

Labor Market Analysis for Noncredit Program Recommendation:
 0506.00/Business Management
 (Human Resource Assistant)

Orange County Center of Excellence, November 2022



Summary

Program LMI Endorsement	Endorsed: All LMI Criteria Met <input type="checkbox"/>	Endorsed: Some LMI Criteria Met <input checked="" type="checkbox"/>	Not LMI Endorsed <input type="checkbox"/>
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Program LMI Endorsement Criteria

	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Supply Gap:	<i>Comments:</i> there is projected to be 1,219 middle-skill annual job openings throughout Los Angeles and Orange counties for these human resources occupations, which is slightly more than the 1,157 awards conferred by educational institutions . Though demand and supply are nearly equivalent, supply is overstated because not all general business management programs have a specific emphasis on preparing students for these human resources occupations.	
Living Wage: (Entry-Level, 25 th)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> the majority (59%) of annual job openings for these middle-skill human resources occupations have entry-level hourly wages above the OC living wage of \$20.63.	
Education:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> Though the majority (59%) of annual job openings for these middle-skill human resources occupations typically require a high school diploma, more than one-third of workers in the field have completed some college or an associate degree as their highest level of education.	

Emerging Occupation(s)

Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<i>Comments:</i> N/A	

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/Orange County regional labor market related to four human resources occupations:

- Middle-Skill
 - Payroll and Timekeeping Clerks (43-3051)
 - Human Resources Assistants, Except Payroll and Timekeeping (43-4161)
- Above Middle-Skill – denoted with an asterisk (*) throughout this report.
 - Human Resources Managers (11-3121)*
 - Human Resources Specialists (13-1071)*

Middle-skill occupations typically require a community college education while above middle-skill occupations typically require at least a bachelor’s degree.

Based on the available data, there does not appear to be a supply gap for these middle-skill human resources occupations in the region; however, the oversupply is within the COE's acceptable margin (25% over or under the number of annual job openings) and is therefore considered "supply met" rather than a "supply gap". Additionally, typical education requirements for these middle-skill human resources occupations align with a community college education and the majority of annual job openings have entry-level wages above the living wage. **Therefore, due to some 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 occupations included in this report.

Exhibit 1: Occupational Demand and Supply in Los Angeles/Orange Counties

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25 th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
Payroll and Timekeeping Clerks (43-3051)	714	1,127	OC: \$21.64	High school diploma or equivalent	48%
Human Resources Assistants, Except Payroll and Timekeeping (43-4161)	505	30	OC: \$17.82	Associate degree	40%
Middle-Skill Total	1,219	1,157	N/A	N/A	N/A
Human Resources Managers (11-3121)*	828	Accounted for Above	OC: \$46.22	Bachelor's degree	26%
Human Resources Specialists (13-1071)*	2,709	Accounted for Above	OC: \$27.34	Bachelor's degree	24%
Above Middle-Skill Total	3,947	Accounted for Above	N/A	N/A	N/A
Total	5,166	1,157	N/A	N/A	N/A

Demand:

- The number of jobs related to these middle-skill human resources occupations are projected to decrease 6% through 2026; however, there is projected to be 1,219 annual job openings due to retirements and replacements.
- Hourly entry-level wages for these human resources occupations range from \$17.82 to \$21.64 in Orange County; 59% of annual job openings have entry-level wages above the living wage.
- There were 7,847 online job postings for these middle-skill human resources occupations over the past 12 months. The highest number of postings were for human resources assistants, payroll specialists, and payroll administrators.
- The typical entry-level education for these middle-skill human resources occupations ranges from a high school diploma or equivalent to an associate degree.
- Between 40% and 48% of workers in these middle-skill occupations have completed some college or an associate degree as their highest level of educational attainment.

Supply:

- There was an average of 1,139 awards conferred by 23 community colleges in Los Angeles and Orange Counties from 2018 to 2021. Supply is overstated because general business management occupations train for a variety of occupations, not solely human resources occupations.
- One non-community college institution conferred an average of 18 awards from 2017 to 2020.
- Orange County community college students that exited business management programs in the 2018-2019 academic year had a median annual wage of \$43,344 after exiting the program and 51% attained the regional living wage.
- Throughout Orange County, 77% of business management students that exited their program in 2017-18 reported that they are working in a job closely related to their field of study.

Demand

Occupational Projections:

Exhibit 2 shows the annual percent change in jobs for all four human resources occupations researched in this report from 2016 through 2026. Though there was a 7% decline across all occupations from 2019 to 2020 due to the COVID-19 pandemic, employment in these human resources occupations declined only 0.1% in Orange County and 1% in Los Angeles County. However, all of the decline was for the middle-skill occupations and employment in the above middle-skill occupations increased. Though these human resources occupations are projected to grow at a similar rate for all occupations through 2026, all of the growth will be for the above middle-skill occupations.

