Labor Market Analysis for Program Recommendation: 0514.00 Office Technology/Office Computer Applications CIP: 52.0408/General Office Occupations and Clerical Services *(Applied Artificial Intelligence)*

Orange County Center of Excellence, December 2025

⚠ Endorsed: Caution Advised			
Program LMI Endorsement Criteria			
Supply Gap:	Met ☑	Partially Met ☐	Not Met ☐
	There are projected to be **15,980 annual job openings** throughout Los Angeles and Orange counties for these applied AI occupations, which **is more than the 8,557 awards conferred by educational institutions**.		
Self-Sufficiency Standard Living Wage[1]:	Met ☐	Partially Met ☐	Not Met ☑
	The majority (93%) of annual job openings for these applied AI occupations **have entry-level hourly wages below the OC living wage of $27.13**.		
Education:	Met ☑	Partially Met ☐	Not Met ☐
	Although the majority (93%) of annual job openings for these middle-skill applied AI occupations typically require a high school diploma, **between 33% and 43% of workers in the field have completed some college or an associate degree as their highest level of education.**		

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 three occupations:

- Below Middle-Skill – denoted with an asterisk (*) throughout this report
  - *Office and Administrative Support Workers, All Other (43-9199)**
- Middle-Skill
  - *Administrative Services Managers (11-3012)*
  - *Office Clerks, General (43-9061)*

Based on the available data, there appears to be a supply gap for these applied AI occupations, and typical education requirements for these middle-skill occupations align with a community college education. However, the majority of annual job openings have entry-level wages below the Self-Sufficiency Standard living wage. **Therefore, due to some of the regional labor market criteria being met, the COE endorses this proposed program.**

[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.

Exhibit 1 lists the occupational demand, supply, typical entry-level education, and educational attainment for the 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
Office and Administrative Support Workers, All Other (43-9199)*	LA: 972	LA: 0	OC: $19.21	High school diploma or equivalent	38%
	OC: 309	OC: 0			
Below Middle-Skill Total	**1,281**	**0**	**N/A**	**N/A**	**N/A**
Administrative Services Managers (11-3012)	LA: 842	LA: 4,574	OC: $43.92	Bachelor's degree	33%
	OC: 307	OC: 2,673			
	TTL: 1,149	*TTL: 7,247*			
Office Clerks, General (43-9061)	LA: 9,777	LA: 948	OC: $18.74	High school diploma or equivalent	43%
	OC: 3,772	OC: 362			
	TTL: 13,550	*TTL: 1,310*			
Middle-Skill Total	**14,699**	**835**	**N/A**	**N/A**	**N/A**
Total	**15,980**	**8,557**	**N/A**	**N/A**	**N/A**

Demand

- In Los Angeles and Orange counties, the number of jobs related to these applied AI occupations is projected to decrease 2% through 2029, equating to 15,980 annual job openings.
- Hourly entry-level wages for these applied AI occupations range from $18.74 to $43.92 in Orange County; 93% of annual openings have entry-level wages below the Self-Sufficiency Standard living wage.
- There were 1,983 online job postings for these applied AI occupations over the past 12 months. The most common job titles were office assistants, office administrative assistants, and business office managers.
- The typical entry-level education for these applied AI occupations ranges from a high school diploma or equivalent to a bachelor's degree.
- Between 33% and 43% 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 8,340 awards were conferred by 29 community colleges for the middle-skill occupations in Los Angeles and Orange counties.

- From 2020 to 2023, non-community college institutions conferred an average of 217 awards for the middle-skill occupation.
- In the 2022-23 academic year, Orange County community college students that exited office technology/office computer applications programs had a median annual wage of $34,876 ($16.77 per hour) post-exit, and 26% attained the regional living wage.
- In 2021-22, 64% of Orange County office technology/office computer applications 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 applied AI 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. Although applied AI employment levels continued to decline in 2021 and 2022, the region experienced growth from 2023 to 2024. Beginning in 2025, job levels are projected to grow at a slower rate than the average of all occupations through 2029.

