

**Program Endorsement Brief: 0514.00/Office Technology/Office Computer Applications  
Business Education Core; Business Education Foundations**

Orange County Center of Excellence, April 2021

**Summary Analysis**

<b>Program Endorsement:</b>	<b>Endorsed: All Criteria Met</b> <input type="checkbox"/>	<b>Endorsed: Some Criteria Met</b> <input checked="" type="checkbox"/>	<b>Not Endorsed</b> <input type="checkbox"/>
<b>Program Endorsement Criteria</b>			
<b>Supply Gap:</b>	Yes <input checked="" type="checkbox"/>	No	<input type="checkbox"/>
<b>Living Wage: (Entry-Level, 25<sup>th</sup>)</b>	Yes <input type="checkbox"/>	No	<input checked="" type="checkbox"/>
<b>Education:</b>	Yes <input checked="" type="checkbox"/>	No	<input type="checkbox"/>
<b>Emerging Occupation(s)</b>			
	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), *bill and account collectors* (43-3011), *procurement clerks* (43-3061), *customer service representatives* (43-4051), 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.<sup>1</sup> 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 middle-skill business occupations in the region. While more than one-third of current workers employed in these occupations 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 Orange County.

**Therefore, due to some 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 **26,881 jobs available annually** in the region due to retirements and workers leaving the field, **which is more than the 2,694 awards conferred annually** by educational institutions in the region.

<sup>1</sup> 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** – Within Orange County, *the majority (78%) of annual job openings for these middle-skill business occupations have entry-level wages below the county’s living wage* (\$17.36/hour).<sup>2</sup>
- **Educational Criteria** – The Bureau of Labor Statistics (BLS) lists a *high school diploma* as the *typical entry-level education for each of the five middle-skill business occupations* in this report.
  - However, the national-level educational attainment data indicates **between 37.8% and 46.2% 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 business education, conferring an average of **2,012 awards annually** between 2016 and 2019.
- Between 2014 and 2017, there was an average of **682 awards conferred annually** in related training programs by non-community college institutions throughout the region.

**Occupational Demand**

Exhibit 1 shows the five-year occupational demand projections for these middle-skill business 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 26,800 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 Counties<sup>3</sup>**

Geography	2019 Jobs	2024 Jobs	2019-2024 Change	2019-2024 % Change	Annual Openings
Los Angeles	189,526	181,066	(8,460)	(4%)	19,339
Orange	73,541	70,632	(2,909)	(4%)	7,542
<b>Total</b>	<b>263,067</b>	<b>251,698</b>	<b>(11,369)</b>	<b>(4%)</b>	<b>26,881</b>

<sup>2</sup> Living wage data was pulled from California Family Needs Calculator on 4/21/2021. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

<sup>3</sup> 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 these middle-skill business 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 (78%) of annual openings for these middle-skill business 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 \$14.88 and \$22.77. The only occupation in this report with typical entry-level wages that exceed the living wage is *first-line supervisors of office and administrative support workers*; the other four occupations earn typical entry-level wages below the county's living wage. Experienced workers can expect to earn wages between \$23.60 and \$36.78, which are higher than the living wage estimate. Orange County's average wages are slightly below the average statewide wage of \$23.62 for these occupations.

