

**Program Endorsement Brief: 0510.00/Logistics and Materials Transportation  
Supply Chain Management Associate of Science  
Supply Chain Management Certificate of Achievement**  
Orange County Center of Excellence, September 2021

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**Summary Analysis**

| <b>Program Endorsement:</b>                            | <b>Endorsed:<br/>All Criteria Met</b> <input checked="" type="checkbox"/> | <b>Endorsed:<br/>Some Criteria Met</b> <input type="checkbox"/> | <b>Not<br/>Endorsed</b> <input type="checkbox"/> |
|--|---|---|--|
| <b>Program Endorsement Criteria</b>                    |   |   |  |
| <b>Supply Gap:</b>                                     | Yes <input checked="" type="checkbox"/>                                   |   | No <input type="checkbox"/>                      |
| <b>Living Wage:<br/>(Entry-Level, 25<sup>th</sup>)</b> | Yes <input checked="" type="checkbox"/>                                   |   | No <input type="checkbox"/>                      |
| <b>Education:</b>                                      | Yes <input checked="" type="checkbox"/>                                   |   | No <input type="checkbox"/>                      |
| <b>Emerging Occupation(s)</b>                          |   |   |  |
|  | Yes <input type="checkbox"/>  |   | No <input checked="" type="checkbox"/>           |

The Orange County Center of Excellence for Labor Market Research (COE) prepared this report to provide Los Angeles/Orange County regional labor market supply and demand data for six occupations related to logistics and material distribution. Logistics and material distribution occupations vary in typical entry-level education requirements, from no formal education to requiring a bachelor’s degree. To illuminate which occupations are immediately accessible to community college graduates, the logistics and material distribution occupations in this report have been divided into below middle-skill and middle-skill occupation groups. Middle-skill occupations typically accommodate community college graduates, while below middle-skill occupations typically require a high school diploma or less education and no work experience.

The occupations included in the **middle-skill** logistics and material distribution occupation group are: *transportation, storage, and distribution managers* (11-3071), *logisticians* (13-1081), *cargo and freight agents* (43-5011), *production, planning, and expediting clerks* (43-5061), and *first-line supervisors of transportation and material moving workers, except aircraft cargo handling supervisors* (53-1047). The occupation in this report that is considered **below middle-skill** is *laborers and freight, stock, and material movers, hand* (53-7062). While supply and demand data is included for all six logistics and material distribution occupations, *this program endorsement is solely based upon the five middle-skill logistics and material distribution occupations.*

Based on the available data, there appears to be a supply gap for the five middle-skill logistics and material distribution occupations in the region. Furthermore, the majority of annual openings have entry-level wages that exceed the living wage in both Los Angeles and Orange counties, and more than one-third of current workers in the field have completed some college or an associate degree. **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 **6,290 middle-skill logistics and material distribution 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.

- **Living Wage Criteria** – Within Orange County, **the majority (95%) of annual job openings** for the middle-skill logistics and material distribution occupations in this report have **entry-level wages above the county's living wage** (\$17.36/hour).<sup>1</sup>
- **Educational Criteria** – Within the LA/OC region, **86% of the annual job openings** for middle-skill occupations related to logistics and material distribution **typically require a high school diploma**.
  - However, the national-level educational attainment data indicates **between 36.3% and 46.0% of workers in these middle-skill occupations 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 material 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 the group of middle-skill logistics and material distribution occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to decrease by 1% through 2024. However, due to retirements and workers leaving the field, there will be nearly 6,300 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.*

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<sup>1</sup> Living wage data was pulled from California Family Needs Calculator on 4/20/2021. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

**Exhibit 1: Middle-skill occupational demand in Los Angeles and Orange Counties<sup>2</sup>**

| Geography    | 2019 Jobs     | 2024 Jobs     | 2019-2024 Change | 2019-2024 % Change | Annual Openings |
|--------------|---------------|---------------|------------------|--------------------|-----------------|
| Los Angeles  | 54,773        | 54,372        | (401)            | (1%)               | 4,927           |
| Orange       | 15,604        | 15,196        | (408)            | (3%)               | 1,362           |
| <b>Total</b> | <b>70,377</b> | <b>69,567</b> | <b>(810)</b>     | <b>(1%)</b>        | <b>6,290</b>    |

Exhibit 2 shows the five-year occupational demand projections for *laborers and freight, stock, and material movers, hand*, the below middle-skill logistics and material distribution occupation in this report. In Los Angeles/Orange County, the number of jobs related to this occupation is projected to decrease by less than 1% through 2024. However, there will be nearly 20,000 job openings per year through 2024 due to workers leaving the field.

