1. Retail Salespersons
2. Fast Food and Counter Workers
3. Customer Service Representatives

Most frequent next job

1. General and Operations Managers
2. Secretaries and Assistants
3. Training Specialists

Tourism and Outdoor Recreation Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 74,809
2035: 83,921
CAGR: 1.1%

Wages

2025: $32,347
2035: $44,550

Top Cities by Job Postings – Last 12 Months

1. Anaheim
2. Newport Beach
3. Irvine
4. Fullerton
5. Buena Park

Top Employer by Job Postings – Last 12 Months

1. Marriott International
2. Aimbridge Hospitality
3. Cheesecake Factory
4. Lawry's Restaurants
5. Domino's Pizza

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Actors (208; $64,103)
2. Massage Therapists (142; $50,227)
3. Audio and Video Technicians (81; $56,960)
4. Skincare Specialists (50; $34,358)
5. Sound Engineering Technicians (42; $69,549)

Top 5 Jobs in 2035

1. Actors (262; $88,289)
2. Massage Therapists (189; $69,178)
3. Audio and Video Technicians (97; $78,451)
4. Skincare Specialists (62; $47,321)
5. Sound Engineering Technicians (49; $95,790)

Top Jobs Emerging Over Next Decade

1. Actors (+54)
2. Massage Therapists (+47)
3. Audio and Video Technicians (+16)
4. Skincare Specialists (+11)
5. Sound Engineering Technicians (+7)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Restaurant Operation
2. Hotel and Restaurant Management
3. Guest Relations
4. Food Safety and Sanitation
5. Customer Complaint Resolution

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange Coast College – Hospitality, Travel, and Tourism
2. Saddleback College – Hospitality Management
3. Santa Ana College – Hospitality Services

Career Progression

Most Frequent Prior Jobs

1. Secretaries and Administrative Assistants
2. Retail Salespersons
3. Training and Development Specialist

Most Frequent Next Job

1. Producers and Directors
2. General and Operations Managers
3. Market Research Analysts and Marketing Specialists

Tourism and Outdoor Recreation Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 39,373
2035: 44,169
CAGR: 1.1%

Wages

2025: $51,221
2035: $70,544

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Dana Point
3. Newport Beach
4. Anaheim
5. Costa Mesa

Top Employer by Job Postings – Last 12 Months

1. Hilton
2. Taco Bell
3. NAMZ Group
4. Aimbridge Hospitality
5. Waldorf Astoria Monarch Beach Resort and Club

CAREER OPPORTUNITIES

Top 5 Jobs

1. General and Operations Managers (961; $126,198)
2. Writers and Authors (444; $60,253)
3. Coaches and Scouts (370; $43,965)
4. Fine Artists, Painters, and Sculptors (300; $31,108)
5. Entertainment and Recreation Managers (286; $70,251)

Top 5 Jobs in 2035

1. General and Operations Managers (1,153; $173,812)
2. Writers and Authors (560; $82,986)
3. Coaches and Scouts (419; $60,553)
4. Fine Artists, Painters, and Sculptors (385; $42,845)
5. Entertainment and Recreation Managers (344; $97,129)

Top Jobs Emerging Over Next Decade

1. General and Operations Managers (+192)
2. Writers and Authors (+117)
3. Fine Artists, Painters, and Sculptors (+84)
4. Entertainment and Recreation Managers (+58)
5. Coaches and Scouts (+50)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Marketing
2. Restaurant Operation
3. Project Management
4. Accounting
5. Auditing

Advancing Through Educational Opportunities – Key Educational Institutions

1. California State University, Fullerton – Center for Entertainment and Hospitality Management
2. UC Irvine – Claire Trevor School of the Arts
3. Chapman University – Dodge College of Film and Media Arts

Career Progression

Most Frequent Prior Jobs

1. Sales Managers
2. Market Research Analysts and Marketing Specialists
3. Program Management Specialists

Most Frequent Next Job

1. Chief Executives
2. Producers and Directors
3. Sales Managers

Transportation

INDUSTRY OVERVIEW

The movement of goods, services, and residents throughout Orange County relies on the region's multi-modal, modern network of strategic transportation corridors including the I-5, I-405, SR-55, and SR-91. These freeways are complemented by The Toll Roads (SR-73, 133, 241, and 261), a system designed to provide congestion relief and reliable travel times, and the I-405 Improvement Project, which represents a continuous commitment to modernization. John Wayne Airport (SNA) provides a convenient gateway for business and leisure travel while also serving as a critical hub for high-value, time-sensitive air cargo for the county's MedTech and High-Tech industries. The Orange County Transportation Authority (OCTA) operates a comprehensive bus network and funds Metrolink commuter rail service. The development of the OC Streetcar, connecting Santa Ana and Garden Grove, marks a recent and significant addition.

INDUSTRY GROWTH AND DEMAND DRIVERS

The Orange County Transportation Authority (OCTA) is the county's primary transportation planning agency. It is responsible for programming state and federal funds and managing Measure M, the county's half-cent sales tax for transportation improvements.

CURRENT HIGH-DEMAND ROLES

The most in-demand occupations range from Heavy and Tractor-Trailer Drivers and Light Truck Drivers to Mechanics and Airline Pilots.

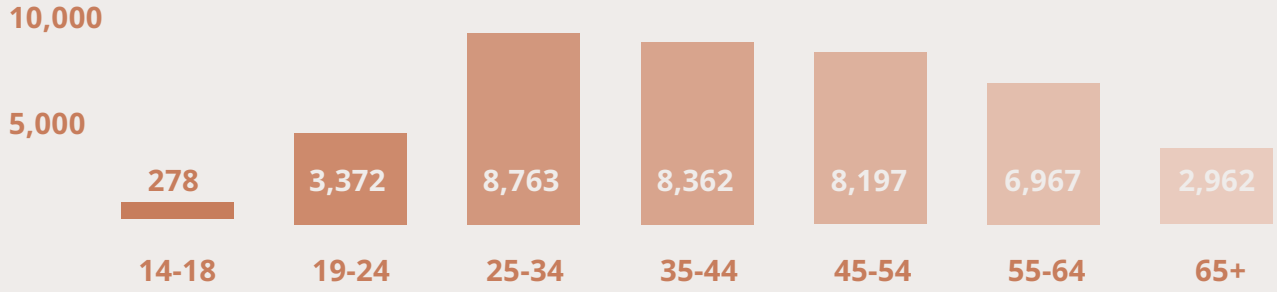
EMERGING FUTURE CAREERS

Transportation pathways are evolving to emphasize electric vehicle technology, battery systems, charging infrastructure, and vehicle connectivity. This transition creates new career opportunities in an industry undergoing fundamental technological change.

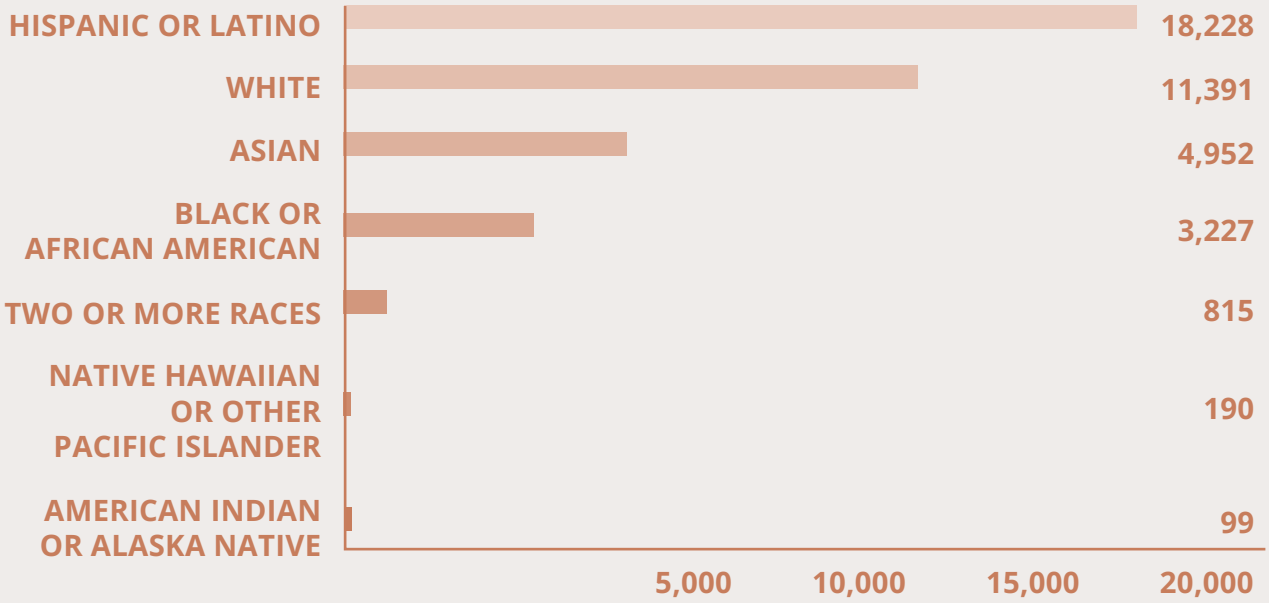
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

Automotive technology programs teach diagnosis, repair, and maintenance of modern vehicles including computer systems, hybrid and electric powertrains, and advanced driver assistance systems. Students often complete Automotive Service Excellence (ASE) credentials that certify specific technical competencies valued by employers. Collision repair programs teach body repair, painting, and frame straightening. Logistics and supply chain pathways prepare students for careers in key e-commerce-related occupations such as warehouse operations, transportation management, distribution, and supply chain analytics.

