

**Program Endorsement Brief: 0514.00/Office Technology/Office Computer Applications
Remote Technology for Virtual Professionals Certificate of Achievement**
Orange County Center of Excellence, June 2021

Summary Analysis

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"/>	

The Orange County Center of Excellence for Labor Market Research (COE) prepared this report to provide Los Angeles/Orange County regional labor market supply and demand data related to five middle-skill occupations: *first-line supervisors of office and administrative support workers (43-1011)*, *customer service representatives (43-4051)*, *file clerks (43-4071)*, *secretaries and administrative assistants, except legal, medical, and executive (43-6014)*, and *office clerks, general (43-9061)*. Middle-skill occupations typically require some postsecondary education, but less than a bachelor’s degree.¹ This report is intended to help determine whether there is demand in the local labor market that is not being met by the supply from community college programs that align with the relevant occupations.

While the local labor market supports the training of these middle-skill occupations, it is important to note that 2% of online job postings that require or request remote technology skills in these occupations were remote/work from home (WFH) positions. Therefore, the recommendation within this report is based on these occupations as a whole, and not solely those that are remote/WFH.

Based on the available data, there appears to be a supply gap for these middle-skill office technology occupations in the region. While more than one-third of current workers in the field have completed some college or an associate degree, the majority of annual openings have entry-level wages that are lower than the living wage in both Los Angeles and Orange counties. **Therefore, due to some of the criteria being met, the COE endorses this proposed program.**

Detailed reasons include:

¹ 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.

Demand:

- **Supply Gap Criteria** – Over the next five years, there is projected to be **40,556 jobs available annually** in the region due to retirements and workers leaving the field, **which is more than the 2,043 awards conferred annually** by educational institutions in the region.
 - There were **23,643 online job postings related to the office technology jobs** in this report listed in the past 12 months **that specifically mentioned the following remote technology skills: video conferencing, Microsoft Office, Google Drive, and other productivity tools.**
 - Of these 23,643 job postings, **only 548 were work from home (WFH) positions (2% of postings).**
- **Living Wage Criteria** – Within Orange County, the majority (85%) of annual job openings for these middle-skill office technology occupations have entry-level wages below the county's living wage (\$17.36/hour).²
- **Educational Criteria** – The Bureau of Labor Statistics (BLS) lists a high school diploma as the typical entry-level education for these middle-skill office technology occupations.
 - However, the national-level educational attainment data indicates **between 39.5% and 43.2% of workers in the field have completed some college or an associate degree.**

Supply:

- There are **28 community colleges** in the LA/OC region that issue awards related to office technology, conferring an average of **1,542 awards annually** between 2017 and 2020.
- Between 2016 and 2019, there was an average of **501 awards conferred annually** in related training programs by non-community colleges throughout the region.

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for these middle-skill office technology occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to decrease by 4% through 2024. However, there will be more than 40,500 job openings per year through 2024 due to retirements and workers leaving the field.

This report includes employment projection data by Emsi which uses EDD information. Emsi's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy, during the projection period, will be at approximately full employment. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, it may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Therefore, the projections included in this report do not take the impacts of COVID-19 into account.

² Living wage data was pulled from California Family Needs Calculator on 6/9/2021. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties³

Geography	2019 Jobs	2024 Jobs	2019-2024 Change	2019-2024 % Change	Annual Openings
Los Angeles	282,612	270,634	(11,978)	(4%)	29,338
Orange	107,792	103,768	(4,024)	(4%)	11,218
Total	390,404	374,402	(16,002)	(4%)	40,556

Wages

The labor market endorsement in this report considers the entry-level hourly wages for these middle-skill office technology 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. Detailed wage information, by county, is included in Appendix A.

Orange County— The majority (85%) of annual openings for these middle-skill office technology occupations have entry-level wages below the living wage for one adult (\$17.36 in Orange County). Typical entry-level hourly wages are in a range between \$13.20 and \$22.77. The only occupation in this report with entry-level wages above the living wage is *first-line supervisors of office and administrative support workers* (\$22.77). Experienced workers can expect to earn wages between \$21.84 and \$36.78, which are higher than the living wage estimate. Orange County’s average wages are below the average statewide wage of \$22.07 for these occupations.

Los Angeles County— The majority (60%) of annual openings for these middle-skill office technology occupations have entry-level wages below the living wage for one adult (\$15.04 in Los Angeles County). Typical entry-level hourly wages are in a range between \$13.70 and \$22.88. Two occupations in this report have typical entry-level wages that exceed the county’s living wage: *first-line supervisors of office and administrative support workers* (\$22.88) and *secretaries and administrative assistants, except legal, medical, and executive* (\$16.57). Experienced workers can expect to earn wages between \$22.19 and \$36.98, which are higher than the living wage estimate. Los Angeles County’s average wages are below the average statewide wage of \$22.07 for these occupations.

