

## Summary

Program LMI Endorsement	Endorsed: All LMI Criteria Met <input checked="" type="checkbox"/>	Endorsed: Some LMI Criteria Met <input type="checkbox"/>	Not LMI Endorsed <input type="checkbox"/>
-------------------------	--	--	---

### Program LMI Endorsement Criteria

	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Supply Gap:	<p><i>Comments:</i> there is projected to be <b>11,293 annual job openings</b> throughout Los Angeles and Orange counties for these real-estate occupations, which is <b>less than the 27,871 awards conferred by educational institutions</b>. However, these educational programs also prepare students for 64 other related occupations, <b>which account for 101,903 additional annual job openings</b>. <b>Because these programs train for a variety of occupations with high demand, there is most likely an undersupply of labor for these middle-skill business administration occupations.</b></p>	

	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Self-Sufficiency Standard Living Wage <sup>1</sup> :	<p><i>Comments:</i> <b>the majority (95%) of annual job openings</b> for these business administration occupations <b>have entry-level hourly wages above the OC living wage of \$27.13.</b></p>	

	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Education:	<p><i>Comments:</i> though the majority (95%) of annual job openings for these business administration occupations typically require a bachelor's degree, <b>between 35% and 40% of workers in the field have completed some college or an associate degree as their highest level of education.</b></p>	

### Additional Considerations

	Yes <input type="checkbox"/>	Some <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Emerging Occupation(s):	<p><i>Comments:</i> N/A</p>		
OC Resilient Job(s):	Yes <input type="checkbox"/>	Some <input checked="" type="checkbox"/>	No <input type="checkbox"/>
U.S. News & World Report 2024 Best Jobs List <sup>2</sup> :	Yes <input type="checkbox"/>	Some <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<p><i>Comments:</i> See <a href="#">Resilient Jobs and US News &amp; World Report Best Jobs</a></p>		

<sup>1</sup> At the direction of the California Community College Chancellor's Office, 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, to determine Orange County's living wage of \$27.13, last updated in March 2024.

<sup>2</sup> "100 Best Jobs of 2024," U.S. News & World Report, accessed May 7, 2024, <https://money.usnews.com/careers/best-jobs/rankings/the-100-best-jobs>.

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/Orange County regional labor market related to four middle-skill occupations:

- *General and Operations Managers (11-1021)*
- *Cost Estimators (13-1051)*
- *Logisticians (13-1081)*
- *Human Resources Assistants, Except Payroll and Timekeeping (43-4161)*

Based on the available data, there appears to be a supply gap for these middle-skill business administration occupations. Though the number of awards for these occupations exceeds demand, supply is overstated because the related educational programs train for an additional 64 occupations. In addition, typical education requirements for these occupations align with a community college education and most annual postings have typical entry-level wages significantly above the Self-Sufficiency Standard living wage. **Therefore, due to all regional labor market criteria being met, the COE endorses this proposed program.**

Exhibit 1 lists the occupational demand, supply, typical entry-level education, and educational attainment for the 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 (25 <sup>th</sup> Percentile)	Typical Entry-Level Education	Community College Educational Attainment
General and Operations Managers (11-1021)	LA: 6,440	LA: 18,422	OC: \$38.69	Bachelor's degree	35%
	OC: 2,603	OC: 8,090			
	TTL: 9,043	TTL: 26,512			
Cost Estimators (13-1051)	LA: 405	Accounted for Above	OC: \$31.39	Bachelor's degree	39%
	OC: 227				
	TTL: 632				
Logisticians (13-1081)	LA: 755	LA: 161	OC: \$30.38	Bachelor's degree	37%
	OC: 293	OC: 143			
	TTL: 1,048	TTL: 303			
Human Resources Assistants, Except Payroll and Timekeeping (43-4161)	LA: 409	LA: 729	OC: \$21.59	Associate degree	40%
	OC: 161	OC: 326			
	TTL: 570	TTL: 1,055			
<b>Total</b>	<b>11,293</b>	<b>27,871</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

## Demand:

- The number of jobs related to these business administration occupations is projected to increase 6% through 2028, equating to 11,293 annual job openings.
- Hourly entry-level wages for these business administration occupations range from \$21.59 to \$38.69 in Orange County; 95% of annual job openings have entry-level wages above the Self-Sufficiency Standard living wage.
- There were 26,183 online job postings for these business administration occupations over the past 12 months. The highest number of postings were for operations managers, human resources assistants, and estimators.
- The typical entry-level education for these business administration occupations ranges from an associate degree to a bachelor's degree.
- Between 35% and 40% of workers in the field have completed some college or an associate degree as their highest level of educational attainment.

## Supply:

- There was an average of 11,128 awards conferred by 29 community colleges in Los Angeles and Orange Counties from 2020 to 2023.
- Non-community college institutions conferred an average of 16,743 awards from 2019 to 2022.
- Orange County community college students that exited business administration programs in the 2020-21 academic year had a median annual wage of \$37,960 (\$18.25 per hour) after exiting the program and 43% attained the regional living wage.
- Throughout Orange County, 50% of business administration students that exited their program in 2019-20 reported that they are working in a job closely related to their field of study.

## Demand

### Occupational Projections:

Exhibit 2 shows the annual percent change in jobs for these business administration occupations from 2018 through 2028. Though there was a 7% decline across all occupations in Los Angeles and Orange counties from 2019 to 2020 due to the COVID-19 pandemic, employment in these business administration occupations decreased 8% during the same period.

In the two years preceding the pandemic, employment for these occupations remained flat in Orange County. After a decrease in employment in 2020, employment for these occupations experienced a sharp increase in 2021, a slower increase in 2022, and a 1% decline through 2023. Nevertheless, employment for these four occupations in Orange County is projected to increase 1% through 2028, experiencing a similar rate relative to all occupations in Los Angeles and Orange counties.

## Exhibit 2: Annual Percent Change in Jobs for Business Administration Occupations, 2018-2028

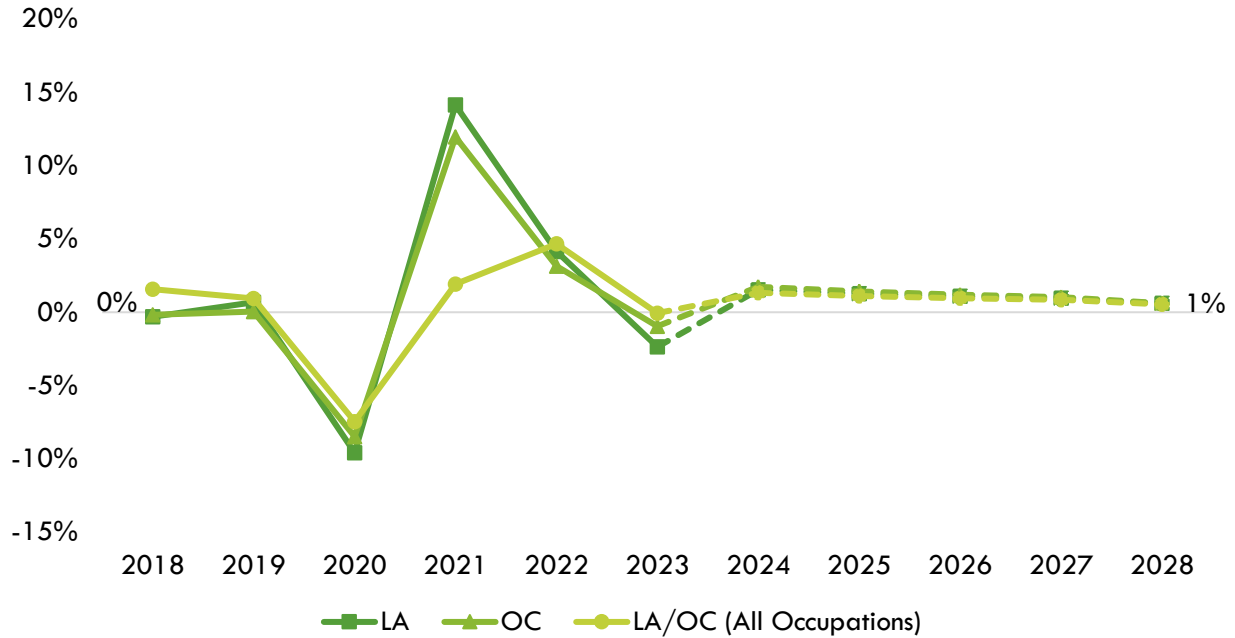


Exhibit 3 shows the five-year occupational demand projections for these business administration occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase by 6% through 2028. There is projected to be 11,293 jobs available annually.