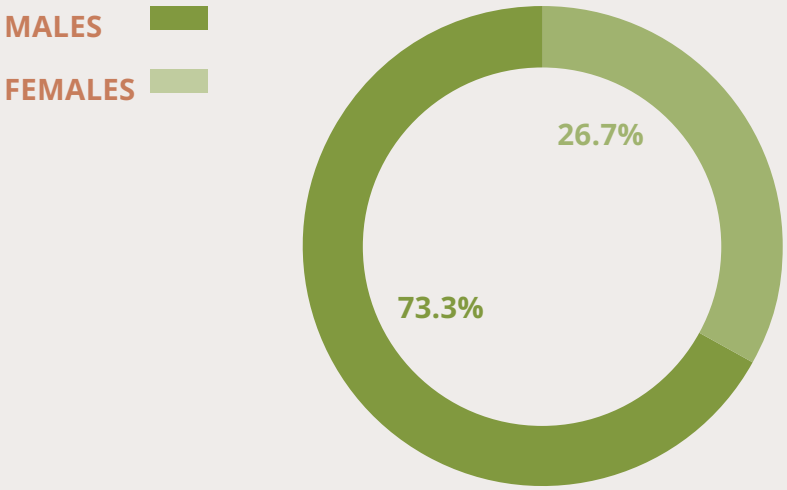
ORANGE TRANSPORTATION INDUSTRY
BREAKDOWN BY AGE GROUP / MEDIAN AGE: 43.5 YEARS



ORANGE TRANSPORTATION INDUSTRY
BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE TRANSPORTATION INDUSTRY
BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Transportation Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 15,060
2035: 17,208
CAGR: 1.2%

Wages

2025: $42,165
2035: $51,738

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Orange
4. Anaheim
5. Fullerton

Top Employer by Job Postings – Last 12 Months

1. B. Braun Group
2. FedEx
3. Extra Space Storage
4. UPS
5. Glovis America

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Light Truck Drivers (2,273; $45,870)
2. Stockers and Order Fillers (784; $39,211)
3. Couriers and Messengers (648; $41,205)
4. Bus Drivers (402; $63,960)
5. First-Line Supervisors of Transportation and Material Moving Workers (316; $62,754)

Top 5 Jobs in 2035

1. Light Truck Drivers (2,365; $60,581)
2. Stockers and Order Fillers (815; $51,787)
3. Couriers and Messengers (674; $54,420)
4. Bus Drivers (418; $84,473)
5. First-Line Supervisors of Transportation and Material Moving Workers (329; $82,880)

Top Jobs Emerging Over Next Decade

1. Light Truck Drivers (+92)
2. Stockers and Order Fillers (+32)
3. Couriers and Messengers (+26)
4. Bus Drivers (+16)
5. First-Line Supervisors of Transportation and Material Moving Workers (+13)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Warehouse Operations
2. Material Handling
3. Forklift Certification
4. Order Fulfillment Management
5. Material Handling Equipment

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Transportation; Engineering and Architecture
2. OCDE – Transportation; Energy, Environment, and Utilities CTE
3. Orange CTE – Transportation

Career Progression

Most Frequent Prior Jobs

1. Retail Salespersons
2. Customer Service Representatives
3. Driver/Sales Worker

Most Frequent Next Job

1. Transportation, Storage, and Distribution Managers
2. Market Research Analysts
3. Sales Representatives of Services

Transportation Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 12,401
2035: 14,170
CAGR: 1.2%

Wages

2025: $53,154
2035: $65,222

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Orange
3. Santa Ana
4. Buena Park
5. Anaheim

Top Employer by Job Postings – Last 12 Months

1. B. Braun Group
2. Glovis America
3. Orange County Transportation Authority (OCTA)
4. Symbotic
5. Evolution Parking and Guest Services

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Heavy and Tractor-Trailer Drivers (1,446; $59,826)
2. Aircraft Mechanics and Service Technicians (93; $79,599)
3. Automotive Service Technicians and Mechanics (30; $61,950)
4. Captains, Mates, and Pilots of Water Vessels (29; $68,545)
5. Order Clerks (27; $45,727)

Top 5 Jobs in 2035

1. Heavy and Tractor-Trailer Drivers (1,525; $73,406)
2. Aircraft Mechanics and Service Technicians (99; $97,618)
3. Captains, Mates, and Pilots of Water Vessels (33; $84,103)
4. Automotive Service Technicians and Mechanics (32; $76,011)
5. Order Clerks (25; $56,106)

Top Jobs Emerging Over Next Decade

1. Heavy and Tractor-Trailer Drivers (+79)
2. Aircraft Mechanics and Service Technicians (+6)
3. Captains, Mates, and Pilots of Water Vessels (+10)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Vehicle Inspection
2. Lubrication
3. Commercial Driving
4. Tire Repairs
5. No-Touch Freight

Advancing Through Educational Opportunities – Key Educational Institutions

1. Cypress College – Automotive Technology; Aviation Management
2. Orange Coast College – Aviation Science; Avionics
3. Golden West / Saddleback / Fullerton Colleges – Automotive Technology

Career Progression

Most Frequent Prior Jobs

1. Driver/Sales Worker
2. Customer Service Representatives
3. Laborers and Freight

Most Frequent Next Job

1. Training and Development Specialists
2. Maintenance and Repair Workers
3. Transportation, Storage Managers

Transportation Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 5,160
2035: 5,896
CAGR: 1.2%

Wages

2025: $84,168
2035: $103,278

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Orange
3. Santa Ana
4. Tustin
5. Anaheim

Top Employer by Job Postings – Last 12 Months

1. B. Braun Group
2. Glovis America
3. Orange County Transportation Authority (OCTA)
4. Virgin Galactic

CAREER OPPORTUNITIES

Top 5 Jobs

1. Managers, All Other (163; $128,104)
2. General and Operations Managers (153; $126,198)
3. Airline Pilots, Copilots, and Flight Engineers (88; $294,910)
4. Human Resources Specialists (57; $78,220)
5. Logisticians (48; $82,518)

Top 5 Jobs in 2035

1. Managers, All Other (186; $157,181)
2. General and Operations Managers (167; $154,842)
3. Airline Pilots, Copilots, and Flight Engineers (94; $361,848)
4. Human Resources Specialists (63; $95,974)
5. Logisticians (62; $101,248)

Top Jobs Emerging Over Next Decade

1. Managers, All Other (+22)
2. General and Operations Managers (+15)
3. Logisticians (+14)
4. Airline Pilots, Copilots, and Flight Engineers (+7)
5. Human Resources Specialists (+6)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Warehouse Management
2. Materials Management
3. Supply Chain Planning
4. Demand Planning
5. Supply Chain Acumen

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – Samueli School of Engineering – Mechanical and Aerospace Engineering
2. CSUF – College of Engineering and Computer Science – Mechanical Engineering
3. Chapman University – Keck Center for Science and Engineering

Career Progression

Most Frequent Prior Jobs

1. Sales Managers
2. Project Management Specialists
3. Market Research Analysts

Most Frequent Next Job

1. Chief Executives
2. Sales Managers
3. Financial Managers

Working Lands & Water

INDUSTRY OVERVIEW

The Working Lands & Water sector is an important part of Southern California. While the vast, fertile fields of Imperial Valley serve as a cornerstone of national agricultural production and San Diego's farms yield high-value specialty crops, Orange County has evolved from its agricultural past to become a global leader in water technology and urban-integrated agriculture.

INDUSTRY GROWTH AND DEMAND DRIVERS

Orange County's leading agricultural commodity is now nursery products, reflecting a shift to high-value, land-efficient horticulture. It is also home to the Orange County Water District's Groundwater Replenishment System (GWRS), the world's largest project for indirect potable reuse, turning wastewater into pristine drinking water. Orange County and the surrounding area serve as a critical hub for the food and beverage industry.

CURRENT HIGH-DEMAND ROLES

The sector supports a wide array of jobs, including botanists and horticulturists at Orange County's nurseries.

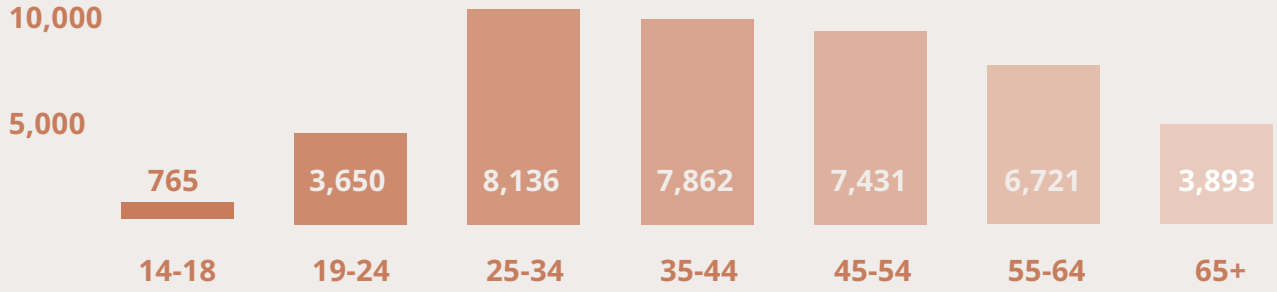
EMERGING FUTURE CAREERS

As technology plays a greater role, there are significant opportunities to upskill the workforce in areas like precision agriculture, drone operation, and advanced water system management, creating pathways to higher-wage jobs.

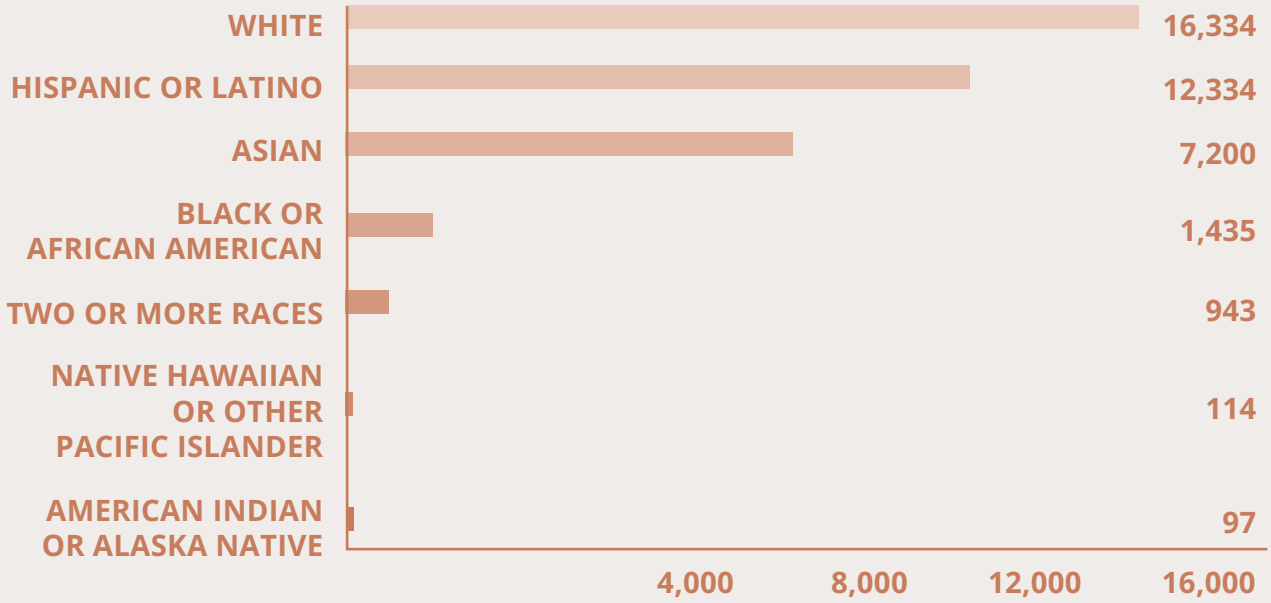
NAVIGATING CAREER PROGRESSION – CAREER PATHWAYS AND MOBILITY

Orange County students engage in coursework ranging from traditional agricultural science to food systems, landscape architecture, and environmental technology. These programs prepare students for careers in environmental consulting, water resource management, sustainable landscape design, and food production systems. Students demonstrate commitment to the sector beyond exploratory coursework, with many transitioning to programs at community colleges and universities in environmental science, horticulture, and agricultural business. Notable partnerships include collaborations with the Orange County Water District, local nurseries and landscape companies, and environmental nonprofits that provide work-based learning opportunities.