Job Postings

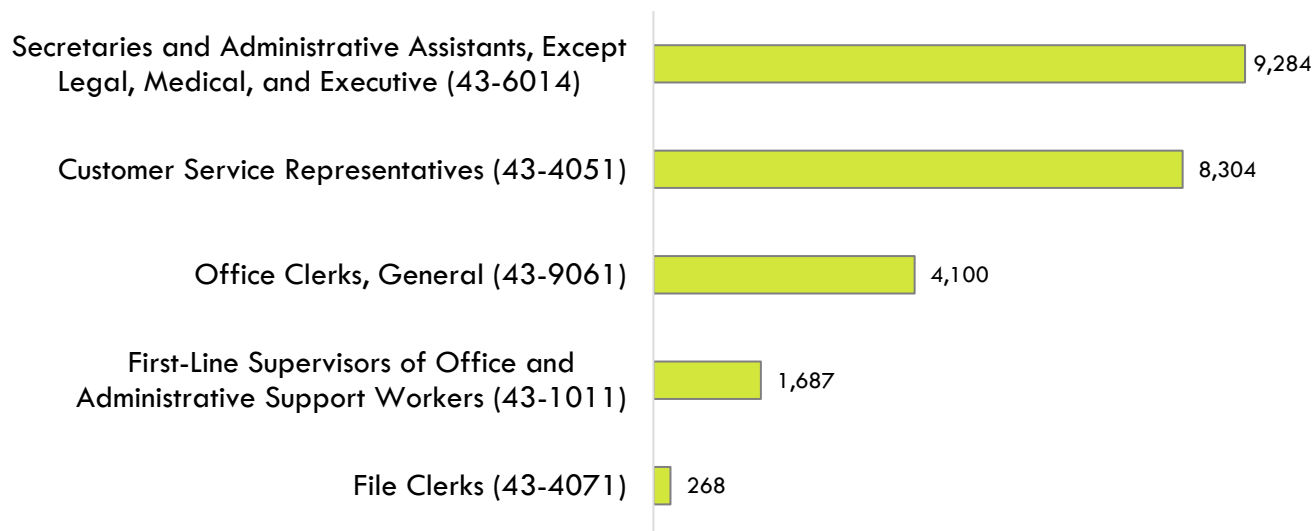
There were 23,643 online job postings related to the office technology jobs in this report listed in the past 12 months that specifically mentioned the following remote technology skills: video conferencing, Microsoft Office, Google Drive, and other productivity tools. Exhibit 2 displays the job postings by occupation. The majority of job postings (39%) were for *secretaries and administrative assistants, except legal, medical, and executive*, followed by *customer service representatives* (35%), *office clerks, general* (17%), *first-line supervisors of office and administrative support workers* (7%), and *file clerks* (1%). The titles listed most often in job postings were administrative assistants, customer service representatives, office assistants, office managers, and office administrators. The top skills, other than video conferencing and Microsoft Office were: customer service, administrative support, scheduling, data entry, and spreadsheets. The top three

³ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

employers, by number of job postings, in the region were: University of California, Volunteers of America, and Cedars-Sinai.

It is important to note that the job postings data included in this section reflects online job postings listed in the past 12 months and does not yet demonstrate the impact of COVID-19. While employers have generally posted fewer online job postings since the beginning of the pandemic, the long-term effects are currently unknown.

Exhibit 2: Job postings by occupation (last 12 months)



Of these 23,643 office technology job postings that requested knowledge of video conferencing, Microsoft Office, Google Drive, or other productivity tools, only 548 were work from home (WFH) positions (2% of postings). The titles found most often in these job postings were administrative assistants, customer service representatives, office assistants, clerks, and appeals representatives. Top skills, other than video conferencing and Microsoft Office, were: customer service, administrative support, scheduling, data entry, and customer contact. The employers with the most job postings were all in the healthcare industry: Anthem Blue Cross, UnitedHealth Group, and Optum.

Educational Attainment

The Bureau of Labor Statistics (BLS) lists a high school diploma as the typical entry-level education for all five of the office technology occupations in this report. However, the national-level educational attainment data indicates between 39.5% and 43.2% of workers in the field have completed some college or an associate degree. Of the 60% of office technology job postings listing a minimum education requirement in Los Angeles/Orange County, 90% (12,824) requested a high school diploma and 10% (1,444) requested an associate degree.