Exhibit 2: Annual Percent Change in Jobs for Human Resources Occupations, 2016-2026

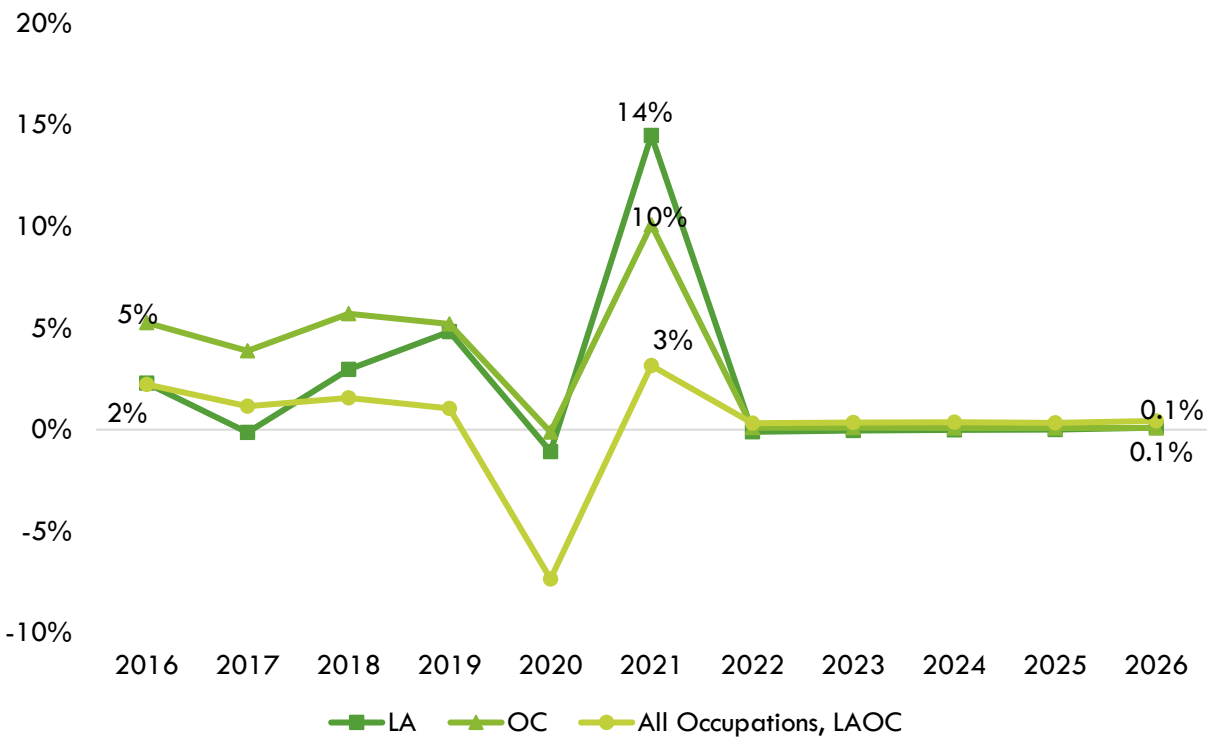


Exhibit 3 shows the five-year occupational demand projections for these middle-skill human resources occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to decrease by 6% through 2026. There is projected to be 1,219 jobs available annually.

Exhibit 3: Middle-Skill Occupational Demand in Los Angeles and Orange Counties.¹

Geography	2021 Jobs	2026 Jobs	2021-2026 Change	2021-2026 % Change	Annual Openings
Los Angeles	9,004	8,422	(582)	(7%)	881
Orange	3,439	3,239	(200)	(6%)	338
Total	12,443	11,660	(782)	(6%)	1,219

Exhibit 4 shows the five-year occupational demand projections for these above middle-skill human resources occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase by 2% through 2026. There is projected to be 3,947 jobs available annually.

Exhibit 4: Above Middle-Skill Occupational Demand in Los Angeles and Orange Counties

Geography	2021 Jobs	2026 Jobs	2021-2026 Change	2021-2026 % Change	Annual Openings
Los Angeles	29,233	29,796	563	2%	2,786
Orange	12,041	12,310	269	2%	1,161
Total	41,274	42,105	832	2%	3,947

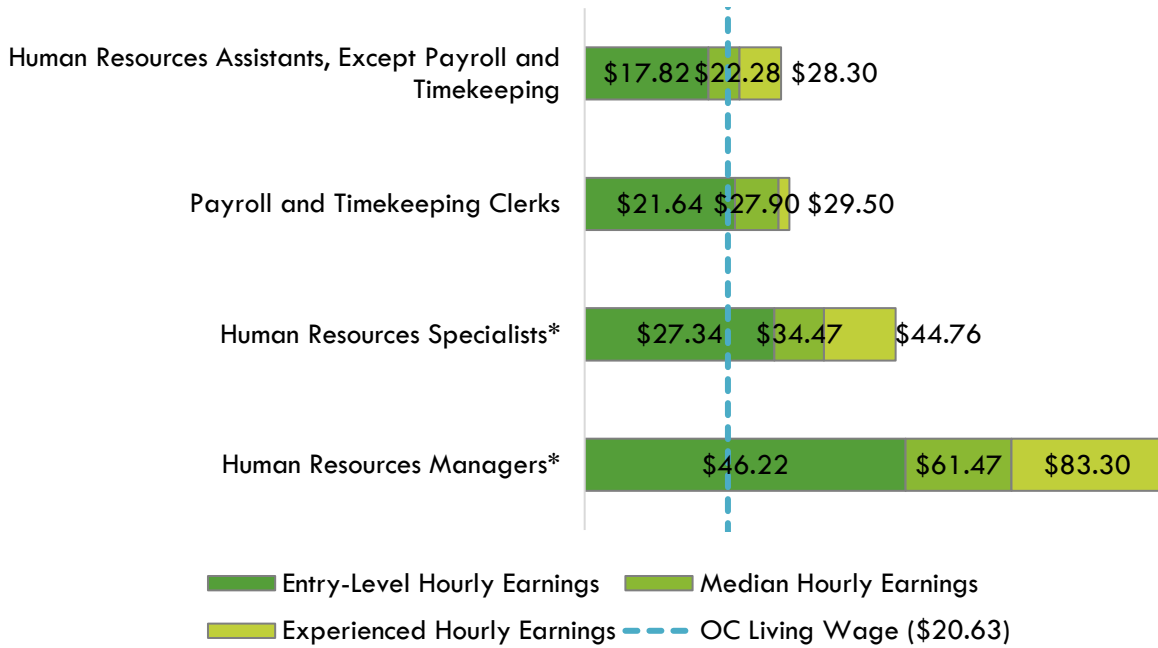
Wages:

