

**Program Endorsement Brief: 0948.00/Automotive Technology**  
**Automotive Chassis Specialist Certificate**  
**Automotive Service Advisor Certificate**  
**Automotive Technology Certificate**

Orange County Center of Excellence, November 2020

**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 checked="" type="checkbox"/>		No <input type="checkbox"/>
<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 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 occupations.

Based on the available data, there appears to be a supply gap for automotive service technicians and mechanics in the region. While the majority of annual openings for this occupation typically require a postsecondary non-degree award, the entry-level wages are lower than the living wage in both Los Angeles and Orange counties. **Therefore, 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 **2,497 jobs available annually** in the region due to retirements and workers leaving the field, **which is more than the 1,837 awards conferred annually** by educational institutions in the region.
- **Living Wage Criteria** – Within Orange County, **typical entry-level hourly wages** for automotive service technicians and mechanics are **\$15.62, which is lower than the**

<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.

**California Family Needs Calculator** hourly wage (living wage) for one adult in the region (17.36 in Orange 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.
  - Furthermore, the national-level educational attainment data indicates **34.8% of workers in the field have completed some college or an associate degree.**

### Supply:

- Due to inconsistencies in reporting automatically awarded, local low-unit certificates, the number of awards conferred may be overstated. Additionally, it is unclear whether or not these low-unit certificates adequately train for the occupation in this report when compared to higher-unit programs. Therefore, **the three-year average number of awards is overstated.**
  - There are **15 community colleges** in the region that offer automotive technology programs, conferring an average of **1,604 awards annually** between 2016 and 2019.
    - However, this supply data includes **1,378 low-unit certificates, many of which were automatically conferred (also known as auto-awarded) by Santa Ana College between 2016 and 2019.** Awards were automatically conferred to both 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 within 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 2014 and 2017, there was an average of **233 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 automotive service technicians and mechanics. In Los Angeles/Orange County, the number of jobs related to this occupation is projected to decrease by 2% through 2024. However, there will be nearly 2,500 job openings per year through 2024 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 impact of COVID-19 on projections of industry and*

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<sup>2</sup> Living wage data was pulled from California Family Needs Calculator on 10/27/2020. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

occupational employment. Therefore, the projections included in this report do not take the impacts of COVID-19 into account.

**Exhibit 1: 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	19,105	18,512	(593)	(3%)	1,829
Orange	6,841	6,832	(9)	(0%)	668
<b>Total</b>	<b>25,946</b>	<b>25,344</b>	<b>(602)</b>	<b>(2%)</b>	<b>2,497</b>

### Wages

The labor market endorsement in this report considers the entry-level hourly wages for automotive service technicians and mechanics 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 typical entry-level hourly wages for automotive service technicians and mechanics are \$15.62, which is below the living wage for one adult (\$17.36 in Orange County).<sup>4</sup> Experienced workers can expect to earn wages of \$29.70, which is higher than the living wage estimate. Orange County’s average wages are above the average statewide wage of \$23.04 for this occupation.

**Los Angeles County**— The typical entry-level hourly wages for automotive service technicians and mechanics are \$13.42, which is below the living wage for one adult (\$15.04 in Los Angeles County).<sup>5</sup> Experienced workers can expect to earn wages of \$26.94, which is higher than the living wage estimate. Los Angeles County’s average wages are below the average statewide wage of \$23.04 for this occupation.

### Job Postings

There were 6,038 online job postings related to automotive service technicians and mechanics listed in the past 12 months. The highest number of job postings were for automotive service technicians, general service technicians, automotive service advisors, lube technicians, and mechanics. The top skills were: auto repair, automotive services industry knowledge, customer service, customer contact, and scheduling. The top three employers, by number of job postings, in the region were: Pep Boys, Goodyear, and Chrysler.

*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.*

<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.