Educational Supply

Community College Supply—Exhibit 2 shows the three-year average number of awards conferred by community colleges in the related TOP codes: Management Development and

Supervision (0506.30), Sales and Salesmanship (0509.40), E-Commerce (Business Emphasis) (0509.70), Office Technology/Office Computer Applications (0514.00), Office Management (0514.40), Customer Service (0518.00), Software Applications (0702.10), and Consumer Services (1301.10). The colleges with the most completions in the region are: Coastline, Santa Ana, and LA Valley. Over the past 12 months, there were 14 other related program recommendation requests from regional community colleges.

Exhibit 2: Regional community college awards (certificates and degrees), 2017-2020

TOP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average
0506.30	Management Development and Supervision	Cerritos	8	14	32	18
		LA Pierce	6	4	4	5
		LA Southwest	16	12	9	12
		LA Trade	18	5	4	9
		LA Valley	18	23	20	20
		Pasadena	7	3	3	4
		Rio Hondo	63	20	23	35
		Santa Monica	17	6	19	14
		LA Subtotal	153	87	114	118
		Coastline	312	355	247	305
		Saddleback	23	34	27	28
		Santa Ana	13	4	11	9
		Santiago Canyon	2	-	2	1
		OC Subtotal	350	393	287	343
Supply Subtotal/Average			503	480	401	461
0509.40	Sales and Salesmanship	Santa Monica	16	13	19	16
		LA Subtotal	16	13	19	16
		Orange Coast	11	3	5	6
		Santa Ana	1	-	-	0
OC Subtotal	12	3	5	7		
Supply Subtotal/Average			28	16	24	23
0509.70	E-Commerce (Business emphasis)	Long Beach	-	-	4	1
		LA Subtotal	-	-	4	1
Supply Subtotal/Average			-	-	4	1
0514.00	Office Technology/Office Computer Applications	Cerritos	11	14	10	12
		Citrus	16	23	3	14
		Compton	2	-	-	1
		East LA	110	54	34	66

TOP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average
		El Camino	-	2	2	1
		Glendale	66	44	25	45
		LA City	4	1	6	4
		LA Harbor	7	5	11	8
		LA Mission	35	23	12	23
		LA Pierce	35	54	44	44
		LA Southwest	2	2	-	1
		LA Trade-Tech	39	31	22	31
		LA Valley	91	119	107	106
		Long Beach	27	33	57	39
		Mt San Antonio	34	75	228	112
		Pasadena	11	38	13	21
		Santa Monica	3	7	12	7
		West LA	2	1	1	1
		LA Subtotal	495	526	587	536
		Coastline	21	12	9	14
		Cypress	10	17	16	14
		Golden West	3	8	1	4
		Irvine	12	18	16	15
		N. Orange Adult	97	70	33	67
		Saddleback	9	11	8	9
		Santa Ana	153	138	223	171
		Santiago Canyon	137	106	97	113
		OC Subtotal	442	380	403	408
		Supply Subtotal/Average	937	906	990	944
0514.40	Office Management	El Camino	1	-	1	1
		LA Subtotal	1	-	1	1
		Cypress	1	1	1	1
		OC Subtotal	1	1	1	1
		Supply Subtotal/Average	2	1	2	2
0518.00	Customer Service	East LA	30	17	11	19
		LA Pierce	-	-	2	1
		Santa Monica	-	3	10	4
		LA Subtotal	30	20	23	24
		Santiago Canyon	6	3	8	6

TOP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average
		OC Subtotal	6	3	8	6
Supply Subtotal/Average			36	23	31	30
0702.10	Software Applications	Cerritos	3	9	6	6
		LA City	-	-	1	0
		LA Mission	7	2	-	3
		LA Southwest	2	1	-	1
		Long Beach	-	-	7	2
		Mt San Antonio	3	1	2	2
		Santa Monica	10	18	13	14
		LA Subtotal	25	31	29	28
		Coastline	4	9	8	7
		Irvine	22	39	48	36
		Saddleback	3	2	7	4
		OC Subtotal	29	50	63	47
Supply Subtotal/Average			54	81	92	76
1301.10	Consumer Services	Orange Coast	-	-	15	5
		OC Subtotal	-	-	15	5
Supply Subtotal/Average			-	-	15	5
Supply Total/Average			1,560	1,507	1,559	1,542

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 office technology occupations. Exhibit 3 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Codes: Computer Software and Media Applications, Other (11.0899), E-Commerce/Electronic Commerce (52.0208), Administrative Assistant and Secretarial Science, General (52.0401), Business/Office Automation/Technology/Data Entry (52.0407), General Office Occupations and Clerical Services (52.0408), and Entrepreneurship/Entrepreneurial Studies (52.0701). Due to different data collection periods, the most recent three-year period of available data is from 2016 to 2019. Between 2016 and 2019, four-year colleges in the region conferred an average of 501 awards annually in related training programs.