### Exhibit 3: Occupational Demand in Los Angeles and Orange Counties<sup>3</sup>

Geography	2023 Jobs	2028 Jobs	2023-2028 Change	2023-2028 % Change	Annual Openings
Los Angeles	85,450	90,162	4,712	6%	8,008
Orange	34,495	36,611	2,116	6%	3,285
<b>Total</b>	<b>119,945</b>	<b>126,773</b>	<b>6,828</b>	<b>6%</b>	<b>11,293</b>

## Wages:

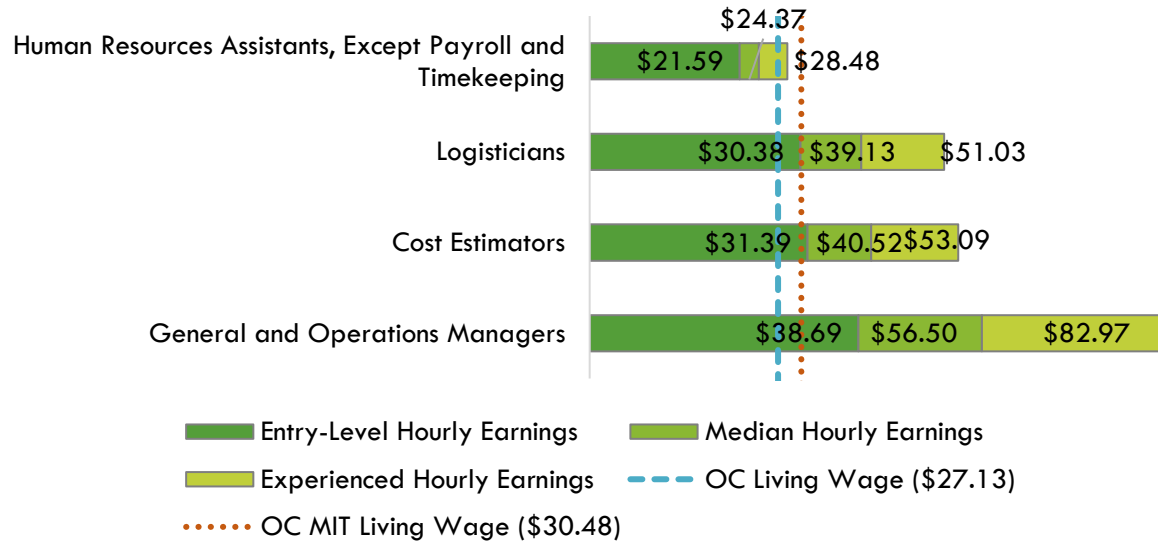
The labor market endorsement in this report considers the entry-level hourly wages for these business administration occupations in Orange County as they relate to the county's living wage. Los Angeles County wages are included below to provide a complete analysis of the LA/OC region.

At the direction of the California Community College Chancellor's Office, 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, to determine Orange County's living wage of \$27.13, last updated in March 2024. Additionally, data for the MIT Living Wage, updated on February 14, 2024, is provided as a reference. Currently, the MIT Living Wage in Orange County is \$30.48. Both figures, which account for geographic-specific costs of necessities such as housing, food, health care, and transportation to assess the cost of living, are notated in the exhibits below.

<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.

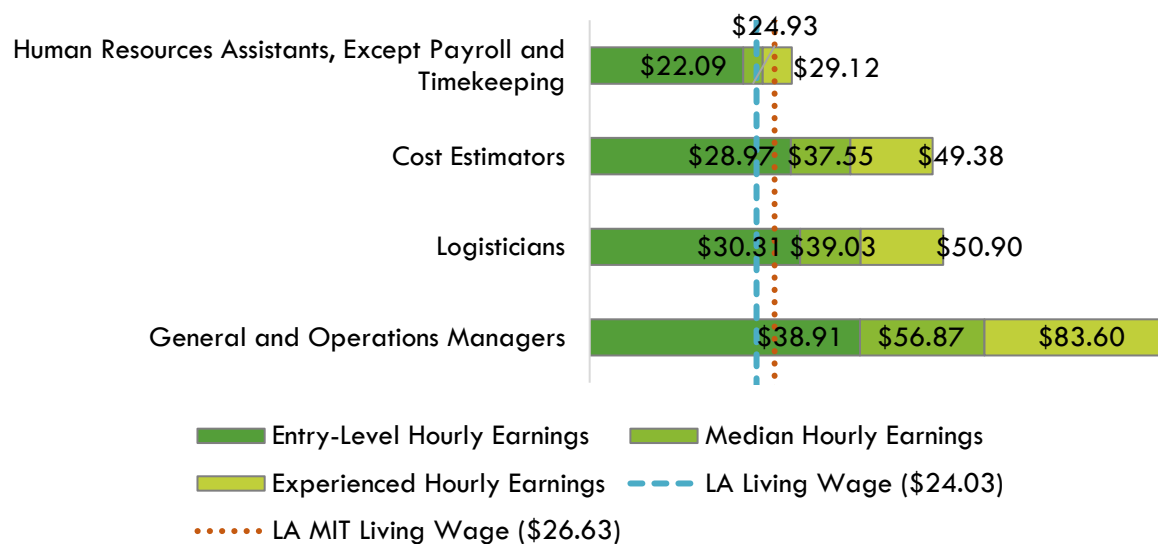
The majority (95%) of annual openings for these business administration occupations have entry-level wages above the Self-Sufficiency Standard living wage for one adult (\$27.13 in Orange County). Typical entry-level hourly wages range between \$21.59 and \$38.69. Orange County's average wages (\$63.82) are significantly below to the average statewide wage of \$67.33 for these occupations. Exhibit 4 shows the wage range for each of these business administration occupations in Orange County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

### Exhibit 4: Wages by Occupation in Orange County



The majority (95%) of annual openings for these business administration occupations have entry-level wages below the Self-Sufficiency Standard living wage for one adult (\$24.03 in Los Angeles County). Typical entry-level hourly wages range between \$22.09 and \$38.91. Los Angeles County's average wages (\$64.31) are significantly below the average statewide wage of \$67.33 for these occupations. Exhibit 5 shows the wage range for each of these business administration occupations in Los Angeles County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

### Exhibit 5: Wages by Occupation in Los Angeles County



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

Exhibit 6 shows if each occupation is considered an Orange County Great Recession-Resilient, COVID-19 Pandemic Recession-Resilient Job, or a 2024 U.S. News & World Report (USN&WR) Best Job. No occupation met the criteria to be considered all three designations; however, two occupations, *general and operations managers* and *logisticians*, did meet the criteria to be classified as USN&WR Best Jobs and at least one of two Recession-Resilient Job designations. *Cost estimators* is classified as only a COVID-19 Pandemic Recession-Resilient Job and *human resources assistants, except payroll and timekeeping* received none of the three designations.