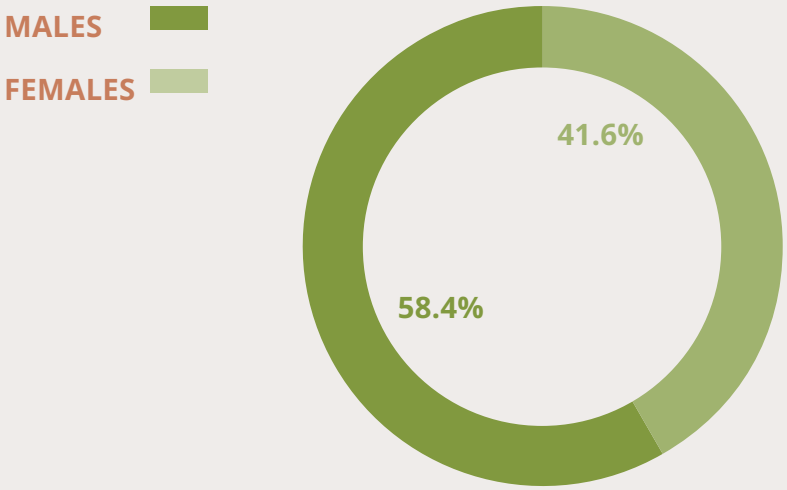
ORANGE WORKING LANDS AND WATER INDUSTRY BREAKDOWN BY AGE GROUP / MEDIAN AGE: 43.8 YEARS



ORANGE WORKING LANDS AND WATER INDUSTRY BREAKDOWN BY RACIAL OR ETHNIC GROUP



ORANGE WORKING LANDS AND WATER INDUSTRY BREAKDOWN BY GENDER



SOURCE: LIGHTCAST

Working Lands & Water Career Snapshot: High School or Equivalent

LABOR MARKET INSIGHTS

Jobs

2025: 4,220
2035: 4,289
CAGR: 0.1%

Wages

2025: $59,345
2035: $82,777

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Anaheim
4. Costa Mesa
5. San Clemente

Top Employer by Job Postings – Last 12 Months

1. Belcan
2. WSP Global

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Food Batchmakers (258; $36,905)
2. First-Line Supervisors of Production Workers (117; $73,451)
3. Farmers and Agricultural Managers (107; $37,714)
4. Production, Planning, and Expediting Clerks (93; $61,131)
5. Construction Inspectors (87; $98,468)

Top 5 Jobs in 2035

1. Food Batchmakers (301; $52,689)
2. First-Line Supervisors of Production Workers (130; $104,867)
3. Farmers and Agricultural Managers (103; $53,897)
4. Production, Planning, and Expediting Clerks (100; $87,276)
5. Construction Inspectors (89; $140,584)

Top Jobs Emerging Over Next Decade

1. Food Batchmakers (+43)
2. Industrial Machinery Mechanics (+14)
3. First-Line Supervisors of Production Workers (+13)
4. Production, Planning, and Expediting Clerks (+7)
5. Forest and Conservation Workers (+7)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Performance Review
2. On-The-Job Training
3. Blueprinting

Advancing Through Educational Opportunities – Key Educational Institutions

1. Orange USD – Agriculture and Natural Resources – Animal Science
2. OCDE – Agriculture and Natural Resources CTE – Agriscience
3. Orange County Farm Bureau – OCFB Grow

Career Progression

Most Frequent Prior Jobs

1. Fast Food and Counter Workers
2. Inspectors, Testers, and Sorters
3. Training and Development Specialists

Most Frequent Next Job

1. Natural Science Managers
2. Project Management Specialists
3. Clinical Laboratory Technologists

Working Lands & Water Career Snapshot: Middle Skills

LABOR MARKET INSIGHTS

Jobs

2025: 3,903
2035: 4,031
CAGR: 0.3%

Wages

2025: $74,811
2035: $104,349

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Santa Ana
3. Anaheim
4. Brea
5. Newport Beach

Top Employer by Job Postings – Last 12 Months

1. Belcan
2. HDR
3. Sargent & Lundy

CAREER OPPORTUNITIES

Top 5 Jobs Currently

1. Architectural and Civil Drafters (324; $75,496)
2. Civil Engineering Technologists (168; $80,925)
3. Electrical Engineering Technologists (68; $83,556)
4. Electrical Drafters (58; $73,721)
5. Heavy and Tractor-Trailer Truck Drivers (39; $59,826)

Top 5 Jobs in 2035

1. Architectural and Civil Drafters (309; $107,787)
2. Civil Engineering Technologists (160; $115,253)
3. Electrical Engineering Technologists (70; $119,294)
4. Electrical Drafters (54; $105,253)
5. Heavy and Tractor-Trailer Truck Drivers (31; $85,505)

Top Jobs Emerging Over Next Decade

1. Food Science Technicians (+8)
2. Chemical Technicians (+8)
3. Life, Physical, and Social Science Technicians (+5)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Auditing
3. AutoCAD
4. Accounting
5. Invoicing

Advancing Through Educational Opportunities – Key Educational Institutions

1. Fullerton College – Horticulture
2. Saddleback College – Agriculture Plant Science
3. Orange Coast College – Horticulture, Green Industry

Career Progression

Most Frequent Prior Jobs

1. Inspectors, Testers, and Sorters
2. Occupational Health and Safety Specialists
3. Clinical Laboratory Technologists

Most Frequent Next Job

1. Industrial Production Managers
2. Food Scientists and Technologists
3. General and Operations Managers

Working Lands & Water Career Snapshot: Bachelor's Degree

LABOR MARKET INSIGHTS

Jobs

2025: 3,520
2035: 3,747
CAGR: 0.6%

Wages

2025: $118,462
2035: $165,234

Top Cities by Job Postings – Last 12 Months

1. Irvine
2. Orange
3. Santa Ana
4. Brea
5. Anaheim

Top Employer by Job Postings – Last 12 Months

1. AECOM
2. WSP Global
3. Stantec
4. HDR
5. Belcan

CAREER OPPORTUNITIES

Top 5 Jobs

1. Project Management Specialists (489; $104,684)
2. Electrical Engineers (340; $136,572)
3. Architectural and Engineering Managers (308; $183,886)
4. General and Operations Managers (223; $126,198)
5. Mechanical Engineers (344; $115,440)

Top 5 Jobs in 2035

1. Project Management Specialists (491; $149,458)
2. Electrical Engineers (350; $194,986)
3. Mechanical Engineers (349; $164,991)
4. Architectural and Engineering Managers (306; $262,816)
5. General and Operations Managers (243; $180,174)

Top Jobs Emerging Over Next Decade

1. Software Developers (+27)
2. General and Operations Managers (+20)
3. Data Scientists (+10)
4. Electrical Engineers (+9)
5. Computer and Information Systems Managers (+7)

GROWTH PATHWAYS & CAREER ADVANCEMENT

Top Essential Skills

1. Project Management
2. Civil Engineering
3. Marketing
4. Business Development
5. AutoCAD

Advancing Through Educational Opportunities – Key Educational Institutions

1. UCI – Department of Earth System Science - Environmental Science and Policy
2. CSUF – College of Humanities and Social Sciences – Environmental Studies

Career Progression

Most Frequent Prior Jobs

1. Software Developers
2. Computer Occupations, All Other
3. Market Research Analysts

Most Frequent Next Job

1. Management Analysts
2. General and Operations Managers
3. Database Architects

2026

Appendix B: Orange County P-16 Career Technical Education

OVERALL PARTICIPATION METRICS

ALMOST HALF OF ORANGE COUNTY HIGH SCHOOL STUDENTS ENROLLED IN CTE PATHWAYS

Nearly one in two Orange County high school students actively participates in Career Technical Education (CTE) pathways – a participation rate that positions the region as a leader in career-connected learning. This 48 percent enrollment rate represents approximately 97,000 students across grades 7-12 who are engaging in structured, industry-aligned coursework designed to prepare them for both college and career success.

This level of participation is significant for several reasons. First, it demonstrates that CTE is not a niche or alternative track, but rather a mainstream component of comprehensive education in Orange County. Second, it reflects strong district commitment and community support for career education as an essential element of college and career readiness. Third, it creates a substantial talent pipeline for regional employers across multiple sectors.

Compared to California's statewide CTE participation rate of approximately 35-40 percent, Orange County's 48 percent enrollment reflects intentional regional coordination through OC Pathways and sustained investment in program quality, work-based learning, and employer partnerships. This participation rate has grown steadily over the past five years, driven by expanded pathway offerings, increased dual enrollment opportunities, and stronger connections between secondary and postsecondary education.

Economic Impact: With nearly half of high school students gaining early exposure to career skills and industry credentials, Orange County is building a workforce that enters postsecondary education and employment with clearer career direction, relevant technical skills, and professional experience, reducing time to degree completion and improving employment outcomes.

58 PERCENT OF STUDENTS COMPLETING PATHWAYS ALIGNED TO HIGH-GROWTH INDUSTRIES

More than half of Orange County's CTE pathway completers are concentrating their studies in industry sectors projected to experience significant job growth over the next decade. This 58 percent alignment rate reflects strategic program design and demonstrates that students are not simply enrolling in any CTE course; they are choosing pathways with strong labor market demand.

High-growth industries in Orange County include Health Science and Medical Technology, Information and Communication Technologies, Engineering and Architecture, Business and Finance, and Hospitality and Tourism – sectors that collectively represent over 60 percent of projected job openings requiring technical training or associate degrees. By concentrating more than half of completers in these fields, OC Pathways is directly responding to employer demand and positioning students for career success in industries with strong wage trajectories and advancement opportunities.

The remaining 42 percent of completers are distributed across other important sectors including public services, transportation, manufacturing, and the creative economy – fields that may have slower overall growth but remain essential to regional economic vitality and offer stable career opportunities.

Policy Implication: This alignment didn't happen by accident. It resulted from systematic labor market analysis, employer advisory input, and strategic resource allocation. The 58 percent figure serves as both a measure of current success and a baseline for continuous improvement, with opportunities to increase alignment through expanded apprenticeships, enhanced career guidance, and targeted program development in emerging sectors like clean energy and advanced manufacturing.

