

**Program Endorsement Brief: 0510.00/Logistics and Materials Transportation
Supply Chain and Logistics Management Certificate
Supply Chain and Logistics Management AS Degree**
Orange County Center of Excellence, June 2022

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 type="checkbox"/>	No <input checked="" type="checkbox"/> (see <i>comments below</i>)	
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 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 two middle-skill occupations: *transportation, storage, and distribution managers* (11-3071), and *logisticians* (13-1081). Middle-skill occupations typically require some postsecondary education, but less than a bachelor’s degree.¹ Although *logisticians* typically requires a bachelor’s degree, it is considered middle-skill because approximately one-third of workers in the field have completed some college or an associate degree as their highest level of education. 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 does not appear to be a supply gap for these logistics and materials transportation occupations in the region. However, general business administration and business management programs train for numerous occupations that are not included in this report; therefore, supply is overstated for these two middle-skill occupations and the COE is unable to quantify the supply solely for these logistics and materials transportation occupations. While the majority of annual openings for the occupations in this report typically require a bachelor’s degree, more than one-third of workers in the field have completed some college or an associate degree as their highest level of education. Furthermore, entry-level wages exceed 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 **1,528 jobs available annually** in the region due to new job growth and replacements, **which is less than the 21,701 awards conferred annually** by educational institutions in the region.
 - However, business management and business administration programs in community college and four-year institutions train for nearly 20 middle-skill and above middle-skill business and management-related occupations that are not included in this report. There is projected to be nearly 32,000 annual job openings for these occupations. Therefore, **supply for the two middle-skill logistics and materials transportation occupations included in this report is overstated.**
 - Of the 21,701 awards, only **208 (1%) were for programs specifically related to logistics and materials transportation.** However, general business administration and business management programs may provide students with adequate training to obtain employment within the occupations included in this report.
- **Living Wage Criteria** –Within Orange County, **all annual job openings** for these logistics and materials transportation occupations **have entry-level wages above the county's living wage** (\$20.63/hour).²
- **Educational Criteria** –Within the LA/OC region, **64% of the annual job openings** for occupations related to logistics and materials transportation **typically require a bachelor's degree.**
 - However, the national-level educational attainment data indicates **between 35.5% and 37.2% of workers in the field have completed some college or an associate degree** as their highest level of education.

Supply:

- Though general business administration and business management programs prepare students for employment within these logistics and materials transportation occupations, they also train for nearly 20 middle-skill and above middle-skill occupations that are not included in this report. Therefore, **supply for the two middle-skill logistics and materials transportation occupations included in this report is overstated.**
 - All **28 community colleges, plus one noncredit institution** in the LA/OC region issue awards related to these logistics and materials transportation occupations, conferring an average of **9,453 awards annually** between 2017 and 2020.
 - Between 2016 and 2019, there was an average of **12,305 awards conferred annually** in related training programs by non-community college institutions, all of which were generated by **50 individual educational institutions throughout** the region.

² Living wage data was pulled from California Family Needs Calculator on 6/10/2022. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/family-needs-calculator/>.

- Of the 21,701 awards conferred by educational institutions throughout the region, **only 208 (1%) were for programs specifically related to logistics and materials transportation.**

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for these logistics and materials moving occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase by 7% through 2025. There will be nearly 1,530 openings per year through 2025 due to job growth and replacements.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties³

Geography	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change	Annual Openings
Los Angeles	11,833	12,706	872	7%	1,163
Orange	3,848	4,056	208	5%	365
Total	15,681	16,762	1,081	7%	1,528

Wages

The labor market endorsement in this report considers the entry-level hourly wages for these logistics and materials moving 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—All annual openings for these logistics and materials moving occupations have entry-level wages above the living wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages are in a range between \$32.40 and \$34.42. Experienced workers can expect to earn wages between \$52.18 and \$66.42. Orange County’s average wages are below the average statewide wage of \$47.34 for these occupations.

Los Angeles County— All annual openings for these logistics and materials moving occupations have entry-level wages above the living wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$32.17 and \$33.25. Experienced workers can expect to earn wages between \$51.80 and \$64.18. Los Angeles County’s average wages are below the average statewide wage of \$47.34 for these occupations.

Job Postings

There were 8,269 online job postings related to these logistics and materials transportation occupations listed in the past 12 months. The highest number of job postings were for warehouse supervisor, warehouse manager, production planner, supply chain analyst, logistics manager, and demand planner. The top skills were scheduling, logistics, supply chain knowledge, supply chain management, inventory management, and enterprise resource planning (ERP). 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 Northrop Grumman, The Being Company, and Deloitte.

