

Labor Market Analysis: 0510.00/Logistics and Materials Transportation

Logistics and Supply Chain Management - Certificate requiring 8 to < 16 semester units

Los Angeles Center of Excellence, January 2024

Summary

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 Center of Excellence for Labor Market Research (LA COE) prepared this report to provide regional labor market supply and demand data related to five middle-skill occupations:

- **Transportation, Storage, and Distribution Managers (11-3071)** Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with organizational policies and applicable government laws or regulations. Includes logistics managers;¹
- **Logisticians (13-1081)** Analyze and coordinate the ongoing logistical functions of a firm or organization. Responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources;²
- **Cargo and Freight Agents (43-5011)** Expedite and route movement of incoming and outgoing cargo and freight shipments in airline, train, and trucking terminals and shipping docks. Take orders from customers and arrange pickup of freight and cargo for delivery to loading platform. Prepare and examine bills of lading to determine shipping charges and tariffs;³
- **Production, Planning, and Expediting Clerks (43-5061)** Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems;⁴
- **First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047)** This occupation includes the 2018 SOC occupations:

¹ [Transportation, Storage, and Distribution Managers \(bls.gov\)](#)

² [Logisticians \(bls.gov\)](#)

³ [Cargo and Freight Agents \(bls.gov\)](#)

⁴ [Production, Planning, and Expediting Clerks \(bls.gov\)](#)

- **First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand (53-1042)**
Directly supervise and coordinate the activities of helpers, laborers, or material movers, hand;⁵
- **First-Line Supervisors of Material-Moving Machine and Vehicle Operators (53-1043)**
Directly supervise and coordinate activities of material-moving machine and vehicle operators and helpers;⁶
- **First-Line Supervisors of Passenger Attendants (53-1044)** Supervise and coordinate activities of passenger attendants;⁷
- **First-Line Supervisors of Transportation Workers, All Other (53-1049)** All first-line supervisors of transportation workers not listed separately;⁸

and two emerging occupations:

- **Supply Chain Managers (11-3071.04)** Direct or coordinate production, purchasing, warehousing, distribution, or financial forecasting services or activities to limit costs and improve accuracy, customer service, or safety. Examine existing procedures or opportunities for streamlining activities to meet product distribution needs. Direct the movement, storage, or processing of inventory;⁹
- **Logistics Analysts (13-1081.02)** Analyze product delivery or supply chain processes to identify or recommend changes. May manage route activity including invoicing, electronic bills, and shipment tracing.¹⁰

Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree.¹¹ 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. 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 logistics and supply chain management occupations in the region. Furthermore, the majority of annual openings have entry-level wages that exceed the self-sufficiency standard wage in both Los Angeles and Orange counties, and more than one-third of current workers in the field have

⁵ [First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand \(ononline.org\)](https://ononline.org)

⁶ [First-Line Supervisors of Material-Moving Machine and Vehicle Operators \(ononline.org\)](https://ononline.org)

⁷ [First-Line Supervisors of Passenger Attendants \(ononline.org\)](https://ononline.org)

⁸ [First-Line Supervisors of Transportation Workers, All Other \(ononline.org\)](https://ononline.org)

⁹ [Supply Chain Managers \(ononline.org\)](https://ononline.org)

¹⁰ [Logistics Analysts \(ononline.org\)](https://ononline.org)

¹¹ 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.

completed some college or an associate degree. **Therefore, due to all the criteria being met, the LA COE endorses this proposed program.** Detailed reasons include:

Demand:

- **Supply Gap Criteria** – Over the next five years, **8,542 jobs are projected to be available annually** in the region due to new job growth and replacements, **which is more than the three-year average of 193 awards conferred** by educational institutions in the region.
- **Living Wage Criteria** – Within Los Angeles County, the **majority (87%) of annual job openings** for these middle-skill logistics and supply chain management occupations have **entry-level wages above the self-sufficiency standard hourly wage** (\$18.10/hour).¹²
- **Educational Criteria** – Within the greater LA/OC region, **89% of the annual job openings** for occupations related to logistics and supply chain management **typically require a high school diploma or equivalent.**
 - However, the national-level educational attainment data indicates **between 36% and 43% of workers in the field have completed some college or an associate degree.**

Supply:

- There are **6 community colleges** in the greater LA/OC region that issue awards related to logistics and materials transportation, conferring an average of **190 awards annually** between 2019 and 2022.
- Between 2019 and 2021, there was an average of **3 awards conferred annually** in related training programs by non-community college institutions throughout the greater LA/OC region.