19,368 STUDENTS PARTICIPATING IN DUAL ENROLLMENT (UNDUPLICATED)

Orange County's dual enrollment participation has transformed from a limited opportunity for high-achieving students into a widespread strategy for accelerating postsecondary success. Nearly 20,000 unduplicated students are earning college credit while still in high school, representing approximately 20 percent of the region's high school enrollment and positioning Orange County among the highest-performing regions in California for college credit access.

These dual enrollment opportunities span general education, CTE pathways, and transfer-level coursework through partnerships with all 10 Orange County community colleges, as well as California State University, Fullerton and other four-year institutions. Students can access dual enrollment through concurrent enrollment (taking college courses while attending high school), early college programs, and middle college high school models.

The economic value to families is substantial. Based on California community college tuition rates, students earning an average of 12-15 college units through dual enrollment save approximately $1,380-$1,725 per student in avoided college costs. Across 19,368 students, this represents over $26 million in collective savings to Orange County families annually.

More importantly, research consistently shows that dual enrollment participation increases college-going rates, improves persistence to degree completion, and reduces time to graduation, particularly for first-generation college students, low-income students, and students from underrepresented groups. By making college both financially accessible and academically attainable during high school, Orange County is creating more equitable pathways to economic mobility.

Equity Consideration: Dual enrollment participation has grown most significantly in CTE pathways where students can simultaneously earn high school credit, college credit, and industry credentials, thus creating a powerful acceleration mechanism for career preparation while reducing postsecondary costs.

9,175 STUDENTS EARNING INDUSTRY CREDENTIALS

Orange County high school students earned over 9,000 industry-recognized credentials in 2024-25, providing them with portable, stackable certifications that hold value in regional labor markets. These credentials span multiple sectors and skill levels, from entry-level certifications that enable immediate employment to advanced credentials that prepare students for postsecondary technical programs.

Industry credentials serve multiple purposes in career preparation. For students, they provide tangible validation of skills, enhance resumes, and in many cases enable part-time or summer employment before graduation. For employers, credentials offer a trusted signal of workforce readiness and reduce onboarding time. For postsecondary institutions, industry credentials can articulate into college credit, further accelerating degree completion.

EXAMPLES OF CREDENTIALS EARNED BY ORANGE COUNTY STUDENTS INCLUDE:

- **Health Science**: Certified Nursing Assistant (CNA), Emergency Medical Technician (EMT), CPR/First Aid
- **Information Technology**: CompTIA A+, Cisco CCNA, Microsoft Office Specialist, Adobe Certified Associate
- **Manufacturing**: OSHA Safety Certifications, CNC programming, welding certifications
- **Business & Finance**: QuickBooks certification, Microsoft Excel Expert
- **Hospitality**: ServSafe Food Handler, customer service certifications

The 9,175 credentials earned in 2024-25 represents continued growth in credential attainment, reflecting expanded access to certification exams, increased employer recognition of the value of youth credentials, and stronger integration of credentialing into CTE pathway sequences. Importantly, Orange County's credential strategy focuses on credentials with demonstrated labor market value rather than simply maximizing credential counts, ensuring students invest time in certifications that employers recognize and reward.

Future Direction: As California implements its Jobs First economic strategy and expands registered apprenticeships, industry credentials will play an increasingly important role as on-ramps to earn-and-learn pathways and as proof of competency-based learning. Orange County's infrastructure for credential attainment positions the region to scale these opportunities further.

CTE CONCENTRATORS AND COMPLETERS BY SECTOR

RACE/ETHNICITY AND GENDER PARTICIPATION ACROSS INDUSTRY SECTORS

HISPANIC STUDENTS MAKE UP THE MAJORITY IN MOST SECTORS (55–75%).

- Across Health, Construction, Public Services, Hospitality, AME, and ICT: **Hispanic representation ranges from 55% to 75% of total enrollment**, depending on sector. This makes Hispanic students the **largest driver** of countywide CTE trends.

HISPANIC MALES ARE UNDERREPRESENTED IN HEALTH SCIENCE (31%).

- In Health Science & Medical Technology (Hispanic students only):
  - **69% female**
  - **31% male**
- This is the **largest gender gap** for any major racial group in any major sector.

FEMALE-DOMINATED SECTORS

- Health Science: **64–75% female, depending on race**
- Child Development: **75–85% female**
- Fashion & Interior Design: **70–90% female**

MALE-DOMINATED SECTORS

- Construction: **85–95% male**
- Engineering: **70–90% male**
- ICT: **65–85% male**
- Transportation: **85–95% male**

ASIAN STUDENTS CLUSTER IN STEM AT VERY HIGH RATES (40–60% OF ALL ASIAN CTE ENROLLMENT).

- When you look at where Asian students choose to enroll:
- **ICT + Engineering account for 40–60%** of all Asian CTE participation.
- This is a **much higher STEM concentration** than any other racial group.

AGRICULTURE AND NATURAL RESOURCES (1,595 CONCENTRATORS / 382 COMPLETERS)

While Orange County's agricultural footprint is smaller than many California regions, the Agriculture and Natural Resources sector plays a strategic role in preparing students for emerging careers in sustainability, urban agriculture, and environmental science. The 1,595 concentrators represent students engaging in coursework ranging from traditional agricultural science to food systems, landscape architecture, and environmental technology.

Orange County's agriculture pathways increasingly emphasize sustainable food systems, urban farming, and the intersection of agriculture with biotechnology and environmental conservation. These programs prepare students for careers in environmental consulting, water resource management, sustainable landscape design, and food production systems — fields that align with California's climate goals and the growing demand for sustainability professionals.

The 382 completers demonstrate commitment to the sector beyond exploratory coursework, with many transitioning to programs at community colleges and universities in environmental science, horticulture, and agricultural business. Notable partnerships include collaborations with the Orange County Water District, local nurseries and landscape companies, and environmental nonprofits that provide work-based learning opportunities.

Regional Context: As Orange County continues to urbanize, careers in sustainable land management, water conservation, and urban agriculture are becoming increasingly relevant, making this pathway an important contributor to regional environmental resilience.

ARTS, MEDIA, AND ENTERTAINMENT (19,935 CONCENTRATORS / 2,381 COMPLETERS)

Arts, Media, and Entertainment stands as Orange County's largest CTE sector by enrollment, with nearly 20,000 concentrators representing more than 20 percent of all CTE participation. This substantial interest reflects both student passion for creative fields and the region's robust creative economy, which includes entertainment production, digital media, graphic design, animation, music production, and performing arts.

Orange County's creative economy is anchored by major entertainment employers, post-production facilities, advertising agencies, design firms, and a thriving independent creative community. The region's proximity to Hollywood, combined with its own production infrastructure, creates authentic career opportunities for students trained in digital media production, animation, graphic design, and audio engineering.

However, the pathway from Arts, Media, and Entertainment concentration to completion shows a significant funnel—from 19,935 concentrators to 2,381 completers. This reflects the exploratory nature of many arts courses, where students sample creative disciplines as part of general education or personal interest without necessarily pursuing them as career pathways. This is appropriate and valuable: Arts education develops creativity, problem-solving, and communication skills that transfer to any career while also allowing students to discover authentic career interests.

For the 2,381 completers, the career outlook is strong. Orange County employers in design, digital media, and content creation report ongoing demand for skilled workers with both technical proficiency (Adobe Creative Suite, video production, web design) and creative problem-solving abilities. Many completers pursue postsecondary education in film, design, and digital arts at programs like Chapman University; California State University, Fullerton; and community college digital media programs, while others enter the workforce directly through production assistant roles, graphic design positions, or freelance creative work.

Credential Highlight: Students can earn Adobe Certified Associate credentials in Photoshop, Illustrator, Premiere Pro, and other industry-standard tools. Such credentials hold immediate value in regional creative employment.

BUILDING AND CONSTRUCTION TRADES (2,903 CONCENTRATORS / 323 COMPLETERS)

Orange County's construction sector faces a critical workforce challenge: an aging workforce, sustained development demand, and insufficient numbers of young workers entering the trades. The Building and Construction Trades pathway, with 2,903 concentrators, represents an essential talent pipeline for an industry that offers strong wages, career advancement, and opportunities for entrepreneurship.

Construction trades pathways in Orange County include carpentry, electrical, plumbing, HVAC, masonry, and construction management. These programs combine classroom instruction in construction principles, mathematics, and blueprint reading with hands-on training in school-based construction labs and, increasingly, through work-based learning opportunities with local contractors and construction companies.

The pathway's 323 completers demonstrate serious career interest, with many transitioning directly into registered apprenticeships with construction trade unions or entering the workforce with construction companies seeking entry-level workers. Others pursue associate degrees in construction management or architecture at community colleges, preparing for supervisory and project management roles.

Equity and Opportunity: Building trades represent one of the most accessible pathways to middle-class earnings without requiring a four-year degree. Entry-level positions in construction trades in Orange County typically start at $18-$22 per hour, with experienced journey-level workers earning $30-$45+ per hour. Through registered apprenticeships, workers can earn while learning, avoiding student debt while building both skills and income.

OC Pathways is working to expand construction pathway enrollment through enhanced partnerships with construction employers, connections to registered apprenticeship programs, and targeted outreach to women and underrepresented groups in the trades. The relatively low completion numbers (323) indicate significant opportunity for growth as regional construction demand remains strong.

BUSINESS AND FINANCE (4,054 CONCENTRATORS / 633 COMPLETERS)

Business and Finance pathways provide students with versatile, transferable skills applicable across virtually every industry sector. With 4,054 concentrators, this pathway attracts students interested in entrepreneurship, accounting, financial services, business operations, and marketing analytics. Orange County's diverse economy, spanning professional services, retail, technology, healthcare administration, and hospitality, creates abundant career opportunities for students with business acumen.

The Business and Finance pathway typically includes coursework in accounting principles, business law, economics, marketing, financial literacy, and, increasingly, business analytics and digital commerce. Students develop both technical skills (QuickBooks, Excel, financial modeling) and professional competencies (communication, teamwork, ethical decision-making) that employers value across sectors.

The 633 completers often transition to business programs at four-year universities or pursue associate degrees in accounting, business administration, or entrepreneurship at community colleges. Others enter the workforce in entry-level business operations roles, using their foundational knowledge as a launching point for career advancement. Notably, business skills create optionality; students with business training can pivot into multiple career directions, making this pathway attractive for students still exploring career interests.

Entrepreneurship Focus: Many Orange County business pathways emphasize entrepreneurship and small business development, reflecting the region's strong entrepreneurial culture. Students develop business plans, operate school-based enterprises, and participate in competitions such as DECA and Future Business Leaders of America, building both confidence and practical business skills.

