Labor Market Analysis for Program Recommendation: 0506.00/Business Management

CIP: 52.0201/Business Administration and Management,

General

(Project Management)

Orange County Center of Excellence, October 2025



| ♠ Endorsed: Caution Advised | | | | | | | | |
|--|---|--|---------------------------------------|--|--|--|--|--|
| | Program LMI Endorsement Criteria | | | | | | | |
| | Met ☑ | Partially Met \square | Not Met \square | | | | | |
| Supply Gap: | Angeles and Orange cou | e 11,674 annual job openir Inties for these project ma ore than the 2,987 award 5. | nagement | | | | | |
| Self-Sufficiency Standard Living Wage ¹ : | Met 🗹 | Partially Met \square | Not Met □ | | | | | |
| | The majority (82%) of annual job openings for these project management occupations have entry-level hourly wages above the OC living wage of \$27.13. | | | | | | | |
| | Met □ | Partially Met 🗹 | Not Met □ | | | | | |
| Education: | skill project managemer degree, between 33% to | oil%) of annual job openings ont occupations typically rec o 36% of workers in the fic ociate degree as their hig | quire a bachelor's eld have completed | | | | | |

Summary

The Orange County Center of Excellence for Labor Market Research (OC COE) prepared this report to determine whether there is a supply gap in the Los Angeles and Orange counties regional labor market related to two occupations:

- Middle-Skill
 - o General and Operations Managers (11-1021)
 - o Production, Planning, and Expediting Clerks (43-5061)

Based on the available data, there appears to be a supply gap for these project management middle-skill occupations, and typical education requirements for these occupations align with a community college education. Additionally, the majority of annual job openings have entry-level wages above the Self-Sufficiency Standard living wage. **Therefore, due to some**

¹ The living wage endorsement criteria in this report uses the University of Washington's Center for Women's Welfare Self-Sufficiency Standard, which the COE refers to as a living wage; Orange County's living wage of \$27.13, was last updated in March 2024.

of the regional labor market criteria being met, the COE endorses this proposed program.

Exhibit 1 lists the occupational demand, supply, typical entry-level education, and educational attainment for the two middle-skill occupations included in this report.

Exhibit 1: Labor Market Endorsement Summary

| Occupation (SOC) | Demand (Annual Openings) | Supply (CC and Non-CC) | Entry-Level Hourly Earnings (25th Percentile) | Typical Entry-Level Education | Community College Educational Attainment | |
|------------------------------------|--------------------------------|------------------------------|---|-------------------------------------|---|--|
| General and Operations Managers | LA: 6,679 | LA: 2,323 | | | | |
| | OC: 2,735 | OC: 663 | OC: \$40.36 | Bachelor's degree | 33% | |
| (11-1021) | TTL: 9,414 | TTL: 2,987 | | 3 | | |
| Production, Planning, | LA: 1,663 | LA: 0 | | High school | | |
| and Expediting Clerks | OC: 597 | OC: 0 | OC: \$23.09 | diploma or | 36% | |
| (43-5061) | TTL: 2,260 | TTL: O | | equivalent | | |
| Total | 11,674 | 2,987 | N/A | N/A | N/A | |

Demand

- In Los Angeles and Orange counties, the number of jobs related to these project management occupations is projected to increase 2% through 2029, equating to 11,674 annual job openings.
- Hourly entry-level wages for these project management occupations range from \$23.09 to \$40.36 in Orange County; 82% of annual openings have entry-level wages above the Self-Sufficiency Standard living wage.
- There were 19,281 online job postings for these project management occupations over the past 12 months. The highest number of postings were for operations managers, assistant managers, and directors of operations.
- The typical entry-level education for these project management occupations ranges from a high school diploma or equivalent to a bachelor's degree.
- Between 33% and 36% of workers in the field have completed some college or an associate degree as their highest level of educational attainment.

Supply

- Between 2021 to 2024, an average of 2,743 awards were conferred by 29 community colleges for these middle-skill occupations in Los Angeles and Orange counties.
- From 2020 to 2023, non-community college institutions conferred an average of 243 awards for these middle-skill occupations.