**Exhibit 6: Resilient Jobs and USN&WR Best Jobs Designations**

Occupation	Great Recession-Resilient Job	COVID-19 Pandemic Recession-Resilient Job	2024 USN&WR Best Job
General and Operations Managers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cost Estimators	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Logisticians	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Human Resources Assistants, Except Payroll and Timekeeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Job Postings:

**Important Online Job Postings Data Note:** Online job postings data is sourced from Lightcast, a labor market analytics firm that scrapes, collects, and organizes data from online job boards such as LinkedIn, Indeed, Glassdoor, Monster, GovernmentJobs.com, and thousands more. Lightcast uses natural language processing (NLP) to determine the related company, industry, occupation, and other information for each job posting. However, NLP has limitations that include understanding contextual words of phrases; determining differences in words that can be used as nouns, verbs, and/or adjectives; and misspellings or grammatical errors.<sup>4</sup> For these reasons, job postings could be assigned to the wrong employer, industry, or occupation within Lightcast's database.

Additionally, there are several limitations when analyzing job postings. A single job posting may not represent a single job opening, as employers may be creating a pool of candidates for future openings or hiring for multiple positions with a single posting. Additionally, not all jobs are posted online, and jobs may be filled through other methods such as internal promotion, word-of-mouth advertising, physical job boards, or a variety of other channels.

There were 26,183 online job postings related to these business administration occupations listed in the past 12 months. Exhibit 7 shows the number of job postings by occupation. The majority (55%) of job postings were for *general and operations managers*, distantly followed by *human resources assistants, except payroll and timekeeping* (19%).

**Exhibit 7: Number of Job Postings by Occupation (n=26,183)**

Occupation	Job Postings	Percentage of Job Postings
General and Operations Managers	14,455	55%
Logisticians	5,068	19%

<sup>4</sup> K. R. Chowdhary, *Fundamentals of Artificial Intelligence* (Basingstoke: Springer Nature, 2020), <https://link.springer.com/book/10.1007/978-81-322-3972-7>.

Occupation	Job Postings	Percentage of Job Postings
Human Resources Assistants, Except Payroll and Timekeeping	3,520	13%
Cost Estimators	3,140	12%
<b>Total Postings</b>	<b>26,183</b>	<b>100%</b>

The top employers in the region, by number of job postings, are shown in Exhibit 8.

### Exhibit 8: Top Employers by Number of Job Postings (n=26,183)

Employer	Job Postings	Percentage of Job Postings
GPAC	509	2%
CVS Health	492	2%
University of California	194	1%
CyberCoders	183	1%
Geopaq Logic	177	1%
AppleOne	171	1%
Robert Half	151	1%
Aston Carter	143	1%
Northrop Grumman	119	0%
Restaurant Depot	112	0%

The top specialized, soft, and computer skills listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 9.

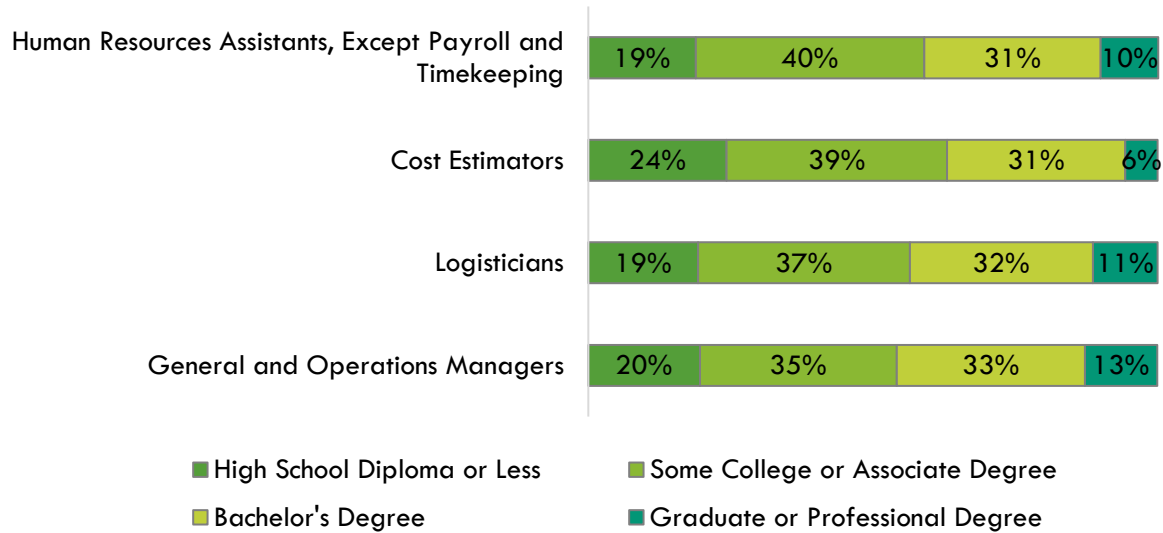
### Exhibit 9: Top Skills by Number of Job Postings (n=26,183)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Project Management (3,617)	Communication (12,903)	Microsoft Excel (5,222)
Operations Management (2,803)	Management (11,372)	Microsoft Office (4,351)
Marketing (2,801)	Operations (11,230)	Microsoft PowerPoint (2,539)
Supply Chain (2,433)	Customer Service (9,167)	Microsoft Outlook (2,404)
Auditing (2,250)	Leadership (8,270)	Microsoft Word (1,295)
Inventory Management (2,218)	Sales (7,287)	SAP Applications (941)
Finance (2,195)	Detail Oriented (5,514)	Human Resources Information System (HRIS) (834)
Key Performance Indicators (KPIs) (2,087)	Microsoft Excel (5,222)	Spreadsheets (697)
Construction (2,003)	Problem Solving (4,882)	Microsoft Access (386)
Continuous Improvement Process (1,899)	Planning (4,874)	SQL (Programming Language) (373)

## Educational Attainment:

The Bureau of Labor Statistics (BLS) lists an associate degree as the typical entry-level education for *human resources assistants, except payroll and timekeeping* and a bachelor's degree for *cost estimators; logisticians; and general and operations managers*. However, the national-level educational attainment data indicates between 35% and 40% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 10 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

**Exhibit 10: National-level Educational Attainment for Occupations**



Of the 61% of the cumulative job postings for these business administration occupations that listed a minimum education requirement in Los Angeles/Orange County, 58% (9,243) requested a bachelor's degree and 38% (6,100) requested a high school diploma, vocational training, or an associate degree.



# Educational Supply

## Community College Supply:

Exhibit 11 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)
- Business Administration (0505.00)
- Business Management (0506.00)
- Management Development and Supervision (0506.30)
- Small Business and Entrepreneurship (0506.40)
- Retail Store Operations and Management (0506.50)
- International Business and Trade (0508.00)
- Insurance (0512.00)
- Office Technology/Office Computer Applications (0514.00)
- Office Management (0514.40)

No awards were conferred under the following related TOP code: Public Administration (2102.00).

The colleges with the most completions in the region are Pasadena, Cerritos, and Mt. San Antonio. Over the past 12 months, there were no related program recommendation requests from regional community colleges.

