



Labor Market Analysis: 0702.10 – Software Applications

Digital Office Assistant – Noncredit award requiring 192<288 hours

Los Angeles Center of Excellence, January 2026

Program Endorsement:	Endorsed: All Criteria Met <input type="checkbox"/>	Endorsed: Some Criteria Met <input checked="" type="checkbox"/>	Not Endorsed <input type="checkbox"/>
Program Endorsement Criteria			
Supply Gap:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Living Wage: (Entry-Level, 25th)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Education:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Emerging Occupation(s)			
	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

SUMMARY

This report analyzes whether local labor market demand is being met by community college programs aligned with the identified middle-skill occupations¹ or whether a shortage of workers exists. Labor market demand is measured by annual job openings, while education supply is measured by the number of awards (degrees and certificates) conferred on average each year.

Based on the available data, there appears to be a supply gap for the four identified middle-skill occupations in the region. While the majority of annual openings have entry-level wages that are lower than the self-sufficiency standard wage in both Los Angeles and Orange counties, more than one-third of current workers in the field have completed some college or an associate degree as their highest level of educational attainment.

Recommendation: Due to two of three program endorsement criteria being met, the Los Angeles Center of Excellence for Labor Market Research (LA COE) endorses this proposed program.

Key Findings

Supply Gap

- 33,955 annual job openings are projected in the region through 2028. This number is greater than the three-year average of 1,465 awards conferred by educational institutions in the region.
 - Over the past 12 months, there were **159 online job postings for middle-skill office technology occupations that mentioned artificial intelligence or AI as a**

¹ Middle-skill occupations typically require some postsecondary education, but less than a bachelor’s degree. The COE classifies middle-skill jobs as the following:

- 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.

specialized skill. The highest number of job postings were for executive assistants, administrative assistants, and executive assistants to the chief executive officer.

Living Wage

- 94% of annual job openings for these middle-skill office technology occupations have entry-level wages **below** Los Angeles County’s self-sufficiency standard hourly wage (\$24.03/hour).²

Educational Attainment

- A high school diploma or equivalent is the typical entry-level education for the target occupations in this report, according to the Bureau of Labor Statistics (BLS).
- 41%-45% of workers in the field have completed some college or an associate degree, according to national educational attainment data.

Community college supply

- 26 community colleges issued awards related to office technology in the greater LA/OC region.
- 1,212 awards (degrees and certificates) were conferred on average each year between 2021 and 2023.

Other postsecondary supply

- 15 educational institutions in the LA/OC region have conferred awards in programs related to office technology over the past three years.
- 253 awards were conferred on average each year by other postsecondary institutions throughout the greater LA/OC region between 2020 and 2022.

TARGET OCCUPATIONS

LA COE prepared this report to provide regional labor market demand and postsecondary supply data related to four middle-skill occupations. [For full occupation descriptions, please see Appendix.](#)

- **Customer Service Representatives (43-4051)**³
- **Executive Secretaries and Executive Administrative Assistants (43-6011)**⁴
- **Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014)**⁵
- **Office Clerks, General (43-9061)**⁶

OCCUPATIONAL DEMAND

Exhibit 1 shows the five-year occupational demand projections for these middle-skill office technology occupations. In the greater Los Angeles/Orange County region, the number of jobs related to these occupations is projected to decrease by 4% through 2028. However, there will be nearly 34,000 job openings per year through 2028 due to retirements and workers leaving

² Center for Women’s Welfare, University of Washington. (2024). *The self-sufficiency standard for California 2024*. <http://selfsufficiencystandard.org/California>.

³ [Customer Service Representatives \(bls.gov\)](#)

⁴ [Secretaries and Administrative Assistants \(bls.gov\)](#)

⁵ [Ibid.](#)

⁶ [General Office Clerks \(bls.gov\)](#)

the field. The majority of jobs in 2023 for these middle-skill office technology occupations (72%) were located in Los Angeles County.

Exhibit 1: Current employment and occupational demand, Los Angeles and Orange counties⁷

Geography	2023 Jobs	2028 Jobs	2023-2028 Change	2023-2028 % Change	Annual Openings
Los Angeles	207,648	199,631	(8,017)	(4%)	24,491
Orange	79,758	76,879	(2,879)	(4%)	9,465
Total	287,406	276,510	(10,896)	(4%)	33,955

Detailed Occupation Data

Exhibit 2 displays the current employment and projected occupational demand for each of the target occupations in Los Angeles County. Positive scores for automation resilience⁸ reflect a lower-than-average threat of the occupation(s) being replaced by automation, while negative scores reflect a greater-than-average risk of automation. The average percentage of workers aged 55+ across all occupations in the Los Angeles/Orange County region is 26%; occupations with a larger share of workers aged 55 and older typically have greater replacement needs to offset the amount of impending retirements. On average, 81% of workers across all occupations in California are employed full-time. Occupations with a lower-than-average percentage of full-time workers may have less employment security but may see increased activity in the gig economy.