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

The majority (59%) of annual openings for these middle-skill human resources occupations have entry-level wages above the living wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages range between \$17.82 and \$21.64. Orange County's average wages are below the average statewide wage of \$25.84 for these occupations. Exhibit 5, on the following page, shows the wage range for each of these human resources occupations in Orange County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

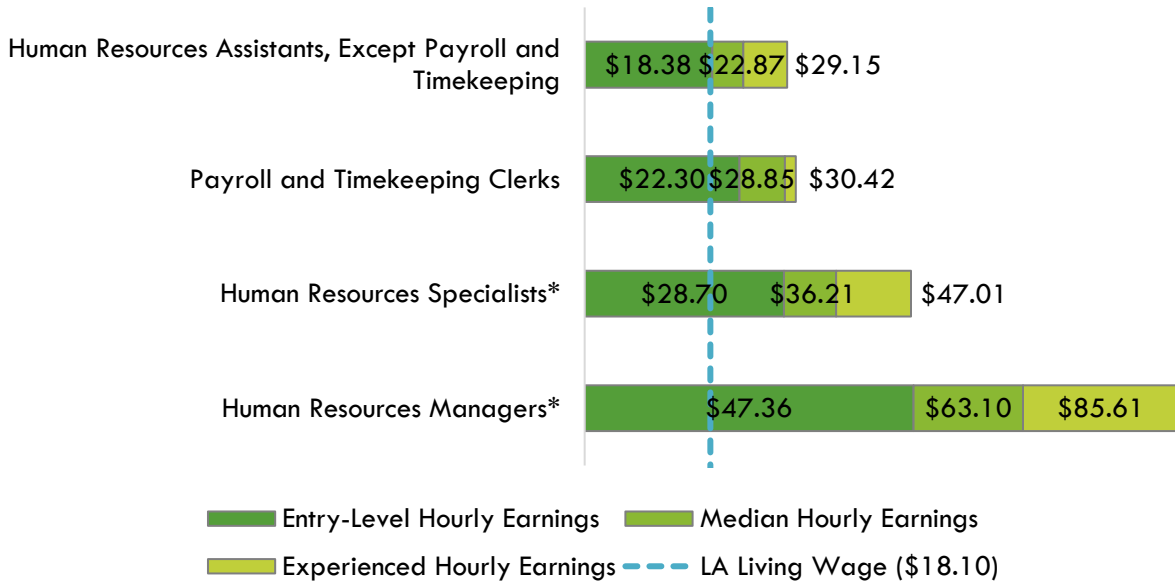
¹ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Exhibit 5: Wages by Occupation in Orange County



All annual openings for these human resources occupations have entry-level wages above the living wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$18.38 and \$22.30. Los Angeles County’s average wages are nearly equivalent to the average statewide wage of \$25.84 for these occupations. Exhibit 6 shows the wage range for each of these human resources occupations in Los Angeles County how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 6: Wages by Occupation in Los Angeles County



Job Postings:

There were 39,610 online job postings related to these human resources occupations listed in the past 12 months. Of those, 20% (7,847) were for middle-skill human resources occupations. Nearly 60% of job postings were for human resources specialists. Exhibit 7 shows the number of job postings by occupation.

Exhibit 7: Number of Job Postings by Occupation (n=39,610)

Occupation	Job Postings	Percentage of Job Postings
Human Resources Specialists*	23,534	59%
Human Resources Managers*	8,229	21%
Payroll and Timekeeping Clerks	4,490	11%
Human Resources Assistants, Except Payroll and Timekeeping	3,357	9%
Total Postings	39,610	100%

The top employers for the middle-skill human resource occupations in the region, by number of job postings, are shown in Exhibit 8.

Exhibit 8: Top Middle-Skill Employers by Number of Job Postings (n=7,847)

Employer	Job Postings	Percentage of Job Postings
Robert Half	602	8%
AppleOne	190	2%
Citrus Valley Health Partners	107	1%
Randstad	84	1%
Aston Carter	81	1%
Advantex Professional Services	69	1%
Vaco Staffing	63	1%
Century Group	56	1%
Jobot	48	1%
MediQuest Staffing	40	1%

The top employers for the above middle-skill human resource occupations in the region, by number of job postings, are shown in Exhibit 9.

Exhibit 9: Top Above Middle-Skill Employers by Number of Job Postings (n=31,763)

Employer	Job Postings	Percentage of Job Postings
Robert Half	785	2%
Aston Carter	399	1%
Randstad	271	1%
AppleOne	265	1%
Disney	219	1%
Citrus Valley Health Partners	208	1%
Deloitte	192	1%
Amazon	185	1%
Anthem Blue Cross	181	1%
Jobot	170	1%

The top specialized, soft, and software/computer skills listed by those most frequently mentioned in job postings (denoted in parentheses) are shown for these middle-skill occupations in Exhibit 10.