- In the 2022-23 academic year, Orange County community college students that exited business management programs had a median annual wage of \$38,464 (\$18.49 per hour) post-exit, and 29% attained the regional living wage.
- In 2021-22, 74% of Orange County business management students that exited their programs reported working a job closely related to their field of study.

Demand

Occupational Projections

Exhibit 2 shows the annual percentage change in jobs for these project management occupations from 2019 through 2029. Between 2019 and 2020, employment levels across Los Angeles and Orange counties declined sharply due to the broader economic impacts of the COVID-19 pandemic. In 2021, the region experienced rapid growth in project management occupations, with employment rebounding by 13%. However, 2023 growth began to slow by 2023. Beginning in 2024, job levels are projected to stabilize and grow at similar rates to all occupations through 2029.

Exhibit 2: Annual Percentage Change in Jobs for Project Management Occupations, 2019-2029

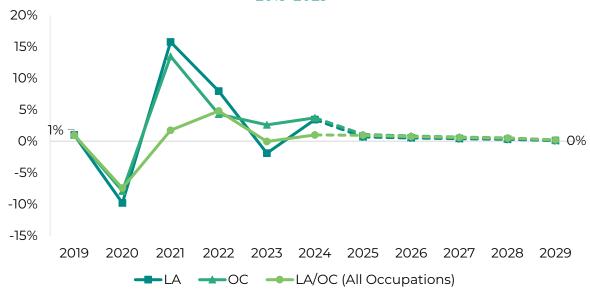


Exhibit 3 shows the five-year occupational demand projections for these project management occupations. In Los Angeles and Orange counties, the number of jobs related to these middle-skill occupations is projected to increase 2% through 2029. There are projected to be 11,674 openings available annually.

Exhibit 3: Middle-Skill Occupational Demand in Los Angeles and Orange Counties²

| Geography | 2024 Jobs | 2029 Jobs | 2024-2029 Change | 2024-2029 % Change | Annual Openings |
|-------------|--------------|--------------|---------------------|-----------------------|--------------------|
| Los Angeles | 94,323 | 96,209 | 1,886 | 2% | 8,342 |
| Orange | 36,705 | 37,916 | 1,210 | 3% | 3,332 |

 $^{^2}$ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

| Geography | 2024 | 2029 | 2024-2029 | 2024-2029 | Annual |
|-----------|---------|---------|-----------|-----------|----------|
| | Jobs | Jobs | Change | % Change | Openings |
| Total | 131,028 | 134,124 | 3,096 | 2% | 11,674 |

Wages

The labor market endorsement in this report considers the entry-level hourly wages for these project management occupations in Orange County as they relate to the county's living wage. Los Angeles County wages are included below to provide a complete analysis of the LA/OC region.

In addition to the Self Sufficiency Standard living wage, data for the MIT Living Wage (updated on February 10, 2025) is provided as a reference. Currently, the MIT Living Wage in Orange County is \$32.20. Both figures account for geographic-specific costs of necessities such as housing, food, health care, and transportation to assess the cost of living, and are notated in the exhibits below.

In Orange County, the majority (82%) of annual openings for these project management occupations have entry-level wages above the Self-Sufficiency living wage of \$27.13 for a single adult. Entry-level wages range from \$23.09 to \$40.36. Exhibit 4 shows the wage range for each of these project management occupations in Orange County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Production, Planning, and Expediting
Clerks

General and Operations Managers

Entry-Level Hourly Earnings

Experienced Hourly Earnings

OC MIT Living Wage (\$32.20)

\$23.09 \$29.40 - \$36.53

\$40.36 \$60.66 \$98.69

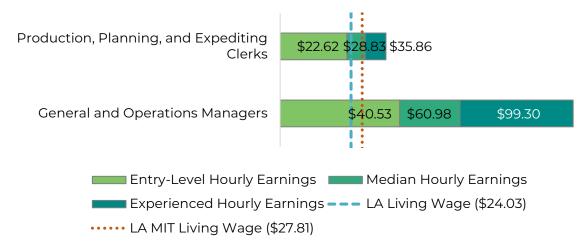
Median Hourly Earnings

OC Living Wage (\$27.13)

Exhibit 4: Wages by Occupation in Orange County

In Los Angeles County, the majority (80%) of annual openings for these project management occupations have entry-level wages below the Self-Sufficiency living wage of \$24.03 for a single adult. Entry-level wages range from \$22.62 to \$40.53. Exhibit 5 shows the wage range for each of these project management occupations in Los Angeles County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 5: Wages by Occupation in Los Angeles County



