

Labor Market Assessment: 0947.00 – Diesel Technology
Light-Duty Diesel Generator Engine Maintenance (Certificate of Completion)
 Los Angeles Center of Excellence, March 2022

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 type="checkbox"/>		No <input checked="" 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 one middle-skill occupation: *bus and truck mechanics and diesel engine specialists*. Middle-skill occupations typically require some postsecondary education, but less than a bachelor’s degree.¹ 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 occupation.

Based on the available data, there appears to be a supply gap in the region for *bus and truck mechanics and diesel engine specialists*. In addition to the entry-level wage exceeding the self-sufficiency standard wage in both Los Angeles and Orange counties, more than one-third of incumbent workers have completed some college or an associate degree. **Due to all of the criteria being met, the LA COE endorses this proposed program.** Detailed reasons include:

Demand:

- **Supply Gap Criteria** – Over the next five years, there is projected to be **660 jobs available annually** in the region due to job growth and replacements, **which is more than the 144 awards conferred annually** by educational institutions in the region.
- **Living Wage Criteria** – In Los Angeles County, the **typical entry-level wage** for *bus and truck mechanics and diesel engine specialists* is **\$23.84, which is above the self-sufficiency standard wage** (living wage) for one adult in the region (\$18.10 in Los Angeles County).²

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.

² Self-Sufficiency Standard wage data was pulled from The Self-Sufficiency Standard Tool for California. For more information, visit: <http://selfsufficiencystandard.org/california>.

- **Educational Criteria** – The Bureau of Labor Statistics (BLS) lists a **high school diploma or equivalent as the typical entry-level education** for *bus and truck mechanics and diesel engine specialists*.
 - National-level educational attainment data indicates that **37% of workers in the field have completed some college or an associate degree.**

Supply:

- Between 2017 and 2020, **three community colleges** in the LA/OC region issued awards in diesel technology, conferring an average of **67 awards**.
- Between 2016 and 2019, non-community college institutions in the LA/OC region conferred an average of **77 awards in relevant programs.**

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for *bus and truck mechanics and diesel engine specialists*. In the Los Angeles/Orange County region, the number of jobs related to *bus and truck mechanics and diesel engine specialists* is projected to increase by 2% through 2025. There will be 660 job openings per year through 2025 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 full impact of COVID-19 on projections of industry and occupational employment. Therefore, the projections included in this report do not take the full impacts of COVID-19 into account.

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	5,312	5,424	112	2%	515
Orange	1,559	1,567	8	1%	145
Total	6,871	6,991	120	2%	660

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 hourly wages for *bus and truck mechanics and diesel engine specialists* 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 typical entry-level hourly wage for *bus and truck mechanics and diesel engine specialists* is \$23.84, which is **above** the self-sufficiency standard wage for one adult (\$18.10 in Los Angeles County). Experienced workers can expect to earn approximately \$36.01.

Orange County – The typical entry-level hourly wage for *bus and truck mechanics and diesel engine specialists* is \$25.41, which is **above** the self-sufficiency standard wage for one adult (\$20.63 in Orange County). Experienced workers can expect to earn approximately \$38.18.

Job Postings

Over the past 12 months, there have been 1,685 online job postings related to *bus and truck mechanics and diesel engine specialists*. The highest number of job postings were for diesel mechanics, diesel technician mechanics, diesel technicians, fleet mechanics, and trailer mechanics. The top skills were repair, preventative maintenance, vehicle maintenance, fleet preventative maintenance, and auto repair. The top employers, by number of job postings, in the region were Penske, Amerit Fleet Solutions, and Carvana.

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 full 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.

Educational Attainment

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for *bus and truck mechanics and diesel engine specialists*. National-level educational attainment data indicates that 37% of workers in the field have completed some college or an associate degree.

Educational Supply

Community College Supply – Exhibit 2 shows the annual and three-year average number of awards conferred by community colleges in Diesel Technology (TOP 0947.00). The college with the most completions in the region is LA Trade-Tech.

Exhibit 2: Regional community college awards (certificates and degrees), 2017-2020

TOP Code	Program	College	2017-18 Awards	2018-19 Awards	2019-20 Awards	3-Year Average
0947.00	Diesel Technology	Citrus	12	24	9	15
		LA Trade-Tech	66	35	31	44
		LA Subtotal	78	59	40	59
		Santa Ana	10	10	4	8
		OC Subtotal	10	10	4	8
Supply Total/Average			88	69	44	67

Non-Community College Supply – For a comprehensive regional supply analysis, it is important to consider the supply from other institutions in the region that may provide training programs for the occupation of interest. Exhibit 3 shows the annual and three-year average number of awards conferred in relevant program(s). Due to different data collection periods, the most recent three-year period of available data is from 2016 to 2019. Between 2016 and 2019, one non-community college institution in the region conferred an average of 77 awards.

Exhibit 3: Regional non-community college awards, 2016-2019

CIP Code	Program	Institution	2016-17 Awards	2017-18 Awards	2018-19 Awards	3-Year Average
47.0605	Diesel Mechanics Technology/ Technician	Universal Technical Institute-Southern California	58	95	77	77
Supply Total/Average			58	95	77	77

Appendix A: Occupational demand and wage data by county

Exhibit 4. 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)
Bus and Truck Mechanics and Diesel Engine Specialists (49-3031)	5,312	5,424	112	2%	515	\$23.84	\$29.01	\$36.01

Exhibit 5. 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)
Bus and Truck Mechanics and Diesel Engine Specialists (49-3031)	1,559	1,567	8	1%	145	\$25.41	\$30.80	\$38.18

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Typical Entry-Level Education
Bus and Truck Mechanics and Diesel Engine Specialists (49-3031)	6,871	6,991	120	2%	660	High school diploma or equivalent

Appendix B: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (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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