

**Program Endorsement Brief: 0948.00 – Automotive Technology  
Automotive Brakes and Suspension Technician (Certificate);  
Automotive Engine Rebuilding and Repair Technician (Certificate);  
Automotive Transmission and Drive Train Technician (Certificate)**  
Los Angeles/Orange County Center of Excellence, November 2021

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**Summary Analysis**

<b>Program Endorsement:</b>	<b>Endorsed: All Criteria Met</b> <input type="checkbox"/>	<b>Endorsed: Some Criteria Met</b> <input checked="" type="checkbox"/>	<b>Not Endorsed</b> <input type="checkbox"/>
<b>Program Endorsement Criteria</b>			
<b>Supply Gap:</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> (see comments below)	
<b>Living Wage: (Entry-Level, 25<sup>th</sup>)</b>	Yes <input type="checkbox"/>	No <input checked="" 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 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 one middle-skill occupation: *automotive service technicians and mechanics* (49-3023). Middle-skill occupations typically require some postsecondary education, but less than a bachelor’s degree.<sup>1</sup> 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 does not appear to be a supply gap for *automotive service technicians and mechanics* in the region. However, since the supply data is overstated due to the inclusion of auto-awarded certificates, the COE cannot reliably determine if there is a supply gap for this occupation in the region. Although the Bureau of Labor Statistics (BLS) lists a postsecondary non-degree award as the typical entry-level education for *automotive service technicians and mechanics*, the entry-level wage is below the self-sufficiency standard wage in both Los Angeles and Orange counties. **Due to some of 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 **1,924 jobs available annually** in the region due to retirements and workers leaving the field, **which is less than the 2,069 awards conferred annually** by educational institutions in the region.

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<sup>1</sup> 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.

- In the 2017-18 academic year, there were 1,253 low-unit certificates automatically conferred (also known as auto-awarded) by Santa Ana College. These awards were automatically conferred to current and past students who had completed the unit requirements within the past few years; however, this low-unit program may not have necessarily prepared students for the occupation studied in this report, as compared to higher-unit programs at Santa Ana College and throughout the region. Therefore, the three year-average number of awards is overstated.
- Over the past 12 months, there were **7,680 online job postings for automotive service technicians and mechanics**. The highest number of job postings were for automotive technician, lube technician, automotive service advisor, mechanic, and service technician.
- **Living Wage Criteria** – In Los Angeles County, the **typical entry-level hourly wage** for *automotive service technicians and mechanics* is **\$14.44, which is below the self-sufficiency standard** wage for one adult in the region (\$18.10 in Los Angeles County).<sup>2</sup>
- **Educational Criteria** – The Bureau of Labor Statistics (BLS) lists a **postsecondary non-degree award** as the typical entry-level education for *automotive service technicians and mechanics*.
  - National-level educational attainment data indicates that **36% of workers in the field have completed some college or an associate degree**.

#### Supply:

- Between 2017 and 2020, **16 community colleges** in the LA/OC region issued awards in programs that have historically trained for *automotive service technicians and mechanics*, conferring an average of **1,669 awards**.
  - In the 2017-18 academic year, there were 1,253 low-unit certificates automatically conferred (also known as auto-awarded) by Santa Ana College. These awards were automatically conferred to current and past students who had completed the unit requirements within the past few years; however, this low-unit program may not have necessarily prepared students for the occupation studied in this report, as compared to higher-unit programs at Santa Ana College and throughout the region. Therefore, the three year-average number of awards is overstated.
- Between 2016 and 2019, non-community college institutions in the region conferred an average of **400 awards in relevant programs**.

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<sup>2</sup> Self-Sufficiency Standard wage data was pulled from The Self-Sufficiency Standard Tool for California on 11/9/2021. For more information, visit: <http://selfsufficiencystandard.org/california>.

## Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for *automotive service technicians and mechanics*. In Los Angeles/Orange County, the number of jobs related to this occupation is projected to decrease by 6% through 2025. However, there will be more than 1,900 job openings per year through 2025 due to retirements and 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 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 Counties<sup>3</sup>**

Geography	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change	Annual Openings
Los Angeles	16,751	15,621	(1,130)	(7%)	1,409
Orange	6,000	5,831	(168)	(3%)	515
<b>Total</b>	<b>22,751</b>	<b>21,453</b>	<b>(1,298)</b>	<b>(6%)</b>	<b>1,924</b>

## Wages

The labor market endorsement in this report considers the hourly wages for *automotive service technicians and mechanics* 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 LA/OC region. Detailed wage information, by county, is included in Appendix A.

**Los Angeles County** — The typical entry-level hourly wage for *automotive service technicians and mechanics* is \$14.44, which is **below** the self-sufficiency standard wage for one adult (\$18.10 in Los Angeles County). Experienced workers can expect to earn approximately \$28.54/hour, which is above the self-sufficiency standard wage estimate.

**Orange County** — The typical entry-level hourly wage for *automotive service technicians and mechanics* is \$17.04, which is **below** the self-sufficiency standard wage for one adult (\$20.63 in Orange County). Experienced workers can expect to earn approximately \$31.94/hour, which is above the self-sufficiency standard wage estimate.

<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.

## Job Postings

Over the past 12 months, there have been 7,680 online job postings for *automotive service technicians and mechanics*. The highest number of job postings were for automotive technician, lube technician, automotive service advisor, mechanic, and service technician. The top skills were auto repair, automotive services industry knowledge, customer service, oil changes, and cleaning. The top employers, by number of job postings, in the region were Pep Boys, CarMax, Valvoline, AutoNation, Toyota Motors, Goodyear, and Honda.