Resilient Jobs and U.S. News & World Report Best Jobs

Exhibit 6 shows if each occupation is considered an Orange County Great Recession-Resilient, COVID-19 Pandemic Recession-Resilient Job, or a 2025 U.S. News & World Report (USN&WR) Best Job³. *General and operations managers* met the criteria for both COVID-19 Pandemic Recession-Resilient Job and a USN&WR Best Job, while *production, planning, and expediting clerks* did not meet the criteria for any of these designations.

Exhibit 6: Resilient Jobs and USN&WR Best Jobs Designations

| Occupation | Great Recession- Resilient Job | COVID-19 Pandemic Recession- Resilient Job | 2025 USN&WR Best Job |
|---|--------------------------------------|---|----------------------------|
| General and Operations Managers (11-1021) | | | \square |
| Production, Planning, and Expediting Clerks (43-5061) | | | |

Job Postings

Important Job Postings Data Note: There are limitations when analyzing job postings. A single job posting may not represent a single job opening for a variety of reasons.

There were 19,281 online job postings related to these project management occupations listed in the past 12 months. Exhibit 7 shows the number of job postings by occupation. The majority (68%) of job postings were for *general and operations managers* and 32% were for *production, planning, and expediting clerks*.

³ "100 Best Jobs," U.S. News & World Report, accessed January 28, 2025, https://money.usnews.com/careers/best-jobs/rankings/the-100-best-jobs.

Exhibit 7: Number of Job Postings by Occupation (n=19,281)

| Occupation | Job Postings | Percentage of Job Postings |
|---|--------------|-------------------------------|
| General and Operations Managers | 13,119 | 72% |
| Production, Planning, and Expediting Clerks | 6,162 | 28% |
| Total Postings | 19,281 | 100% |

The top job titles for these middle-skill project management occupations in the region, by number of job postings, are shown in Exhibit 8.

Exhibit 8: Top Job Titles by Number of Job Postings for Middle-Skill Occupations (n=19,281)

| Andare eran elecapations (in 15,201) | | | | | | |
|--------------------------------------|--------------|------------|--|--|--|--|
| Job Titles | Job Postings | Percentage | | | | |
| Operations Managers | 930 | 5% | | | | |
| Assistant Managers | 570 | 3% | | | | |
| Directors of Operations | 538 | 3% | | | | |
| General Managers | 450 | 2% | | | | |
| Operations Supervisors | 428 | 2% | | | | |
| Schedulers | 387 | 2% | | | | |
| Appointment Setters | 353 | 2% | | | | |
| Management Trainees | 342 | 2% | | | | |
| Operations Coordinators | 310 | 2% | | | | |
| Scheduling Coordinators | 262 | 1% | | | | |
| | | | | | | |

The top employers for these middle-skill project management occupations in the region, by number of job postings, are shown in Exhibit 9.

Exhibit 9: Top Employers by Number of Job Postings for Middle-Skill Occupations (n=19,281)

| Job Postings | Percentage |
|--------------|---|
| 260 | 1% |
| 152 | 1% |
| 132 | 1% |
| 129 | 1% |
| 122 | 1% |
| 117 | 1% |
| 112 | 1% |
| 98 | 1% |
| 94 | <1% |
| 89 | <1% |
| | 260 152 132 129 122 117 112 98 94 |

The top specialized, soft, and computer skills for these project management occupations listed by most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 10.

Exhibit 10: Top Skills by Number of Job Postings for Middle-Skill Occupations (n=19.281)

| (,) | | | | | |
|--------------------------|---|--|--|--|--|
| Top Soft Skills | Top Computer Skills | | | | |
| Operations (11,955) | Microsoft Excel (3,094) | | | | |
| Communication (10,447) | Microsoft Office (2,882) | | | | |
| Management (8,716) | Microsoft PowerPoint (1,730) | | | | |
| Leadership (8,018) | Microsoft Outlook (1,436) | | | | |
| Customer Service (6,841) | Microsoft Word (806) | | | | |
| Sales (4,924) | Dashboard (488) | | | | |
| Scheduling (4,414) | Primavera (Software) (450) | | | | |
| Problem Solving (4,217) | Google Workspace (411) | | | | |
| Detail Oriented (3,972) | Spreadsheets (362) | | | | |
| Planning (3,905) | SAP Applications (351) | | | | |
| | Top Soft Skills Operations (11,955) Communication (10,447) Management (8,716) Leadership (8,018) Customer Service (6,841) Sales (4,924) Scheduling (4,414) Problem Solving (4,217) Detail Oriented (3,972) | | | | |