Exhibit 2: Annual Percentage Change in Jobs for Applied AI Occupations, 2019-2029

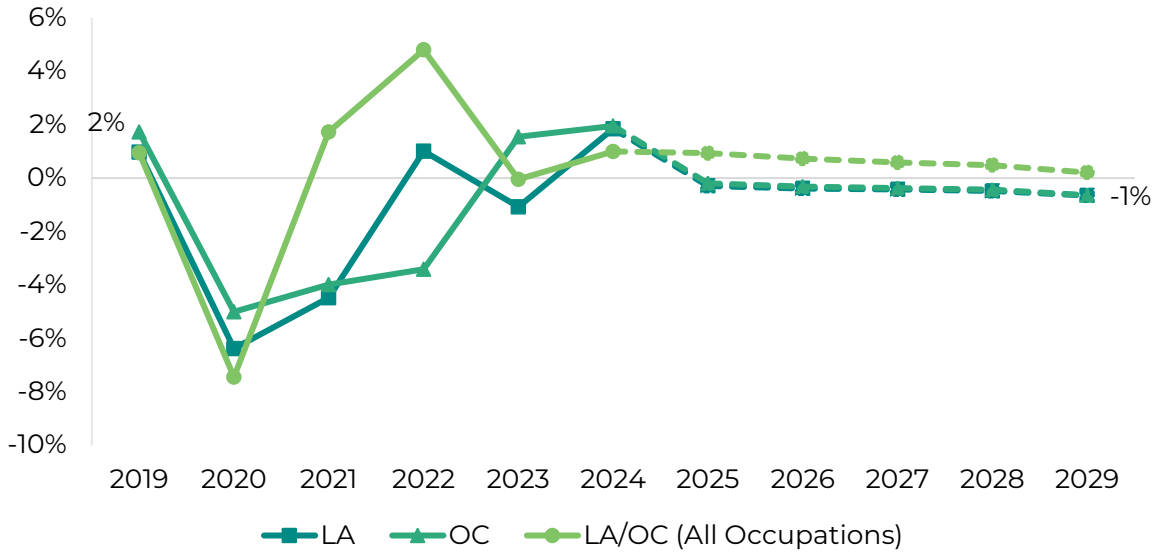


Exhibit 3 shows the five-year occupational demand projections for this below-middle-skill applied AI occupation. In Los Angeles and Orange counties, the number of jobs related to these occupations is projected to decrease 4% through 2029. There is projected to be 1,281 available annually.

Exhibit 3: Below Middle-Skill Occupational Demand in Los Angeles and Orange Counties[2]

Geography	2024 Jobs	2029 Jobs	2024-2029 Change	2024-2029 % Change	Annual Openings
Los Angeles	9,377	9,064	(313)	(3%)	972
Orange	2,997	2,871	(126)	(4%)	309
Total	**12,374**	**11,935**	**(439)**	**(4%)**	**1,281**

[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.

Exhibit 4 shows the five-year occupational demand projections for these middle-skill applied AI occupations. In Los Angeles and Orange counties, the number of jobs related to this occupation is projected to decrease 2% through 2029. There is projected to be 14,699 available annually.

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

Geography	2024 Jobs	2029 Jobs	2024-2029 Change	2024-2029 % Change	Annual Openings
Los Angeles	94,977	92,961	(2,016)	(2%)	10,619
Orange	36,378	35,737	(642)	(2%)	4,079
Total	**131,355**	**128,698**	**(2,657)**	**(2%)**	**14,699**

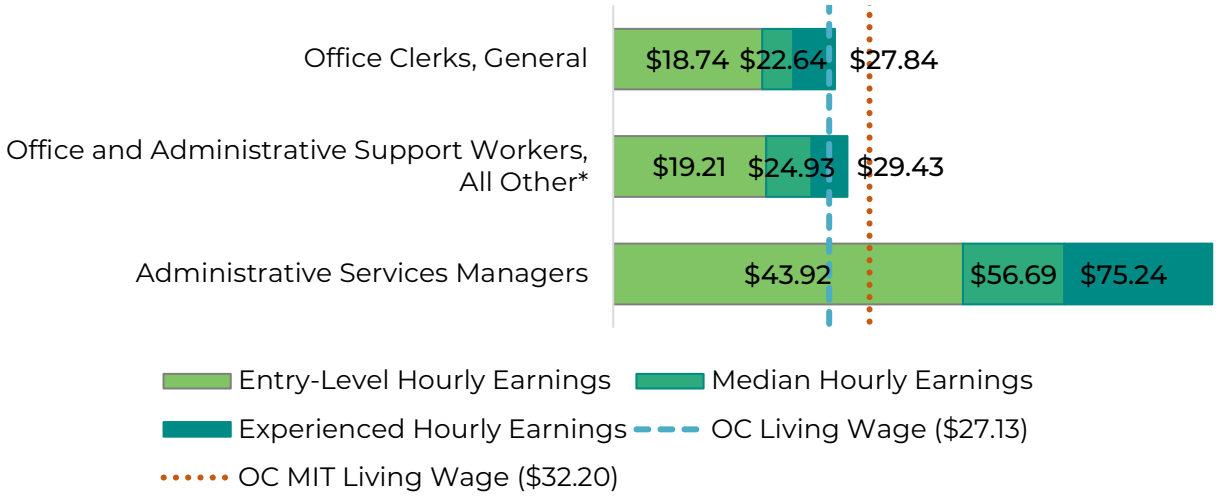
Wages

The labor market endorsement in this report considers the entry-level hourly wages for these applied AI 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, 93% of annual openings for these applied AI occupations have entry-level wages below the Self-Sufficiency living wage of $27.13 for a single adult, ranging from $18.74 and $43.92. Exhibit 5 shows the wage range for each of these applied AI occupations in Orange County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