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for middle-skill logistics and supply chain management occupations. In the greater Los Angeles/Orange County region, the number of jobs related to these occupations is projected to increase by 5% through 2027. There will be more than 8,500 job openings per year through 2027 due to job growth and replacements.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties¹³

Geography	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	Annual Openings
Los Angeles	61,903	65,118	3,214	5%	6,662
Orange	18,021	18,791	770	4%	1,880
Total	79,924	83,909	3,985	5%	8,542

¹² Self-Sufficiency Standard wage data was pulled from The Self-Sufficiency Standard Tool for California. For more information, visit: <http://selfsufficiencystandard.org/california>.

¹³ 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 logistics and supply chain management occupations in Los Angeles County as they relate to the county's self-sufficiency standard wage. Orange County wages are included below in order to provide a complete analysis of the greater LA/OC region. Detailed wage information, by county, is included in Appendix A.

Los Angeles County

The majority (87%) of annual openings for these middle-skill logistics and supply chain management occupations have entry-level wages above the self-sufficiency standard wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$17.90 and \$34.74. Only one occupation in this report has entry-level wages below the county's self-sufficiency standard wage: *cargo and freight agents* (\$17.90). Experienced workers can expect to earn wages between \$29.78 and \$64.87, which are higher than the self-sufficiency standard.

Exhibit 2: Earnings for Occupations in LA County

Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)	Median Annual Earnings*
Transportation, Storage, and Distribution Managers (11-3071)	\$34.74	\$48.09	\$64.87	\$100,000
Logisticians (13-1081)	\$30.39	\$38.37	\$49.64	\$79,800
Cargo and Freight Agents (43-5011)	\$17.90	\$23.62	\$29.78	\$49,100
Production, Planning, and Expediting Clerks (43-5061)	\$20.81	\$24.81	\$31.72	\$51,600
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047)	\$22.32	\$27.45	\$35.54	\$57,100

*Rounded to the nearest \$100

Orange County

The majority (95%) of annual openings for middle-skill logistics and supply chain management occupations have entry-level wages above the self-sufficiency standard wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages are in a range between \$16.93 and \$35.44. Only one occupation in this report has entry-level wages below the county's self-sufficiency standard wage: *cargo and freight agents* (\$16.93). Experienced workers can expect to earn wages between \$28.17 and \$66.12, which are higher than the self-sufficiency standard.