Educational Attainment

The Bureau of Labor Statistics (BLS) lists high school diploma or equivalent for *production*, planning, and expediting clerks, and bachelor's degree for general and operations managers.

The national-level educational attainment data indicates 33% to 36% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 11 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

Exhibit 11: National-level Educational Attainment for Occupations



Requested Minimum Education Requirement

In Los Angeles and Orange counties, 60% of job postings for these project management occupations specified a minimum education requirement:

- 36% (4,214) requested a high school diploma or associate degree
- 61% (7,003) requested a bachelor's degree

Educational Supply

The following supply tables display the total supply for these middle-skill project management occupations that align with these TOP and CIP codes and program needs.

Community College Supply

Exhibit 12 shows the three-year average number of awards conferred by community colleges in the related TOP codes:

- Business and Commerce, General (0501.00)
- Small Business and Entrepreneurship (0506.40)
- Business Management (0506.00)

The colleges with the most completions in the region are Cerritos (771), followed by Mt San Antonio (332), and Irvine (261). Over the past 12 months, there were three other related program recommendation requests from regional community colleges.

Exhibit 12: Regional Community College Awards (Certificates and Degrees), 2021-2024

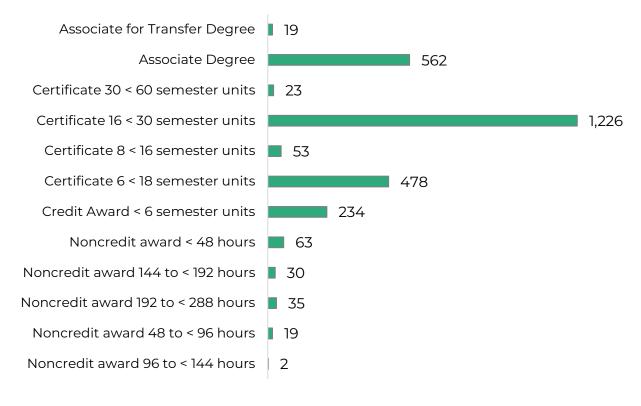
| | 2021-2024 | | | | | | | | |
|----------|--------------------------------------|-------------------|-------------------------|-------------------------|-------------------------|----------------------------|--|--|--|
| TOP Code | Program | College | 2021- 2022 Awards | 2022- 2023 Awards | 2023- 2024 Awards | 3-Year Award Average | | | |
| | | Cerritos | 1 | 2 | 0 | 1 | | | |
| | | Glendale | 73 | 81 | 94 | 83 | | | |
| | | LA City | 60 | 57 | 56 | 58 | | | |
| | | LA Harbor | 12 | 15 | 17 | 15 | | | |
| | | LA Mission | 1 | 0 | 0 | 0 | | | |
| | | LA Pierce | 24 | 8 | 20 | 17 | | | |
| | | LA Southwest | 24 | 13 | 7 | 15 | | | |
| | Business and Commerce, General | LA Trade | 0 | 30 | 26 | 19 | | | |
| 0501.00 | | Long Beach | 195 | 190 | 170 | 185 | | | |
| | | Mt San Antonio | 136 | 91 | 135 | 121 | | | |
| | | Santa Monica | 14 | 15 | 13 | 14 | | | |
| | | West LA | 83 | 48 | 95 | 75 | | | |
| | | LA Subtotal | 623 | 550 | 633 | 602 | | | |
| | | Coastline | 4 | 1 | 2 | 2 | | | |
| | | Saddleback | 73 | 49 | 68 | 63 | | | |
| | | OC Subtotal | 77 | 50 | 70 | 66 | | | |
| | Supply S | ubtotal/Average | 700 | 600 | 703 | 668 | | | |
| | | Cerritos | 276 | 469 | 1,526 | 757 | | | |
| | | Citrus | 0 | 0 | 2 | 1 | | | |
| 0506.00 | Business Management | Compton | 0 | 1 | 1 | 1 | | | |
| | Management | East LA | 18 | 18 | 23 | 20 | | | |
| | | El Camino | 22 | 40 | 31 | 31 | | | |