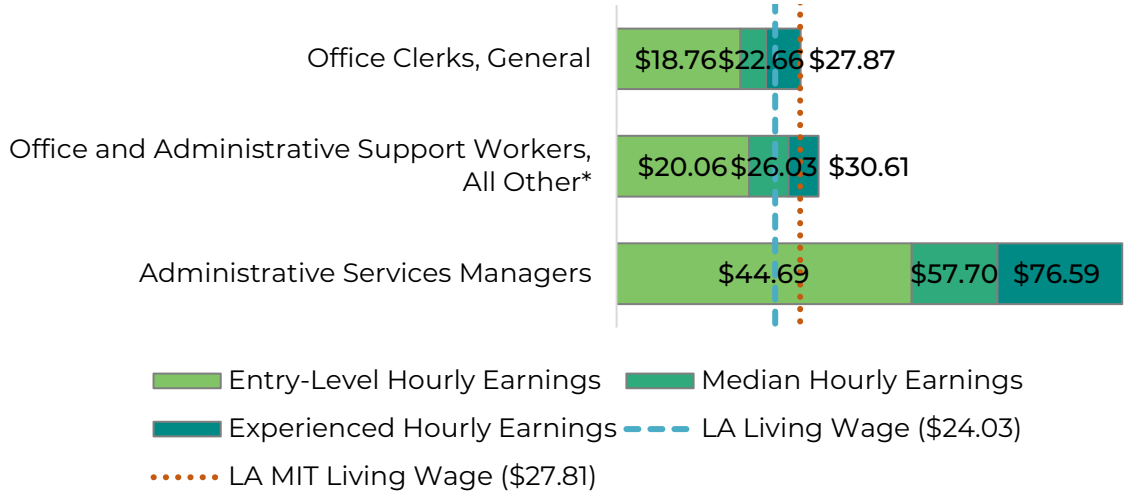
Exhibit 5: Wages by Occupation in Orange County



In Los Angeles County, 93% of annual openings for these applied AI occupations have entry-level wages below the Self-Sufficiency living wage of $24.03 for a single adult, ranging from $18.76 and $44.69. Exhibit 6 shows the wage range for each of these applied AI occupations

in Los Angeles County and 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



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

Exhibit 7 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 Job[3]. Only one occupation, *administrative services managers*, was considered both a Great Recession-Resilient Jobs and COVID-19 Pandemic Recession-Resilient Job. Neither *office and administrative support workers, all other** nor *office clerks, general* met the criteria to be considered any of these designations.

Exhibit 7: Resilient Jobs and USN&WR Best Jobs Designations

Occupation	Great Recession-Resilient Job	COVID-19 Pandemic Recession-Resilient Job	2025 USN&WR Best Job
Administrative Services Managers	☑	☑	☐
Office and Administrative Support Workers, All Other*	☐	☐	☐
Office Clerks, General	☐	☐	☐

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 1,983 online job postings related to these applied AI occupations listed in the past 12 months. Exhibit 8 shows the number of job postings by occupation. Over 64% of job postings were for *office clerks, general*.

[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 8: Number of Job Postings by Occupation (n=1,983)

Occupation	Job Postings	Percentage of Job Postings
Office Clerks, General	1,269	64%
Administrative Services Managers	714	36%
Office and Administrative Support Workers, All Other*	0	0%
Total Postings	**1,983**	**100%**

Job Postings for Middle-Skill Occupations

The top job titles for these middle-skill applied AI occupations in the region, by number of job postings, are shown in Exhibit 9.

Exhibit 9: Top Job Titles by Number of Job Postings for Middle-Skill Occupations (n=1,983)

Job Titles	Job Postings	Percentage
Office Assistants	729	37%
Office Administrative Assistants	162	8%
Business Office Managers	137	7%
Bilingual Office Assistants	28	1%
Business Office Assistants	22	1%
Administrative Assistants	21	1%
Administrative Managers	18	1%
Construction Assistants	18	1%
Executive Administrators	16	1%
UI Managers	16	1%

The top employers for these middle-skill applied AI occupations in the region, by number of job postings, are shown in Exhibit 10.