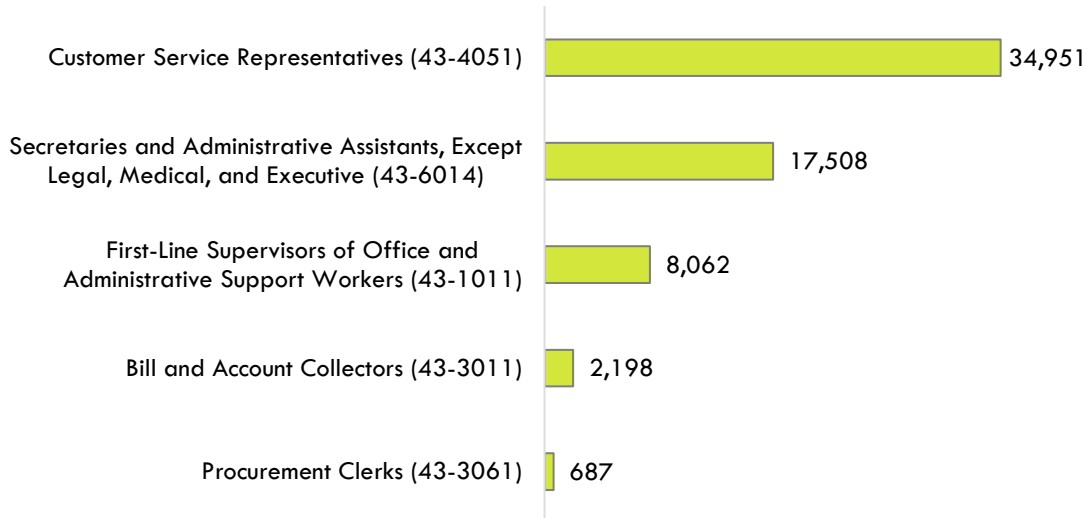
**Los Angeles County**— The majority (65%) of annual openings for these middle-skill business occupations have entry-level wages above the living wage for one adult (\$15.04 in Los Angeles County). Typical entry-level hourly wages are in a range between \$14.83 and \$22.88. The only occupation in this report with typical entry-level wages below the living wage is *customer service representatives*; the other four occupations earn typical entry-level wages above the county's living wage. Experienced workers can expect to earn wages between \$23.56 and \$36.98, which are higher than the living wage estimate. Los Angeles County's average wages are slightly below the average statewide wage of \$23.62 for these occupations.

## **Job Postings**

There were 63,406 online middle-skill job postings related to business listed in the past 12 months. Exhibit 2 displays the job postings by occupation for these middle-skill occupations. The majority of job postings (55%) were for *customer service representatives*, followed by *secretaries and administrative assistants, except legal, medical and executive* (28%), and *first-line supervisors of office and administrative support workers* (13%). The titles most often used mentioned in job postings were for customer service representatives, executive assistants, office managers, customer service associates, and call center representatives. The top skills were: customer service, scheduling, customer contact, sales, and customer billing. The top three employers, by number of job postings, in the region were: Anthem Blue Cross, State Farm Insurance Companies, and Circle K.

*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)



### Educational Attainment

The Bureau of Labor Statistics (BLS) lists a high school diploma as the typical entry-level education for each of the middle-skill business occupations in this report. However, the national-level educational attainment data indicates between 37.8% and 46.2% of workers in the field have completed some college or an associate degree. Of the 54% of middle-skill business job postings listing a minimum education requirement in Los Angeles/Orange County, 69% (23,698) requested a high school diploma, 24% (8,252) requested a bachelor's degree, and 7% (2,242) requested an associate degree.

### Educational Supply

**Community College Supply**—Exhibit 3 shows the three-year average number of awards conferred by community colleges in the related TOP codes: Business and Commerce, General (0501.00), Banking and Finance (0504.00), Management Development and Supervision (0506.30), Sales and Salesmanship (0509.40), Office Technology/Office Computer Applications (0514.00), Office Management (0514.140), Customer Service (0515.00), and Consumer Services (1301.10). The colleges with the most completions in the region are: Coastline, Mt. San Antonio, and LA Valley. Over the past 12 months, there were 22 other related program recommendation requests from regional community colleges.

**Exhibit 3: Regional community college awards (certificates and degrees), 2016-2019**

TOP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
0501.00	Business and Commerce, General	Cerritos	23	39	41	34
		Compton	47	1	-	16
		Glendale	47	48	40	45
		LA City	21	113	157	97
		LA Harbor	20	8	13	14
		LA Mission	38	29	9	25
		LA Pierce	-	-	5	2
		LA Southwest	48	20	30	33
		Long Beach	69	93	130	97
		Mt San Antonio	183	161	209	184
		Santa Monica	-	-	1	0
		West LA	38	8	5	17
		<b>LA Subtotal</b>	<b>534</b>	<b>520</b>	<b>640</b>	<b>565</b>
		Coastline	-	5	5	3
		Golden West	7	-	-	2
		Saddleback	14	8	14	12
<b>OC Subtotal</b>	<b>21</b>	<b>13</b>	<b>19</b>	<b>18</b>		
<b>Supply Subtotal/Average</b>			<b>555</b>	<b>533</b>	<b>659</b>	<b>582</b>
0504.00	Banking and Finance	Citrus	1	6	8	5
		Glendale	4	2	1	2
		LA City	3	5	9	6
		LA Mission	1	1	-	1
		LA Pierce	-	-	1	0
		LA Southwest	2	-	2	1
		LA Valley	35	26	34	32
		Pasadena	3	8	5	5
		<b>LA Subtotal</b>	<b>49</b>	<b>48</b>	<b>60</b>	<b>52</b>
<b>Supply Subtotal/Average</b>			<b>49</b>	<b>48</b>	<b>60</b>	<b>52</b>