| TOP Code | Program | College | 2021- 2022 Awards | 2022- 2023 Awards | 2023- 2024 Awards | 3-Year Award Average |
|-------------|--------------------|-----------------------|-------------------------|-------------------------|-------------------------|----------------------------|
| | | Glendale | 28 | 22 | 28 | 26 |
| | | LA City | 16 | 40 | 33 | 30 |
| | | LA Mission | 6 | 3 | 4 | 4 |
| | | LA Pierce | 14 | 9 | 9 | 11 |
| | | LA Valley | 39 | 34 | 37 | 37 |
| | | Long Beach | 28 | 26 | 43 | 32 |
| | | Mt San Antonio | 188 | 158 | 193 | 180 |
| | | Pasadena | 0 | 2 | 7 | 3 |
| | | Santa Monica | 0 | 0 | 1 | 0 |
| | | LA Subtotal | 635 | 822 | 1,938 | 1,132 |
| | | Coastline | 33 | 40 | 36 | 36 |
| | | Cypress | 1 | 5 | 1 | 2 |
| | | Fullerton | 19 | 20 | 39 | 26 |
| | | Golden West | 13 | 10 | 8 | 10 |
| | | Irvine | 23 | 20 | 36 | 26 |
| | | North Orange Adult | 32 | 27 | 37 | 32 |
| | | Orange Coast | 16 | 2 | 0 | 6 |
| | | Saddleback | 0 | 0 | 7 | 2 |
| | | Santa Ana | 39 | 62 | 63 | 55 |
| | | Santiago Canyon | 25 | 173 | 72 | 90 |
| | | OC Subtotal | 201 | 359 | 299 | 286 |
| | Supply Su | ubtotal/Average | 836 | 1,181 | 2,237 | 1,418 |
| | | Cerritos | 15 | 13 | 10 | 13 |
| | | Citrus | 1 | 0 | 0 | 0 |
| | | East LA | 36 | 19 | 14 | 23 |
| | | Glendale | 0 | 6 | 2 | 3 |
| | G II D | LA City | 7 | 19 | 26 | 17 |
| | Small Business and | LA Pierce | 5 | 31 | 17 | 18 |
| 0506.40 Ent | Entrepreneur- | LA Trade | 3 | 10 | 6 | 6 |
| | ship | LA Valley | 99 | 174 | 169 | 147 |
| | | Long Beach | 0 | 1 | 0 | 0 |
| | | Mt San Antonio | 36 | 21 | 39 | 32 |
| | | Pasadena | 186 | 65 | 36 | 96 |
| | | Rio Hondo | 6 | 13 | 8 | 9 |

| TOP Code | Program | College | 2021- 2022 Awards | 2022- 2023 Awards | 2023- 2024 Awards | 3-Year Award Average |
|-------------------------|---------|--------------------|-------------------------|-------------------------|-------------------------|----------------------------|
| | | Santa Monica | 28 | 17 | 22 | 22 |
| | | West LA | 5 | 12 | 8 | 8 |
| | | LA Subtotal | 427 | 401 | 357 | 395 |
| | | Coastline | 4 | 4 | 2 | 3 |
| | | Fullerton | 5 | 2 | 6 | 4 |
| | | Golden West | 3 | 2 | 0 | 2 |
| | | Irvine | 233 | 233 | 237 | 234 |
| | | Orange Coast | 8 | 0 | 0 | 3 |
| | | Saddleback | 10 | 6 | 9 | 8 |
| | | Santa Ana | 1 | 3 | 10 | 5 |
| | | Santiago Canyon | 1 | 4 | 5 | 3 |
| | | OC Subtotal | 265 | 254 | 269 | 263 |
| Supply Subtotal/Average | | 692 | 655 | 626 | 658 | |
| Supply Total/Average | | 2,228 | 2,436 | 3,566 | 2,743 | |

Exhibit 13 shows the annual average community college awards by type from 2021-22 to 2023-24. The plurality of the awards are for certificates between 16 and 30 semester units, followed by associate degrees and certificates between 6 and 18 semester units.