Exhibit 10: Top Employers by Number of Job Postings for Middle-Skill Occupations (n=1,983)

Employer	Job Postings	Percentage of Job Postings
Robert Half	40	2%
AppleOne	31	2%
University of California	26	1%
University of California-Irvine	19	1%
Ultimate Staffing	17	1%
Park Regency Retirement Center	13	1%
Acquisition Group	11	1%
Coalition Technologies	11	1%
Roth Staffing Companies	11	1%
Kevin Jewelers	10	1%

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

Exhibit 11: Top Skills by Number of Job Postings for Middle-Skill Occupations (n=1,983)

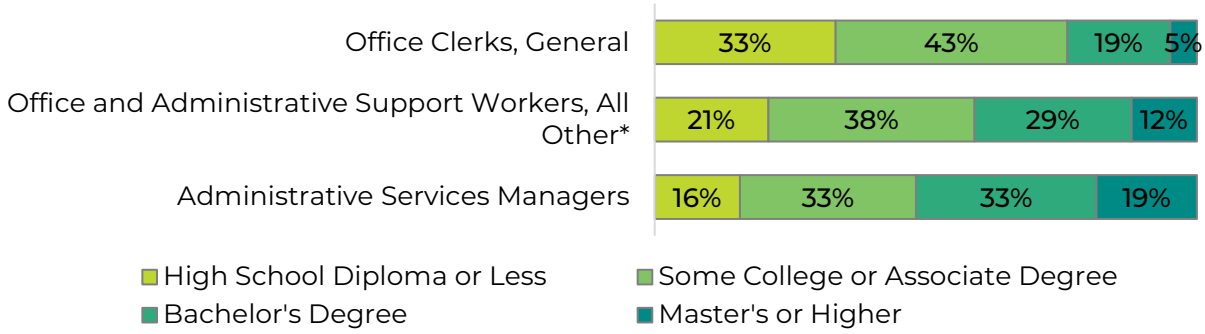
Top Specialized Skills	Top Soft Skills	Top Computer Skills
Data Entry (545)	Communication (1,019)	Microsoft Office (548)
Administrative Support (516)	Detail Oriented (783)	Microsoft Excel (536)
Office Management (441)	Operations (711)	Microsoft Outlook (325)
Accounting (331)	Administrative Functions (640)	Microsoft PowerPoint (245)
Office Supply Management (327)	Customer Service (605)	QuickBooks (Accounting Software) (226)
Invoicing (276)	Filing (571)	Microsoft Word (219)
QuickBooks (Accounting Software) (226)	Organizational Skills (551)	Google Workspace (178)
Billing (216)	Microsoft Office (548)	Spreadsheets (155)
Office Equipment (187)	Microsoft Excel (536)	Productivity Software (61)
Google Workspace (178)	Management (530)	Accounting Software (46)

Educational Attainment

The Bureau of Labor Statistics (BLS) lists high school diploma or equivalent for *office and administrative support workers, all other*, office clerks, general*, and bachelor's degree for *administrative services managers*.

The national-level educational attainment data indicates between 33% and 43% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 12 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

Exhibit 12: National-level Educational Attainment for Occupations



Requested Minimum Education Requirement

Of the cumulative job postings for these applied AI occupations in Los Angeles and Orange counties that listed a minimum education requirement:

- 40% (798) of Middle-Skill Job Postings
  - 60% (478) requested a high school diploma or associate degree
  - 38% (307) requested a bachelor's

Educational Supply

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

Community College Supply

Exhibit 13 shows the three-year average number of awards conferred by community colleges in the related TOP codes:

- Business Administration (0505.00)
- Management Development and Supervision (0506.30)
- Office Technology/Office Computer Applications (0514.00)
- Office Management (0514.40)

The colleges with the most completions in the region are Pasadena (951), followed by Mt San Antonio (610), and Coastline (457). Over the past 12 months, there were two other related program recommendation requests from regional community colleges.

Exhibit 13: Regional Community College Awards (Certificates and Degrees), 2021-24