*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 postsecondary non-degree award as the typical entry-level education for *automotive service technicians and mechanics*. National-level educational attainment data indicates that 36% of workers in the field have completed some college or an associate degree. Of the 45% of job postings listing a minimum education requirement in Los Angeles/Orange County, 98% (3,408) requested high school or vocational training and 2% (81) requested 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 Automotive Technology (TOP 0948.00) and Alternative Fuels and Advanced Transportation Technology (0948.40). The colleges with the most completions in the region are Santa Ana\* and Cypress. Over the past 12 months, there were 13 other related program recommendation requests from regional community colleges.

**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
0948.00	Automotive Technology	Cerritos	57	58	71	62
		Citrus	85	114	13	71
		Compton	21	15	1	12
		East LA	84	70	35	63
		El Camino	97	70	77	81
		LA Pierce	137	86	110	111
		LA Trade-Tech	147	157	67	124
		Long Beach	-	-	24	8
		Pasadena	40	107	125	91
		Rio Hondo	85	90	86	87
		Santa Monica	-	2	-	1
		<b>LA Subtotal</b>			<b>753</b>	<b>769</b>

TOP Code	Program	College	2017-18 Awards	2018-19 Awards	2019-20 Awards	3-Year Average
		Cypress	173	362	262	266
		Fullerton	49	26	24	33
		Golden West	37	51	55	48
		Saddleback	23	48	26	32
		Santa Ana	1,291*	119	182	531
		<b>OC Subtotal</b>	<b>1,573</b>	<b>606</b>	<b>549</b>	<b>909</b>
		<b>Supply Subtotal/Average</b>	<b>2,326</b>	<b>1,375</b>	<b>1,158</b>	<b>1,620</b>
0948.40	Alternative Fuels and Advanced Transportation Technology	Cerritos	-	1	-	0
		LA Trade-Tech	18	10	4	11
		Long Beach	3	7	8	6
		Rio Hondo	19	8	53	27
		<b>LA Subtotal</b>	<b>40</b>	<b>26</b>	<b>65</b>	<b>44</b>
		Saddleback	8	8	2	6
		<b>OC Subtotal</b>	<b>8</b>	<b>8</b>	<b>2</b>	<b>6</b>
		<b>Supply Subtotal/Average</b>	<b>48</b>	<b>34</b>	<b>67</b>	<b>50</b>
		<b>Supply Total/Average</b>	<b>2,374</b>	<b>1,409</b>	<b>1,225</b>	<b>1,669</b>

\*Supply data includes 1,253 low-unit certificates automatically conferred (also known as auto-awarded) by Santa Ana College in the 2017-18 academic year. These awards were automatically conferred to current and past students who had completed the unit requirements within the past few years; however, this low-unit program may not have necessarily prepared students for the occupation studied in this report, as compared to higher-unit programs at Santa Ana College and throughout the region. Therefore, *the three year-average number of awards is overstated.*

**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 *automotive service technicians and mechanics*. Exhibit 3 shows the annual and three-year average number of awards conferred in relevant programs. Due to different data collection periods, the most recent three-year period of available data is from 2016 to 2019. Between 2016 and 2019, non-community college institutions in the region conferred an average of 400 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
47.0604	Automobile/Automotive Mechanics Technology/Technician	Baldwin Park Adult & Community Education	10	9	13	11
		GDS Institute	5	9	-	5
		Hacienda La Puente Adult Education	46	21	9	25
		UEI College-Gardena	69	46	72	62
		UEI-West Covina	-	-	32	11
		Universal Technical Institute – Southern California	245	329	277	284
47.0612	Vehicle Emissions Inspection and Maintenance Technology/Technician	California Career School	-	-	7	2
<b>Supply Total/Average</b>			<b>375</b>	<b>414</b>	<b>410</b>	<b>400</b>

**Appendix A: Occupational demand and wage data by county**

**Exhibit 4. Los Angeles County**

<b>Occupation (SOC)</b>	<b>2020 Jobs</b>	<b>2025 Jobs</b>	<b>5-Yr Change</b>	<b>5-Yr % Change</b>	<b>Annual Openings</b>	<b>Entry-Level Hourly Earnings (25<sup>th</sup> Percentile)</b>	<b>Median Hourly Earnings</b>	<b>Experienced Hourly Earnings (75<sup>th</sup> Percentile)</b>
Automotive Service Technicians and Mechanics (49-3023)	16,751	15,621	(1,130)	(7%)	1,409	\$14.44	\$21.16	\$28.54

**Exhibit 5. Orange County**

<b>Occupation (SOC)</b>	<b>2020 Jobs</b>	<b>2025 Jobs</b>	<b>5-Yr Change</b>	<b>5-Yr % Change</b>	<b>Annual Openings</b>	<b>Entry-Level Hourly Earnings (25<sup>th</sup> Percentile)</b>	<b>Median Hourly Earnings</b>	<b>Experienced Hourly Earnings (75<sup>th</sup> Percentile)</b>
Automotive Service Technicians and Mechanics (49-3023)	6,000	5,831	(168)	(3%)	515	\$17.04	\$23.94	\$31.94

**Exhibit 6. Los Angeles and Orange Counties**

<b>Occupation (SOC)</b>	<b>2020 Jobs</b>	<b>2025 Jobs</b>	<b>5-Yr Change</b>	<b>5-Yr % Change</b>	<b>Annual Openings</b>	<b>Typical Entry-Level Education</b>
Automotive Service Technicians and Mechanics (49-3023)	22,751	21,453	(1,298)	(6%)	1,924	Postsecondary non-degree award

## 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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FOR LABOR MARKET RESEARCH