**Exhibit 11: Regional Community College Awards (Certificates and Degrees), 2020-2023**

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
0501.00	Business and Commerce, General	Cerritos	2	4	1	2
		Glendale	72	61	73	81
		LA City	56	50	60	57
		LA Harbor	13	12	12	15
		LA Mission	0	0	1	0
		LA Pierce	15	13	24	8
		LA Southwest	22	29	24	13
		LA Trade	10	0	0	30
		Long Beach	191	189	195	190
		Mt San Antonio	115	117	136	91
		Santa Monica	14	12	14	15
		West LA	66	67	83	48
		<b>LA Subtotal</b>	<b>576</b>	<b>554</b>	<b>623</b>	<b>550</b>
		Coastline	3	5	4	1
		Saddleback	54	39	73	49
		<b>OC Subtotal</b>	<b>57</b>	<b>44</b>	<b>77</b>	<b>50</b>
		<b>Supply Subtotal/Average</b>			<b>633</b>	<b>598</b>

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average		
0504.00	Banking and Finance	Glendale	7	3	3	14		
		LA City	9	12	7	8		
		LA Pierce	5	9	3	4		
		LA Southwest	1	0	0	3		
		LA Valley	37	36	40	34		
		Long Beach	3	3	1	5		
		Pasadena	5	2	5	7		
		Rio Hondo	0	0	0	1		
		<b>LA Subtotal</b>	<b>67</b>	<b>65</b>	<b>59</b>	<b>76</b>		
		Santa Ana	0	0	1	0		
		Santiago Canyon	4	0	0	12		
		<b>OC Subtotal</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>12</b>		
		<b>Supply Subtotal/Average</b>			<b>71</b>	<b>65</b>	<b>60</b>	<b>88</b>
		0505.00	Business Administration	Cerritos	294	222	299	361
Citrus	384			416	386	351		
Compton	25			31	22	22		
East LA	319			391	309	256		
El Camino	309			342	325	261		
Glendale	208			217	221	186		
LA City	122			151	112	104		
LA Harbor	77			87	68	75		
LA Mission	85			89	89	78		
LA Pierce	246			255	266	216		
LA Southwest	36			45	38	26		
LA Trade	20			28	32	0		
LA Valley	184			172	197	183		
Long Beach	302			319	296	292		
Mt San Antonio	330			337	281	373		
Pasadena	951			1240	859	753		
Rio Hondo	249			246	254	248		
Santa Monica	336			337	370	301		
West LA	119			134	127	97		
<b>LA Subtotal</b>	<b>4,598</b>			<b>5,059</b>	<b>4,551</b>	<b>4,183</b>		
Coastline	408			432	410	381		
Cypress	221			232	206	226		
Fullerton	343			319	367	343		
Golden West	188	194	186	183				

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
		Irvine	325	299	383	292
		Orange Coast	372	368	412	337
		Saddleback	347	315	327	398
		Santa Ana	186	198	187	174
		Santiago Canyon	149	153	143	150
		<b>OC Subtotal</b>	<b>2,538</b>	<b>2,510</b>	<b>2,621</b>	<b>2,484</b>
		<b>Supply Subtotal/Average</b>	<b>7,136</b>	<b>7,569</b>	<b>7,172</b>	<b>6,667</b>
0506.00	Business Management	Cerritos	377	387	276	469
		Compton	0	0	0	1
		East LA	18	17	18	18
		El Camino	37	49	22	40
		Glendale	22	15	28	22
		LA City	25	18	16	40
		LA Mission	4	4	6	3
		LA Pierce	10	7	14	9
		LA Valley	34	30	39	34
		Long Beach	33	44	28	26
		Mt San Antonio	165	150	188	158
		Pasadena	1	0	0	2
		<b>LA Subtotal</b>	<b>726</b>	<b>721</b>	<b>635</b>	<b>822</b>
		Coastline	127	307	33	40
		Cypress	4	7	1	5
		Fullerton	17	11	19	20
		Golden West	11	11	13	10
		Irvine	16	5	23	20
		North Orange Adult	26	19	32	27
		Orange Coast	12	19	16	2
		Santa Ana	47	40	39	62
		Santiago Canyon	84	55	25	173
		<b>OC Subtotal</b>	<b>345</b>	<b>474</b>	<b>201</b>	<b>359</b>
		<b>Supply Subtotal/Average</b>	<b>1,071</b>	<b>1,195</b>	<b>836</b>	<b>1,181</b>
0506.30	Management Development and Supervision	Cerritos	56	50	59	58
		LA Pierce	8	5	11	8
		LA Southwest	15	15	21	10
		LA Trade	9	8	12	7
		LA Valley	18	18	17	18

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
		Pasadena	12	10	6	21
		Rio Hondo	20	18	16	25
		Santa Monica	23	19	30	20
		<b>LA Subtotal</b>	<b>161</b>	<b>143</b>	<b>172</b>	<b>167</b>
		Coastline	76	7	142	78
		Cypress	12	1	11	25
		Irvine	2	3	0	2
		Saddleback	41	53	38	31
		Santa Ana	7	9	9	2
		Santiago Canyon	6	1	1	15
		<b>OC Subtotal</b>	<b>143</b>	<b>74</b>	<b>201</b>	<b>153</b>
		<b>Supply Subtotal/Average</b>	<b>303</b>	<b>217</b>	<b>373</b>	<b>320</b>
0506.40	Small Business and Entrepreneurship	Cerritos	15	18	15	13
		Citrus	0	0	1	0
		East LA	19	1	36	19
		Glendale	2	1	0	6
		LA City	10	4	7	19
		LA Pierce	14	6	5	31
		LA Trade	7	9	3	10
		LA Valley	91	0	99	174
		Long Beach	1	2	0	1
		Mt San Antonio	25	19	36	21
		Pasadena	91	22	186	65
		Rio Hondo	8	4	6	13
		Santa Monica	22	22	28	17
		West LA	6	1	5	12
		<b>LA Subtotal</b>	<b>312</b>	<b>109</b>	<b>427</b>	<b>401</b>
		Coastline	8	16	4	4
		Cypress	1	4	0	0
		Fullerton	4	6	5	2
		Golden West	2	2	3	2
		Irvine	159	11	233	233
		Orange Coast	3	0	8	0
		Saddleback	8	8	10	6
		Santa Ana	3	6	1	3
		Santiago Canyon	2	0	1	4
		<b>OC Subtotal</b>	<b>191</b>	<b>53</b>	<b>265</b>	<b>254</b>

