

March 2022

# Labor Market Analysis

## Heavy and Tractor-Trailer Truck Drivers

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Prepared by the Central Valley/Mother Lode Center of Excellence

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**COVID-19 Statement:** This report includes employment projection data by Emsi. 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 or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they 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. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

*If for any reason this document is not accessible or if you have specific needs for readability, please contact us and we will do our utmost to accommodate you with a modified version. To make a request, contact Nora Seronello by phone at (209) 575-6894 or by email [seronellon@mjc.edu](mailto:seronellon@mjc.edu).*

# Summary

Please note the COVID-19 statement on page 2 when considering this report's findings.

This study conducted by the Central Valley/Mother Lode Center of Excellence examines labor market demand, wages, skills, and postsecondary supply for heavy and tractor-trailer truck drivers. Two occupations related to heavy and tractor-trailer truck drivers were identified for Cerro Coso:

- 53-3032, Heavy and Tractor-Trailer Truck Drivers
- 53-3033, Light Truck Drivers

## Key findings:

- **Occupational demand** — Nearly 25,400 workers were employed in jobs related to heavy and tractor-trailer truck drivers in 2020 in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. The largest occupation is heavy and tractor-trailer truck drivers with 18,363 workers in 2020, a projected growth rate of 13% over the next five years, and 2,582 annual openings.
- **Wages** — Heavy and tractor-trailer truck drivers earn the highest entry-level wage, \$15.87/hour in the subregion.
- **Employers** — Employers with the most job postings in the subregion are Dependable Highway Express, Marten Transport, and Amazon.
- **Occupational titles** — The most common occupational title in job postings in the subregion is heavy and tractor-trailer truck drivers. The most common job title is driver.
- **Skills and certifications** — The top baseline skill is physical abilities, the top specialized skill is commercial driving, and the top software skill is Microsoft Excel. The most in-demand certification is a CDL Class A.
- **Education** — Postsecondary nondegree award is typically required for heavy and tractor-trailer truck drivers. A high school diploma or equivalent is typically required for light truck drivers.
- **Supply** — Analysis of postsecondary completions shows that on average 490 awards were conferred in the Central Valley/Mother Lode region each year.

Based on a comparison of occupational demand and supply, there is an undersupply of 3,121 trained workers in the subregion and 6,061 workers in the region. The Center of Excellence recommends that Cerro Coso work with the regional directors, the college's advisory board, and local industry in the development of programs to address the shortage of heavy and tractor-trailer truck drivers workers in the region.

# Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Cerro Coso to provide labor market information for heavy and tractor-trailer truck drivers. The geographical focus for this report is the South Central Valley/Southern Mother Lode (SCV/SML) subregion, but regional demand and supply data has been included for broader applicability and use. The average living wage for a single adult in the SCV/SML subregion is \$13.67/hour.<sup>1</sup> Analysis of the program and occupational data related to heavy and tractor-trailer truck drivers resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 53-3032, Heavy and Tractor-Trailer Truck Drivers
- 53-3033, Light Truck Drivers

The occupational titles, job descriptions, sample job titles, and knowledge and skills from the Bureau of Labor Statistics and O\*NET OnLine are shown below.

## **Heavy and Tractor-Trailer Truck Drivers**

**Job Description:** Drive a tractor-trailer combination or a truck with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license. Includes tow truck drivers.

**Knowledge:** Transportation, Public Safety and Security, Customer and Personal Service, English Language, Mechanical

**Skills:** Operation and Control, Operations Monitoring, Time Management, Critical Thinking, Monitoring

## **Light Truck Drivers**

**Job Description:** Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle.

**Knowledge:** Customer and Personal Service, Transportation, Law and Government, English Language

**Skills:** Operation and Control, Active Listening, Speaking, Monitoring, Reading Comprehension

# Occupational Demand

The SCV/SML subregion employed 25,326 workers in heavy and tractor-trailer truck drivers occupations in 2020 (Exhibit 1). The largest occupation is heavy and tractor-trailer truck drivers with 18,363 workers in 2020. This occupation is projected to grow by 13% over the next five years and has the greatest number of projected annual openings, 2,582.