Exhibit 10: Top Skills for Middle-Skill Occupations by Number of Job Postings (n=7,847)

Top Specialized Skills	Top Soft Skills	Top Software and Computer Skills
Payroll Processing (2,501)	Communications (3,364)	Microsoft Excel (2,324)
Auditing (2,260)	Detail Oriented (2,682)	Microsoft Office (1,833)
Accounting (2,073)	Microsoft Excel (2,324)	Payroll Systems (1,562)
Payroll Systems (1,562)	Management (2,011)	Human Resources Information System (HRIS) (1,187)
Data Entry (1,343)	Customer Service (1,903)	Microsoft Outlook (1,151)
Human Resources Information System (HRIS) (1,187)	Microsoft Office (1,833)	Microsoft Word (757)
Finance (897)	Organizational Skills (1,446)	Microsoft PowerPoint (744)
Administrative Support (859)	Operations (1,396)	ADP Workforce Now (684)
Payroll Reporting (779)	Written Communication (1,335)	Kronos (Timekeeping Software) (428)
ADP Workforce Now (684)	Filing (1,330)	Workday (Software) (316)

The top specialized, soft, and software/computer skills listed by those most frequently mentioned in job postings (denoted in parentheses) are shown for these middle-skill occupations in Exhibit 11.

Exhibit 11: Top Skills for Above Middle-Skill Occupations by Number of Job Postings (n=31,763)

Top Specialized Skills	Top Soft Skills	Top Software and Computer Skills
Talent Acquisition (7,241)	Communications (15,848)	Microsoft Office (7,229)
Human Resources Information System (HRIS) (6,754)	Management (12,408)	Microsoft Excel (7,097)
Employee Relations (6,426)	Leadership (8,363)	Human Resources Information System (HRIS) (6,754)
Applicant Tracking Systems (5,336)	Detail Oriented (8,109)	Applicant Tracking Systems (5,336)
Full-Cycle Recruitment (4,507)	Microsoft Office (7,229)	Microsoft PowerPoint (4,796)
Labor Law (4,059)	Customer Service (7,104)	Microsoft Outlook (4,146)
Performance Management (4,019)	Microsoft Excel (7,097)	Microsoft Word (2,017)

Top Specialized Skills	Top Soft Skills	Top Software and Computer Skills
Talent Sourcing (3,385)	Operations (6,168)	Workday (Software) (1,582)
Human Resource Management (3,332)	Problem Solving (5,951)	Google Workspace (720)
Recruitment Strategies (3,284)	Written Communication (5,340)	LinkedIn Recruiter (688)

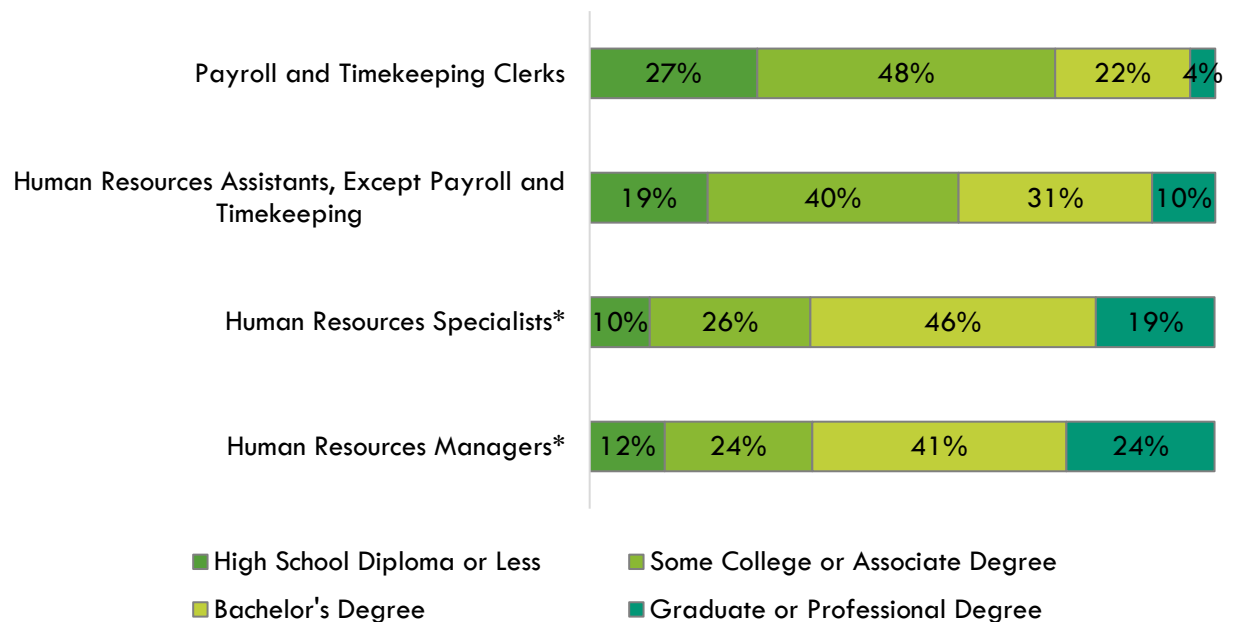
Educational Attainment:

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for *payroll and timekeeping clerks*; an associate degree for *human resources assistants, except payroll and timekeeping*; and a bachelor's degree for *human resources managers* and *human resources specialists*. The national-level educational attainment data indicates between 40% and 48% of workers in the middle-skill occupations have completed some college or an associate degree as their highest level of education. Between 24% and 26% of workers in the above middle-skill occupations have completed some college or an associate degree. Exhibit 12 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

Of the 58% of the cumulative job postings for these middle-skill human resources occupations that listed a minimum education requirement in Los Angeles/Orange County, 67% (3,011) requested a high school diploma, vocational training, or an associate degree and 33% (1,492) requested a bachelor's degree.