*This report includes employment projection data by Emsi which uses EDD information. Emsi's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy, during the projection period, will be at approximately full employment. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, it may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Therefore, the projections included in this report do not take the impacts of COVID-19 into account.*

**Exhibit 2: Below middle-skill occupational demand in Los Angeles and Orange Counties<sup>3</sup>**

| Geography    | 2019 Jobs      | 2024 Jobs      | 2019-2024 Change | 2019-2024 % Change | Annual Openings |
|--------------|----------------|----------------|------------------|--------------------|-----------------|
| Los Angeles  | 119,033        | 118,456        | (577)            | (0%)               | 14,699          |
| Orange       | 41,096         | 41,397         | 301              | 1%                 | 5,254           |
| <b>Total</b> | <b>160,128</b> | <b>159,852</b> | <b>(276)</b>     | <b>(0%)</b>        | <b>19,953</b>   |

**Wages**

The labor market endorsement in this report considers the entry-level hourly wages for the group of middle-skill logistics and material distribution occupations in Orange County as they relate to the county's living wage. Los Angeles County wages are included below in order to provide a complete analysis of the LA/OC region. Detailed wage information, by county, is included in Appendix A.

**Orange County**— The majority (95%) of annual openings for the group of middle-skill logistics and material distribution occupations in this report 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 \$17.24 and \$34.49. *Cargo and freight agents* have typical entry-level wages below the

<sup>2</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.

<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.

county's living wage (\$17.24), while the other four middle-skill occupations have entry-level wages above the living wage. Experienced workers in these middle-skill occupations can expect to earn wages between \$28.33 and \$62.41, which are higher than the living wage estimate. Orange County's average wages for these middle-skill logistics and material distribution occupations are below the average statewide wage of \$32.16 for these occupations.

*Labor and freight, stock, and material movers, hand*, the below middle-skill logistics and material distribution occupation in this report, has typical entry-level and median wages of \$12.76 and \$14.49, respectively, which are below Orange County's living wage (\$17.36). Experienced workers can expect to earn \$17.56, which exceeds the county's living wage.

**Los Angeles County**— All of the annual openings for the group of middle-skill logistics and material distribution occupations in this report 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 \$17.05 and \$33.47. Experienced workers in these middle-skill logistics and material distribution occupations can expect to earn wages between \$28.02 and \$60.59, which are higher than the living wage estimate. Los Angeles County's average wages are below the average statewide wage of \$32.16 for these occupations.

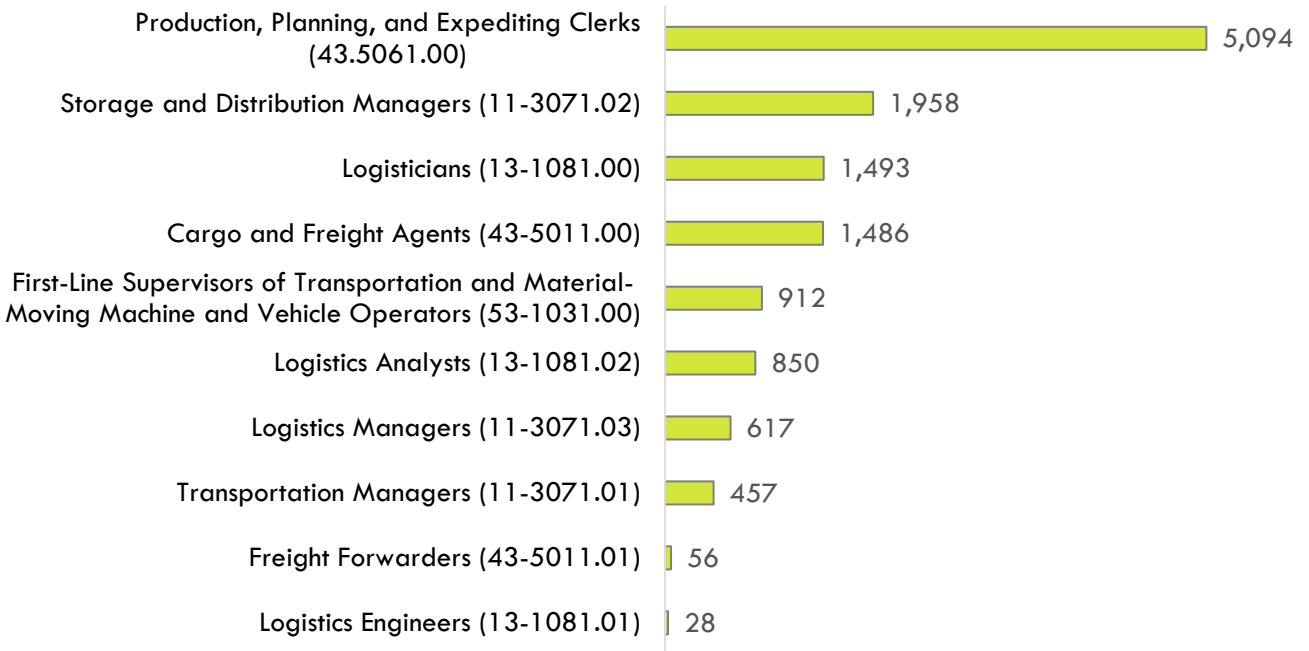
*Labor and freight, stock, and material movers, hand*, the below middle-skill logistics and material distribution occupation in this report, has typical entry-level and median wages of \$12.75 and \$14.47, respectively, which are below Los Angeles County's living wage (\$15.04). Experienced workers can expect to earn \$17.54, which exceeds the county's living wage.