Educational Attainment

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for *transportation, storage, and distribution managers* and a bachelor’s degree for *logisticians*. In the LA/OC region, the majority of annual job openings (64%) typically require a bachelor’s degree. However, the national-level educational attainment data indicates between 35.5% and 37.2% of workers in the field have completed some college or an associate degree as their highest level of education. Of the 72% of job postings listing a minimum education requirement in Los Angeles/Orange County, 57% (3,430) requested a bachelor’s degree, 35% requested a high school diploma or vocational training, and 6% (368) 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: Business and Commerce, General (0501.00), Business Administration (0505.00), Business Management (0506.00), Management, Development, and Supervision (0506.30), and Logistics and Materials Transportation (0510.00). The colleges with the most completions in the region are Coastline, Pasadena, and Cerritos. Over the past 12 months, there were 2 other related program recommendation requests from regional community colleges.

It is important to note that the general business administration and business management programs listed in Exhibit 2 may provide students with adequate training to obtain employment within the occupations included in this report. However, these programs also train for nearly 20 other middle-skill and above middle-skill occupations not included in this report. Furthermore, of the 9,453 awards conferred, only 208 (2%) were for programs specifically related to logistics and materials transportation. For these reasons, supply for the logistics and materials transportation occupations in this report is overstated.

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
0501.00	Business and Commerce, General	Cerritos	39	41	5	28
		Compton	1	-	-	0
		Glendale	48	40	46	45
		LA City	113	157	116	129
		LA Harbor	8	13	10	10
		LA Mission	29	9	-	13
		LA Pierce	-	5	17	7
		LA Southwest	20	30	29	26
		Long Beach	93	130	237	153

TOP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average		
		Mt San Antonio	161	209	117	162		
		Santa Monica	-	1	5	2		
		West LA	8	5	44	19		
		LA Subtotal	520	640	626	595		
		Coastline	5	5	6	5		
		Saddleback	8	14	19	14		
		OC Subtotal	13	19	25	19		
		Supply Subtotal/Average	533	659	651	614		
0505.00	Business Administration	Cerritos	181	206	250	212		
		Citrus	434	349	398	394		
		Compton	44	49	28	40		
		East LA	159	227	247	211		
		El Camino	310	295	306	304		
		Glendale	246	216	241	234		
		LA City	85	84	91	87		
		LA Harbor	90	83	83	85		
		LA Mission	60	51	88	66		
		LA Pierce	181	211	208	200		
		LA Swest	22	35	56	38		
		LA Trade	-	-	7	2		
		LA Valley	99	131	147	126		
		Long Beach	273	375	293	314		
		Mt San Antonio	135	248	269	217		
		Pasadena	847	909	1,191	982		
		Rio Hondo	216	241	276	244		
		Santa Monica	335	297	334	322		
		West LA	135	120	156	137		
				LA Subtotal	3,852	4,127	4,669	4,216
				Coastline	681	763	592	679
				Cypress	213	228	244	228
				Fullerton	358	374	373	368
				Golden West	126	187	166	160
				Irvine	233	306	349	296
				Orange Coast	393	381	443	406
				Saddleback	278	297	382	319

TOP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average
		Santa Ana	216	217	220	218
		Santiago Canyon	152	159	157	156
		OC Subtotal	2,650	2,912	2,926	2,829
Supply Subtotal/Average			6,502	7,039	7,595	7,045
0506.00	Business Management	Cerritos	405	456	516	459
		Citrus	1	2	-	1
		Compton	2	3	-	2
		East LA	26	29	18	24
		El Camino	23	23	33	26
		Glendale	10	9	13	11
		LA City	15	18	39	24
		LA Mission	4	3	1	3
		LA Pierce	-	3	2	2
		LA Valley	30	33	36	33
		Long Beach	22	21	29	24
		Mt San Antonio	161	202	145	169
		Santa Monica	18	23	-	14
		LA Subtotal	717	825	832	791
		Coastline	71	84	72	76
		Cypress	6	6	3	5
		Fullerton	11	11	12	11
		Golden West	8	20	8	12
		Irvine	9	3	14	9
		North Orange Adult	24	27	36	29
		Orange Coast	51	40	16	36
		Santa Ana	81	64	71	72
		Santiago Canyon	42	17	24	28
OC Subtotal	303	272	256	277		
Supply Subtotal/Average			1,020	1,097	1,088	1,068
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

TOP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average
		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
0510.00	Logistics and Materials Transportation	East LA	85	85	46	72
		LA Harbor	0	0	3	1
		Rio Hondo	24	10	1	12
		Santa Monica	12	10	6	9
		LA Subtotal	121	105	56	94
		Coastline	105	121	116	114
		OC Subtotal	105	121	116	114
Supply Subtotal/Average			2	1	2	2
Supply Total/Average			8,784	9,501	9,907	9,396

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 Business. 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: Business/Commerce, General (52.0101), Business Administration and Management, General (52.0201), and Operations Management and Supervision (52.0205). 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 12,307 awards annually in related training programs.