Conversely, of the 69% of the postings for these above middle-skill human resources occupations that listed a minimum education requirement, 76% (16,635) requested a bachelor's degree and 24% (5,037) requested a high school diploma, vocational training, or an associate degree.

Exhibit 12: National-level Educational Attainment for Occupations



Educational Supply

Community College Supply:

Exhibit 13 shows the three-year average number of awards conferred by community colleges in the related TOP codes: Business Management (0506.00) and Labor and Industrial Relations (0516.00) The colleges with the most completions in the region are: Cerritos, Mt. San Antonio, and Coastline. Over the past 12 months, there were seven other related program recommendation requests from regional community colleges.

It is important to note that general business management programs train for a variety of occupations and not solely those related to human resources. Therefore, the supply for these human resources occupations is overstated in Exhibit 13.

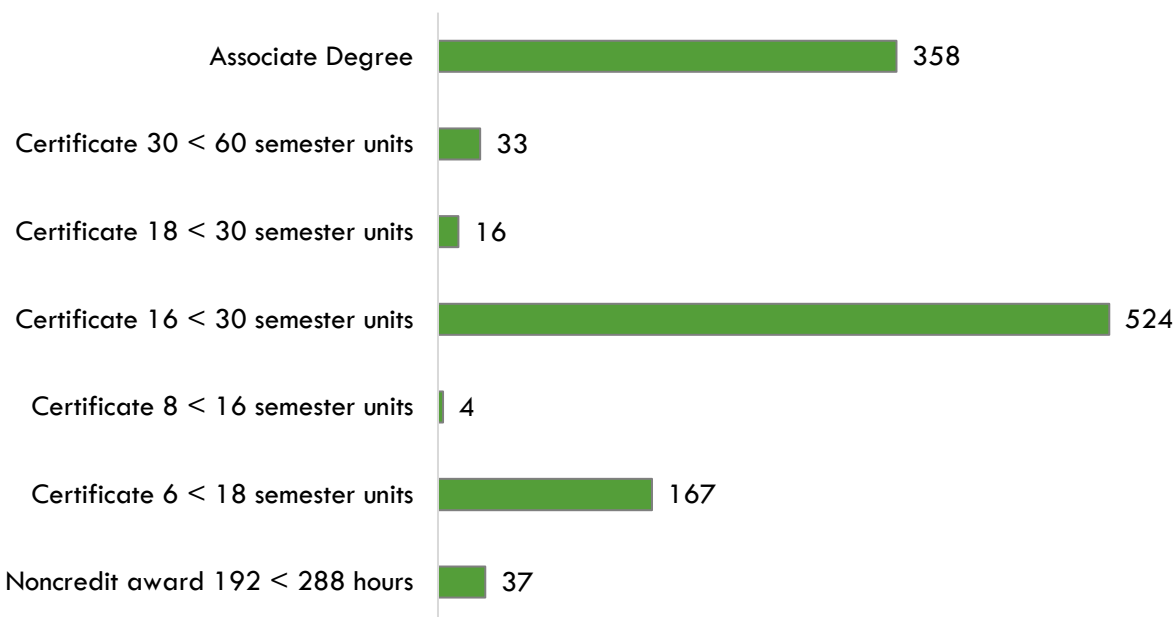
Exhibit 13: Regional Community College Awards (Certificates and Degrees), 2018-2021

TOP Code	Program	College	2018-2019 Awards	2019-2020 Awards	2020-2021 Awards	3-Year Award Average		
0506.00	Business Management	Cerritos	456	516	387	453		
		Citrus	2	0	0	1		
		Compton	3	0	0	1		
		East LA	29	18	17	22		
		El Camino	23	33	49	35		
		Glendale	9	13	15	13		
		LA City	18	39	18	25		
		LA Mission	3	1	4	3		
		LA Pierce	3	2	7	4		
		LA Valley	33	36	30	33		
		Long Beach	21	29	44	31		
		Mt San Antonio	202	145	150	166		
		Santa Monica	23	0	0	7		
		LA Subtotal	825	832	721	794		
		Coastline	84	72	307	155		
		Cypress	6	3	7	5		
		Fullerton	11	12	11	11		
		Golden West	20	8	11	12		
		Irvine	3	14	5	7		
		North Orange Adult	27	36	19	27		
		Orange Coast	40	16	19	25		
		Santa Ana	64	71	40	58		
		Santiago Canyon	17	24	55	33		
		OC Subtotal	272	256	474	333		
		Supply Subtotal/Average			1,097	1,088	1,195	1,127

TOP Code	Program	College	2018-2019 Awards	2019-2020 Awards	2020-2021 Awards	3-Year Award Average
0516.00	Labor and Industrial Relations	LA Trade	15	9	12	12
		LA Subtotal	15	9	12	12
		-	-	-	-	-
		OC Subtotal	-	-	-	-
Supply Subtotal/Average			15	9	12	12
Supply Total/Average			1,112	1,097	1,207	1,139

Exhibit 14 shows the annual average community college awards by type from 2018-19 through 2020-21. The plurality of the awards are for certificates certificates between 16 and less than 30 semester units, followed by associate degrees and between 6 and less than 18 semester units.