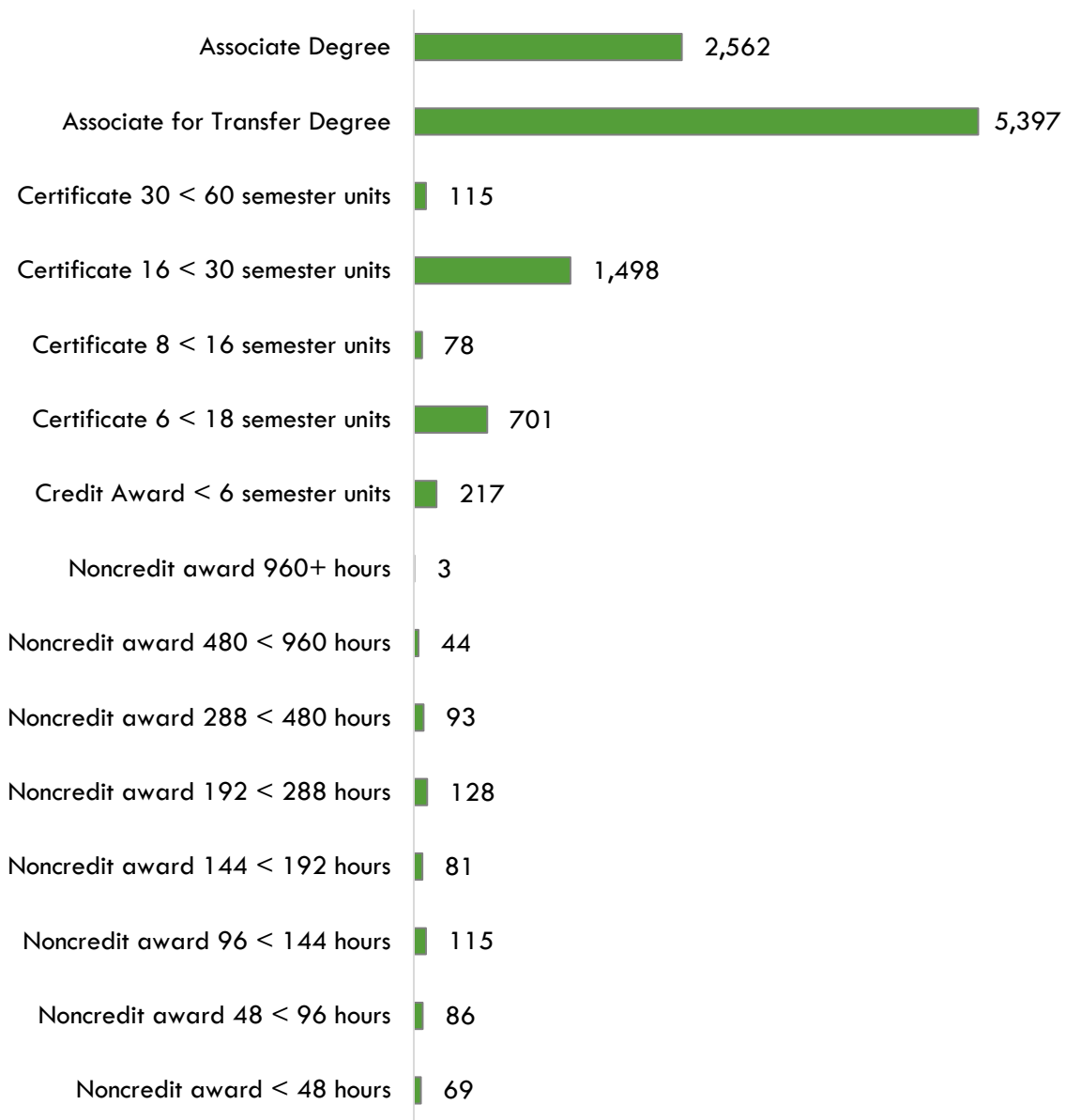
TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
<b>Supply Subtotal/Average</b>			<b>503</b>	<b>162</b>	<b>692</b>	<b>655</b>
0506.50	Retail Store Operations and Management	Cerritos	243	198	192	339
		El Camino	3	2	4	2
		LA City	0	0	1	0
		LA Mission	0	0	0	1
		LA Pierce	0	0	0	1
		LA Trade	1	2	1	0
		LA Valley	3	2	5	2
		Mt San Antonio	3	2	1	6
		Pasadena	4	2	9	2
		Rio Hondo	3	3	4	1
		<b>LA Subtotal</b>	<b>261</b>	<b>211</b>	<b>217</b>	<b>354</b>
		Golden West	0	0	1	0
		Saddleback	2	2	1	2
		Santa Ana	1	0	0	3
		<b>OC Subtotal</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>5</b>
<b>Supply Subtotal/Average</b>			<b>264</b>	<b>213</b>	<b>219</b>	<b>359</b>
0508.00	International Business and Trade	Cerritos	6	9	8	2
		East LA	4	6	1	4
		Glendale	4	6	6	0
		LA Harbor	1	3	0	0
		LA Pierce	0	1	0	0
		Long Beach	12	15	15	5
		Mt San Antonio	22	17	32	18
		Pasadena	14	7	23	13
		Rio Hondo	2	3	2	2
		Santa Monica	3	4	3	1
		<b>LA Subtotal</b>	<b>69</b>	<b>71</b>	<b>90</b>	<b>45</b>
		Fullerton	2	2	2	3
		Saddleback	6	5	11	3
		Santa Ana	35	31	30	44
		<b>OC Subtotal</b>	<b>44</b>	<b>38</b>	<b>43</b>	<b>50</b>
<b>Supply Subtotal/Average</b>			<b>112</b>	<b>109</b>	<b>133</b>	<b>95</b>
0512.00	Insurance	Glendale	1	3	1	0
		LA Pierce	3	1	2	6
		LA Valley	11	14	13	5
		Santa Monica	1	0	1	1

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average		
		<b>LA Subtotal</b>	<b>16</b>	<b>18</b>	<b>17</b>	<b>12</b>		
		-	-	-	-	-		
		<b>OC Subtotal</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>		
		<b>Supply Subtotal/Average</b>	<b>16</b>	<b>18</b>	<b>17</b>	<b>12</b>		
0514.00	Office Technology / Office Computer Applications	Cerritos	16	14	14	20		
		Citrus	2	0	3	2		
		East LA	38	51	47	17		
		El Camino	2	3	1	2		
		Glendale	59	30	53	94		
		LA City	28	5	35	43		
		LA Harbor	7	7	13	0		
		LA Mission	15	11	17	16		
		LA Pierce	60	75	66	38		
		LA Southwest	5	6	9	1		
		LA Trade	20	21	24	14		
		LA Valley	81	80	65	98		
		Long Beach	85	88	92	74		
		Mt San Antonio	209	183	233	210		
		Pasadena	41	59	43	21		
		Rio Hondo	8	16	9	0		
		Santa Monica	9	8	11	8		
		West LA	7	1	0	19		
				<b>LA Subtotal</b>	<b>690</b>	<b>658</b>	<b>735</b>	<b>677</b>
				Coastline	0	1	0	0
				Cypress	5	8	5	3
				Irvine	11	9	12	11
				North Orange Adult	42	37	34	54
				Orange Coast	8	0	1	24
				Saddleback	19	7	4	46
				Santa Ana	170	246	130	133
				Santiago Canyon	71	71	100	42
		<b>OC Subtotal</b>	<b>326</b>	<b>379</b>	<b>286</b>	<b>313</b>		
		<b>Supply Subtotal/Average</b>	<b>1,016</b>	<b>1,037</b>	<b>1,021</b>	<b>990</b>		
0514.40	Office Management	El Camino	0	1	0	0		
		Santa Monica	3	1	4	3		
		<b>LA Subtotal</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>3</b>		

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
		Santa Ana	1	0	1	2
		<b>OC Subtotal</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>
		<b>Supply Subtotal/Average</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>5</b>
		<b>Supply Total/Average</b>	<b>11,128</b>	<b>11,185</b>	<b>11,228</b>	<b>10,972</b>

Exhibit 12 shows the annual average community college awards by type from 2020-21 to 2022-23. The plurality of the awards are for associate for transfer degrees, distantly followed by associate degrees and certificates between 16 and less than 30 semester units.

### Exhibit 12: Annual Average Community College Awards by Type, 2020-2023



## Community College Student Outcomes:

Exhibit 13 shows the Strong Workforce Program (SWP) metrics for business administration programs in Coast Community College District (CCCD), the Orange County Region, and California. Of the 4,723 Orange County business administration students in the 2021-22 academic year, 17% (820) attended a CCCD college.

CCCD students that exited business administration programs in the 2021-22 academic year had slightly higher median annual earnings (\$38,192 or \$18.36 per hour) compared to all business administration students in Orange County (\$37,960 or \$18.25 per hour). A slightly higher percentage of CCCD business administration students attained the living wage (45%) when compared to all business administration students in Orange County (43%).