### **Job Postings**

There were 12,951 online job postings related to the middle-skill logistics and material distribution occupations in this report listed in the past 12 months. Exhibit 3 displays the job postings by occupation for these middle-skill occupations. The majority of job postings (39%) were for *production, planning and expediting clerks*, followed by *storage and distribution managers* (15%), *logisticians* (12%), and *cargo and freight agents* (11%). The titles most often mentioned in job postings were logistics coordinators, freight/receiving agents, logistics clerks, logistics managers, and logistics specialists. The top skills were: scheduling, logistics, customer service, inventory management, and supply chain knowledge. The top three employers, by number of job postings, in the region were: The Home Depot, Northrop Grumman, and SpaceX.

*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 3: Job postings by middle-skill occupation (last 12 months)



#### Educational Attainment

The Bureau of Labor Statistics (BLS) lists the following typical education levels for the logistics and material distribution occupations in this report:

- **No formal education:** laborer and freight, stock, and material movers, hand
- **High school diploma:** transportation, storage, and distribution managers; cargo and freight agents; production, planning, and expedition clerks; and first-line supervisor of transportation and material moving workers, except aircraft cargo handling supervisors
- **Bachelor's degree:** logisticians

In the LA/OC region, the majority of annual job openings for middle-skill logistics and material distribution occupations (86%) typically require a high school diploma. However, the national-level educational attainment data indicates between 36.3% and 46.0% of workers in these middle-skill occupations have completed some college or an associate degree. Of the 58% of logistics and material distribution job postings listing a minimum education requirement in Los Angeles/Orange County, 51% (3,819) requested a bachelor's degree, 43% (3,246) requested a high school diploma and 6% (442) requested an associate degree.

#### Educational Supply

**Community College Supply**—Exhibit 4 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 were 3 other related program recommendation requests from regional community colleges.

**Exhibit 4: 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                   |
|                                |  | <b>LA Subtotal</b> | <b>57</b>        | <b>121</b>       | <b>105</b>       | <b>94</b>            |
|                                |  | Coastline          | 104              | 105              | 121              | 110                  |
|                                |  | <b>OC Subtotal</b> | <b>104</b>       | <b>105</b>       | <b>121</b>       | <b>110</b>           |
| <b>Supply Subtotal/Average</b> |  |                    | <b>161</b>       | <b>226</b>       | <b>226</b>       | <b>204</b>           |

**Non-Community College Supply**—For a comprehensive regional supply analysis, it is also important to consider the supply from other institutions in the region that provide training programs for logistics and material distribution occupations. Exhibit 5 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 5: 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                    |
|                             |   | Univ. of Southern California   | 68               | 68               | -                | 45                   |
| 52.0410                     | Traffic, Customs, and Transportation Clerk/Technician | Diversified Vocational College | 58               | 103              | 116              | 92                   |
| <b>Supply Total/Average</b> |   |                                | <b>126</b>       | <b>171</b>       | <b>124</b>       | <b>140</b>           |

Appendix A: Occupational demand and wage data by county

Exhibit 6. Orange County

| Occupation (SOC)   | 2019 Jobs     | 2024 Jobs     | 5-Yr Change  | 5-Yr % Change | Annual Openings | Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile) | Median Hourly Earnings | Experienced Hourly Earnings (75 <sup>th</sup> Percentile) |
|--|---------------|---------------|--------------|---------------|-----------------|---|------------------------|---|
| Laborers and Freight, Stock, and Material Movers, Hand (53-7062)   | 41,096        | 41,397        | 301          | 1%            | 5,254           | \$12.76   | \$14.49                | \$17.56   |
| <b>Below Middle-Skill Subtotal</b>   | <b>41,096</b> | <b>41,397</b> | <b>301</b>   | <b>1%</b>     | <b>5,254</b>    |   |                        |   |
| Transportation, Storage, and Distribution Managers (11-3071)   | 1,760         | 1,718         | (42)         | (2%)          | 117             | \$34.49   | \$45.21                | \$62.41   |
| Logisticians (13-1081)   | 2,617         | 2,650         | 32           | 1%            | 233             | \$30.63   | \$38.82                | \$50.21   |
| Cargo and Freight Agents (43-5011)   | 853           | 713           | (140)        | (16%)         | 65              | \$17.24   | \$21.81                | \$28.33   |
| Production, Planning, and Expediting Clerks (43-5061)  | 6,271         | 6,091         | (181)        | (3%)          | 571             | \$18.02   | \$23.88                | \$30.18   |
| First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047) | 4,103         | 4,025         | (79)         | (2%)          | 375             | \$19.86   | \$25.90                | \$35.02   |
| <b>Middle-Skill Total</b>  | <b>15,604</b> | <b>15,196</b> | <b>(408)</b> | <b>(3%)</b>   | <b>1,362</b>    |   |                        |   |
| <b>Total</b>   | <b>56,700</b> | <b>56,592</b> | <b>(108)</b> | <b>(0%)</b>   | <b>6,616</b>    |   |                        |   |