Exhibit 13: Annual Average Community College Awards by Type, 2021-2024



Community College Student Outcomes

Exhibit 14 shows the Strong Workforce Program (SWP) metrics for business management programs in North Orange County Community College District (NOCCCD), the Orange County Region, and California. Of the 5,936 Orange County business management students in the 2023-24 academic year, 59% (3,496) attended an NOCCCD college.

NOCCCD students that exited business management programs in the 2022-23 academic year had lower median annual earnings (\$35,078 or \$16.86 per hour) compared to all business management students in Orange County (\$38,464 or \$18.49 per hour). Additionally, a lower percentage of NOCCCD business management students attained the living wage (22%) when compared to business management students in Orange County (29%).

Exhibit 14: Project Management (0506.00) Strong Workforce Program Metrics, 2021-24⁴

| SWP Metric | NOCCCD | OC Region | California |
|---|-----------------------|-----------------------|-----------------------|
| SWP Students | 3,496 | 5,937 | 44,272 |
| SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year | 26% | 28% | 39% |
| SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course | 74% | 76% | 76% |
| SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status | 74 | 188 | 3,025 |
| SWP Students Who Transferred to a Four-Year Postsecondary Institution (2022-23) | 177 | 358 | 2,810 |
| SWP Students with a Job Closely Related to Their Field of Study (2021-22) | 74% | 74% | 73% |
| Median Annual Earnings for SWP Exiting Students (2022-23) | \$35,078 (\$16.86) | \$38,464 (\$18.49) | \$45,254 (\$21.76) |
| Median Change in Earnings for SWP Exiting Students (2022-23) | 41% | 38% | 26% |
| SWP Exiting Students Who Attained the Living Wage (2022-23) | 22% | 29% | 44% |

Non-Community College Supply

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering business management programs. Exhibit 15 displays the annual and three-year average awards granted by these institutions under the related Classification of Instructional Programs (CIP) code:

- Business/Commerce, General (52.0101)
- Entrepreneurship/Entrepreneurial Studies (52.0701)

No awards were conferred by non-community colleges under the following related CIP codes:

• Social Entrepreneurship (52.0704)

⁴ All SWP metrics are for 2023-24 unless otherwise noted.

The available data covers 2020 to 2023. During this period, non-community college institutions in the region conferred an average of 33 awards annually in a related program.

Exhibit 15: Regional Non-Community College Awards, 2020-2023

| CIP Code | Program | College | 2020- 2021 Awards | 2021- 2022 Awards | 2022- 2023 Awards | 3-Year Award Average |
|-------------------------|--|--|-------------------------|-------------------------|-------------------------|----------------------------|
| 52.0101 | Business/ Commerce, General | Azusa Pacific University | 70 | 15 | 10 | 32 |
| | | Biola University | 26 | 32 | 28 | 29 |
| | | Fremont University | 0 | 11 | 5 | 5 |
| | | Loyola Marymount University | 38 | 39 | 65 | 47 |
| | | Mount Saint Mary's University | 0 | 0 | 0 | 0 |
| | | Pacific States University | 0 | 8 | 2 | 3 |
| | | University of Southern California | 1 | 0 | 0 | 0 |
| Supply Subtotal/Average | | | 135 | 105 | 110 | 117 |
| 52.0701 | Entrepreneurs hip/Entrepren eurial Studies | Azusa Pacific University | 3 | 3 | 2 | 3 |
| | | Biola University | 0 | 0 | 5 | 2 |
| | | Hussian College- Los Angeles | 0 | 0 | 0 | 0 |
| | | Loyola Marymount University | 62 | 52 | 88 | 67 |
| | | Mount Saint Mary's University | 4 | 6 | 7 | 6 |
| | | The Master's University and Seminary | 0 | 0 | 1 | 0 |
| | | Touro University Worldwide | 0 | 0 | 0 | 0 |
| | | University of California-Irvine | 31 | 43 | 63 | 46 |
| | | University of La Verne | 0 | 1 | 0 | 0 |
| | | Westcliff University | 0 | 5 | 4 | 3 |
| Supply Subtotal/Average | | | 100 | 110 | 170 | 127 |
| Supply Total/Average | | | 235 | 215 | 280 | 243 |

Regional Demographics

The following section presents occupational, community college program, and population demographic data for Orange County. This comparison identifies potential equity gaps between the local workforce and the student pipeline preparing for these occupations. These insights can inform program development, outreach, and support strategies to better align community college programs with current labor market needs.