EDUCATION, CHILD DEVELOPMENT, AND FAMILY SERVICES (2,597 CONCENTRATORS / 528 COMPLETERS)

California faces a critical shortage of teachers, especially in elementary education, special education, and bilingual education. Similarly, the early childhood education sector struggles to recruit and retain qualified educators despite strong demand for childcare and preschool services. Orange County's Education, Child Development, and Family Services pathway, with 2,597 concentrators, represents a strategic response to these workforce challenges while providing students with meaningful preparation for helping professions.

This pathway includes teacher preparation courses, early childhood education, child development, and social services programs. Students gain hands-on experience through classroom observations, tutoring, and, in some cases, paid work in childcare centers and after-school programs. Many students complete coursework that articulates into community college ECE programs or transfer to universities with teacher preparation programs.

The 528 completers demonstrate commitment to education careers despite the challenges facing the profession. These students are pursuing pathways to become teachers, childcare providers, school counselors, education administrators, and family services specialists. Orange County has implemented several "grow your own" initiatives that recruit high school students into education pathways, provide financial support for college, and create clear pathways to teaching credentials – essential strategies for diversifying the educator workforce and increasing the number of bilingual and culturally responsive teachers.

Dual Enrollment Advantage: Many Education pathway students complete dual enrollment ECE courses at community colleges, earning both high school and college credit while simultaneously fulfilling requirements for entry-level childcare employment. This accelerates their path to both postsecondary credentials and workforce entry.

Future Need: As California invests in universal transitional kindergarten and expanded preschool access, demand for early childhood educators will continue to grow, making this pathway increasingly critical for regional economic development and family support services.

ENERGY, ENVIRONMENT, AND UTILITIES (269 CONCENTRATORS / 17 COMPLETERS)

Energy, Environment, and Utilities is Orange County's smallest CTE sector by enrollment, reflecting both the emerging nature of clean energy careers and the limited number of developed pathway programs in this field. However, as California advances its climate goals and transitions to renewable energy, this sector represents one of the highest-growth opportunity areas for future expansion.

The 269 concentrators are engaging with coursework related to solar energy, energy efficiency, environmental technology, and sustainability, often through integrated programs that combine environmental science, engineering, and construction trades. These students are exploring careers in solar installation, energy auditing, environmental consulting, water resource management, and green building technology.

The low completion numbers (17 completers) indicate that Energy, Environment, and Utilities pathways are still developing in most districts. However, this represents significant opportunity: California's commitment to carbon neutrality, expansion of renewable energy infrastructure, and investments in climate resilience will create thousands of jobs in this sector over the next decade. Early movers in developing robust energy and environmental pathways will position their students for high-demand, well-paid careers while contributing to climate solutions.

Strategic Opportunity: OC Pathways is working to expand Energy, Environment, and Utilities pathways through partnerships with utility companies, renewable energy firms, and environmental consulting companies. The region's registered apprenticeship infrastructure provides a vehicle for creating earn-and-learn pathways in solar installation, energy efficiency, and environmental technology: fields where immediate workforce demand exceeds supply.

Alignment with California Jobs First: Energy, Environment, and Utilities directly aligns with California's Clean Economy strategic sector, making pathway development in this field eligible for state workforce development funding and priority consideration in regional economic planning.

ENGINEERING AND ARCHITECTURE (5,122 CONCENTRATORS / 1,057 COMPLETERS)

Engineering and Architecture pathways serve as a critical STEM pipeline for Orange County's innovation economy. With 5,122 concentrators, this sector attracts students interested in applying mathematics and science principles to design, problem-solving, and technical innovation. Orange County's engineering sector, including aerospace, biomedical engineering, civil engineering, and software engineering, creates strong career opportunities for students with engineering preparation.

Engineering pathways typically include coursework in engineering design, computer-aided design (CAD), robotics, electronics, and engineering principles. Many programs utilize Project Lead The Way (PLTW) curriculum or equivalent project-based learning approaches that engage students in authentic engineering challenges. Students design and build prototypes, compete in robotics competitions,

and, in some cases, participate in industry-sponsored design challenges. The 1,057 completers represent students with sustained commitment to engineering fields, many of whom transition to university engineering programs at UC Irvine; California State University, Fullerton; and other institutions. Research shows that students who complete high school engineering pathways are significantly more likely to persist in college engineering programs, reducing the high attrition rates that plague undergraduate engineering education.

Postsecondary Transition: As noted in the document, 707 engineering concentrators transitioned to two-year or four-year institutions, with many enrolling in engineering and architecture programs at community colleges (offering affordable lower-division engineering coursework) before transferring to universities. This pathway reflects strategic use of California's community college system to reduce costs while maintaining educational quality.

Diversity Challenge and Opportunity: Engineering pathways in Orange County are working to increase participation by women and underrepresented minorities, recognizing that engineering careers offer high wages for Bachelor's degree holders. Targeted recruitment, mentoring, and partnerships with professional engineering societies are helping to broaden access to these high-opportunity careers.

FASHION AND INTERIOR DESIGN (420 CONCENTRATORS / 33 COMPLETERS)

Fashion and Interior Design represents a specialized niche within Orange County's creative economy, with 420 concentrators exploring careers in apparel design, textile arts, interior design, and retail merchandising. While this is one of the smaller pathways by enrollment, it serves an important role in Orange County's design ecosystem, which includes furniture design and manufacturing, interior design firms, and fashion retail.

Students in Fashion and Interior Design pathways develop technical skills in patternmaking, sewing and construction, computer-aided design for interiors, color theory, and fashion merchandising. Many programs include portfolio development and opportunities to showcase student work through fashion shows or design competitions.

The pathway's low completion numbers (33 completers) reflect both the specialized nature of these careers and the reality that many students explore fashion and design as creative outlets without pursuing them as primary careers. However, for students with genuine passion and talent, fashion and interior design offer viable career pathways, particularly when combined with business acumen and digital marketing skills.

Career Outlook: Interior design careers in Orange County benefit from the region's strong real estate market and high-end residential development. Fashion careers increasingly emphasize sustainable fashion, custom design, and digital fashion design – fields where creativity, technical skill, and entrepreneurship intersect.

HEALTH SCIENCE AND MEDICAL TECHNOLOGY (8,974 CONCENTRATORS / 2,175 COMPLETERS)

Health Science and Medical Technology is Orange County's second-largest CTE sector and represents one of the most strategically important pathways for regional workforce development. With nearly 9,000 concentrators and over 2,100 completers, this pathway directly responds to one of California's most pressing workforce challenges: a shortage of healthcare workers across virtually every role from nursing to allied health professions.

Orange County's Healthcare sector includes major hospital systems, medical device companies, biotechnology firms, pharmaceutical companies, and extensive outpatient and home health services. The region projects continued growth in healthcare employment driven by an aging population, advances in medical technology, and expansion of health insurance coverage.

HEALTH SCIENCE PATHWAYS ENCOMPASS DIVERSE CAREER PREPARATION INCLUDING:

- **Nursing pathways**: Preparing students for CNA certification and eventual progression to Licensed Vocational Nurse (LVN) or Registered Nurse (RN) programs
- **Allied health**: Medical assisting, dental assisting, pharmacy technician, radiologic technology
- **Emergency services**: EMT certification, paramedic preparation
- **Clinical support**: Phlebotomy, medical laboratory technology
- **Health information**: Medical coding, health informatics
- **Public health**: Community health education, health promotion

The 2,175 completers transition to postsecondary education at remarkably high rates. As noted in the document, over 2,100 Health Science concentrators continued to postsecondary programs – reflecting both student career commitment and the educational requirements for most healthcare careers. Many enter community college nursing and allied health programs, which offer associate degrees and certificates with strong employment outcomes. Others pursue university programs in nursing, public health, kinesiology, and biomedical sciences.

Industry Credentials: Health Science students earn valuable credentials including Certified Nursing Assistant (CNA), Emergency Medical Technician (EMT), and CPR/First Aid certification – credentials that enable immediate healthcare employment and provide clinical experience that strengthens applications to competitive nursing and allied health programs.

Equity and Economic Mobility: Healthcare careers offer some of the clearest pathways to economic mobility for students from low-income backgrounds. CNAs in Orange County earn $17-$22 per hour, LVNs earn $28-$35 per hour, and RNs earn $50-$65+ per hour. For students who might be first in their family to attend college, healthcare pathways provide both meaningful work and strong wage progression.

Partnership Strength: Orange County's health science pathways benefit from extensive partnerships with hospital systems including CHOC Children's Hospital, St. Joseph Health, Kaiser Permanente, and UC Irvine Health, which provide clinical rotations, mentoring, and increasingly, direct employment pathways for students who complete credentials.

HOSPITALITY, TOURISM, AND RECREATION (6,984 CONCENTRATORS / 1,413 COMPLETERS)

Orange County's hospitality and tourism economy is world-renowned, anchored by the Disneyland Resort and supported by a sophisticated infrastructure of hotels, restaurants, entertainment venues, and visitor services. The Hospitality, Tourism, and Recreation pathway, with nearly 7,000 concentrators, prepares students for careers in one of the region's largest employment sectors. While wage levels can be a challenge in some occupations in this industry, the sector does provide high advancement potential.

This pathway includes culinary arts, hotel and lodging management, travel and tourism, recreation management, and event planning. Students develop both technical skills (e.g., food preparation, hospitality operations, customer service) and professional competencies (e.g., communication, teamwork, problem-solving) through classroom instruction, school-based enterprises (e.g., student-run restaurants and cafes), and work-based learning experiences with hospitality employers.

The 1,413 completers demonstrate commitment to hospitality careers, with many entering the workforce directly in hotels, restaurants, and tourism attractions while simultaneously pursuing postsecondary education in hospitality management, culinary arts, or business administration. Orange County's hospitality employers increasingly recognize that "earn while you learn" models work well in this sector – students can work part-time or seasonally during high school and college, gaining both income and career experience.

Career Advancement Pathways: While entry-level hospitality positions often start at modest wages, the sector offers clear advancement pathways. Students who combine hospitality experience with postsecondary education in hospitality management can advance to supervisory, management, and executive positions with strong compensation. Restaurant managers, hotel general managers, and event directors in Orange County earn $60,000-$100,000+ annually.

Culinary Arts Emphasis: Culinary pathways are particularly popular, with students earning ServSafe Food Handler certification and developing professional cooking skills. Orange County's diverse culinary scene, from fine dining to food trucks, creates opportunities for students to explore various culinary career paths.

Work-Based Learning Opportunities: The hospitality sector provides extensive work-based learning opportunities including job shadows, internships, and registered apprenticeships. Major hospitality employers partner with OC Pathways to provide structured learning experiences that combine paid work with skill development and mentoring.