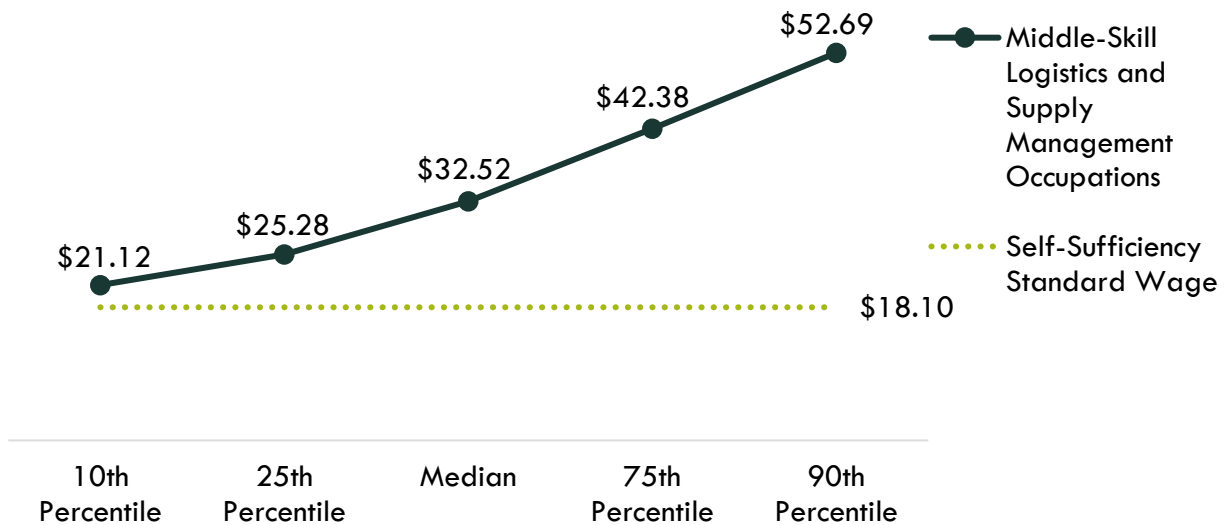
Exhibit 3: Earnings for Occupations in Orange County

Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)	Median Annual Earnings*
Transportation, Storage, and Distribution Managers (11-3071)	\$35.44	\$49.01	\$66.12	\$101,900
Logisticians (13-1081)	\$30.23	\$38.20	\$49.40	\$79,500
Cargo and Freight Agents (43-5011)	\$16.93	\$22.34	\$28.17	\$46,500
Production, Planning, and Expediting Clerks (43-5061)	\$20.99	\$24.99	\$31.94	\$52,000
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047)	\$22.94	\$28.21	\$36.52	\$58,700

*Rounded to the nearest \$100

On average, the entry-level earnings for the occupations in this report are \$25.28; this is above the living wage for one single adult in Los Angeles County (\$18.10). Exhibit 4 shows the average wage for the occupations in this report, from entry-level to experienced workers.

Exhibit 4: Average Hourly Earnings for Middle-Skill Logistics and Supply Chain Management Occupations in LA/OC