Exhibit 2: Detailed employment and occupational demand, Los Angeles County⁹

Occupation	2023 Jobs	2028 Jobs	5-Yr % Change	Annual Openings	Automation Resilience	% Aged 55 and older	% Full Time Workers
Customer Service Representatives	55,095	53,192	(3%)	7,288	3.6	20%	64%
Executive Secretaries and Administrative Assistants	15,244	13,819	(9%)	1,498	7.6	35%	93%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	55,791	53,241	(5%)	6,089	8.6	35%	84%

⁷ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

⁸ Automation risk is calculated based on the percentage of time spent on high-risk compared to low-risk work, the number of high-risk jobs in compatible occupations, and the overall industry automation risk.

⁹ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Occupation	2023 Jobs	2028 Jobs	5-Yr % Change	Annual Openings	Automation Resilience	% Aged 55 and older	% Full Time Workers
Office Clerks, General	81,518	79,378	(3%)	9,616	(2.0)	31%	79%
Total	207,648	199,631	(4%)	24,491	-	-	-

WAGES

The labor market endorsement in this report considers the entry-level hourly wages for these middle-skill office technology occupations in Los Angeles County as they relate to the county's self-sufficiency standard wage. Orange County wages are included below in order to provide a complete analysis of the greater Los Angeles/Orange County region.

Los Angeles County

The majority, 94%, of annual openings for these middle-skill office technology occupations have entry-level wages below the self-sufficiency standard wage for one adult (\$24.03 in Los Angeles County). Typical entry-level hourly wages are in a range between \$18.03 and \$30.48. (Exhibit 3).

One occupation has entry-level wages above the self-sufficiency standard wage:

- *Executive secretaries and executive administrative assistants*, \$30.48

Experienced workers can expect to earn wages between \$25.61 and \$46.32, which are higher than the self-sufficiency standard.

Exhibit 3: Earnings for occupations in Los Angeles County

Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)	Median Annual Earnings*
Customer Service Representatives	\$18.17	\$21.90	\$26.85	\$45,500
Executive Secretaries and Executive Administrative Assistants	\$30.48	\$37.78	\$46.32	\$78,600
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$20.60	\$23.81	\$29.12	\$49,500
Office Clerks, General	\$18.03	\$21.81	\$25.61	\$45,400

*Rounded to the nearest \$100

Orange County

The majority, 94%, of annual openings for middle-skill office technology occupations have entry-level wages below the self-sufficiency standard wage for one adult (\$27.13 in Orange County). Typical entry-level hourly wages are in a range between \$18.00 and \$29.50 (Exhibit 4).

One occupation has entry-level wages above the self-sufficiency standard wage:

- *Executive secretaries and executive administrative assistants, \$29.50*

While experienced *office clerks, general and customer service representatives* can expect to earn below the self-sufficiency standard wage (\$25.56 and \$26.85, respectively), experienced *secretaries and administrative assistants, except legal, medical and executive* and *executive secretaries and executive administrative assistants* can expect to earn wages between \$28.84 and \$44.79, which are higher than the self-sufficiency standard.