**Exhibit 1. Heavy and tractor-trailer truck drivers employment and occupational projections in the SCV/SML subregion**

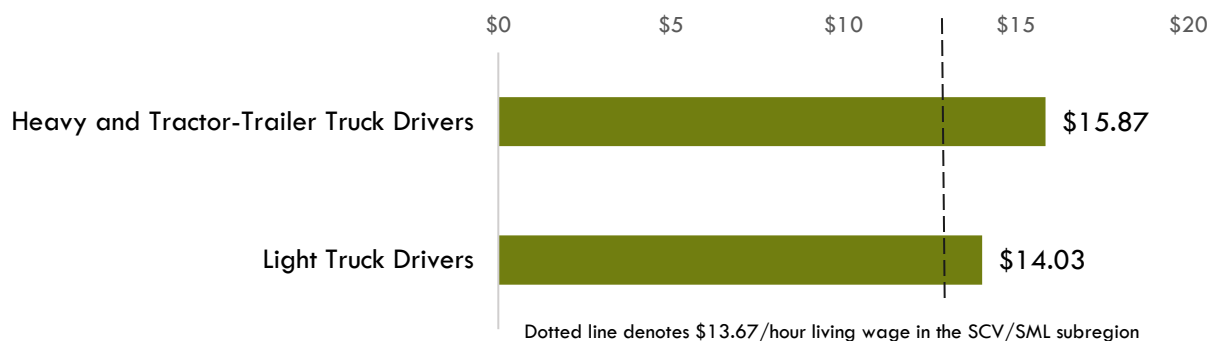
| Occupation                              | 2020 Jobs     | 2025 Jobs     | 5-Year Change | 5-Year % Change | Annual Openings |
|---|---------------|---------------|---------------|-----------------|-----------------|
| Heavy and Tractor-Trailer Truck Drivers | 18,363        | 20,705        | 2,342         | 13%             | 2,582           |
| Light Truck Drivers                     | 6,963         | 8,025         | 1,062         | 15%             | 1,030           |
| <b>TOTAL</b>                            | <b>25,326</b> | <b>28,730</b> | <b>3,405</b>  | <b>13%</b>      | <b>3,611</b>    |

<sup>1</sup> The term "living wage" in Center of Excellence reports is calculated by averaging the self-sufficiency wages from the Insight Center's California Family Needs Calculator for each county in the subregion: <https://insightccd.org/tools-metrics/self-sufficiency-standard-tool-for-california/>.

# Wages

Exhibit 2 shows the entry-level hourly wages of the heavy and tractor-trailer truck drivers occupations. Heavy and tractor-trailer truck drivers earn the highest entry-level wage, \$15.87/hour in the subregion. Entry-level wages are derived from the 25<sup>th</sup> percentile.

**Exhibit 2. Heavy and tractor-trailer truck drivers entry-level wages in the SCV/SML subregion**



# Job Postings

There were 3,871 job postings for the two occupations in the SCV/SML subregion from September 2021 to February 2022.<sup>2</sup> The employers with the most job postings are listed in Exhibit 3.

**Exhibit 3. Top employers of heavy and tractor-trailer truck drivers by number of job postings**

| Employer                           | Job Postings | % Job Postings |
|------------------------------------|--------------|----------------|
| Dependable Highway Express         | 271          | 9%             |
| Marten Transport                   | 165          | 6%             |
| Amazon                             | 118          | 4%             |
| Three Way Logistics                | 112          | 4%             |
| Afp                                | 64           | 2%             |
| O'Reilly Automotive Inc            | 61           | 2%             |
| United Parcel Service Incorporated | 56           | 2%             |
| Pickup                             | 52           | 2%             |
| Certified Freight Logistics        | 42           | 1%             |
| Clean Harbors                      | 33           | 1%             |

Exhibit 4 shows how job postings for the targeted occupations in the SCV/SML subregion are distributed across two O\*NET OnLine occupations. The occupational title heavy and tractor-trailer truck drivers is listed in 3,115 job postings. Note how this occupational title dominates the job posting results. Common job titles in postings include Driver in 162 job postings, Class A Local Driver in 124 job postings, and Class A Cdl Local Driver - Home Daily in 116 job postings.

<sup>2</sup> Other than occupation titles and job titles, the categories below can be counted one or multiple times per job posting, and across several areas in a single posting. For example, a skill can be counted in two different skill types, and an employer can indicate more than one education level.