Exhibit 3: Regional non-community college awards, 2016-2019

CIP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
11.0899	Computer Software and	Art Center College of Design	18	27	22	22
		California Institute of the Arts	-	-	10	3

CIP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
	Media Applications, Other	DeVry University-California	-	-	-	-
		Eagle Rock College	-	-	-	-
		Learnet Academy	41	14	-	18
52.0208	E-Commerce/Electronic Commerce	University of La Verne	-	2	3	2
52.0401	Administrative Assistant and Secretarial Science, General	ABCO Technology	11	4	11	9
		GDS Institute	32	24	-	19
		Hacienda La Puente Adult Ed.	65	30	25	40
		InterCoast Colleges-Santa Ana	8	4	3	5
		LA ORT College- (CLOSED)	26	23	12	20
		Pomona Unified School District Adult and Career Education	-	6	2	3
52.0407	Business/Office Automation/Technology/Data Entry	Learnet Academy	27	28	-	18
52.0408	General Office Occupations and Clerical Services	ABC Adult School	-	21	6	9
		CES College	2	6	7	5
		Glendale Career College	-	-	-	-
		Hacienda La Puente Adult Education	52	48	36	45
		UEI College-Gardena	30	29	32	30
		United Ed. Institute-Anaheim	40	46	41	42
		United Education Institute-Encino	38	33	28	33
		United Ed. Institute-Huntington Park	36	42	38	39
		United Ed. Institute-West Covina	41	29	29	33
52.0701	Entrepreneurship/Entrepreneurial Studies	Azusa Pacific University	-	1	-	0
		California Intercontinental University	9	9	10	9
		Hussian College-Studio School LA	-	-	-	-
		Loyola Marymount University	72	74	66	71
		Mount Saint Mary's University	15	9	10	11
		Mt Sierra College	3	-	-	1
		Pepperdine University	2	1	-	1
		Pitzer College	-	-	1	0
Supply Total/Average			576	521	405	501

Appendix A: Occupational demand and wage data by county

Exhibit 4. Orange County

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
First-Line Supervisors of Office and Administrative Support Workers (43-1011)	18,600	17,871	(729)	(4%)	1,679	\$22.77	\$28.94	\$36.78
Customer Service Representatives (43-4051)	24,381	23,845	(536)	(2%)	2,858	\$14.88	\$18.41	\$23.60
File Clerks (43-4071)	1,420	1,321	(100)	(7%)	151	\$13.20	\$15.97	\$21.84
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014)	26,921	25,472	(1,449)	(5%)	2,648	\$16.32	\$20.75	\$25.57
Office Clerks, General (43-9061)	36,470	35,260	(1,210)	(3%)	3,883	\$13.82	\$17.30	\$22.07
Total	107,792	103,768	(4,024)	(4%)	11,218			

Exhibit 5. Los Angeles County

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
First-Line Supervisors of Office and Administrative Support Workers (43-1011)	48,622	46,541	(2,081)	(4%)	4,393	\$22.88	\$29.08	\$36.98
Customer Service Representatives (43-4051)	57,870	55,983	(1,888)	(3%)	6,744	\$14.83	\$18.36	\$23.56
File Clerks (43-4071)	3,927	3,622	(305)	(8%)	415	\$13.70	\$16.57	\$22.67
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014)	75,050	71,102	(3,948)	(5%)	7,429	\$16.57	\$21.06	\$25.97
Office Clerks, General (43-9061)	97,143	93,386	(3,757)	(4%)	10,357	\$13.88	\$17.39	\$22.19
Total	282,612	270,634	(11,978)	(4%)	29,338			

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings
First-Line Supervisors of Office and Administrative Support Workers (43-1011)	67,222	64,413	(2,810)	(4%)	6,072
Customer Service Representatives (43-4051)	82,251	79,827	(2,424)	(3%)	9,602
File Clerks (43-4071)	5,347	4,942	(404)	(8%)	566
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014)	101,971	96,574	(5,397)	(5%)	10,077
Office Clerks, General (43-9061)	133,614	128,646	(4,967)	(4%)	14,240
Total	390,404	374,402	(16,002)	(4%)	40,556

Appendix B: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (Emsi)
- Bureau of Labor Statistics (BLS)
- Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- California Family Needs Calculator, Insight Center for Community Economic Development
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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