INFORMATION AND COMMUNICATION TECHNOLOGIES (8,191 CONCENTRATORS / 1,071 COMPLETERS)

Information and Communication Technologies (ICT) represents one of Orange County's highest-opportunity career pathways, with 8,191 concentrators preparing for careers in one of the region's fastest-growing sectors. Orange County's technology economy includes cybersecurity firms, software development companies, IT services, telecommunications, and technology departments within virtually every major employer.

ICT PATHWAYS ENCOMPASS MULTIPLE CAREER DIRECTIONS:

- **Cybersecurity**: Network security, ethical hacking, security analysis
- **Software development**: Programming, web development, mobile app development
- **IT support**: Help desk, network administration, systems administration
- **Data science**: Database administration, data analytics, business intelligence
- **Digital media**: Web design, user experience design, interactive media

The 1,071 completers represent students with technical skills verified through industry certifications including CompTIA A+, Cisco CCNA, Microsoft certifications, and programming credentials. As noted in the document, over 1,500 ICT concentrators transitioned to postsecondary programs, reflecting both strong student interest and clear career pathways that typically require some postsecondary education.

High-Demand, High-Wage Careers: ICT careers offer exceptional economic opportunity. Entry-level IT support positions in Orange County start at $20-$25 per hour, with experienced IT professionals earning $40-$60+ per hour. Cybersecurity specialists, software developers, and data scientists command even higher compensation, with experienced professionals earning $100,000-$150,000+ annually.

Gender Diversity Challenge: Like technology fields nationally, Orange County's ICT pathways continue working to increase female participation. Women remain underrepresented in computer science and IT careers despite strong demand and excellent compensation. Targeted recruitment, mentoring programs, and partnerships with organizations such as Girls Who Code are helping to expand access and challenge stereotypes about who belongs in technology careers.

Postsecondary Pathways: ICT students transition to computer science, information systems, and cybersecurity programs at community colleges and universities. Many leverage dual enrollment to complete lower-division computer science coursework during high school, accelerating their path to Bachelor's degrees and technical careers.

Emerging Technologies: ICT pathways increasingly incorporate artificial intelligence, machine learning, cloud computing, and Internet of Things (IoT) technologies to prepare students for the cutting edge of technical innovation while building foundational programming and systems thinking skills.

MANUFACTURING AND PRODUCT DEVELOPMENT (1,643 CONCENTRATORS / 268 COMPLETERS)

Manufacturing and Product Development pathways prepare students for careers in one of Orange County's foundational economic sectors. While the region's manufacturing base has evolved from heavy industry to advanced manufacturing, precision manufacturing, and specialized production, the sector remains an important source of middle-wage jobs and represents critical infrastructure for regional economic resilience.

Orange County's manufacturing sector includes aerospace components, medical devices, food processing, custom manufacturing, and, increasingly, additive manufacturing (3D printing) and automated production systems. The 1,643 concentrators are learning skills including computer numerical control (CNC) machining, welding, production management, quality control, and manufacturing engineering technology.

Manufacturing pathways emphasize both technical skills and understanding of modern production systems including lean manufacturing, Six Sigma quality principles, and Industry 4.0 automation. Students often earn OSHA safety certifications and may complete welding certifications or manufacturing skill standards credentials.

The 268 completers typically pursue multiple pathways: some enter manufacturing employment directly in technician or apprentice roles, others pursue associate degrees in manufacturing technology or industrial technology at community colleges, and some enter university engineering programs with manufacturing specialization.

Wage and Career Outlook: Advanced manufacturing careers offer strong wages without requiring four-year degrees. CNC machinists in Orange County earn $22-$32 per hour, welders earn $20-$28 per hour, and manufacturing engineers and production managers earn significantly higher compensation. The sector faces ongoing difficulty recruiting young workers, creating opportunity for students with manufacturing training.

Apprenticeship Connections: Manufacturing represents an ideal sector for registered apprenticeships, combining classroom instruction with paid on-the-job training. OC Pathways is working to expand manufacturing apprenticeships through partnerships with the Orange County Manufacturing Group and individual manufacturing employers.

MARKETING, SALES, AND SERVICES (2,801 CONCENTRATORS / 598 COMPLETERS)

Marketing, Sales, and Services pathways prepare students for careers spanning retail management, professional sales, digital marketing, e-commerce, and customer service – skills that apply across virtually every industry sector. With 2,801 concentrators, this pathway attracts students interested in understanding consumer behavior, communication, and business development.

Modern marketing pathways emphasize digital marketing, social media strategy, content creation, marketing analytics, and e-commerce, thus reflecting the transformation of marketing from traditional advertising to data-driven digital engagement. Students develop skills in Google Analytics, social media management, search engine optimization, email marketing, and customer relationship management systems.

The 598 completers often combine marketing preparation with work experience in retail, pursuing postsecondary education in marketing, business administration, or communications. Many Orange County marketing programs include real-world client projects where students develop marketing campaigns for local businesses or nonprofits, building both skills and professional portfolios.

Career Versatility: Marketing skills transfer across industries. Every organization needs marketing expertise, whether in healthcare, technology, hospitality, or manufacturing. This versatility makes marketing attractive to students who want business skills applicable to diverse career interests.

Entrepreneurship Connection: Marketing pathways connect naturally to entrepreneurship, as students learn to identify target markets, develop value propositions, and create customer acquisition strategies – skills essential for starting and growing businesses.

PUBLIC SERVICES (3,313 CONCENTRATORS / 590 COMPLETERS)

Public Services pathways prepare students for careers in law enforcement, fire science, emergency services, legal professions, government, and community service. With 3,313 concentrators, this pathway attracts students motivated by service to community and interest in justice, public safety, and civic engagement.

Public Services pathways typically include coursework in criminal justice, fire science, law and legal procedures, public administration, and emergency management. Students explore careers as police officers, firefighters, paramedics, lawyers, court administrators, government officials, and nonprofit leaders. Many programs emphasize critical thinking about justice reform, community policing, restorative justice, and ethical leadership in public service.

The 590 completers demonstrate commitment to public service careers, with many entering community college administration of justice or fire science programs, pursuing university degrees in criminal justice, legal studies, or public administration, or entering public safety employment after completing necessary certifications and academy training.

Diverse Career Pathways: Public Services encompasses much more than law enforcement. Students interested in legal careers might pursue paralegal programs, law school preparation, or court administration. Those interested in emergency management might focus on disaster preparedness, public health emergency response, or emergency medical services. Government and nonprofit administration appeal to students interested in policy, community development, and social change.

Work-Based Learning: Public Services pathways benefit from strong partnerships with local law enforcement agencies, fire departments, courts, and government agencies that provide job shadows, internships, and mentoring. These experiences help students understand the realities of public service careers while building professional networks.

Community Context: Public Services pathway development occurs within the broader context of national conversations about policing, criminal justice reform, and community safety. Programs increasingly emphasize community policing, de-escalation, cultural competency, and alternatives to incarceration, preparing students to contribute to reform and modernization of public safety systems.

TRANSPORTATION (3,130 CONCENTRATORS / 835 COMPLETERS)

Transportation pathways prepare students for careers in automotive technology, collision repair, logistics and supply chain management, aviation, and, increasingly, electric vehicle technology and autonomous vehicle systems. With 3,130 concentrators and 835 completers, this pathway serves both traditional automotive careers and emerging transportation technologies.

Automotive technology programs teach diagnosis, repair, and maintenance of modern vehicles including computer systems, hybrid and electric powertrains, and advanced driver assistance systems. Students often complete Automotive Service Excellence (ASE) credentials that certify specific technical competencies valued by employers. Collision repair programs teach body repair, painting, and frame straightening.

Logistics and supply chain pathways prepare students for careers in warehouse operations, transportation management, distribution, and supply chain analytics, reflecting the massive growth in e-commerce and the critical importance of efficient goods movement.

The 835 completers pursue diverse pathways: some enter automotive technician positions at dealerships and independent repair shops, others pursue postsecondary programs in automotive technology or logistics, and some enter company-sponsored training programs with major automotive employers or logistics companies.

Career Outlook: Automotive technicians in Orange County earn $20-$30 per hour, with master technicians and specialists (diesel, transmission, hybrid/electric) earning significantly more. The industry faces a shortage of young technicians as experienced workers retire, creating opportunity for students with technical training.

Electric Vehicle Transition: Transportation pathways are evolving to emphasize electric vehicle technology, battery systems, charging infrastructure, and vehicle connectivity. This transition creates new career opportunities in an industry undergoing fundamental technological change.

Commercial Driver's License (CDL) Pathways: Some programs offer CDL preparation for students interested in commercial transportation careers, though most students complete CDL training after high school due to age restrictions on interstate commercial driving.

WORK-BASED LEARNING PARTICIPATION

1,387 INTERNSHIPS | 51 APPRENTICESHIPS | 150 JOB SHADOWS

Work-based learning (WBL) represents the critical bridge between classroom preparation and career readiness, providing students with authentic workplace experiences that develop professional skills, clarify career interests, and create pathways to employment. Orange County's work-based learning infrastructure – spanning 1,387 internships, 51 apprenticeships, and 150 job shadows – demonstrates the region's commitment to experiential career preparation.

Internships (1,387 students): Internships provide students with extended workplace learning experiences, typically ranging from several weeks to a full school year. Orange County's internship model emphasizes paid experiences whenever possible, recognizing that unpaid internships create equity barriers for students who need to work to support themselves and their families. Internships span all industry sectors, from healthcare clinical experiences to engineering design projects, business operations roles to digital media production.

High-quality internships include several essential elements: meaningful work assignments that contribute to the organization, mentoring by experienced professionals, regular feedback and evaluation, and connection to academic learning objectives. Orange County's internships increasingly incorporate reflection activities where students analyze workplace experiences, develop professional skills, and refine career plans.

Internship outcomes are strong. Student surveys show high satisfaction with internship experiences, with many reporting that internships confirmed career interests or helped them recognize careers weren't the right fit – both valuable outcomes. Employer surveys show high willingness to continue hosting interns and, importantly, strong interest in hiring former interns for permanent positions.

Apprenticeships (51 students): Registered apprenticeships represent the gold standard of work-based learning, combining paid employment, structured on-the-job training, related classroom instruction, and progressive wage increases as apprentices develop competencies. Orange County's 51 active apprentices participate in youth apprenticeships that begin during high school and can continue through postsecondary education and into career employment.

As detailed elsewhere in this report, Orange County's apprenticeship program achieves exceptional outcomes: 97 percent retention rate and 67 percent conversion to permanent employment. These results reflect careful program design including employer vetting, apprentice support services, and coordination between workplace learning and classroom instruction.