Exhibit 14: Annual Average Community College Awards by Type, 2018-2021



Community College Student Outcomes:

Exhibit 15, on the following page, 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 5,590 business management students in Orange County, 60% (3,351) attended a NOCCCD community college or noncredit institution.

Additionally, 90% of NOCCCD noncredit students completed a noncredit CTE or workforce preparation course, which is slightly higher when compared to all business management students in Orange County (89%) and statewide (86%). NOCCCD exiting students also had a higher median change in earnings (34%) than all business management students in Orange County (31%) and statewide (16%). However, median annual earnings for exiting students at NOCCCD are \$31,125, which is lower than all business management students in Orange County (\$33,238) and statewide (\$37,302). All three figures are significantly below the living wage.

Exhibit 15: Business Management (0506.00) Strong Workforce Program Metrics, 2019-20²

SWP Metric	NOCCCD	OC Region	California
SWP Students	3,351	5,590	41,002
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	24%	28%	35%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	90%	89%	86%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	48	146	1,659
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2018-19)	358	624	3,355
SWP Students with a Job Closely Related to Their Field of Study (2017-18)	75%	77%	72%
Median Annual Earnings for SWP Exiting Students (2018-19)	\$31,125 (\$14.96)	\$33,238 (\$15.98)	\$37,302 (\$17.93)
Median Change in Earnings for SWP Exiting Students (2018-19)	34%	31%	16%
SWP Exiting Students Who Attained the Living Wage (2018-19)	29%	39%	56%

Non-Community College Supply:

For a comprehensive regional supply analysis, it is also important to consider the supply from other institutions in the region that provide training programs for these human resources occupations. Exhibit 16 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Code: Human Resources Management/Personnel Administration, General. Due to different data collection periods, the most recent three-year period of available data is from 2017 to 2020. Between 2017 and 2020, one four-year college in the region conferred an average of 18 awards annually in related training programs.

Exhibit 16: Regional Non-Community College Awards, 2017-2020

CIP Code	Program	College	2017- 2018 Awards	2018- 2019 Awards	2019- 2020 Awards	3-Year Award Average
52.1001	Human Resources Management/Personnel Administration, General	Trident University International	30	23	0	18
Supply Total/Average			30	23	0	18

² All SWP metrics are for 2019-20 unless otherwise noted.

Regional Demographics

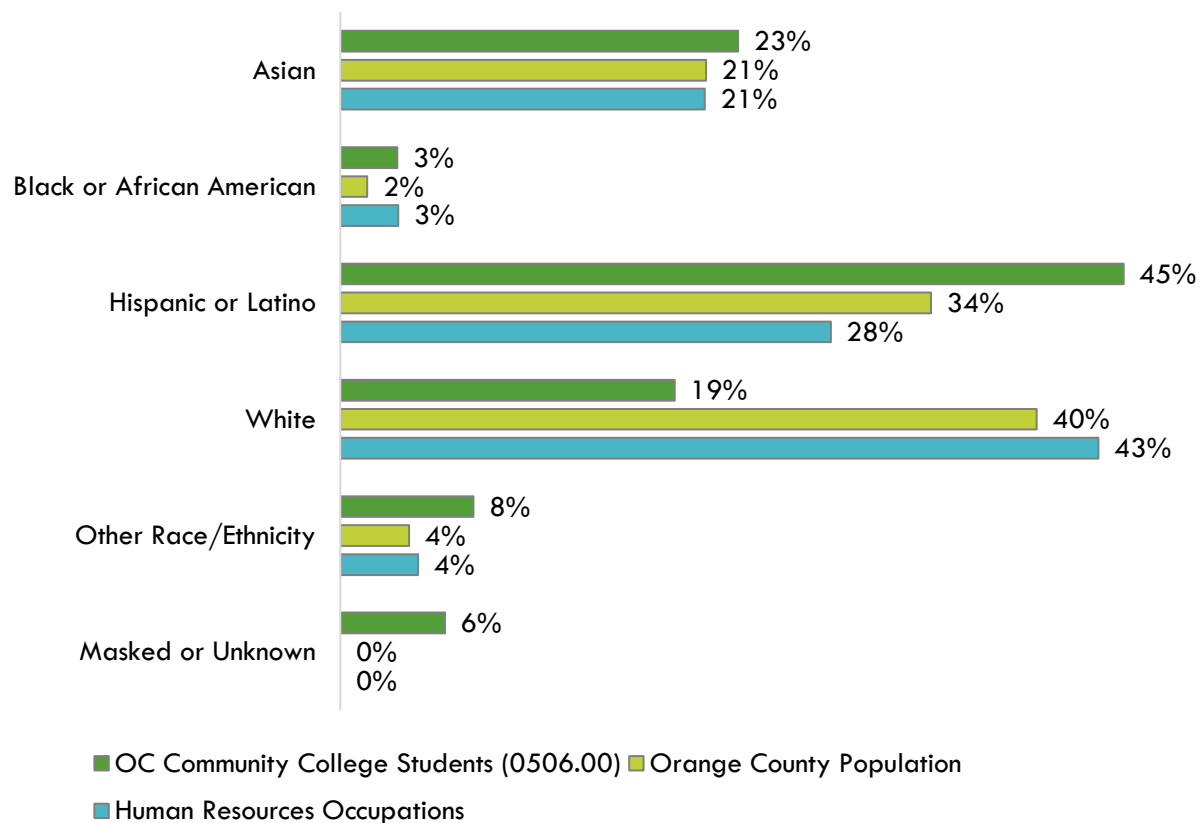
This section analyzes demographic data for Orange County community college students enrolled in business management programs compared to the OC population, as well occupational data, for the purpose of identifying potential diversity and equity issues that can be addressed by community college programs.