<sup>4</sup> Living wage data was pulled from California Family Needs Calculator on 10/27/2020. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

<sup>5</sup> Living wage data was pulled from California Family Needs Calculator on 10/27/2020. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

## 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. Furthermore, the national-level educational attainment data indicates 34.8% of workers in the field have completed some college or an associate degree. Of the 46% of automotive service technicians and mechanics job postings listing a minimum education requirement in Los Angeles/Orange County, 98% (2,702) requested a high school diploma and 2% (68) requested an associate degree.

## Educational Supply

**Community College Supply**—Exhibit 2 shows the three-year average number of awards conferred by community colleges in the related TOP code: Automotive Technology (0948.00). The colleges with the most completions in the region are: Santa Ana, Cypress, and LA Trade-Tech. Over the past 12 months, there were 41 other related program recommendation requests from regional community colleges.

It is worth noting that this supply data includes 1,378 low-unit certificates automatically conferred by Santa Ana College from 2016-2019 (including 1,291 low-unit certificates that were auto-awarded during the 2017-2018 academic year alone). Local awards were automatically conferred to both current and past students who had completed the unit requirements within the past 3-5 years. It is unclear if this number double-counts students who previously exited the program and are already working in the field, or if these students are necessarily prepared to work as automotive service technicians and mechanics, as compared to students who completed higher-unit awards. Since this data point is included within the regional average supply data, the three year-average number of awards (1,604) is overstated.

**Exhibit 2: 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
0948.00	Automotive Technology	Cerritos	52	57	58	56
		Citrus	81	85	114	93
		Compton	25	21	15	20
		East LA	53	84	70	69
		El Camino	60	97	70	76
		LA Pierce	103	137	86	109
		LA Trade	245	147	157	183
		Pasadena	46	40	107	64
		Rio Hondo	38	85	90	71
		Santa Monica	-	-	2	1
		<b>LA Subtotal</b>	<b>703</b>	<b>753</b>	<b>769</b>	<b>742</b>
		Cypress	225	173	362	253
		Fullerton	16	49	26	30
		Golden West	46	37	51	45

TOP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
		Saddleback	44	23	48	38
		Santa Ana <sup>6</sup>	78	1,291	119	496
		<b>OC Subtotal</b>	<b>409</b>	<b>1,573</b>	<b>606</b>	<b>863</b>
<b>Supply Total/Average</b>			<b>1,112</b>	<b>2,326</b>	<b>1,375</b>	<b>1,604</b>

**Non-Community College Supply**—It is important to consider the supply from four-year institutions in the region that provide training programs for automotive technology. Exhibit 3 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Codes: Automobile/Automotive Mechanics Technology/Technician (47.0604), and Vehicle Emissions Inspection and Maintenance Technology/Technician (47.0612). 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 233 awards annually in related training programs.

**Exhibit 3: Regional non-community college awards, 2014-2017**

CIP Code	Program	College	2014-2015 Awards	2015-2016 Awards	2016-2017 Awards	3-Year Award Average
47.0604	Automobile/ Automotive Mechanics Technology/ Technician	Baldwin Park Adult & Community Education	11	18	10	13
		GDS Institute	10	10	5	8
		Hacienda La Puente Adult Education	40	38	46	41
		UEI College-Gardena	84	98	69	84
		Universal Technical Institute-Southern California	-	1	245	82
47.0612	Vehicle Emissions Inspection and Maintenance Technology/Technician	California Career School	7	7	-	5
<b>Supply Total/Average</b>			<b>152</b>	<b>172</b>	<b>375</b>	<b>233</b>

<sup>6</sup> Santa Ana College automatically conferred 1,378 low-unit certificates between 2016 and 2019.

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

**Exhibit 4. Orange 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 (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)	6,841	6,832	(9)	(0%)	668	\$15.62	\$21.98	\$29.70

**Exhibit 5. 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 (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)	19,105	18,512	(593)	(3%)	1,829	\$13.42	\$19.71	\$26.94

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

<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>
Automotive Service Technicians and Mechanics (49-3023)	25,946	25,344	(602)	(2%)	2,497

## 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)

For more information, please contact:

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