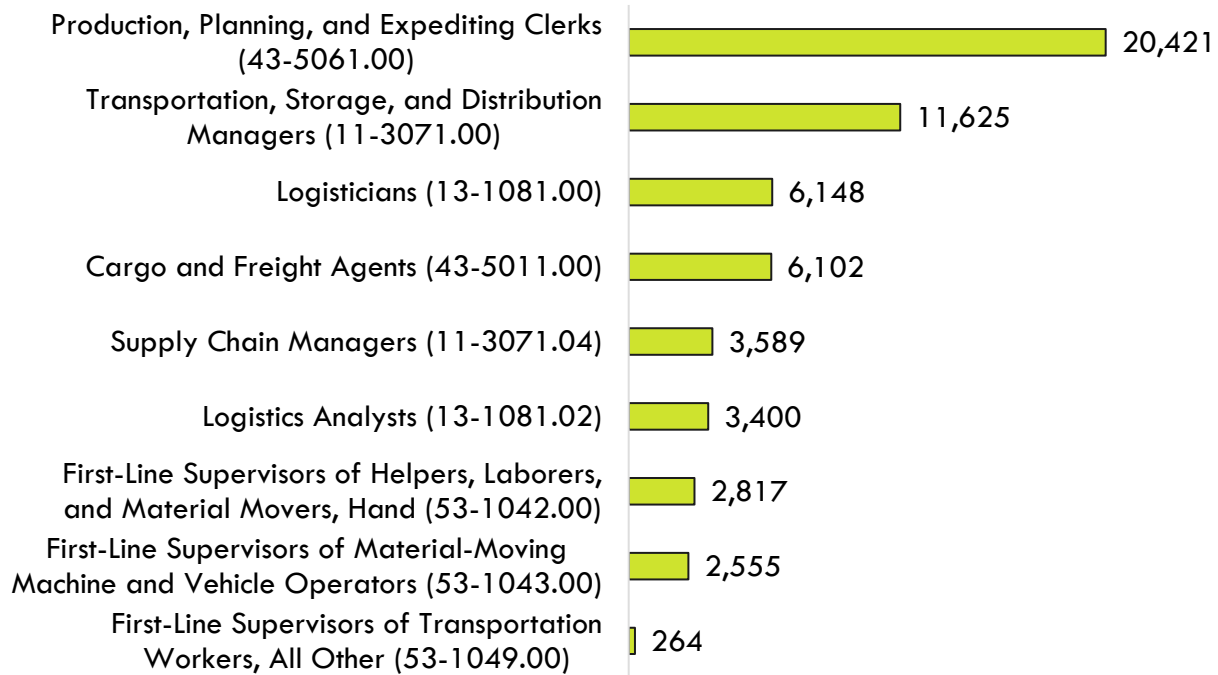


Job Postings

There were 13,991 online job postings related to middle-skill logistics and supply chain management listed in the past 12 months. Exhibit 5 displays the number of job postings by occupation. The majority of job postings (38%) were for *production, planning, and expediting clerks*, followed by *transportation, storage, and distribution managers* (21%) and *logisticians*

(11%). The highest number of job postings were for warehouse supervisors, logistics coordinators, warehouse managers, schedulers, and production coordinators. The top skills were supply chain knowledge, warehousing, purchasing, logistics, and inventory management. The top three employers, by number of job postings, in the region were Northrop Grumman, Geopaq Logic (staffing company), and Aston Carter (staffing company).

Exhibit 5: Job postings by occupation (last 12 months)



Educational Attainment

The Bureau of Labor Statistics (BLS) lists the following typical entry-level education levels for the occupations in this report:

- **Bachelor's degree:** *Logisticians*
- **High school diploma or equivalent:** *Transportation, storage, and distribution managers; Cargo and freight agents; Production, planning, and expediting clerks; First-line supervisors of transportation and material moving workers, except aircraft cargo handling supervisors*

In the greater LA/OC region, the majority of annual job openings (89%) typically require a high school diploma or equivalent. However, the national-level educational attainment data indicates between 36% and 43% of workers in the field have completed some college or an associate degree. Of the 67% of middle-skill logistics and supply chain management job postings listing a minimum education requirement in the greater Los Angeles/Orange County region, 43% (3,816) requested high school or vocational training, 5% (461) requested an associate degree, and 52% (4,595) requested a bachelor's degree.

Educational Supply

Community College Supply

Exhibit 6 shows the annual and 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.

Exhibit 6: Regional community college awards (certificates and degrees), 2019-2022

TOP	Program	College	2019-20 Awards	2020-21 Awards	2021-22 Awards	3-Year Average
0510.00	Logistics and Materials Transportation	East LA	46	60	57	54
		LA Harbor	3	-	-	1
		Mt San Antonio	-	12	16	9
		Rio Hondo	1	5	7	4
		Santa Monica	6	6	11	8
		LA Subtotal	56	83	91	77
		Coastline	116	150	75	114
		OC Subtotal	116	150	75	114
Supply Total/Average			172	233	166	190

Non-Community College Supply

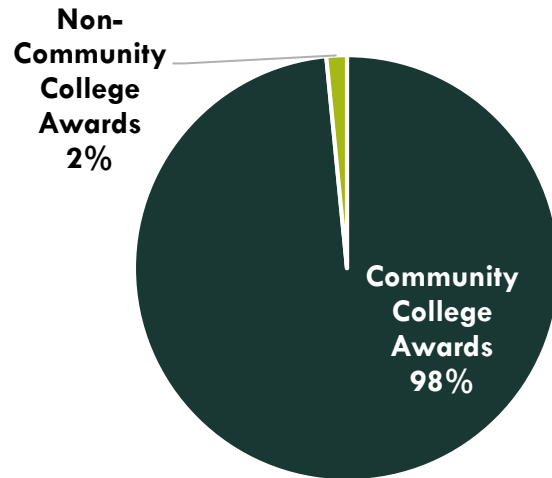
For a comprehensive regional supply analysis, it is important to consider the supply from other institutions in the region that provide training programs for middle-skill logistics and supply chain management occupations. Exhibit 7 shows the annual and three-year average number of awards conferred by these institutions in relevant programs. Due to different data collection periods, the most recent three-year period of available data is from 2019 to 2021. Between 2019 and 2021, non-community college institutions in the region conferred an average of 3 bachelor's awards. Bachelor's awards are included, since *logisticians* typically requires a bachelor's degree.