TOP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
0506.30	Management Development and Supervision	Cerritos	1	8	14	8
		LA Harbor	1	-	-	0
		LA Pierce	3	6	4	4
		LA Southwest	17	16	12	15
		LA Trade	19	18	5	14
		LA Valley	10	18	23	17
		Pasadena	9	7	3	6
		Rio Hondo	21	63	20	35
		Santa Monica	10	17	6	11
		<b>LA Subtotal</b>	<b>91</b>	<b>153</b>	<b>87</b>	<b>110</b>
		Coastline	269	312	355	312
		Irvine	1	-	-	0
		Saddleback	29	23	34	29
		Santa Ana	-	13	4	6
		Santiago Canyon	-	2	-	1
		<b>OC Subtotal</b>	<b>299</b>	<b>350</b>	<b>393</b>	<b>347</b>
		<b>Supply Subtotal/Average</b>			<b>390</b>	<b>503</b>
050940	Sales and Salesmanship	Cerritos	10	-	-	3
		Santa Monica	14	16	13	14
		<b>LA Subtotal</b>	<b>24</b>	<b>16</b>	<b>13</b>	<b>18</b>
		Orange Coast	-	11	3	5
		Santa Ana	-	1	-	0
		<b>OC Subtotal</b>	<b>0</b>	<b>12</b>	<b>3</b>	<b>5</b>
<b>Supply Subtotal/Average</b>			<b>24</b>	<b>28</b>	<b>16</b>	<b>23</b>

TOP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average		
0514.00	Office Technology/ Office Computer Applications	Cerritos	16	11	14	14		
		Citrus	19	16	23	19		
		Compton	4	2	-	2		
		East LA	43	110	54	69		
		El Camino	-	-	2	1		
		Glendale	77	66	44	62		
		LA City	26	4	1	10		
		LA Harbor	24	7	5	12		
		LA Mission	32	35	23	30		
		LA Pierce	40	35	54	43		
		LA Southwest	1	2	2	2		
		LA Trade	37	39	31	36		
		LA Valley	84	91	119	98		
		Long Beach	20	27	33	27		
		Mt San Antonio	16	34	75	42		
		Pasadena	13	11	38	21		
		Santa Monica	-	3	7	3		
		West LA	1	2	1	1		
		<b>LA Subtotal</b>			<b>453</b>	<b>495</b>	<b>526</b>	<b>491</b>
		Coastline	40	21	12	24		
		Cypress	9	10	17	12		
		Golden West	4	3	8	5		
		Irvine	4	12	18	11		
		N. Orange Adult	88	97	70	85		
		Saddleback	9	9	11	10		
		Santa Ana	67	153	138	119		
		Santiago Canyon	99	137	106	114		
		<b>OC Subtotal</b>			<b>320</b>	<b>442</b>	<b>380</b>	<b>381</b>
		<b>Supply Subtotal/Average</b>			<b>773</b>	<b>937</b>	<b>906</b>	<b>872</b>
0514.40	Office Management	El Camino	-	1	-	0		
		<b>LA Subtotal</b>			<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
		Cypress	-	1	1	1		
		<b>OC Subtotal</b>			<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Supply Subtotal/Average</b>			<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>		

TOP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
0518.00	Customer Service	East LA	13	30	17	20
		Santa Monica	-	-	3	1
		<b>LA Subtotal</b>	<b>13</b>	<b>30</b>	<b>20</b>	<b>21</b>
		Santiago Canyon	-	6	3	3
		<b>OC Subtotal</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>3</b>
<b>Supply Subtotal/Average</b>			<b>13</b>	<b>36</b>	<b>23</b>	<b>24</b>
1301.10	Consumer Services	Mt San Antonio	1	-	-	0
		<b>LA Subtotal</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>
		<b>Supply Subtotal/Average</b>			<b>1</b>	<b>0</b>
<b>Supply Total/Average</b>			<b>1,805</b>	<b>2,087</b>	<b>2,145</b>	<b>2,012</b>