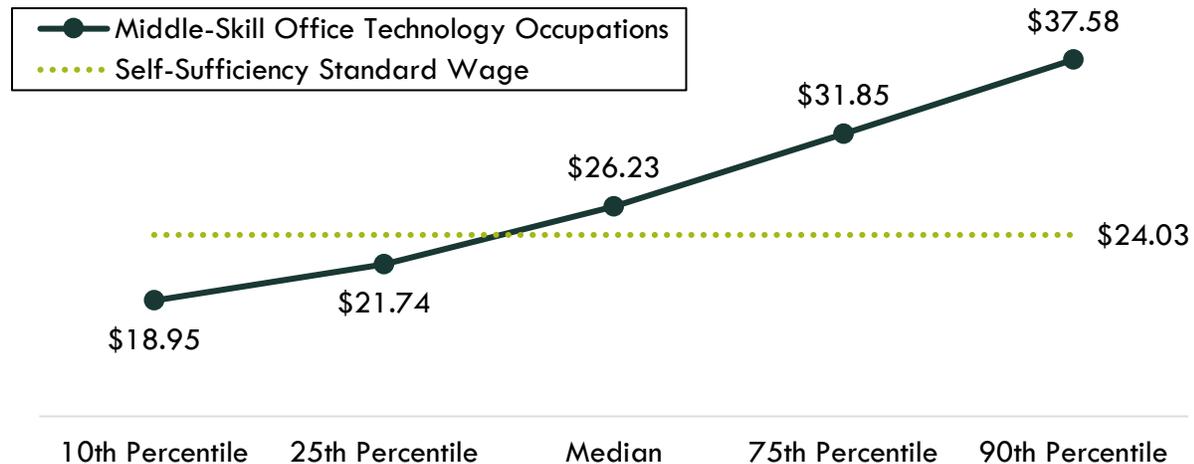
Exhibit 4: Earnings for occupations in Orange County

Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)	Median Annual Earnings*
Customer Service Representatives	\$18.19	\$21.91	\$26.85	\$45,600
Executive Secretaries and Executive Administrative Assistants	\$29.50	\$36.54	\$44.79	\$76,000
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$20.43	\$23.60	\$28.84	\$49,100
Office Clerks, General	\$18.00	\$21.78	\$25.56	\$45,300

*Rounded to the nearest \$100

Across the greater Los Angeles and Orange County region, the average entry-level hourly earnings for the occupations in this report are \$21.74; this is below the living wage for one single adult in Los Angeles County (\$24.03). Exhibit 5 shows the average hourly wage for the occupations in this report, for entry-level to experienced workers.

Exhibit 5: Average hourly earnings for middle-skill office technology occupations, Los Angeles and Orange counties

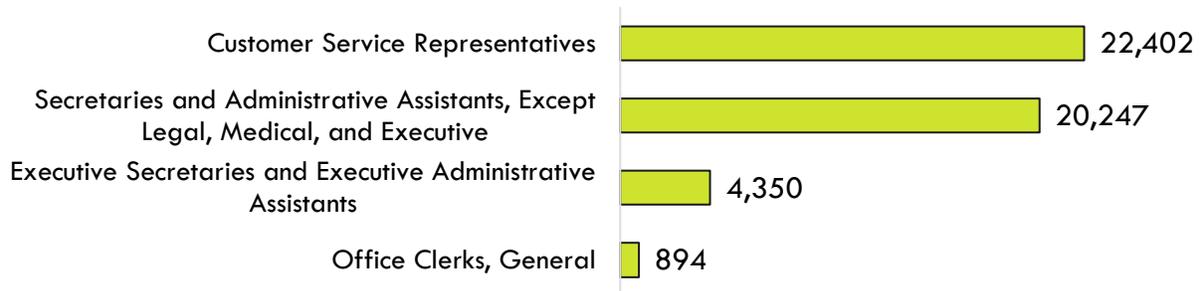


JOB POSTINGS

There were 47,893 online job postings for middle-skill office technology occupations listed in the past 12 months in Los Angeles and Orange counties. Exhibit 6 displays the number of job postings by occupation. The majority of job postings (47%) were for *customer service representatives*,

followed by *secretaries and administrative assistants, except legal, medical, and executive* (42%) and *executive secretaries and executive administrative assistants* (9%).

Exhibit 6: Job postings by occupation (last 12 months), Los Angeles and Orange counties



Job postings were analyzed for the most common job titles, skills, and employers associated with the target occupations in this report (Exhibit 7).

Exhibit 7: Commonly requested job titles, skills and employers in job postings, Los Angeles and Orange counties

Top Job Titles	Top Skills	Top Employers
<ul style="list-style-type: none"> Administrative assistants Customer service representatives Executive assistants Customer service associates Office assistants Customer service cashiers 	<ul style="list-style-type: none"> Administrative support Data entry Invoicing Travel arrangements Call center experience Customer inquiries Office supply management 	<ul style="list-style-type: none"> Robert Half* AppleOne* Walgreens Boots Alliance Domino’s Pizza University of California Chevron

*Staffing companies

In the greater Los Angeles/Orange County region, 48% of the office technology job postings listed a minimum educational requirement. Exhibit 8 details the number and percentage of job postings by educational level.