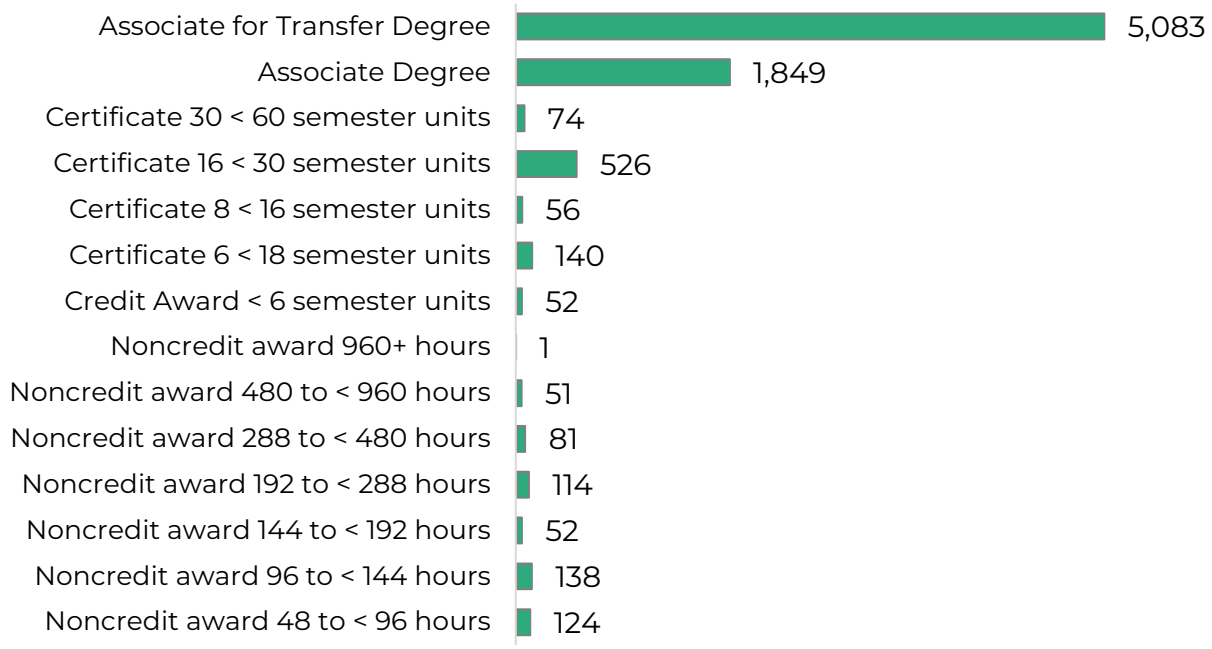
TOP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average
0505.00	Business Administration	Cerritos	299	361	344	335
		Citrus	386	351	333	357
		Compton	22	22	26	23
		East LA	309	256	241	269
		El Camino	325	261	285	290
		Glendale	221	186	170	192
		LA City	112	104	76	97
		LA Harbor	68	75	51	65
		LA Mission	89	78	74	80
		LA Pierce	266	216	227	236
		LA Trade	32	0	5	12
		LA Valley	197	183	218	199
		Long Beach	296	292	281	290
		Mt San Antonio	281	373	449	368
		Pasadena	859	753	962	858
		Rio Hondo	254	248	228	243
		Santa Monica	370	301	381	351
		West LA	127	97	69	98
		LA Southwest	38	26	26	30
		LA Subtotal	**4,551**	**4,183**	**4,446**	**4,393**
		Coastline	410	381	295	362
		Cypress	206	226	208	213
		Fullerton	367	343	344	351
		Golden West	186	183	244	204

TOP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average
		Irvine	383	292	277	317
		Orange Coast	412	337	388	379
		Saddleback	327	398	372	366
		Santa Ana	187	174	158	173
		Santiago Canyon	143	150	143	145
		OC Subtotal	**2,621**	**2,484**	**2,429**	**2,511**
Supply Subtotal/Average			**7,172**	**6,667**	**6,875**	**6,905**
0506.30	Management Development and Supervision	Cerritos	59	58	100	72
		Citrus	0	0	1	0
		LA Pierce	11	8	7	9
		LA Trade	12	7	2	7
		LA Valley	17	18	11	15
		Pasadena	6	21	24	17
		Rio Hondo	16	25	17	19
		Santa Monica	30	20	27	26
		LA Southwest	21	10	3	11
		LA Subtotal	**172**	**167**	**192**	**177**
		Coastline	142	78	54	91
		Cypress	11	25	21	19
		Irvine	0	2	0	1
		Saddleback	38	31	38	36
		Santa Ana	9	2	0	4
		Santiago Canyon	1	15	8	8
		OC Subtotal	**201**	**153**	**121**	**158**
Supply Subtotal/Average			**373**	**320**	**313**	**335**
0514.00	Office Technology/ Office Computer Applications	Cerritos	14	20	24	19
		Citrus	3	2	3	3
		East LA	47	17	43	36
		El Camino	1	2	3	2
		Glendale	53	94	38	62
		LA City	35	43	33	37
		LA Harbor	13	0	2	5
		LA Mission	17	16	7	13
		LA Pierce	66	38	64	56
		LA Trade	24	14	17	18
		LA Valley	65	98	120	94
		Long Beach	92	74	58	75