The relatively small number of apprenticeships (51) compared to internships (1,387) reflects the higher bar for registered apprenticeships, which require formal U.S. Department of Labor approval, specific competency frameworks, and employer commitment to multi-year training plans. However, this also represents enormous opportunity for growth. National research shows that registered apprenticeships produce exceptional return on investment for both employers (reduced recruiting costs, increased retention, workers trained to company standards) and apprentices (no student debt, progressive wages, nationally recognized credentials).

Job Shadows (150 students): Job shadows provide students with short-term workplace observation experiences, typically lasting from a few hours to a full day. While less intensive than internships or apprenticeships, job shadows serve important functions in career exploration. They allow students to see careers up close, ask questions of professionals, understand workplace culture and expectations, and begin developing professional networks.

Job shadows work particularly well as an entry point to work-based learning by introducing students to workplace environments before committing to longer experiences. They also enable students to explore multiple careers efficiently, visiting different workplaces across several sectors to compare options.

Growth Strategy: The work-based learning participation numbers show healthy progress and significant opportunity for expansion. With nearly 100,000 students in CTE pathways, current WBL participation reaches approximately 1.6 percent of CTE students in intensive experiences (internships and apprenticeships). While not all students need or want internships, expanding WBL access, particularly paid opportunities, remains a priority for ensuring equitable career preparation.

Barriers to WBL expansion include employer capacity (recruiting and managing student workers requires staff time), transportation (many students lack reliable transportation to workplaces), liability concerns, and coordination complexity. OC Pathways addresses these barriers through intermediary services including employer recruitment, liability insurance, transportation support, and administrative coordination that reduces employer burden.

POSTSECONDARY TRANSITION DATA

78 PERCENT OF CTE CONCENTRATORS TRANSITION TO 2- OR 4-YEAR INSTITUTIONS

Orange County's CTE students transition to postsecondary education at rates that challenge the false dichotomy between career education and college preparation. With 78 percent of CTE concentrators enrolling in 2- or 4-year colleges, Orange County demonstrates that high-quality career pathways don't compete with college access; they enhance it.

This 78 percent transition rate significantly exceeds California's overall high school to college transition rate of approximately 63-65 percent, suggesting that CTE participation actually increases college-going rather than diverting students away from higher education. Several factors explain this outcome:

Career Clarity Increases College Persistence: Students who complete CTE pathways enter college with clearer career direction, making them more likely to persist through challenges and less likely to change majors multiple times. Research consistently shows that students with career focus complete college at higher rates than undecided students.

Dual Enrollment Reduces Barriers: Many CTE students complete college coursework during high school through dual enrollment, familiarizing them with college expectations and reducing the cost and time required to complete postsecondary credentials. Students who complete dual enrollment during high school are significantly more likely to continue to college.

Industry Credentials Demonstrate Success: Earning industry credentials during high school provides students with concrete evidence of their ability to master technical content and complete rigorous programs. This builds confidence and academic self-efficacy that translates into college persistence.

MULTIPLE PATHWAY OPTIONS: ORANGE COUNTY'S CTE STUDENTS CAN PURSUE MULTIPLE POSTSECONDARY PATHWAYS

- **Community college technical programs**: Associate degrees and certificates in specific technical fields (nursing, automotive technology, manufacturing, culinary arts)
- **Community college transfer programs**: Associate degrees for transfer (ADT) that guarantee admission to California State University
- **Four-year university direct entry**: Engineering, business, health science, and other professional programs
- **Earn-while-learning pathways**: Registered apprenticeships and employer-sponsored training that combine work and continued education

WHAT ABOUT THE 22 PERCENT WHO DON'T IMMEDIATELY TRANSITION?

The 22 percent of concentrators who don't immediately enroll in college pursue diverse pathways including:

- Direct employment in technical fields where their high school preparation and credentials enable career-wage jobs
- Military service, often in technical specialties aligned with their CTE preparation
- Gap year or delayed enrollment, with many eventually pursuing postsecondary education after gaining work experience
- Family responsibilities or personal circumstances that temporarily delay college

It is important to note that "not immediately transitioning to college" does not mean "never attending college." National research shows that CTE students often pursue postsecondary education after working for several years, bringing maturity, financial resources, and clearer career focus that increases their likelihood of completion.

Comparison Context: The 78 percent transition rate for CTE concentrators compares favorably to non-CTE students, students in other California regions, and national averages. This outcome reflects the quality of Orange County's CTE pathways and demonstrates that career education and college preparation are complementary rather than competing goals.

Sector-Specific Transition Patterns

HEALTH SCIENCE: 2,100+ TRANSITIONS TO POSTSECONDARY PROGRAMS

Health Science demonstrates the highest postsecondary transition rate of any CTE sector, with over 2,100 concentrators continuing to college programs – representing nearly 93 percent of the 2,175 completers. This exceptionally high transition rate reflects the educational requirements for most healthcare careers and the strong academic preparation required for health science pathways.

STUDENTS TRANSITION TO:

- **Community college nursing programs**: Associate Degree in Nursing (ADN), Licensed Vocational Nurse (LVN) programs
- **Community college allied health programs**: Respiratory therapy, radiologic technology, dental hygiene, medical assisting
- **Four-year nursing programs**: Bachelor of Science in Nursing (BSN) at California State University, Fullerton; California State University, Long Beach; and private universities
- **Four-year health science programs**: Public health, kinesiology, pre-medicine, biomedical sciences
- **University health profession programs**: Pre-physician assistant, pre-pharmacy, pre-physical therapy

Many health science students begin at community colleges to complete nursing prerequisites or earn associate degrees before transferring to universities for Bachelor's degrees. This pathway reflects both the lower cost of community colleges and the strong quality of community college health programs, which offer excellent clinical training and direct pathways to licensed careers.

Career Trajectory: The investment in postsecondary education pays substantial dividends in healthcare. While CNAs (requiring only high school and certification) earn $17-$22 per hour, LVNs (requiring 1 year of postsecondary education) earn $28-$35 per hour, and RNs (requiring 2 to 4 years) earn $50-$65+ per hour. Each level of additional education produces significant wage gains and career advancement opportunities.

INFORMATION AND COMMUNICATION TECHNOLOGIES: 1,500+ TRANSITIONS

ICT concentrators transition to postsecondary programs at high rates (over 1,500 students, representing approximately 75 percent of concentrators), reflecting both student ambition and the reality that most technology careers requiring more than entry-level positions benefit from postsecondary education.

STUDENTS TRANSITION TO:

- **Community college computer science programs:** Associate degrees in computer science, information systems, cybersecurity
- **Four-year computer science programs:** Universities including UC Irvine; California State University, Fullerton; Chapman University
- **Coding bootcamps and technical training:** Intensive programs in software development, data science, UX design
- **Technology apprenticeships:** Earn-and-learn programs that combine work at technology companies with continued education

ICT students often leverage dual enrollment to complete lower-division computer science, calculus, and physics coursework during high school, accelerating their path to Bachelor's degrees. Given the rapid pace of technological change, many ICT professionals pursue continuous education throughout their careers through professional certifications, online courses, and advanced degrees.

Career Flexibility: Technology careers offer multiple entry points. Students can enter the workforce after high school with IT support certifications, work while completing associate degrees, or pursue Bachelor's degrees full-time. The tech sector values demonstrated skills and portfolio work alongside formal degrees, creating multiple pathways to career success.

ENGINEERING AND ARCHITECTURE: 707 TRANSITIONS

Engineering concentrators transition to postsecondary programs at healthy rates (707 students, representing approximately 60 percent of concentrators), with most pursuing university engineering programs or community college engineering transfer pathways.

STUDENTS TRANSITION TO:

- **University engineering programs**: Mechanical, electrical, civil, computer, biomedical engineering at universities including UC Irvine; Cal Poly Pomona; California State University, Fullerton
- **Community college engineering transfer programs**: Associate degrees for transfer in engineering that guarantee admission to CSU engineering programs
- **Architecture programs**: Bachelor of Architecture programs at universities and community college architecture transfer pathways
- **Engineering technology programs:** Applied engineering associate degrees and certificates
  Engineering pathways demonstrate the value of strong high school preparation. Students who complete advanced mathematics (calculus), physics, and engineering coursework during high school are significantly better prepared for rigorous university engineering programs and show higher persistence rates than students entering engineering without this foundation

Cost-Savings Strategy: Many Orange County engineering students begin at community colleges to complete lower-division mathematics, physics, chemistry, and engineering coursework before transferring to universities for upper-division engineering courses. This pathway saves approximately $30,000-$40,000 compared to four years at a California State University and significantly more compared to private universities, while maintaining educational quality and transfer guarantees.

BUSINESS & FINANCE AND HOSPITALITY & TOURISM: STRONG TRANSITION PATTERNS

Business and Finance and Hospitality and Tourism pathways demonstrate solid postsecondary transition rates, with students pursuing diverse educational pathways that align with their career interests.

BUSINESS AND FINANCE STUDENTS TYPICALLY TRANSITION TO:

- Business administration Associate's degrees and Bachelor's degrees
- Accounting programs at community colleges and universities
- Economics programs at universities
- Entrepreneurship and small business management programs
- Finance and financial planning programs

HOSPITALITY AND TOURISM STUDENTS TRANSITION TO:

- Culinary arts associate degrees and certificates
- Hospitality management Bachelor's degrees
- Event planning and recreation management programs
- Business administration with hospitality emphasis
- Tourism and travel management programs

Both pathways demonstrate the flexibility of business-related education. Students can pursue technical training (culinary arts), applied degrees (hospitality management), or traditional business degrees, with their high school CTE preparation providing context and career direction that strengthens their postsecondary success.

Work-School Combination: Business and Hospitality students often work in their fields while attending college, using employment to pay for education, gain experience, and build professional networks. This earn-and-learn approach helps students graduate with both degrees and extensive professional experience, increasing their employability and earning potential.

EQUITY DATA

LOW-INCOME STUDENTS (55,938 ENROLLMENT / 25,249 CONCENTRATORS / 7,842 COMPLETERS / 58 PERCENT OF TOTAL)

Low-income students represent 58 percent of Orange County's CTE enrollment, a proportion that significantly exceeds their representation in the overall student population (approximately 45-50 percent). This overrepresentation reflects several dynamics: strong outreach to low-income students recognizing CTE's economic mobility potential, student and family recognition that CTE pathways lead to career-wage jobs, and CTE's emphasis on hands-on learning that engages diverse learners.