Exhibit 8: Education levels requested in job postings for middle-skill office technology occupations, Los Angeles and Orange counties

Education Level	Job Postings	% of Job Postings
Bachelor's degree	5,780	25%
Associate degree	1,843	8%
High school diploma or vocational training	15,388	67%

EDUCATIONAL ATTAINMENT

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for the target occupations in this report (Exhibit 9). However, the national-level data indicates between 41% and 45% of workers in the field have completed some college or an associate degree as their highest level of educational attainment. The Bureau of Labor Statistics (BLS) lists the following typical entry-level education levels for the occupations in this report:

Exhibit 9: Entry-level education preferred by employers nationally, Bureau of Labor Statistics

Occupation	Education Level
Customer Service Representatives	High school diploma or equivalent
Executive Secretaries and Executive Administrative Assistants	High school diploma or equivalent
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	High school diploma or equivalent
Office Clerks, General	High school diploma or equivalent

EDUCATIONAL SUPPLY

Community College Supply

Exhibit 10 shows the annual and three-year average number of awards conferred by community colleges in programs that have historically trained for the occupations of interest. The colleges with the most completions in the region are Mt. San Antonio, Santa Ana, and Long Beach.

Exhibit 10: Regional community college awards (certificates and degrees), 2021-2023

TOP Code	Program	College	2020-21 Awards	2021-22 Awards	2022-23 Awards	3-Year Average
0509.40	Sales and Salesmanship	Glendale	9	5	10	8
		Santa Monica	25	23	12	20
		LA Subtotal	34	28	22	28
		Orange Coast	6	10	-	5
		OC Subtotal	6	10	-	5
Supply Subtotal/Average			40	38	22	33
0514.00	Office Technology/ Office Computer Applications	Cerritos	14	14	20	16
		Citrus	-	3	2	2
		East LA	51	47	17	38
		El Camino	3	1	2	2
		Glendale	30	53	94	59
		LA City	5	35	43	28
		LA Harbor	7	13	-	7

TOP Code	Program	College	2020-21 Awards	2021-22 Awards	2022-23 Awards	3-Year Average
		LA Mission	11	17	16	15
		LA Pierce	75	66	38	60
		LA Southwest	6	9	1	5
		LA Trade-Tech	21	24	14	20
		LA Valley	80	65	98	81
		Long Beach	88	92	74	85
		Mt San Antonio	183	233	210	209
		Pasadena	59	43	21	41
		Rio Hondo	16	9	-	8
		Santa Monica	8	11	8	9
		West LA	1	-	19	7
		LA Subtotal	658	735	677	690
		Coastline	1	-	-	0
		Cypress	8	5	3	5
		Irvine	9	12	11	11
		N. Orange Adult	37	34	54	42
		Orange Coast	-	1	24	8
		Saddleback	7	4	46	19
		Santa Ana	246	130	133	170
		Santiago Canyon	71	100	42	71
		OC Subtotal	379	286	313	326
		Supply Subtotal/Average	1,037	1,021	990	1,016
0518.00	Customer Service	Citrus	-	3	1	1
		East LA	4	4	2	3
		LA Pierce	3	5	2	3
		Santa Monica	21	8	14	14
		LA Subtotal	28	20	19	22
		Santiago Canyon	2	10	4	5
		OC Subtotal	2	10	4	5
		Supply Subtotal/Average	30	30	23	28
0702.10	Software Applications	Cerritos	2	8	21	10
		LA City	1	-	2	1
		LA Mission	3	-	-	1
		LA Southwest	-	3	-	1
		Mt San Antonio	-	1	1	1
		Santa Monica	6	12	15	11

TOP Code	Program	College	2020-21 Awards	2021-22 Awards	2022-23 Awards	3-Year Average
		LA Subtotal	12	24	39	25
		Coastline	8	14	53	25
		Cypress	-	2	1	1
		Irvine	50	89	67	69
		Saddleback	11	10	10	10
		OC Subtotal	69	115	131	105
Supply Subtotal/Average			81	139	170	130
1301.10	Consumer Services	LA City	1	7	-	3
		Mt San Antonio	1	1	-	1
		LA Subtotal	2	8	-	3
		Orange Coast	6	-	-	2
		OC Subtotal	6	-	-	2
Supply Subtotal/Average			8	8	-	5
Supply Total/Average			1,196	1,236	1,205	1,212

Other Postsecondary Supply

For a comprehensive regional supply analysis, it is important to consider the supply from other institutions in the region that provide training programs for office technology occupations. Exhibit 11 shows the number of awards conferred by these institutions in relevant programs. Due to different data collection periods, the most recent data is from 2020 to 2022. Between 2020 and 2022, other postsecondary college institutions in the region conferred an average of 253 sub-baccalaureate awards. Sub-baccalaureate awards include associate degrees, postsecondary awards, and other academic awards that typically take fewer than four years to complete.