### Exhibit 13: Business Administration (0505.00) Strong Workforce Program Metrics, 2021-22<sup>5</sup>

SWP Metric	CCCD	OC Region	California
SWP Students	820	4,723	41,794
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	39%	37%	37%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	Insufficient Data	Insufficient Data	71%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	710	2,067	15,180
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2019-20)	133	726	5,543
SWP Students with a Job Closely Related to Their Field of Study (2019-20)	Insufficient Data	50%	69%
Median Annual Earnings for SWP Exiting Students (2020-21)	\$38,192 (\$18.36)	\$37,960 (\$18.25)	\$38,484 (\$18.50)
Median Change in Earnings for SWP Exiting Students (2020-21)	17%	31%	27%
SWP Exiting Students Who Attained the Living Wage (2020-21)	45%	43%	52%

## Non-Community College Supply:

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering business administration training programs. Exhibit 14 displays the annual and three-year average awards granted by these institutions under the related Classification of Instructional Programs (CIP) codes:

- Public Administration (44.0401)
- Business/Commerce, General (52.0101)
- Business Administration and Management, General (52.0201)
- Administrative Assistant and Secretarial Science, General (52.0401)
- Business/Office Automation/Technology/Data Entry (52.0407)
- Entrepreneurship/Entrepreneurial Studies (52.0701)
- Finance, General (52.0801)
- International Business/Trade/Commerce (52.1101)

<sup>5</sup> All SWP metrics are for 2021-22 unless otherwise noted.



No awards were conferred under the following related CIP codes:

- Operations Management and Supervision (52.0205)
- Retail Management (52.0212)
- Risk Management (52.0215)
- Social Entrepreneurship (52.0704)
- Financial Risk Management (52.0810)

The available data covers 2019 to 2022. During this period, non-community college institutions in the region conferred an average of 16,743 awards annually in related programs.

### Exhibit 14: Regional Non-Community College Awards, 2019-2022

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
44.0401	Public Administration	Azusa Pacific University	0	0	15	5
		California State Polytechnic University-Pomona	12	10	21	14
		California State University-Dominguez Hills	117	129	104	117
		California State University-Fullerton	59	64	66	63
		California State University-Long Beach	143	131	123	132
		California State University-Los Angeles	24	39	33	32
		California State University-Northridge	267	309	265	280
		Claremont Lincoln University	0	0	1	0
		Los Angeles Pacific University	0	0	7	2
		Touro University Worldwide	21	16	19	19
		University of La Verne	58	54	56	56
		University of Massachusetts Global	43	29	34	35
		University of Southern California	175	164	111	150
		<b>Supply Subtotal/Average</b>			<b>919</b>	<b>945</b>
52.0101	Business / Commerce, General	Azusa Pacific University	86	70	15	57
		Biola University	18	26	32	25
		Fremont University	0	0	11	4

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
		Loyola Marymount University	55	38	39	44
		Marymount California University	10	33	31	25
		Mount Saint Mary's University	0	0	0	0
		Pacific States University	0	0	8	3
		University of Southern California	1	1	0	1
<b>Supply Subtotal/Average</b>			<b>170</b>	<b>168</b>	<b>136</b>	<b>158</b>
52.0201	Business Administration and Management, General	Abraham Lincoln University	1	1	3	2
		America Evangelical University	1	8	9	6
		American Jewish University	12	5	1	6
		Angeles College	6	10	21	12
		Azusa Pacific University	147	142	182	157
		Bethesda University	47	57	39	48
		Biola University	136	120	106	121
		California Institute of Advanced Management	19	32	62	38
		California Intercontinental University	19	19	45	28
		California State Polytechnic University-Pomona	1,450	1,690	1,678	1,606
		California State University-Dominguez Hills	625	657	599	627
		California State University-Fullerton	2,419	2,504	2,289	2,404
		California State University-Long Beach	1,458	1,584	1,688	1,577
		California State University-Los Angeles	1,198	956	854	1,003
		California State University-Northridge	731	825	840	799
		Chapman University	510	535	526	524

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
		Claremont Graduate University	84	92	41	72
		Concordia University-Irvine	126	122	99	116
		Fremont University	24	15	3	14
		Haven University	0	0	3	1
		Hope International University	72	56	59	62
		InterCoast Colleges-Santa Ana	18	0	0	6
		InterCoast Colleges-West Covina	0	1	2	1
		Learnet Academy Inc	3	10	6	6
		Life Pacific University	15	17	19	17
		Los Angeles Pacific College	7	3	1	4
		Los Angeles Pacific University	0	16	27	14
		Loyola Marymount University	34	71	68	58
		Marymount California University	59	42	45	49
		Mount Saint Mary's University	50	33	21	35
		Pacific College	0	0	0	0
		Pacific Oaks College	19	16	11	15
		Pacific States University	4	6	8	6
		Pathways College	0	2	0	1
		Pepperdine University	641	600	677	639
		Platt College-Anaheim	14	9	5	9
		Platt College-Los Angeles	11	4	6	7
		Presbyterian Theological Seminary in America	0	0	0	0
		Saybrook University	0	1	5	2
		The Chicago School of Professional Psychology at Anaheim	0	4	1	2

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
		The Chicago School of Professional Psychology at Los Angeles	18	24	19	20
		The Master's University and Seminary	45	40	43	43
		Touro University Worldwide	0	0	10	3
		University of Antelope Valley	38	32	26	32
		University of California-Irvine	497	560	528	528
		University of California-Los Angeles	148	42	15	68
		University of La Verne	545	559	465	523
		University of Massachusetts Global	352	433	467	417
		University of Southern California	1,441	1,490	1,258	1,396
		University of the People	564	815	1,365	915
		University of the West	12	21	10	14
		Vanguard University of Southern California	51	66	50	56
		West Coast University-Orange County	0	0	11	4
		Westcliff University	407	574	434	472
		Whittier College	61	62	39	54
		Woodbury University	66	70	47	61
<b>Supply Subtotal/Average</b>			<b>14,205</b>	<b>15,053</b>	<b>14,836</b>	<b>14,698</b>
52.0401	Administrative Assistant and Secretarial Science, General	Hacienda La Puente Adult Education	20	23	24	22
		InterCoast Colleges-Santa Ana	0	0	0	0
		InterCoast Colleges-West Covina	0	3	12	5
		Pomona Unified School District Adult	3	1	4	3

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
		and Career Education				
<b>Supply Subtotal/Average</b>			<b>23</b>	<b>27</b>	<b>40</b>	<b>30</b>
52.0407	Business / Office Automation / Technology / Data Entry	Baldwin Park Adult & Community Education	0	0	2	1
		Learnet Academy Inc	4	14	8	9
<b>Supply Subtotal/Average</b>			<b>4</b>	<b>14</b>	<b>10</b>	<b>9</b>
52.0701	Entrepreneurship / Entrepreneurial Studies	Azusa Pacific University	4	3	3	3
		California Intercontinental University	4	5	8	6
		Hussian College-Los Angeles	1	0	0	0
		Loyola Marymount University	70	62	52	61
		Mount Saint Mary's University	6	4	6	5
		Pepperdine University	0	0	0	0
		Touro University Worldwide	0	0	0	0
		University of California-Irvine	0	31	43	25
		University of La Verne	0	0	1	0
		Westcliff University	0	0	5	2
<b>Supply Subtotal/Average</b>			<b>85</b>	<b>105</b>	<b>118</b>	<b>103</b>
52.0801	Finance, General	California State University-Northridge	379	382	256	339
		Claremont McKenna College	13	10	18	14
		Loyola Marymount University	105	117	114	112
		Pepperdine University	13	26	8	16
		University of La Verne	40	30	26	32
		University of Southern California	12	14	17	14
		Westcliff University	0	0	16	5
<b>Supply Subtotal/Average</b>			<b>562</b>	<b>579</b>	<b>455</b>	<b>532</b>
52.1101		Azusa Pacific University	8	8	3	6