**Exhibit 4. Top occupational titles in job postings for heavy and tractor-trailer truck drivers**

| Occupational Title                       | Job Postings | % of Job Postings |
|--|--------------|-------------------|
| Heavy and Tractor-Trailer Truck Drivers  | 3,115        | 80%               |
| Light Truck or Delivery Services Drivers | 756          | 20%               |

**Salaries**

Exhibit 5 shows the “Market Salaries” for heavy and tractor-trailer truck drivers occupations that are calculated by Burning Glass which uses a machine learning model built off of millions of job postings every year, and accounts for adjustments based on locations, industry, skills, experience, education requirements, among other variables.

**Exhibit 5. Salaries for heavy and tractor-trailer truck drivers occupations**

| Market Salary Percentile | Salary Amount |
|--------------------------|---------------|
| 10th Percentile          | \$27,854      |
| 25th Percentile          | \$35,217      |
| 50th Percentile          | \$51,749      |
| 75th Percentile          | \$70,314      |
| 90th Percentile          | \$93,950      |

**Education**

Of the 3,871 job postings, 572 listed an education level preferred for the positions being filled. Among those, 100% requested high school or vocational training (Exhibit 6).

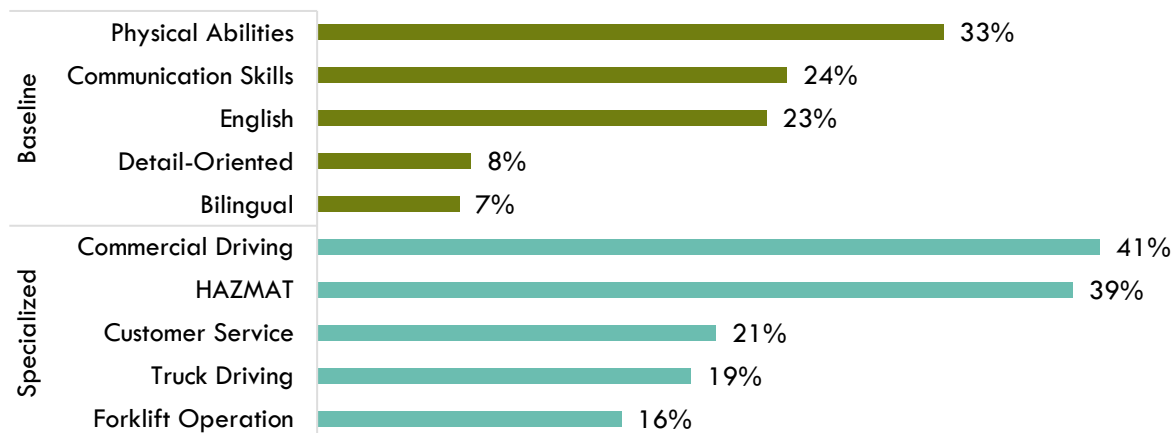
**Exhibit 6. Education levels requested in job postings for heavy and tractor-trailer truck drivers**

| Education Level                    | Job Postings | % of Job Postings |
|------------------------------------|--------------|-------------------|
| High school or vocational training | 572          | 100%              |

**Baseline and Specialized Skills**

Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are physical abilities, 33% of job postings, communication skills, 24%, and English, 23%. The top three specialized skills are commercial driving, 41% of job postings, HAZMAT, 39%, and customer service, 21%.

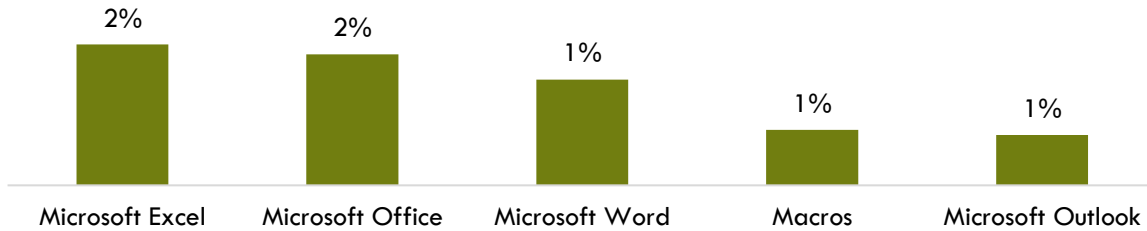
**Exhibit 7. In-demand heavy and tractor-trailer truck drivers baseline and specialized skills**



### Software Skills

Analysis also included the software skills most in demand by employers. Microsoft Excel and Office were the top two software skills identified in job postings (Exhibit 8).