TOP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average
		Mt San Antonio	233	210	285	243
		Pasadena	43	21	163	76
		Rio Hondo	9	0	3	4
		Santa Monica	11	8	15	11
		West LA	0	19	1	7
		LA Southwest	9	1	1	4
		LA Subtotal	**735**	**677**	**880**	**764**
		Coastline	0	0	11	4
		Cypress	5	3	1	3
		Golden West	0	0	4	1
		Irvine	12	11	3	9
		North Orange Adult	34	54	26	38
		Orange Coast	1	24	33	19
		Saddleback	4	46	70	40
		Santa Ana	130	133	204	156
		Santiago Canyon	100	42	35	59
		OC Subtotal	**286**	**313**	**387**	**329**
Supply Subtotal/Average			**1,021**	**990**	**1,267**	**1,093**
0514.40	Office Management	Santa Monica	4	3	4	4
		LA Subtotal	**4**	**3**	**4**	**4**
		Santa Ana	1	2	7	3
		OC Subtotal	**1**	**2**	**7**	**3**
Supply Subtotal/Average			**5**	**5**	**11**	**7**
Supply Total/Average			**8,571**	**7,982**	**8,466**	**8,340**

Exhibit 14 shows the annual average community college awards by type from 2021-22 to 2023-24. The plurality of the awards are for associate for transfer degree, followed by associate degree and certificate 16 to 30 semester units.

Exhibit 14: Annual Average Community College Awards by Type, 2021-2024



Community College Student Outcomes

Exhibit 15 shows the Strong Workforce Program (SWP) metrics for office technology/office computer applications programs in North Orange County Community College District (NOCCCD), the Orange County Region, and California. Of the 1,169 Orange County office technology/office computer applications students in the 2023-24 academic year, 8% (97) attended an NOCCCD college.

NOCCCD students that exited office technology/office computer applications programs in the 2022-23 academic year had slightly lower median annual earnings ($34,848 or $16.75 per hour) compared to all office technology/office computer applications students in Orange County ($34,876 or $16.77 per hour). A lower percentage of Orange County office technology/office computer applications students attained the living wage (26%) when compared to all office technology/office computer applications students statewide (42%). Due to the low number of enrollments, outcomes data for attaining a living wage is unavailable at district level.

Exhibit 15: Office Technology/Office Computer Applications (0514.00)
Strong Workforce Program Metrics, 2021-24[4]

SWP Metric	NOCCCD	OC Region	California
SWP Students	97	1,169	5,286
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	33%	41%	33%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	Insufficient Data	71%	64%

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

SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	11	29	171
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2022-23)	0	107	256
SWP Students with a Job Closely Related to Their Field of Study (2021-22)	Insufficient Data	64%	66%
Median Annual Earnings for SWP Exiting Students (2022-23)	$34,848 ($16.75)	$34,876 ($16.77)	$42,196 ($20.29)
Median Change in Earnings for SWP Exiting Students (2022-23)	Insufficient Data	44%	22%
SWP Exiting Students Who Attained the Living Wage (2022-23)	Insufficient Data	26%	42%

Non-Community College Supply

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering office technology/office computer applications programs. Exhibit 16 displays the annual and three-year average awards granted by these institutions under the related Classification of Instructional Programs (CIP) code: General Office Occupations and Clerical Services. No awards were conferred under the related CIP code, Office Management and Supervision (52.0204).

The available data covers 2020 to 2023. During this period, non-community college institutions in the region conferred an average of 217 awards annually in related programs.

Exhibit 16: Regional Non-Community College Awards, 2020-2023

CIP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
46.0302	Electrician	ABC Adult School	11	4	3	6
		Diversified Vocational College	102	16	58	59
		Fremont University	3	1	3	2
		Pomona Unified School District Adult and Career Education	1	0	0	0
		Premiere Career College	0	1	3	1
		San Joaquin Valley College-Lancaster	4	4	5	4
		UEI College-Garden Grove	26	33	41	33
		UEI College-Gardena	31	15	36	27
		UEI College-Huntington Park	40	24	28	31
		UEI College-Reseda	32	22	26	27
		UEI College-West Covina	30	31	18	26
		Supply Total/Average	**280**	**151**	**221**	**217**

Regional Demographics

The following section presents occupational, community college program, and population demographic data for Orange County. This comparison can help identify possible 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 17 compares the ethnicity of Orange County community college students enrolled in office technology/office computer applications programs, the overall Orange County population, and occupation-specific data for the three applied AI occupations included in this report.

White individuals make up 37% of the workforce but nearly half (48%) of students in office technology/computer applications. Conversely, the representation of Hispanic or Latino individuals (36% workers vs. 33% students) and Black or African American individuals (2% workers vs. 2% students) suggests educational and employment alignment for these groups. However, there is a potential disconnect for Asian individuals, whose workforce representation (21%) is significantly higher than their student enrollment (8%).