Exhibit 7: Regional non-community college awards, 2019-2021

CIP	Program	Institution	2019-20 Awards	2020-21 Awards	2-Year Average
52.0203	Logistics, Materials, and Supply Chain Management	CSU-Dominguez Hills	3	1	2
		LA Pacific University	-	2	1
Supply Total/Average			3	3	3

Exhibit 8 shows the proportion of community college awards conferred in LA/OC compared to the number of non-community college awards for the programs in this report. Nearly all the awards conferred in these programs are awarded by community colleges in the LA/OC region.

Exhibit 8: Community College Awards Compared to Non-Community College Awards in LA/OC Region, 3-Year Average



Appendix A: Occupational demand and wage data by county

Exhibit 9. Los Angeles County

Occupation (SOC)	2022 Jobs	2027 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)	8,860	9,158	298	3%	762	\$34.74	\$48.09	\$64.87
Logisticians (13-1081)	6,832	7,472	639	9%	690	\$30.39	\$38.37	\$49.64
Cargo and Freight Agents (43-5011)	6,871	7,631	759	11%	884	\$17.90	\$23.62	\$29.78
Production, Planning, and Expediting Clerks (43-5061)	20,339	20,978	639	3%	2,221	\$20.81	\$24.81	\$31.72
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047)	19,001	19,880	879	5%	2,104	\$22.32	\$27.45	\$35.54
Total	61,903	65,118	3,214	5%	6,662	-	-	-

Exhibit 10. Orange County

Occupation (SOC)	2022 Jobs	2027 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)	2,700	2,787	87	3%	231	\$35.44	\$49.01	\$66.12
Logisticians (13-1081)	2,616	2,869	253	10%	266	\$30.23	\$38.20	\$49.40
Cargo and Freight Agents (43-5011)	722	797	75	10%	92	\$16.93	\$22.34	\$28.17
Production, Planning, and Expediting Clerks (43-5061)	6,523	6,674	151	2%	697	\$20.99	\$24.99	\$31.94
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047)	5,460	5,665	204	4%	593	\$22.94	\$28.21	\$36.52
Total	18,021	18,791	770	4%	1,880	-	-	-

Exhibit 11. Los Angeles and Orange Counties

Occupation (SOC)	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	% Age 55 and older*	Typical Entry-Level Education
Transportation, Storage, and Distribution Managers (11-3071)	11,559	11,945	385	3%	994	27%	HS diploma or equivalent
Logisticians (13-1081)	9,448	10,341	892	9%	957	22%	Bachelor's degree
Cargo and Freight Agents (43-5011)	7,593	8,428	834	11%	976	22%	HS diploma or equivalent
Production, Planning, and Expediting Clerks (43-5061)	26,862	27,651	789	3%	2,918	26%	HS diploma or equivalent
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047)	24,461	25,545	1,083	4%	2,697	26%	HS diploma or equivalent
Total	79,924	83,909	3,985	5%	8,542	-	-

*The average percentage of workers age 55 and older across all occupations in the greater LA/OC region is 27%. *Logisticians* and *cargo and freight agents* have a smaller share of older workers, which typically indicates fewer replacements needs to offset the amount of impending retirements.

Appendix B: Sources

- O*NET Online
- Lightcast (formerly Emsi)
- Bureau of Labor Statistics (BLS)
- California Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- Self-Sufficiency Standard at the Center for Women's Welfare, University of Washington
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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