Ethnicity

Exhibit 16 compares the ethnicity of Orange County community college students enrolled in business management programs, the overall Orange County population, and occupation-specific data for the two project management occupations included in this report.

Combined, Hispanic or Latino and white individuals make up the bulk of the project management workforce (72%) and account for 68% of students in business management programs, indicating that these two groups dominate both the labor force and training pipeline. Hispanic or Latino individuals account for 21% of project management workers, which is significantly lower than their representation in business management programs (50%). Conversely, white individuals comprise 51% of the workforce and only 18% of business management students.

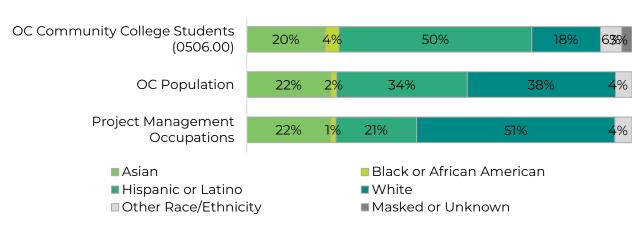


Exhibit 16: Program and County Demographics by Ethnicity

Exhibit 17 shows the disaggregated analysis, revealing notable differences in representation among these project management occupations. White individuals make up most of both the higher-wage occupation, general and operations managers (55%), and the lower-wage occupation, production, planning, and expediting clerks (42%). There are more Hispanic or Latino individuals in the lower-wage occupation, production, planning, and expediting clerks (31%) than in the supervisory occupation, general and operations managers (34%).

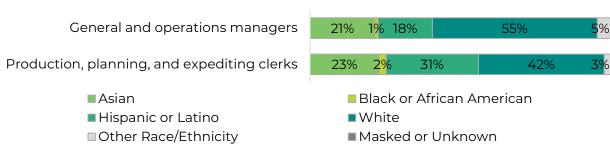


Exhibit 17: Ethnicity Distribution by Occupation

Age

Exhibit 18 compares the age of Orange County community college students enrolled in business management programs, the overall Orange County population, and occupation-specific data for the two project management occupations included in this report.

Approximately three-quarters of workers in these project management occupations are aged 35 and older (75%), highlighting a notable age disparity compared to business management program enrollment (35%). Conversely, individuals aged 24 and younger account for only 5% of the workforce, despite making up 65% of program enrollments. However, representation among those aged 25 to 34 is well aligned, with 21% workers in the field and the 19% of business management students. These trends suggest a need for succession planning as older workers approach retirement, potentially creating opportunities for younger, trained individuals to enter and advance in the field.



Exhibit 18: Program and County Demographics by Age

Exhibit 19 shows the disaggregated analysis, revealing notable differences in age distribution among these project management occupations.

Workers aged 25 to 34 years are similarly represented in *production*, *planning*, and expediting clerks (23%) and general and operations managers (20%). However, a smaller proportion of *production*, *planning*, and expediting clerks are aged 35 to 49 (26%) compared to general and operations managers (43%), suggesting that with time and experience, individuals can advance into higher-paying management positions.

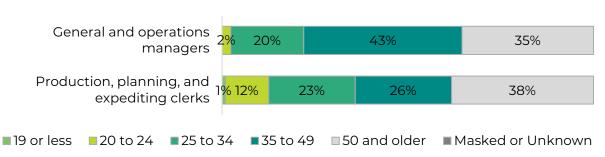


Exhibit 19: Age Distribution by Occupation

Sex

Exhibit 20 compares the sex of Orange County community college students enrolled in business management programs, the overall Orange County population, and occupation-specific data for these project management occupations.

Although men make up about half of both business management program students (50%) and the general population (50%), they are more heavily represented among project management workers (64%) compared to women (36%).