**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 middle-skill business occupations. Exhibit 4 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Codes: Business/Commerce, General (52.0101), Office Management and Supervision (52.0204), Operations Management and Supervision (52.0205), E-Commerce/Electronic Commerce (52.0208), Administrative Assistant and Secretarial Science, General (52.0401), Business/Office Automation/Technology/Data Entry (52.0407), and General Office Occupations and Clerical Services (52.0408). Due to different data collection periods, the most recent three-year period of available data is from 2014 to 2017. Between 2014 and 2017, four-year colleges in the region conferred an average of 634 awards annually in related training programs.

**Exhibit 4: Regional non-community college awards, 2014-2017**

CIP Code	Program	College	2014-2015 Awards	2015-2016 Awards	2016-2017 Awards	3-Year Award Average
52.0101	Business/Commerce, General	Argosy University-Los Angeles	8	9	23	13
		Argosy University-Orange County	15	11	7	11
		Azusa Pacific University	13	8	24	15
		Biola University	115	125	-	80
		Brandman University	-	5	-	2
		DeVry University-California	23	21	19	21
		ITT Technical Institute-Orange	15	-	-	5
		ITT Technical Institute-San Dimas	14	-	-	5
		ITT Technical Institute-Sylmar	13	-	-	4
		ITT Technical Institute-Torrance	18	-	-	6
		Loyola Marymount University	13	2	5	7



CIP Code	Program	College	2014-2015 Awards	2015-2016 Awards	2016-2017 Awards	3-Year Award Average
52.0204	Office Management and Supervision	University of Southern California	4	2	-	2
		California Intercontinental University	3	-	-	1
		Eagle Rock College	2	-	-	1
52.0205	Operations Management and Supervision	University of Phoenix-California	4	2	8	5
52.0208	E-Commerce/ Electronic Commerce	University of La Verne	5	3	-	3
		University of Phoenix-California	1	1	-	1
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	22	5	26	18
		Los Angeles ORT College-Van Nuys	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
<b>Supply Total/Average</b>			<b>935</b>	<b>592</b>	<b>518</b>	<b>682</b>

**Appendix A: Occupational demand and wage data by county**

**Exhibit 5. Orange County**

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 <sup>th</sup> 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
Bill and Account Collectors (43-3011)	2,790	2,643	(147)	(5%)	285	\$17.03	\$21.09	\$26.62
Procurement Clerks (43-3061)	849	801	(48)	(6%)	72	\$16.78	\$19.74	\$25.43
Customer Service Representatives (43-4051)	24,381	23,845	(536)	(2%)	2,858	\$14.88	\$18.41	\$23.60
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
<b>Total</b>	<b>73,541</b>	<b>70,632</b>	<b>(2,909)</b>	<b>(4%)</b>	<b>7,542</b>			

**Exhibit 6. Los Angeles County**

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 <sup>th</sup> 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
Bill and Account Collectors (43-3011)	5,735	5,352	(383)	(7%)	584	\$16.60	\$20.57	\$25.99
Procurement Clerks (43-3061)	2,248	2,088	(160)	(7%)	190	\$16.56	\$19.48	\$25.10
Customer Service Representatives	57,870	55,983	(1,888)	(3%)	6,744	\$14.83	\$18.36	\$23.56

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)
(43-4051)								
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
<b>Total</b>	<b>189,526</b>	<b>181,066</b>	<b>(8,460)</b>	<b>(4%)</b>	<b>19,339</b>			

**Exhibit 7. 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
Bill and Account Collectors (43-3011)	8,525	7,995	(530)	(6%)	869
Procurement Clerks (43-3061)	3,097	2,889	(208)	(7%)	262
Customer Service Representatives (43-4051)	82,251	79,827	(2,424)	(3%)	9,602
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014)	101,971	96,574	(5,397)	(5%)	10,077
<b>Total</b>	<b>263,067</b>	<b>251,698</b>	<b>(11,369)</b>	<b>(4%)</b>	<b>26,881</b>

## 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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April 2021