Exhibit 17: Program and County Demographics by Ethnicity

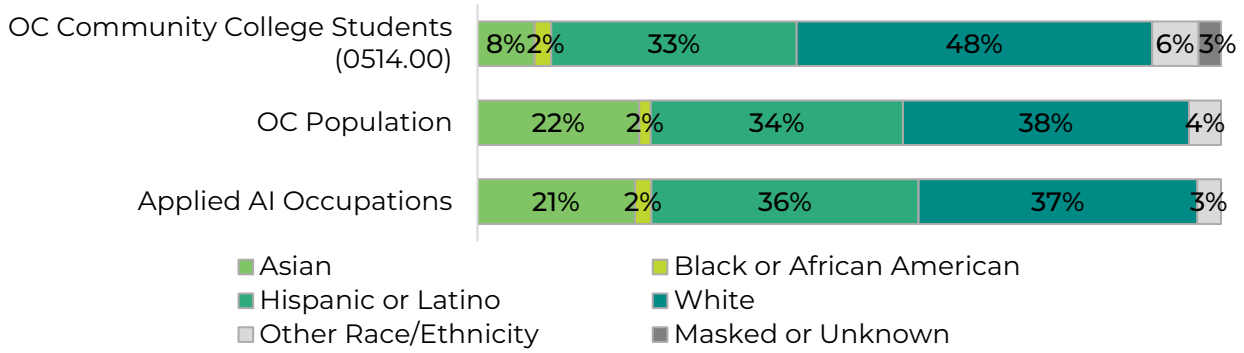
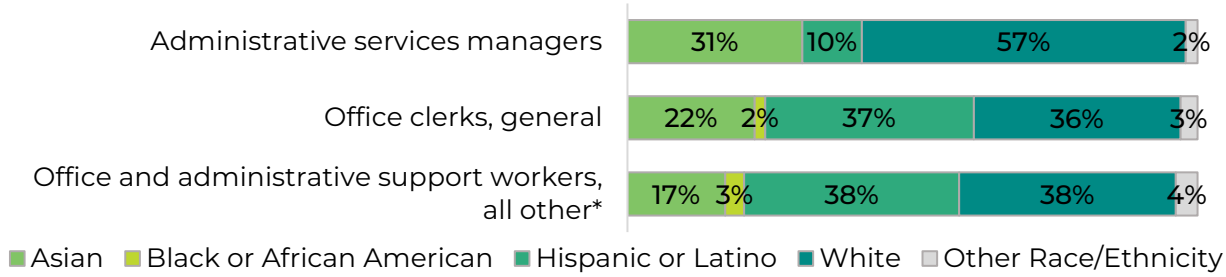


Exhibit 18 shows the disaggregated ethnicity data for each occupation, revealing potential disparities for entry into well-paying occupations or career advancement.

Administrative services managers, which require a bachelor's degree and offer higher entry-level wages, are predominantly White (57%) and Asian (31%), with a significant underrepresentation of Hispanic or Latino (10%) and Black or African American (0%) workers. In contrast, the two clerical roles—*office clerks, general* and *office and administrative support workers, all other**—show much higher and more consistent representation from both Hispanic or Latino (37% and 38%, respectively) and Black or African American workers (2% and 3%). This disparity may indicate a disconnect for Hispanic or Latino and Black or African American workers progressing into managerial roles.

Exhibit 18: Disaggregated Ethnic Distribution by Occupation



Age

Exhibit 19 compares the age of Orange County community college students enrolled in office technology/office computer applications programs, the overall Orange County population, and occupation-specific data for the four applied AI occupations included in this report.

Workers aged 24 and younger make up only 21% of the applied AI workforce, yet represent 72% of program enrollments. In contrast, individuals aged 50 and older comprise 33% of the workforce but only 6% of students. This disparity suggests that entry into the applied AI workforce may require additional training or on-the-job experience, resulting in a delayed transition from education to employment.