OC Community College Students (0506.00)

OC Population

Female

Male

Nonbinary

Masked or Unknown

Exhibit 20: Program and County Demographics by Sex

Exhibit 21 disaggregates the sex distribution for each of the project management occupations to highlight potential disparities in access to higher-paying occupations and opportunities for career advancement.

General and operations managers are disproportionately male (68%) compared to 32% female, suggesting that men are more likely to hold high-wage supervisory roles. In contrast, women have near-equal representation in the lower-wage occupation, production, planning, and expediting clerks.

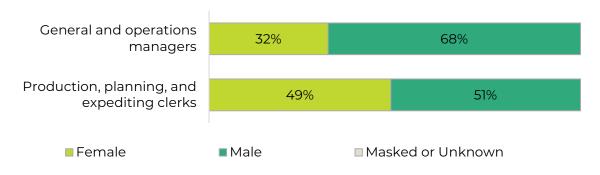


Exhibit 21: Sex Distribution by Occupation

Appendix A: Methodology

OC COE prepared this report by analyzing occupational and educational program data. Occupational data comes from Lightcast, a labor market analytics firm which compiles information from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS), and other agencies. Analysis of emerging occupations is predicated on online job postings data combined with Occupational Information Network (O*NET) profile descriptions. Program supply data was sourced from the California Community Colleges Chancellor's Office Data Mart (MIS Data Mart) (datamart.cccco.edu) and the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data), also known as IPEDS, which was integrated into the COE's Supply Table. (IPEDS).

Using a TOP-SOC crosswalk, the OC COE identified middle-skill jobs for which programs within these TOP codes train. Middle-skill jobs include:

- All occupations that have an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

The OC COE determined labor market supply for each occupation (SOC code) by analyzing the number of 3-year average program completers or awards in related TOP and CIP codes. TOP code data comes from MIS Data Mart and CIP code data comes from the IPEDS. The TOP is a system of numerical codes used at the state level to collect and report information on California community college programs and courses throughout the state that have similar outcomes. CIP codes are a taxonomy of academic disciplines at institutions of higher education throughout the United States and Canada. The California Community Colleges are the only system that use TOP codes.

The analysis reflects labor market demand for occupations closely related to the proposed program as expressed by the requesting college in consultation with the OC COE. assess current and projected employment based on data trends for detailed occupations, as well as annual average awards granted by regional postsecondary educational institutions. Real-time labor market information (online job postings) assesses employer preferences but cannot be used to measure the quantity of open positions, number of jobs, or annual openings.

All findings are based on the most current available data and a combination of primary and secondary sources. While care was taken to ensure accuracy, the OC COE, its host district, and the California Community Colleges Chancellor's Office are not responsible for individual decisions made based on this report.

Appendix B: Data Sources

| Data Type | Source |
|---|---|
| Occupational Projections, Wages, and Job Postings | Traditional and real-time labor market information are captured using data from <u>Lightcast</u> (v.2025.3), a labor market analytics firm. |
| Living Wage | Per the CCCCO's this report's endorsement criteria uses the University of Washington's Center for Women's Welfare Self-Sufficiency Standard last updated in March 2024, which is \$27.13 per hour (\$57,294 annually) in Orange County. The MIT Living Wage, updated on February 10, 2025, is a nationally recognized living wage metric and is provided for reference. The current MIT Living Wage in Orange County is \$32.20. |
| Typical Education and Training Requirements, and Educational Attainment | The <u>Bureau of Labor Statistics (BLS)</u> uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which BLS publishes projections data. |
| Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences | The O*NET database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations. |
| Educational Supply | The <u>CCCCO Data Mart</u> provides information about students, courses, student services, outcomes and faculty and staff. |
| | The <u>National Center for Education Statistics (NCES) Integrated</u> <u>Postsecondary Integrated Data System (IPEDS)</u> collects data on the number of postsecondary awards earned (completions). |
| Student Metrics and Demographics | Data Vista (v.2.0), a statewide data system supported by the California Community Colleges Chancellor's Office provides data on progress, success, employment, and earnings outcomes for California community college students. |
| Population and Occupation Demographics | The <u>Census Bureau's American Community Survey (ACS)</u> is the premier source for detailed population and housing information. Data is sourced from <u>IPUMS USA</u> , a database providing access to ACS and other Census Bureau data products. |

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