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
	International Business / Trade / Commerce	California Intercontinental University	2	8	11	7
		California State University-Fullerton	75	72	50	66
		Claremont Graduate University	7	3	0	3
		Learnet Academy Inc	0	0	3	1
		Mount Saint Mary's University	4	3	3	3
		Pepperdine University	132	182	131	148
		University of La Verne	2	3	2	2
		University of Southern California	102	56	45	68
		Westcliff University	0	0	4	1
<b>Supply Subtotal/Average</b>			<b>332</b>	<b>335</b>	<b>252</b>	<b>306</b>
<b>Supply Total/Average</b>			<b>16,300</b>	<b>17,226</b>	<b>16,702</b>	<b>16,743</b>

## Regional Demographics

This section examines demographic data for Orange County community college students in business administration programs compared to the OC population, along with occupational data, to identify potential diversity and equity issues addressable by community college programs.

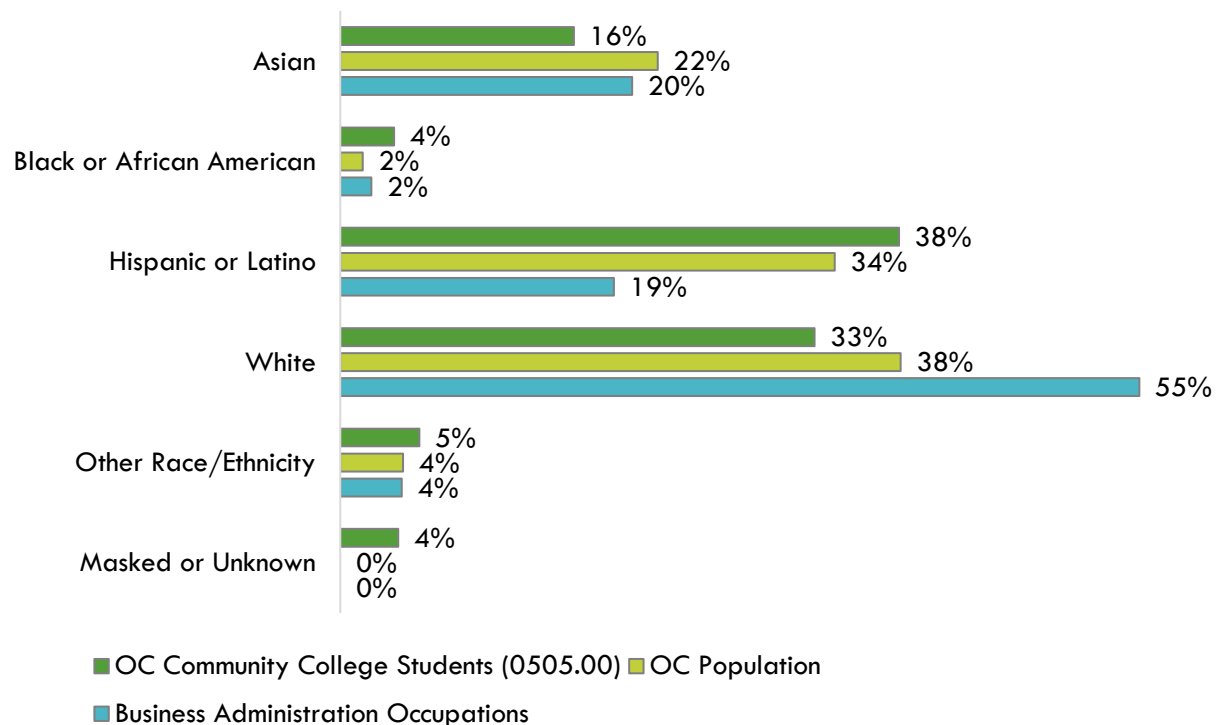
### Ethnicity:

Exhibit 15 compares the ethnicity of Orange County community college students enrolled in business administration programs, the overall Orange County population, and occupation-specific data for the four business administration occupations included in this report.

Notably, 55% of workers employed in these business administration occupations are white, which is much higher than the population (38%) and community college business administration students (33%). Conversely, the plurality of community college business administrative students is Hispanic or Latino (38%), which is higher than the population (34%) and significantly higher than workers in the field (19%).

Examining disaggregated data for each occupation (not shown), white individuals account for the plurality of workers across all four occupations: *cost estimators* (68%), *general and operations managers* (55%), *human resources assistants, except payroll and timekeeping* (50%), and *logisticians* (36%). The occupation with the highest percentage of Hispanic or Latino workers is *human resources assistants, except payroll and timekeeping* (27%), followed closely by *logisticians* (26%). *Logisticians* has the highest percentages of Asian (24%) and Black or African American (14%) workers. This occupation offers the second lowest entry-level wages of the four business administration occupations.

Exhibit 15: Program and County Demographics by Ethnicity



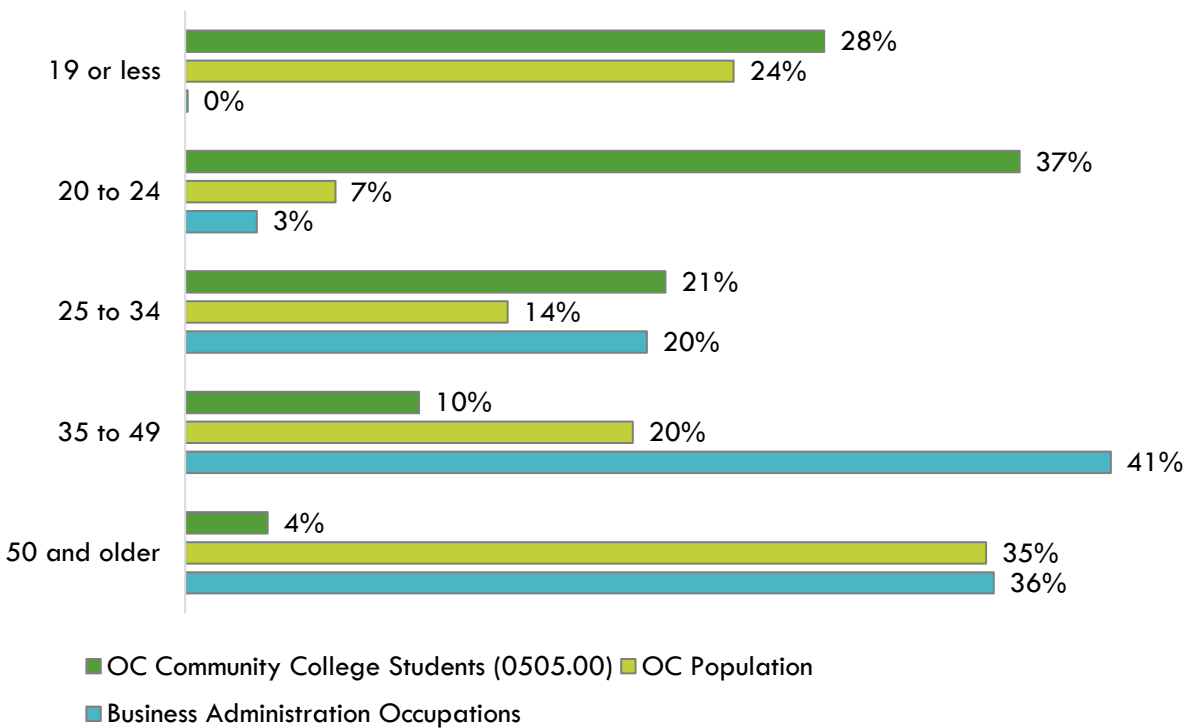
## Age:

Exhibit 16 compares the age of Orange County community college students enrolled in business administration programs, the overall Orange County population, and occupation-specific data for the four business administration occupations included in this report.

