

**Program Endorsement Brief: 0510.00/Logistics and Materials Transportation
Supply Chain Management Certificate of Achievement**
Los Angeles/Orange County Center of Excellence, March 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 checked="" type="checkbox"/>		No <input 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 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 job openings for *logisticians* typically require a bachelor’s degree, this occupation is 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 middle-skill supply chain management occupations in the region and more than one-third of workers in the field have completed some college or an associate degree. Furthermore, all of the annual openings for the occupations in this report have entry-level wages that exceed the living wage in both Los Angeles and Orange counties. **Therefore, due to all 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 **1,684 jobs available annually** in the region due to new job growth and replacements, **which is more than the 344 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** – Within Los Angeles County, **all of the annual job openings** for these middle-skill supply chain management occupations **have entry-level wages above the county’s living wage** (\$15.04/hour).²
- **Educational Criteria** – Within the LA/OC region, **62% of the annual job openings** for occupations related to supply chain management **typically require a bachelor’s degree**.
 - However, the national-level educational attainment data indicates **between 36.3% and 38.6% of workers in the field have completed some college or an associate degree**.

Supply:

- There are **4 community colleges** in the LA/OC region that issue awards related to logistics and materials transportation, conferring an average of **204 awards annually** between 2016 and 2019.
- Between 2014 and 2017, there was an average of **140 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 supply chain management occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase by 2% through 2024. There will be nearly 1,700 job openings per year through 2024 due to job growth and replacements.

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	13,583	13,893	310	2%	1,269
Orange	4,445	4,527	82	2%	415
Total	18,028	18,420	392	2%	1,684

² Living wage data was pulled from California Family Needs Calculator on 2/22/2021. 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 these middle-skill supply chain management occupations 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 of the annual openings for middle-skill supply chain management 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 \$30.48 and \$33.50. Experienced workers can expect to earn wages between \$50.33 and \$60.76, which are higher than the living wage estimate. Los Angeles County's average wages are slightly below the average statewide wage of \$44.84 for these occupations.

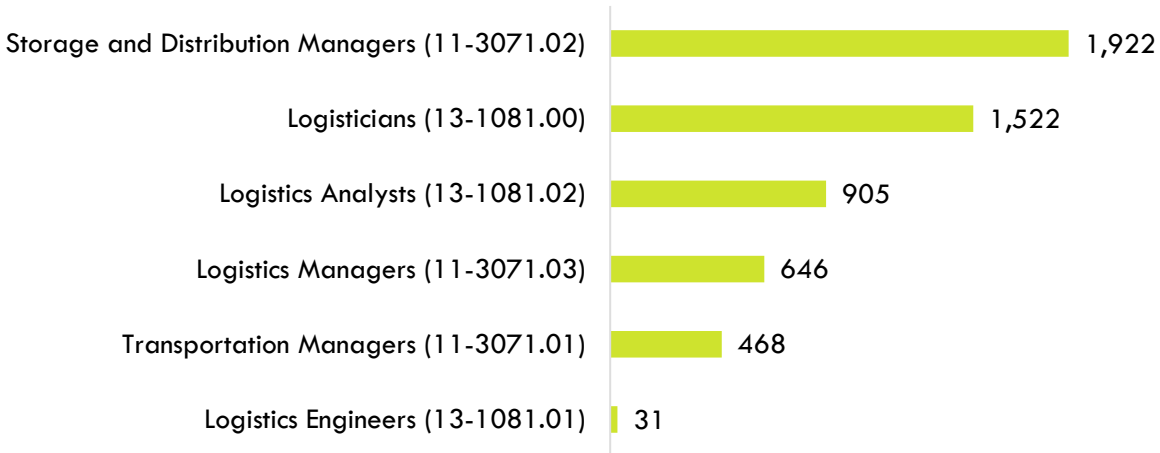
Orange County— All of the annual openings for middle-skill supply chain management occupations have entry-level wages above the living wage for one adult (\$17.36 in Orange County). Typical entry-level hourly wages are in a range between \$30.33 and \$34.62. Experienced workers can expect to earn wages between \$50.09 and \$62.65, which are higher than the living wage estimate. Orange County's average wages are slightly below the average statewide wage of \$44.84 for these occupations.

Job Postings

There were 5,494 online job postings related to middle-skill supply chain management occupations listed in the past 12 months. Results from this job posting search include the 8-digit O*NET emerging occupations associated with *transportation, storage, and distribution managers* (11-3071) and *logisticians* (13-1081), and are displayed in Exhibit 2. The majority of job postings (35%) were for *storage and distribution managers*, followed by *logisticians* (28%), *logistics analysts* (16%), *logistics managers* (12%), *transportation managers* (9%) and *logistics engineers* (1%). The job titles used most often in these job postings were warehouse supervisors, warehouse managers, production planners, supply chain analysts, and logistics managers. The top skills were scheduling, logistics, supply chain knowledge, inventory management, and supply chain management. The top three employers, by number of job postings, in the region were Northrop Grumman, Walmart/Sam's, and Amazon.

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 emerging O*NET occupation (last 12 months)



Educational Attainment

The Bureau of Labor Statistics (BLS) lists a high school diploma 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 (62%) typically require a bachelor's degree. However, the national-level educational attainment data indicates between 36.3% and 38.6% of workers in the field have completed some college or an associate degree. Of the 68% of middle-skill supply chain management job postings listing a minimum education requirement in Los Angeles/Orange County, 65% (2,418) requested a bachelor's degree, 29% (1,083) requested a high school diploma and 6% (227) 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 code: Logistics and Materials Transportation (0510.00). The colleges with the most completions in the region are Coastline and East LA. Over the past 12 months, there was one other related program recommendation request from a regional community college.

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
0510.00	Logistics and Materials Transportation	East LA	46	85	85	72
		Rio Hondo	4	24	10	13
		Santa Monica	7	12	10	10
		LA Subtotal	57	121	105	94
		Coastline	104	105	121	110
		OC Subtotal	104	105	121	110
Supply Total/Average			161	226	226	204

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 supply chain management 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: Logistics, Materials, and Supply Chain Management (52.0203), and Traffic, Customs, and Transportation Clerk/Technician (52.0410). 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 140 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
52.0203	Logistics, Materials, and Supply Chain Management	CSU-Dominguez Hills	-	-	8	3
		University of Southern California	68	68	-	45
52.0410	Traffic, Customs, and Transportation Clerk/Technician	Diversified Vocational College	58	103	116	92
Supply Total/Average			126	171	124	140

Appendix A: Occupational demand and wage data by county

Exhibit 5. 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)
Transportation, Storage, and Distribution Managers (11-3071)	6,084	6,201	117	2%	506	\$33.50	\$43.99	\$60.76
Logisticians (13-1081)	7,499	7,692	193	3%	762	\$30.48	\$38.79	\$50.33
Total	13,583	13,893	310	2%	1,269			

Exhibit 6. 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)
Transportation, Storage, and Distribution Managers (11-3071)	1,742	1,757	15	1%	141	\$34.62	\$45.40	\$62.65
Logisticians (13-1081)	2,703	2,770	67	2%	274	\$30.33	\$38.63	\$50.09
Total	1,742	1,757	15	1%	141			

Exhibit 7. Los Angeles and Orange Counties

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Typical Entry-Level Education
Transportation, Storage, and Distribution Managers (11-3071)	7,826	7,958	132	2%	647	High school diploma or equivalent
Logisticians (13-1081)	10,201	10,462	260	3%	1,036	Bachelor's degree
Total	18,028	18,420	392	2%	1,684	

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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