Ethnicity:

Exhibit 17 shows the ethnicity of Orange County community college students enrolled in business management programs compared to the overall Orange County population, as well as the four human resources occupations included in this report. Notably, 43% of workers employed in these human resources occupations are White, which is similar to the population (39%) but much higher than community college business management students (19%). Conversely, 45% of community college business management students are Hispanic or Latino, which is higher than the Orange County population (34%) and significantly higher than workers in these human resources occupations (28%).

Examining disaggregated data for each occupation (not shown), the occupation with the highest percentage of Hispanic or Latino workers is *payroll and timekeeping clerks* (41%), which typically requires a high school diploma or equivalent, the least amount of education of all four human resources occupations. However, wages for this occupation are above the living wage. Additionally, *human resources assistants, except payroll and timekeeping* has both the highest percentage of white (56%) and black (6%) workers. This occupation is the only occupation in this report that has entry-level wages below the living wage (\$17.82).

Exhibit 17: Program and County Demographics by Ethnicity

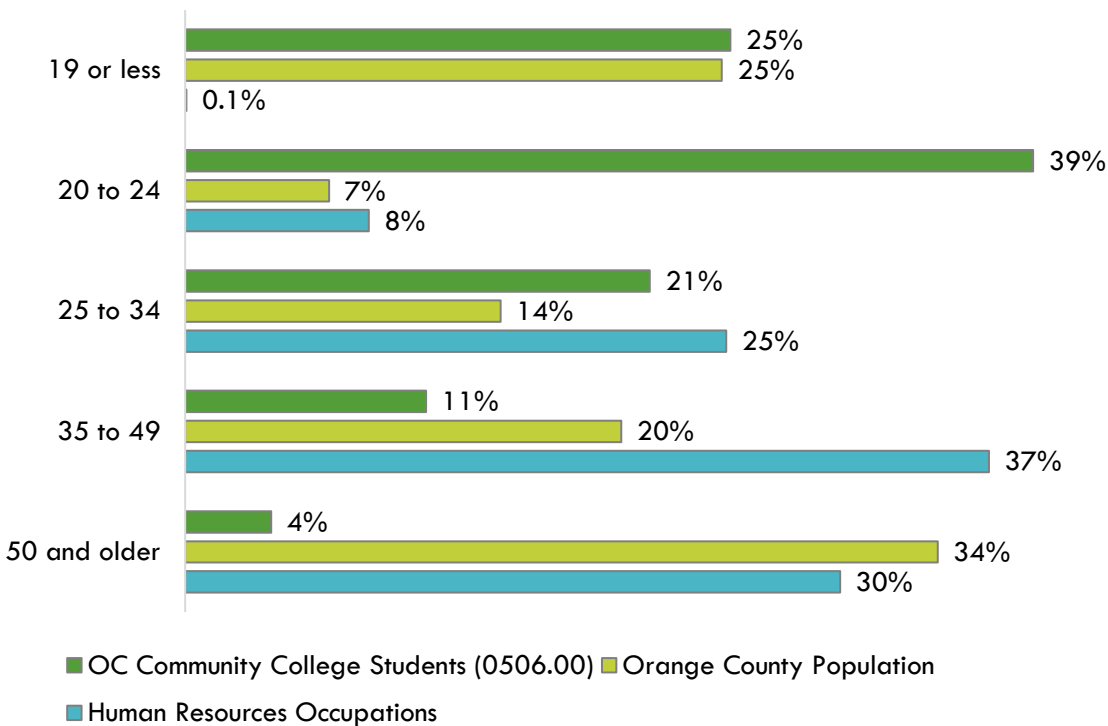


Age:

Exhibit 18 shows the age of Orange County community college students enrolled in business management programs compared to the overall Orange County population, as well as the four human resources occupations included in this report. The plurality of workers in these human resources occupations are age 35 to 49 (37%), which is significantly higher than the population (20%) and community college business management students (11%). Only 8.1% of workers in these occupations are 24 or less.

Examining disaggregated data for each occupation (not shown), the occupation with the highest percentage of workers age 34 or younger is *human resources specialists* (41%), which has the second highest entry-level wages of all four human resources occupations. Conversely, the occupations with the highest percentage of workers age 35 and older is *payroll and timekeeping clerks* (82%), closely followed by *human resources managers* (81%). However, entry-level wages in Orange County for *human resources managers* (\$46.22) are more than double those of *payroll and timekeeping clerks* (\$21.64).