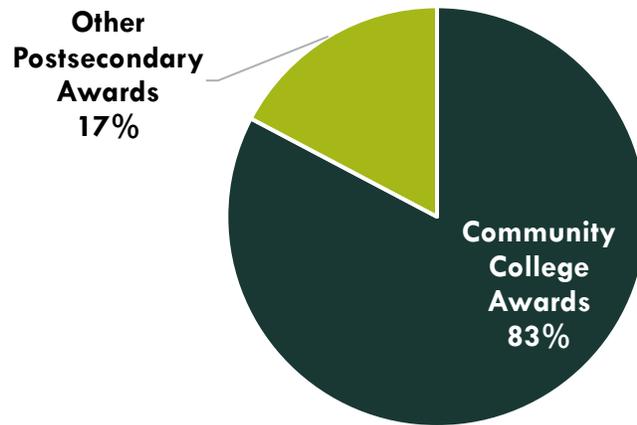
Exhibit 11: Other regional postsecondary awards, 2020-2022

CIP Code	Program	Postsecondary Institution	2019-20 Awards	2020-21 Awards	2021-22 Awards	3-Year Average
11.0899	Computer Software and Media Applications, Other	Learnnet Academy	10	9	2	7
52.0401	Administrative Assistant and Secretarial Science, General	Hacienda La Puente Adult Education	20	23	24	22
		InterCoast Colleges-Santa Ana	-	-	-	-
		InterCoast Colleges-West Covina	-	3	12	5
		Pomona USD Adult & Career Education	3	1	4	3

CIP Code	Program	Postsecondary Institution	2019-20 Awards	2020-21 Awards	2021-22 Awards	3-Year Average
52.0407	Business/ Office Automation/ Technology/ Data Entry	Baldwin Park Adult & Community Ed.	-	-	2	1
		Learnet Academy	4	14	8	9
		ABC Adult School	16	11	4	10
		Diversified Vocational College	-	102	16	39
		Fremont University	-	3	1	1
		Hacienda La Puente Adult Education	21	-	-	7
		Pomona USD Adult & Career Education	-	1	-	0
52.0408	General Office Occupations and Clerical Services	Premiere Career College	5	-	1	2
		UEI College-Garden Grove	29	26	33	29
		UEI College-Gardena	34	31	15	27
		UEI College-Huntington Park	31	40	24	32
		UEI College-Reseda	34	32	22	29
		UEI College-West Covina	26	30	31	29
		Supply Total/Average		233	326	199

Exhibit 12 shows the proportion of community college awards conferred in the greater Los Angeles/Orange County region compared to the number of other postsecondary awards for the programs in this report. The majority of awards conferred in these programs are awarded by community colleges in the greater Los Angeles/Orange County region.

Exhibit 12: Percentage of community college awards compared to other postsecondary institution awards in the Los Angeles/Orange County region



APPENDIX: OCCUPATION DESCRIPTIONS

LA COE prepared this report to provide regional labor market supply and demand data related to these target occupations:

- **Customer Service Representatives (43-4051)** Interact with customers to provide basic or scripted information in response to routine inquiries about products and services. May handle and resolve general complaints. Excludes individuals whose duties are primarily installation, sales, repair, and technical support.¹⁰
- **Executive Secretaries and Executive Administrative Assistants (43-6011)** Provide high-level administrative support by conducting research, preparing statistical reports, and handling information requests, as well as performing routine administrative functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.¹¹
- **Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014)** Perform routine administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers.¹²
- **Office Clerks, General (43-9061)** Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, office machine operation, and filing.¹³

¹⁰ [Customer Service Representatives \(bls.gov\)](#)

¹¹ [Secretaries and Administrative Assistants \(bls.gov\)](#)

¹² [Ibid.](#)

¹³ [General Office Clerks \(bls.gov\)](#)

Contact information:

Luke Meyer, Director

Los Angeles Center of Excellence

Lmeyer7@mtsac.edu

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POWERED BY

**DATA SOURCES**

- O*NET Online
- Lightcast (formerly Emsi)
- Bureau of Labor Statistics (BLS)
- California Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- Self-Sufficiency Standard at the Center for Women's Welfare, University of Washington
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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