Exhibit 19: Program and County Demographics by Age

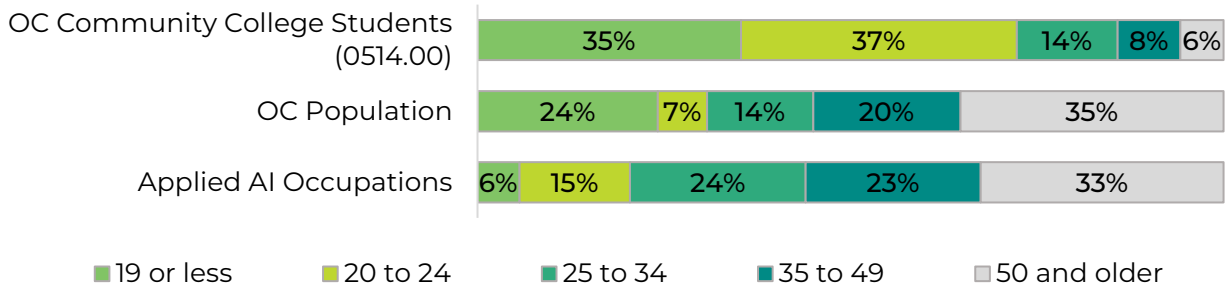
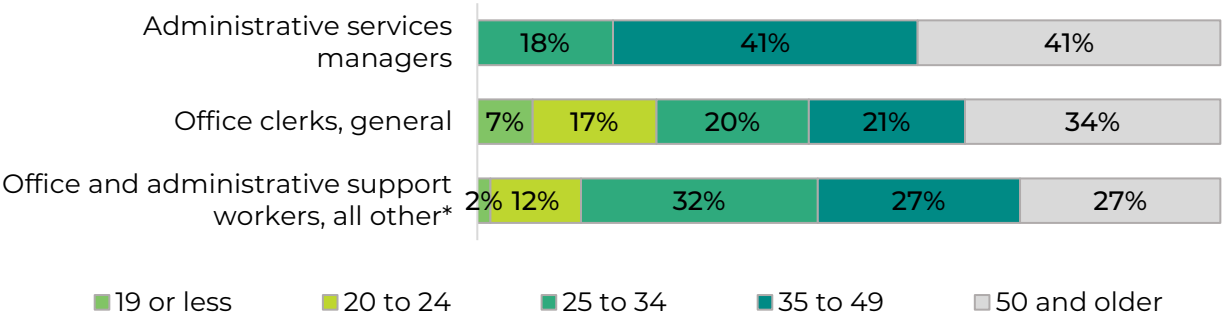


Exhibit 20 shows the disaggregated age data for each occupation, revealing potential disparities in entry into well-paying occupations or career advancement.

Across all three applied AI occupations, mid- to late-career individuals have significant representation. Workers aged 35 and older account for 82% of *administrative services managers*, which is substantially higher than their representation in the two clerical roles—55% for *office clerks, general,* and 54% for *office and administrative support workers, all other**. This suggests that advancing into managerial roles may require additional training and on-the-job experience.

Exhibit 20: Disaggregated Age Distribution by Occupation



Sex

Exhibit 21 compares the sex of Orange County community college students enrolled in office technology/office computer applications programs, the overall Orange County population, and occupation-specific data for these applied AI occupations.

Although the population has an even gender distribution, women account for 75% of the workforce, despite comprising 46% of community college students enrolled in related programs. This discrepancy suggests a women may be entering the workforce through alternate training pathways.

Exhibit 21: Program and County Demographics by Sex

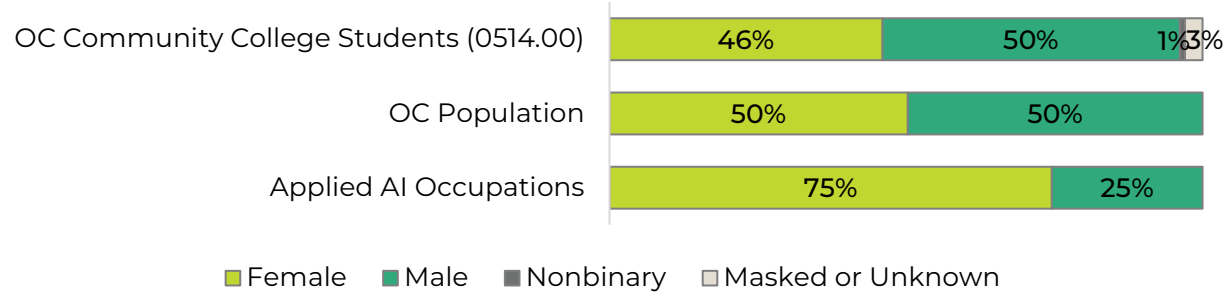


Exhibit 22 shows the disaggregated sex data for each occupation, revealing potential disparities in entry into well-paying occupations or career advancement.

Women dominate this workforce, comprising approximately three-quarters of workers across all three occupations This disparity reflects persistent gender patterns in clerical and administrative roles related to applied AI.

Exhibit 22: Disaggregated 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 Lightcast (v.2025.4), 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 Bureau of Labor Statistics (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.
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 CCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) 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 Census Bureau's American Community Survey (ACS) is the premier source for detailed population and housing information. Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products.

For more information, please contact the Orange County Center of Excellence:

Jesse Crete, Ed. D., Regional Director
crete_jesse@rsccd.edu

Danielle O. Alarid, Interim Director of Special Programs
alarid_danielle@rsccd.edu

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