Exhibit 18: Program and County Demographics by Age

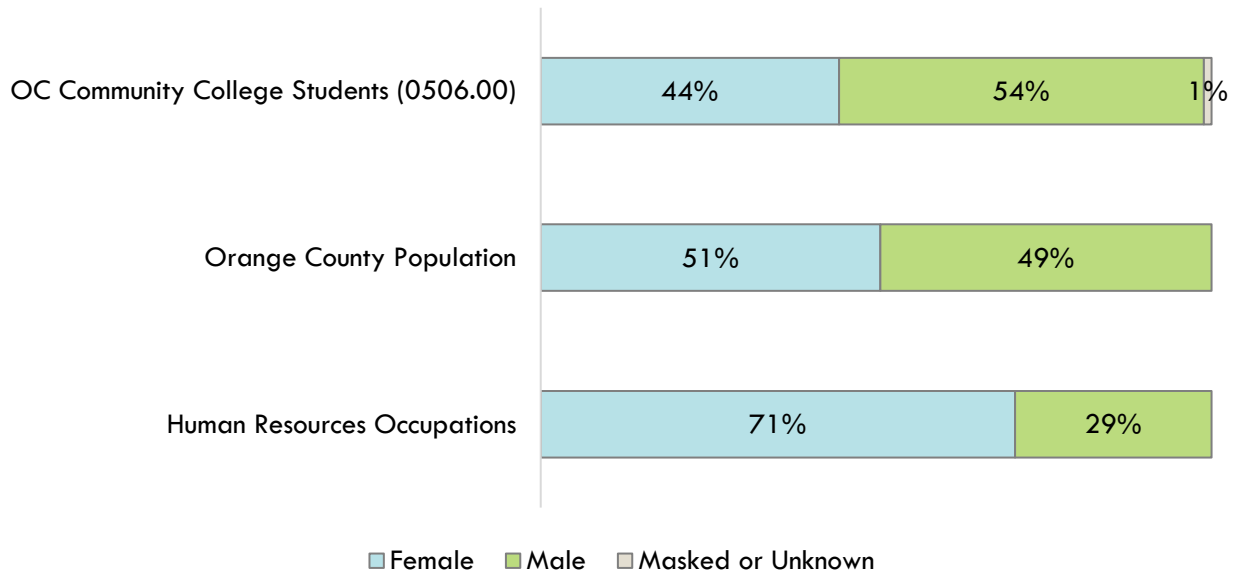


Sex:

Exhibit 19 shows the sex of Orange County community college students enrolled in business management programs compared to the overall Orange County population as well as these human resources occupations.

Notably, 71% of workers in these human resources occupations are women, which is significantly higher than both the Orange County population (51%) and business management community college students (44%). Examining disaggregated data for each occupation (not shown), *human resources managers* – which has the highest entry-level, median, and experienced wages of all four human resources occupations – has the lowest percentage of woman (55%) of all four human resources occupations.

Exhibit 19: Program and County Demographics by Sex



Appendix A: Methodology A

The OC COE prepared this report by analyzing data from occupations and education programs. Occupational data is derived from Lightcast, a labor market analytics firm that consolidates data from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS) and other government agencies. Program supply data is drawn from two systems: Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP).

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 require 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 an occupation or SOC code by analyzing the number of program completers or awards in a related TOP or CIP code. The COE developed a “supply table” with this information, which is the source of the program supply data for this report. TOP code data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP code data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data), also known as IPEDS. 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 in the United States and Canada. Institutions outside of the California Community College system do not use TOP codes in their reporting systems.

Data included in this analysis represent the labor market demand for relevant positions most closely related to the proposed program as expressed by the requesting college in consultation with the OC COE. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study which can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions.

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

Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	<p>Traditional labor market information data is sourced from Lightcast, a labor market analytics firm. Lightcast occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment Statistics and the American Community Survey. For more information, see https://lightcast.io/</p>
Living Wage	<p>The living wage is derived from the Insight Center’s California Family Needs Calculator, which measures the income necessary for an individual of family to afford basic expenses. The data assesses the cost of housing, food, child care, health care, transportation, and taxes. For more information, see: https://insightccd.org/family-needs-calculator/</p> <p>The living wage for one adult in Orange County is \$20.63 per hour (\$42,910.40 annually). This figure is used by the CCCCCO to calculate the percentage of students that attained the regional living wage.</p>
Typical Education and Training Requirements, and Educational Attainment	<p>The Bureau of Labor Statistics (BLS) provides information about education and training requirements for hundreds of occupations. BLS 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. For more information, see https://www.bls.gov/emp/documentation/education/tech.htm</p>
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	<p>The O*NET database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations. For more information, see https://www.onetonline.org/help/online/</p>
Educational Supply	<p>The CCCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: https://datamart.cccco.edu</p> <p>The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions). For more information, see https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions</p>
Student Metrics and Demographics	<p>LaunchBoard, a statewide data system supported by the California Community Colleges Chancellor's Office and hosted by Cal-PASS Plus, provides data on progress, success, employment, and earnings outcomes for California community college students. For more information, see: https://www.calpassplus.org/LaunchBoard/Home.aspx</p>

Data Type	Source
Population and Occupation Demographics	<p>The Census Bureau's American Community Survey (ACS) is the premier source for detailed population and housing information. For more information, see: https://www.census.gov/programs-surveys/acs</p> <p>Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products. For more information, see: https://usa.ipums.org/usa/about.shtml</p>

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