**Exhibit 7. Los Angeles County**

| <b>Occupation (SOC)</b>  | <b>2019 Jobs</b> | <b>2024 Jobs</b> | <b>5-Yr Change</b> | <b>5-Yr % Change</b> | <b>Annual Openings</b> | <b>Entry-Level Hourly Earnings (25th Percentile)</b> | <b>Median Hourly Earnings</b> | <b>Experienced Hourly Earnings (75th Percentile)</b> |
|--|------------------|------------------|--------------------|----------------------|------------------------|--|-------------------------------|--|
| Laborers and Freight, Stock, and Material Movers, Hand (53-7062)   | 119,033          | 118,456          | (577)              | (0%)                 | 14,699                 | \$12.75  | \$14.47                       | \$17.54  |
| <b>Below Middle-Skill Subtotal</b>   | <b>119,033</b>   | <b>118,456</b>   | <b>(577)</b>       | <b>(0%)</b>          | <b>14,699</b>          |  |                               |  |
| Transportation, Storage, and Distribution Managers (11-3071)   | 6,122            | 6,024            | (98)               | (2%)                 | 415                    | \$33.47  | \$43.89                       | \$60.59  |
| Logisticians (13-1081)   | 7,242            | 7,339            | 97                 | 1%                   | 645                    | \$30.70  | \$38.89                       | \$50.35  |
| Cargo and Freight Agents (43-5011)   | 7,773            | 8,020            | 247                | 3%                   | 745                    | \$17.05  | \$21.57                       | \$28.02  |
| Production, Planning, and Expediting Clerks (43-5061)  | 18,712           | 18,032           | (679)              | (4%)                 | 1,698                  | \$17.78  | \$23.60                       | \$29.86  |
| First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047) | 14,925           | 14,957           | 32                 | 0%                   | 1,425                  | \$19.14  | \$24.97                       | \$33.78  |
| <b>Middle-Skill Total</b>  | <b>54,773</b>    | <b>54,372</b>    | <b>(401)</b>       | <b>(1%)</b>          | <b>4,927</b>           |  |                               |  |
| <b>Total</b>   | <b>173,806</b>   | <b>172,827</b>   | <b>(978)</b>       | <b>(1%)</b>          | <b>19,626</b>          |  |                               |  |



### Exhibit 8. Los Angeles and Orange Counties

| Occupation (SOC)   | 2019 Jobs      | 2024 Jobs      | 5-Yr Change    | 5-Yr % Change | Annual Openings |
|--|----------------|----------------|----------------|---------------|-----------------|
| Laborers and Freight, Stock, and Material Movers, Hand (53-7062)   | 160,128        | 159,852        | (276)          | (0%)          | 19,953          |
| <b>Below Middle-Skill Subtotal</b>   | <b>160,128</b> | <b>159,852</b> | <b>(276)</b>   | <b>(0%)</b>   | <b>19,953</b>   |
| Transportation, Storage, and Distribution Managers (11-3071)   | 7,881          | 7,741          | (140)          | (2%)          | 532             |
| Logisticians (13-1081)   | 9,859          | 9,989          | 130            | 1%            | 878             |
| Cargo and Freight Agents (43-5011)   | 8,626          | 8,733          | 107            | 1%            | 810             |
| Production, Planning, and Expediting Clerks (43-5061)  | 24,983         | 24,123         | (860)          | (3%)          | 2,269           |
| First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047) | 19,028         | 18,981         | (47)           | (0%)          | 1,800           |
| <b>Middle-Skill Total</b>  | <b>70,377</b>  | <b>69,567</b>  | <b>(810)</b>   | <b>(1%)</b>   | <b>6,290</b>    |
| <b>Total</b>   | <b>230,505</b> | <b>229,419</b> | <b>(1,086)</b> | <b>(0%)</b>   | <b>26,243</b>   |

#### Appendix B: Sources

- O\*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (Emsi)
- Bureau of Labor Statistics (BLS)
- Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- California Family Needs Calculator, Insight Center for Community Economic Development
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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