It is important to note that the general business administration and business management programs listed in Exhibit 3 may provide students with adequate training to obtain employment within the occupations included in this report. However, these programs also train for nearly 20 other middle-skill and above middle-skill occupations not included in this report. Therefore, supply for the logistics and materials transportation occupations in this report is overstated.

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
52.0101	Business/Commerce, General	Azusa Pacific University	24	10	13	16
		DeVry University-California	19	15	17	17
		Loyola Marymount University	5	3	-	3
Supply Subtotal/Average			48	28	30	35
52.0201	Business Administration and Management, General	Abraham Lincoln University	-	1	4	2
		Advanced College	1	-	-	0
		Angeles College	-	-	-	-
		Azusa Pacific University	111	113	123	116
		Bethesda University	8	22	24	18
		Biola University	116	87	113	105
		Brandman University	143	152	121	139
		California Intercontinental University	5	5	3	4
		California State Polytechnic University-Pomona	1,312	1,469	1,192	1,324
		California State University-Dominguez Hills	505	571	561	546
		California State University-Fullerton	2,155	2,306	2,462	2,308
		California State University-Long Beach	1,275	1,437	1,447	1,386
		California State University-Los Angeles	812	1,039	1,078	976
		California State University-Northridge	604	695	717	672
		California University of Management and Sciences	-	-	1	0
Chapman University	381	366	376	374		
Claremont Graduate University	44	46	39	43		

CIP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
		Concordia University-Irvine	97	95	98	97
		DeVry University-California	192	144	105	147
		Eagle Rock College	-	-	-	-
		Hope International University	20	31	52	34
		InterCoast Colleges-Santa Ana	-	-	-	-
		Learnet Academy Inc	4	17	-	7
		Life Pacific University	5	15	11	10
		Los Angeles ORT College-Los Angeles Campus	32	24	32	29
		Los Angeles Pacific College	-	-	3	1
		Los Angeles Pacific University	-	-	1	0
		Loyola Marymount University	-	-	32	11
		Marymount California University	57	67	65	63
		Mount Saint Mary's University	48	41	40	43
		Mt Sierra College	10	10	-	7
		Pacific States University	-	2	2	1
		Pepperdine University	200	191	255	215
		Platt College-Anaheim	-	2	8	3
		Platt College-Los Angeles	9	8	6	8
		Southern California Institute of Technology	-	-	-	-
		The Master's University and Seminary	45	71	64	60
		Trident University International	407	339	293	346
		University of Antelope Valley	25	33	33	30

CIP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
		University of California-Irvine	159	205	260	208
		University of La Verne	303	349	314	322
		University of Phoenix-California	1,214	1,309	1,161	1,228
		University of Southern California	1,023	993	1,022	1,013
		University of the People	41	67	75	61
		University of the West	6	15	6	9
		Vanguard University of Southern California	83	78	71	77
		Westcliff University	148	83	97	109
		Whittier College	81	57	73	70
		Woodbury University	44	40	23	36
Supply Subtotal/Average			11,725	12,595	12,463	12,261
52.0205	Operations Management and Supervision	University of Phoenix-California	8	11	13	11
Supply Subtotal/Average			8	11	13	11
Supply Total/Average			11,781	12,634	12,506	12,307

Appendix A: Occupational demand and wage data by county

Exhibit 4. Orange County

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
Transportation, Storage, and Distribution Managers (11-3071)	1,579	1,579	0	0%	120	\$34.42	\$47.76	\$66.42
Logisticians (13-1081)	2,269	2,477	208	9%	245	\$32.40	\$40.97	\$52.18
Total	3,848	4,056	208	5%	365			

Exhibit 5. Los Angeles County

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
Transportation, Storage, and Distribution Managers (11-3071)	5,530	5,630	100	2%	435	\$33.25	\$46.15	\$64.18
Logisticians (13-1081)	6,303	7,075	772	12%	728	\$32.17	\$40.67	\$51.80
Total	11,833	12,706	872	7%	1,163			

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings
Transportation, Storage, and Distribution Managers (11-3071)	7,109	7,209	100	1%	556
Logisticians (13-1081)	8,572	9,553	980	11%	972
Total	15,681	16,762	1,081	7%	1,528

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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