The vast majority of workers in these business administration occupations are age 35 and older (76%), which is higher than the population (55%) and significantly higher than community college business administration students (14%).

Examining disaggregated data for each occupation (not shown), the plurality of *general and operations managers* (43%), *logisticians* (44%), and *human resources assistants, except payroll and timekeeping* (41%) are 35 to 49. Conversely, the plurality of *cost estimators* is 50 and older (48%). The occupations with highest percentages of workers 34 or less are *logisticians* (35%) and *human resources assistants, except payroll and timekeeping* (35%). These occupations offer the two lowest entry-level wages of the four business administration occupations.

Exhibit 16: Program and County Demographics by Age





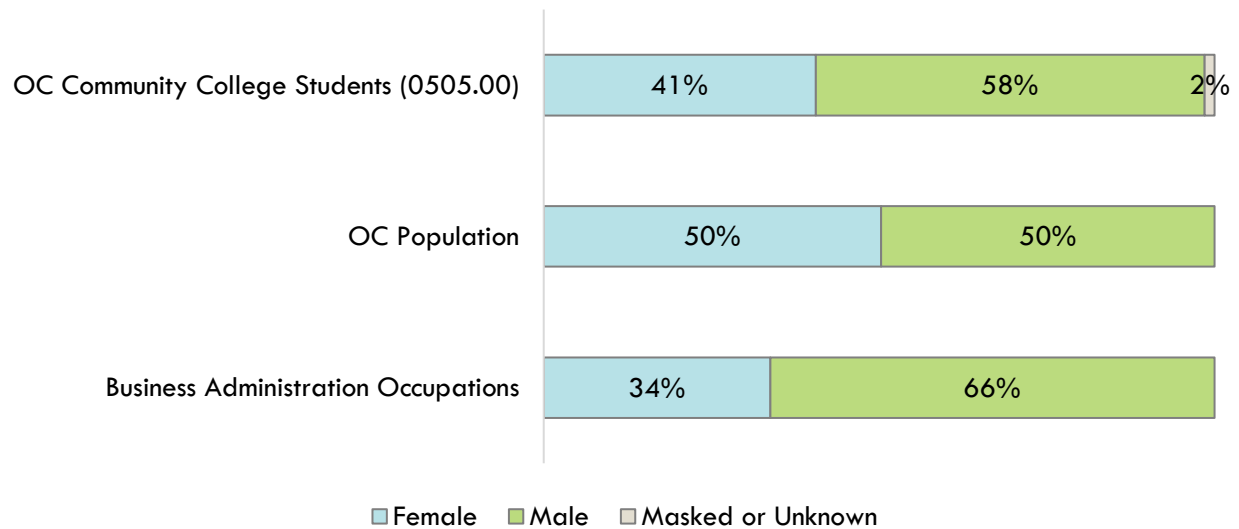
## Sex:

Exhibit 17 compares the sex of Orange County community college students enrolled in business administration programs, the overall Orange County population, and occupation-specific data for these business administration occupations.

Though the population is split evenly between women and men, only 41% of community college business administration students and 34% of workers in the field are women.

Examining disaggregated data for each occupation (not shown), men account for the majority of workers across all of these business administration occupations except for *human resources assistants, except payroll and timekeeping*, in which women account for 85% of the workforce. This occupation has the lowest entry-level wages and education requirements of all four business administration occupations.

Exhibit 17: Program and County Demographics by Sex



## Appendix A: Methodology

The OC COE prepared this report by analyzing data from occupations and education programs. Occupational data is derived from Lightcast, a labor market analytics firm that consolidates data from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS) and other government agencies. Program supply data is drawn from two systems: Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP).

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 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.

The OC COE determined labor market supply for an occupation or SOC code by analyzing the number of program completers or awards in a related TOP or CIP code. The COE developed a “supply table” with this information, which is the source of the program supply data for this report. TOP code data comes from the California Community Colleges Chancellor's Office MIS Data Mart ([datamart.cccco.edu](http://datamart.cccco.edu)) and CIP code data comes from the Integrated Postsecondary Education Data System ([nces.ed.gov/ipeds/use-the-data](http://nces.ed.gov/ipeds/use-the-data)), also known as IPEDS. 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 in the United States and Canada. Institutions outside of the California Community College system do not use TOP codes in their reporting systems.

Data included in this analysis represent the labor market demand for relevant positions most closely related to the proposed program as expressed by the requesting college in consultation with the OC COE. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study which can signal demand and show what employers are looking for in potential employees but is not a perfect measure of the quantity of open positions.

All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

## Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	<p>Traditional labor market information data is sourced from Lightcast, a labor market analytics firm. Lightcast occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment Statistics and the American Community Survey. For more information, see <a href="https://lightcast.io/">https://lightcast.io/</a></p>
Living Wage	<p>“Living Wage” measures the income necessary for an individual or family to afford basic expenses by assessing the costs such as housing, food, child care, health care, transportation, and taxes.</p> <p>Per the CCCCCO’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 (\$56,451 annually) in Orange County. For more information, see: <a href="http://www.selfsufficiencystandard.org/California">http://www.selfsufficiencystandard.org/California</a></p> <p>The MIT Living Wage, updated on February 14, 2024, is a nationally recognized living wage metric and is provided for reference. The current MIT Living Wage in Orange County is \$30.48. For more information, see: <a href="https://livingwage.mit.edu/counties/06059">https://livingwage.mit.edu/counties/06059</a></p>
Typical Education and Training Requirements, and Educational Attainment	<p>The Bureau of Labor Statistics (BLS) provides information about education and training requirements for hundreds of occupations. 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. For more information, see <a href="https://www.bls.gov/emp/documentation/education/tech.htm">https://www.bls.gov/emp/documentation/education/tech.htm</a></p>
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	<p>The O*NET database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations. For more information, see <a href="https://www.onetonline.org/help/online/">https://www.onetonline.org/help/online/</a></p>
Educational Supply	<p>The CCCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: <a href="https://datamart.cccco.edu">https://datamart.cccco.edu</a></p> <p>The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions). For more information, see <a href="https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions">https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions</a></p>
Student Metrics and Demographics	<p>LaunchBoard, a statewide data system supported by the California Community Colleges Chancellor's Office and hosted by Cal-PASS Plus, provides data on progress, success, employment, and earnings outcomes for California community college students. For more information, see: <a href="https://www.calpassplus.org/LaunchBoard/Home.aspx">https://www.calpassplus.org/LaunchBoard/Home.aspx</a></p>

Data Type	Source
Population and Occupation Demographics	<p>The Census Bureau's American Community Survey (ACS) is the premier source for detailed population and housing information. For more information, see: <a href="https://www.census.gov/programs-surveys/acs">https://www.census.gov/programs-surveys/acs</a></p> <p>Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products. For more information, see: <a href="https://usa.ipums.org/usa/about.shtml">https://usa.ipums.org/usa/about.shtml</a></p>

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

Jesse Crete, Ed. D., Director  
 crete\_jesse@rscdd.edu

Diego Mosquera, Interim Research Coordinator  
 mosquera\_diego@rscdd.edu

January 2025