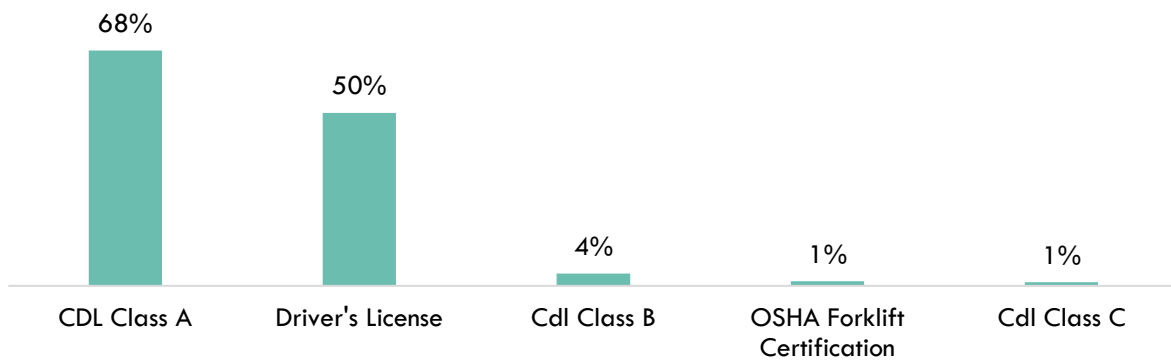
**Exhibit 8. In-demand heavy and tractor-trailer truck drivers software skills**



### Certifications

Of the 3,871 job postings, 2,741 contained certification data. Among those, 68% indicated a need for a CDL Class A. The next top certifications are a driver's license and Cdl Class B (Exhibit 9).

**Exhibit 9. Top heavy and tractor-trailer truck drivers certifications requested in job postings**



## Education, Work Experience & Training

Postsecondary nondegree award is typically required for heavy and tractor-trailer truck drivers. A high school diploma or equivalent is typically required for light truck drivers (Exhibit 10).

**Exhibit 10. Education, work experience, training, and Current Population Survey results for heavy and tractor-trailer truck drivers occupations<sup>3</sup>**

| Occupation                              | Typical Entry-level Education     | Work Experience Required | Typical On-The-Job Training | CPS   |
|---|-----------------------------------|--------------------------|-----------------------------|-------|
| Heavy and Tractor-Trailer Truck Drivers | Postsecondary nondegree award     | None                     | Short-term                  | 29.8% |
| Light Truck Drivers                     | High school diploma or equivalent | None                     | Short-term                  | 29.8% |

<sup>3</sup> "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, <https://www.bls.gov/cps/>.



# Supply

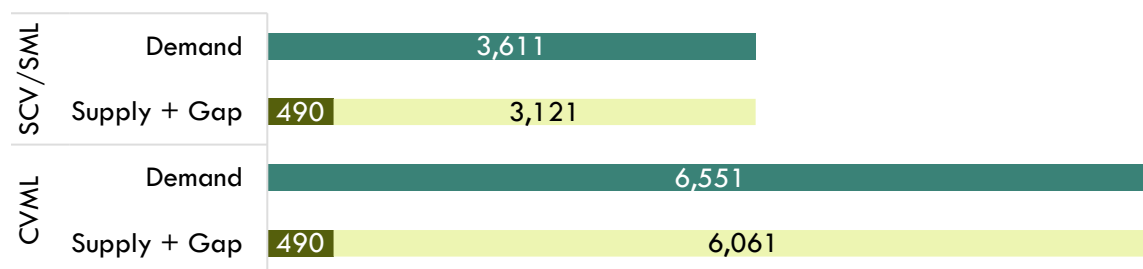
Analysis of program data from the California Community Colleges Chancellor’s Office Data Mart included the TOP and CIP codes and titles: 094750 - Truck and Bus Driving and 49.0205 - Truck and Bus Driver/Commercial Vehicle Operator and Instructor. Analysis of the last three years of data shows that, on average, 490 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

**Exhibit 11. Postsecondary supply for heavy and tractor-trailer truck drivers occupations in the region**

| TOP/CIP Code- Title   | College                   | Award < 1 academic yr | Certificate 16 < 30 semester units | Subtotal   |
|---|---------------------------|-----------------------|------------------------------------|------------|
| 094750 - Truck and Bus Driving  | West Hills Coalinga       |                       | 1                                  | 1          |
| 49.0205 - Truck and Bus Driver/Commercial Vehicle Operator and Instructor | Advanced Career Institute | 489                   |                                    | 489        |
| <b>TOTAL</b>  |                           | <b>489</b>            | <b>1</b>                           | <b>490</b> |

There is an undersupply of 3,121 heavy and tractor-trailer truck drivers workers in the SCV/SML subregion and 6,061 workers in the region (Exhibit 12).

