

Program Endorsement Brief: 0702.10 – Software Applications

Business Information Worker – Data Analytics

Los Angeles/Orange County Center of Excellence, May 2021

Summary Analysis

Program Endorsement:	Endorsed: All Criteria Met <input checked="" type="checkbox"/>	Endorsed: Some Criteria Met <input 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 checked="" type="checkbox"/>	No <input 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 Los Angeles/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 three middle-skill occupations: *first-line supervisors of office and administrative support workers (43-1011)*; *executive secretaries and executive administrative assistants (43-6011)*; and *secretaries and administrative assistants, except legal, medical, and executive (43-6014)*. Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree.¹ Although the occupations in this report typically require a high school diploma, they are considered middle-skill because approximately one-third of workers in the field have completed some college or an associate degree. 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.

Based on the available data, there appears to be a supply gap for these business information worker-related occupations in the region. While all three occupations typically require a high school diploma or equivalent, all of them also have entry-level wages above the living wage for one adult in Los Angeles County. **Therefore, due to all of the criteria being met, the COE endorses this proposed program.** Detailed reasons include:

Demand:

- **Supply Gap Criteria** – Over the next five years, there is projected to be **18,558 jobs available annually** in the region due to retirements and workers leaving the field, **which is more than the 1,474 awards conferred annually** by educational institutions in the region.

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.

- **Living Wage Criteria** –In Los Angeles County, all three occupations have entry-level wages above the county’s living wage (\$15.04/hour).²
- **Educational Criteria** – The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for these occupations.
 - National-level educational attainment data indicates **between 41% and 45% of workers in the field have completed some college or an associate degree.**

Supply:

- There are **26 community colleges** in the LA/OC region that issue awards related to business information worker, conferring an average of **1,020 awards annually** between 2017 and 2020.
- Between 2014 and 2017, there was an average of **454 awards conferred annually** in related training programs by non-community college institutions.

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for the three occupations of interest. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to decrease by 6% through 2024. However, there will be nearly 18,600 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.

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	142,175	134,253	(7,922)	(6%)	13,597
Orange	52,115	49,287	(2,828)	(5%)	4,961
Total	194,290	183,540	(10,750)	(6%)	18,558

² Living wage data was pulled from California Family Needs Calculator on 4/14/2021. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

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.

Wages

The labor market endorsement in this report considers the entry-level hourly wages for the occupations of interest in Los Angeles County, as they relate to the county's living wage. Orange 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.

Los Angeles County: All three occupations have entry-level wages above the living wage for one adult (\$15.04 in Los Angeles County). Typical entry-level hourly wages are in a range between \$16.57 and \$26.96. Experienced workers can expect to earn wages between \$25.97 and \$39.37, which are higher than the living wage estimate.

Orange County: Approximately 47% of annual openings for the occupations of interest have entry-level wages above the living wage for one adult (\$17.36 in Orange County). Typical entry-level hourly wages are in a range between \$16.32 and \$25.87. Experienced workers can expect to earn wages between \$25.57 and \$37.76, which are higher than the living wage estimate.

Job Postings

There were 21,377 online job postings for the three occupations of interest listed in the past 12 months. The highest number of job postings were for administrative assistant, executive assistant, and office manager. The top skills were administrative support, scheduling, and customer service. The top employers, by number of job postings, in the region were University of California, Anthem Blue Cross, and Volunteers of America.

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.

Educational Attainment

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for all three occupations studied in this report. However, national-level educational attainment data indicates between 41% and 45% of workers in the field have completed some college or an associate degree. Of the 64% of job postings listing a minimum education requirement in Los Angeles/Orange County, 53% (7,212) requested a high school diploma, 8% (1,135) requested an associate degree, and 39% (5,331) requested a bachelor's degree.

Educational Supply

Community College Supply—Exhibit 2 shows the annual and three-year average number of awards conferred by community colleges in the related TOP codes: Office Technology/Office Computer Applications (0514.00) and Software Applications (0702.10). The colleges with the most completions in the region are Santa Ana, Mt. San Antonio, and Santiago Canyon. Over the past 12 months, there were five other related program recommendation requests from regional community colleges.

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

TOP	Program	College	2017-18 Awards	2018-19 Awards	2019-20 Awards	3-Year Average	
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	
		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	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 Valley	12	18	16	15
		North 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
0702.10	Software Applications	Cerritos	3	9	6	6
		LA City	0	0	1	0
		LA Mission	7	2	0	3
		LA Swest	2	1	0	1
		Long Beach	0	0	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
		Grand Total/Average	991	987	1,082	1,020

Non-Community College Supply—It is important to consider the supply from non-community college institutions in the region that provide training programs for the three occupations of interest. 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: 52.0401/ Administrative Assistant and Secretarial Science, General; 52.0407/ Business/Office Automation/Technology/Data Entry; and 52.0408/ General Office Occupations and Clerical Services. Due to different data collection periods, the most recent three-year period of available data is from 2014 to 2017. Between 2014 and 2017, non-community college institutions in the region conferred an average of 454 awards annually in related training programs.

Exhibit 3: Regional non-community college awards, 2014-2017

CIP Code	Program	College	2014-2015 Awards	2015-2016 Awards	2016-2017 Awards	3-Year Award Average
52.0401	Administrative Assistant and Secretarial Science, General	ABCO Technology	4	3	11	6
		GDS Institute	115	57	32	68
		Hacienda La Puente Adult Education	57	61	65	61
		InterCoast Colleges-Anaheim	-	3	8	4
		Los Angeles ORT College-Los Angeles Campus	22	5	26	18
		Los Angeles ORT College-Van Nuys Campus	10	6	6	7
52.0407	Business/Office Automation/Technology/Data Entry	Learnet Academy Inc	2	7	27	12
52.0408	General Office Occupations and Clerical Services	CES College	9	2	2	4
		Hacienda La Puente Adult Education	66	63	52	60
		UEI College-Gardena	34	32	30	32
		United Education Institute-Anaheim	60	36	40	45
		United Education Institute-Encino	40	36	38	38
		United Education Institute-Huntington Park Campus	96	60	36	64
		United Education Institute-West Covina	31	30	41	34
Supply Total/Average			546	401	414	454

Appendix A: Occupational demand and wage data by county

Exhibit 4. Los Angeles 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)	48,622	46,541	(2,081)	(4%)	4,393	\$22.88	\$29.08	\$36.98
Executive Secretaries and Executive Administrative Assistants (43-6011)	18,503	16,610	(1,893)	(10%)	1,776	\$26.96	\$33.55	\$39.37
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
Total	142,175	134,253	(7,922)	(6%)	13,597			

Exhibit 5. Orange 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)	18,600	17,871	(729)	(4%)	1,679	\$22.77	\$28.94	\$36.78
Executive Secretaries and Executive Administrative Assistants (43-6011)	6,594	5,944	(650)	(10%)	634	\$25.87	\$32.18	\$37.76
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
Total	52,115	49,287	(2,828)	(5%)	4,961			

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Typical Entry-Level Education
First-Line Supervisors of Office and Administrative Support Workers (43-1011)	67,222	64,413	(2,810)	(4%)	6,072	High school diploma or equivalent
Executive Secretaries and Executive Administrative Assistants (43-6011)	25,097	22,554	(2,544)	(10%)	2,410	High school diploma or equivalent
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014)	101,971	96,574	(5,397)	(5%)	10,077	High school diploma or equivalent
Total	194,290	183,540	(10,750)	(6%)	18,558	

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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