Importantly, low-income students don't just participate in CTE; they complete pathways and earn credentials at substantial rates. The 7,842 completers from low-income backgrounds demonstrate that CTE pathways successfully support students facing economic challenges through pathway completion. This completion occurs despite barriers including:

- Need to work during high school to support families
- Responsibilities for younger siblings or family caregiving
- Transportation challenges
- Limited access to technology and internet at home
- Higher rates of housing instability and mobility

SUPPORT SERVICES: ORANGE COUNTY'S SUCCESS IN SUPPORTING LOW-INCOME CTE STUDENTS REFLECTS INTENTIONAL SUPPORT SYSTEMS INCLUDING

- Fee waivers for industry certification exams
- Tools, equipment, and materials provided by schools rather than requiring student purchase
- Paid work-based learning opportunities (internships, apprenticeships) rather than unpaid experiences
- Dual enrollment that enables students to earn college credit without tuition costs
- Career advising and navigation support
- Connections to wraparound services including transportation, food assistance, and social services

Economic Mobility Impact: For low-income students, CTE pathways represent one of the most reliable routes to economic mobility. By earning industry credentials, gaining work experience, and completing postsecondary technical education, low-income students can access career-wage employment ($15-$25+ per hour) that enables family-sustaining income. The pathway from high school CTE to community college technical program to licensed career (nursing, skilled trades, technology) can move families from poverty to middle-class stability within five to seven years.

Postsecondary Access: Low-income CTE students transition to postsecondary education at rates approaching or exceeding their more affluent peers when provided adequate support. Dual enrollment, career clarity, and connection to financial aid resources help overcome the financial barriers that often prevent low-income students from pursuing college.

ENGLISH LEARNERS (10,993 ENROLLMENT / 5,293 CONCENTRATORS / 1,072 COMPLETERS / 11 PERCENT OF TOTAL)

English Learners (EL) represent 11 percent of CTE enrollment, demonstrating that language is not a barrier to career pathway participation when programs provide appropriate support. The 10,993 EL students participating in CTE are developing both English proficiency and career-technical skills simultaneously – a powerful combination for immigrant students and heir families.

CTE PATHWAYS OFFER SEVERAL ADVANTAGES FOR ENGLISH LEARNERS:

- **Hands-on learning:** Technical and project-based learning reduces reliance on advanced English proficiency while building language through authentic contexts
- **Visual and kinesthetic instruction:** Demonstrations, models, and practical application support learning regardless of English level
- **Career vocabulary:** Industry terminology provides focused, practical language learning connected to career goals
- **Bilingual advantages:** Many California industries value bilingual workers, making EL students' multilingualism an asset rather than deficit

The progression from 10,993 enrolled to 5,293 concentrators to 1,072 completers shows a steeper decline than other student groups, indicating that language proficiency and academic challenges affect completion rates. However, the 1,072 completers demonstrate that with appropriate support, English Learners can successfully complete career pathways and earn credentials while continuing to develop English proficiency.

Sector Distribution: English Learners participate most heavily in CTE sectors with strong hands-on components and clear career pathways including Construction Trades, Manufacturing, Hospitality and Culinary Arts, and Automotive Technology. These sectors offer both accessible entry points and opportunities for career advancement as language proficiency develops.

Bilingual Career Advantages: In healthcare, business services, hospitality, and customer service roles, bilingual workers command wage premiums and access to positions requiring bilingual capabilities. Orange County's large Spanish-speaking, Vietnamese-speaking, and Korean-speaking populations create strong demand for bilingual professionals, turning language skills into career assets.

SUPPORT STRATEGIES: SUCCESSFUL CTE PROGRAMS FOR ENGLISH LEARNERS INCORPORATE

- Sheltered instruction and language support embedded in career coursework
- Bilingual instructional aides and mentors
- Career vocabulary instruction connected to industry contexts
- Translation services for parent engagement
- Culturally responsive teaching that values students' linguistic and cultural backgrounds

Postsecondary Pathways: English Learner CTE students often pursue community college technical programs while continuing ESL coursework, simultaneously developing both career skills and academic English. Many become the first in their families to attend college, leveraging their CTE preparation and work experience to support their families while pursuing education.

STUDENTS WITH DISABILITIES (10,644 ENROLLMENT / 5,053 CONCENTRATORS / 1,200 COMPLETERS / 11 PERCENT OF TOTAL)

Students with Disabilities (SWD) participate in CTE at rates proportional to their representation in the overall student population (approximately 11-12 percent), demonstrating that inclusive CTE programs successfully serve students with diverse learning needs. The 10,644 SWD students enrolled in CTE are accessing career preparation that will be essential for their adult independence, employment, and economic self-sufficiency.

FOR STUDENTS WITH DISABILITIES, CTE PATHWAYS OFFER SEVERAL CRITICAL BENEFITS

- **Transition planning integration:** CTE aligns directly with Individualized Education Program (IEP) transition planning requirements for students with disabilities
- **Hands-on learning:** Applied, project-based learning supports diverse learners including those with learning disabilities, attention differences, and autism spectrum disorder
- **Authentic motivation:** Career-focused learning provides purpose and motivation for students who struggle with abstract academic content
- **Self-determination development:** Career exploration, work-based learning, and pathway completion build self-advocacy and independence skills essential for adult success
- **Employment preparation:** CTE directly addresses the critical need to prepare students with disabilities for competitive integrated employment rather than sheltered workshops or unemployment

The 1,200 completers demonstrate successful pathway completion despite the additional challenges many students with disabilities face including learning disabilities, attention differences, physical disabilities, autism spectrum disorders, and other conditions that require specialized support and accommodations.

ACCOMMODATIONS AND UNIVERSAL DESIGN: HIGH-QUALITY CTE PROGRAMS INCORPORATE

- Universal Design for Learning (UDL) principles that make content accessible to diverse learners
- Assistive technology including text-to-speech, speech-to-text, and specialized software
- Modified assessments and certification accommodations
- Extended time and flexible pacing
- Specialized instructional support and co-teaching models
- Job coaching during work-based learning experiences

Employment Outcomes: National data shows that students with disabilities who complete CTE pathways achieve significantly higher competitive integrated employment rates than SWD students without CTE preparation. In Orange County, partnerships with disability service organizations, employers committed to disability hiring, and supported employment programs create pathways from CTE to career employment.

Sector Success: Students with disabilities participate successfully across all CTE sectors, with particularly strong outcomes in Business and Finance, Information Technology, Hospitality, Digital Media, and Health Science. The key is matching students' strengths and interests to appropriate pathways while providing necessary accommodations and support.

FOSTER YOUTH (489 ENROLLMENT / 257 CONCENTRATORS / 41 COMPLETERS / 1 PERCENT OF TOTAL)

Foster youth represent one of California's most vulnerable student populations, facing extraordinary challenges including family trauma, placement instability, school mobility, interrupted education, and in many cases, aging out of foster care at 18 without family support systems. The 489 foster youth participating in CTE represents approximately 1 percent of enrollment, proportional to their representation in the overall student population.

However, the progression from 489 enrolled to 257 concentrators to 41 completers reveals the severe challenges foster youth face in completing career pathways. School changes due to placement changes disrupt pathway sequences. Trauma affects attendance and engagement. Lack of stable adult support limits access to work-based learning opportunities. Many foster youth work to support themselves, leaving limited time for extended CTE coursework.

Yet the 41 foster youth who complete pathways demonstrate extraordinary resilience and the power of CTE to provide stability and hope. For foster youth aging out of care, career preparation and industry credentials can mean the difference between homelessness and housing stability, between minimum-wage jobs and career employment, between vulnerability and self-sufficiency.

WRAPAROUND SUPPORT: SUCCESSFUL CTE SUPPORT FOR FOSTER YOUTH REQUIRES

- Designated foster youth liaisons who coordinate education, placement, and services
- Transportation support for school attendance and work-based learning
- Fee waivers for certifications and dual enrollment
- Flexible scheduling to accommodate court dates, social worker appointments, and work
- Mental health support and trauma-informed instruction
- Connection to extended foster care programs (up to age 21)
- Support navigating financial aid and postsecondary enrollment
- Priority access to paid internships and apprenticeships

Housing and Stability: For foster youth aging out of care at 18, employment is essential for survival. CTE pathways that lead to credentials and career-wage employment provide foster youth with concrete paths to economic stability. Several Orange County employers partner with foster youth programs to provide employment pathways for transition-age foster youth.

HOMELESS STUDENTS (6,781 ENROLLMENT / 3,201 CONCENTRATORS / 773 COMPLETERS / 7 PERCENT OF TOTAL)

The 6,781 students experiencing homelessness who participate in CTE represent 7 percent of enrollment – a proportion significantly higher than their representation in the overall student population (approximately 3-4 percent). This overrepresentation likely reflects multiple dynamics: students and families experiencing homelessness recognizing education as pathways to stability, school efforts to engage vulnerable students, and CTE's practical, career-focused approach providing hope and purpose during crisis.

STUDENT HOMELESSNESS IN ORANGE COUNTY TAKES MULTIPLE FORMS:

- Families living in cars, motels, or emergency shelters
- Youth "couch surfing" between friends' and relatives' homes
- Unaccompanied youth living independently or in transitional housing
- Families doubled up in overcrowded housing
- Youth exiting foster care without housing stability

Despite the severe challenges of homelessness, including lack of stable study space, unreliable transportation, food insecurity, health challenges, trauma, and frequent school changes, 3,201 students experiencing homelessness demonstrated sufficient engagement to become CTE concentrators, and 773 completed pathways. These outcomes reflect both student resilience and the support systems schools provide.

SUPPORT SERVICES: SCHOOLS SERVING HOMELESS STUDENTS PROVIDE

- McKinney-Vento homeless education liaison services
- Transportation to maintain school stability despite housing mobility
- School supplies, clothing, hygiene items
- Access to showers, laundry facilities
- Food through school meals, weekend food bags, and pantries
- Technology and internet access
- Connection to community services including shelters, housing assistance, health care
- Counseling and mental health support
- Fee waivers for certifications and dual enrollment

CTE AS STABILITY: FOR STUDENTS EXPERIENCING HOMELESSNESS, CTE PATHWAYS PROVIDE MULTIPLE FORMS OF STABILITY

- School-based learning community and consistent adult relationships
- Clear goals and pathways when much of life feels chaotic
- Skills and credentials that create hope for future economic stability
- Paid work-based learning opportunities (internships, apprenticeships) that provide income
- Connection to career mentors and professional networks
- Postsecondary pathways that can include housing support

Employment and Housing: The pathway from homelessness to housing stability often requires employment. CTE credentials and career preparation enable students to access jobs paying $15-$25+ per hour – income sufficient to rent rooms or apartments and begin building stability. For transition-age youth experiencing homelessness, employment is a crucial stepping stone to an independent life.

Orange County Community Foundation

19200 Von Karman Avenue, Suite 700
Irvine, CA 92612
949.553.4202
oc-cf.org