**Exhibit 12. heavy and tractor-trailer truck drivers workforce demand (annual job openings), postsecondary supply of students (awards), and additional students needed to fill gap in the SCV/SML subregion and region**



# Student Outcomes

There was no available data for heavy and tractor-trailer truck drivers from Launchboard.

# Conclusion

The entry-level wages of the two occupations exceed the SCV/SML subregion’s average living wage. There were 3,871 job postings in the past six months for occupations related to heavy and tractor-trailer truck drivers in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is physical abilities, and the top specialized skill is commercial driving.
- The top software skill is Microsoft Excel.
- The top certification is a CDL Class A.

There is an undersupply of trained workers, a shortage of 3,121 in the SCV/SML subregion and 6,061 in the region.

# Recommendation

Based on these findings, it is recommended that Cerro Coso work with the regional directors, the college's advisory board, and local industry in the development of programs to address the shortage of heavy and tractor-trailer truck drivers workers in the region.

# Appendix A: Methodology & Data Sources

## Data Sources

Labor market and educational supply data compiled in this report derive from a variety of sources. Data were drawn from external sources, including the Economic Modeling Specialists, Inc., the California Community Colleges Chancellor's Office Management Information Systems Data Mart and the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS). Below is the summary of the data sources found in this study.

| Data Type  | Source  |
|--|---|
| Labor Market Information/Population Estimates and Projections/Educational Attainment | Economic Modeling Specialists, Intl. (EMSI). EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry: <a href="http://economicmodeling.com">economicmodeling.com</a> . |
| Typical Education Level and On-the-job Training                                      | Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education and typical on-the-job training to each occupation for which BLS publishes projections data: <a href="https://www.bls.gov/emp/tables/educational-attainment.htm">https://www.bls.gov/emp/tables/educational-attainment.htm</a> .  |
| Labor Force, Employment and Unemployment Estimates                                   | California Employment Development Department, Labor Market Information Division: <a href="http://labormarketinfo.edd.ca.gov">labormarketinfo.edd.ca.gov</a> .   |
| Job Posting and Skills Data  | Burning Glass: <a href="http://burning-glass.com/">burning-glass.com/</a> .   |
| Additional Education Requirements/<br>Employer Preferences                           | The O*NET Job Zone database includes over 900 occupations as well as information on skills, abilities, knowledge, work activities and interests associated with specific occupations: <a href="http://onetonline.org">onetonline.org</a> .  |

## Key Terms and Concepts

**Annual Job Openings:** Annual openings are calculated by dividing the number of years in the projection period by total job openings.

**Education Attainment Level:** The highest education attainment level of workers age 25 years or older.

**Employment Estimate:** The total number of workers currently employed.

**Employment Projections:** Projections of employment are calculated by a proprietary Economic Modeling Specialists, Intl. (EMSI) formula that includes historical employment and economic indicators along with national, state and local trends.

**Living Wage:** The cost of living in a specific community or region for one adult and no children. The cost increases with the addition of children.

**Occupation:** An occupation is a grouping of job titles that have a similar set of activities or tasks that employees perform.

**Percent Change:** Rate of growth or decline in the occupation for the projected period; this does not factor in replacement openings.

**Replacements:** Estimate of job openings resulting from workers retiring or otherwise permanently leaving an occupation. Workers entering an occupation often need training. These replacement needs, added to job openings due to growth, may be used to assess the minimum number of workers who will need to be trained for an occupation.

**Total Job Openings (New + Replacements):** Sum of projected growth (new jobs) and replacement needs. When an occupation is expected to lose jobs, or retain the current employment level, number of openings will equal replacements.

**Typical Education Requirement:** represents the typical education level most workers need to enter an occupation.

**Typical On-The-Job Training:** indicates the typical on-the-job training needed to attain competency in the skills needed in the occupation.