



Advanced Diagnostics and Performance Automotive Technology TOP: 0948.00

May 2020

Prepared by the South Central Coast Center of Excellence for
Labor Market Research

Program Recommendation

This report was compiled by the South Central Coast Center of Excellence to provide regional labor market data for the program recommendation – Automotive Technology. This report can help determine whether there is demand in the local labor market that is not being met by the supply from programs of study (CCC and non-CCC) that align with this occupation group.

Key Findings

- In the South Central Coast region, the **number of jobs related to the occupations selected for this analysis of Automotive Technology, are not expected to increase** over a five year period.
- Automotive Technology is anticipated to experience **a high risk of automation** for both occupations.
- In 2018 there were 1,673 regional completions in programs related to the occupations identified as related to Automotive Technology and 2,844 openings, indicating an **undersupply**.
- Typical entry-level education is a **high school diploma or equivalent** for Automotive Body and Related Repairs, to a **postsecondary nondegree award** for Automotive Service Technicians and Mechanics.
- Completers of Automotive Technology programs from the 2015-2016 academic year had **a median annual wage** upon completion of \$23,263.
- 68% of students are **employed within a year** after completing a program.
- 41% of students **attained a living wage** within a year of completion.

¹ The South Central Coast Region consists of San Luis Obispo County, Santa Barbara County, Ventura County, and the following cities from North Los Angeles County: Canyon Country, Castaic, Lake Hughes, Lancaster, Littlerock, Llano, Newhall, Palmdale, Pearblossom, Santa Clarita, Stevenson Ranch, and Valencia.

Occupation Codes and Descriptions

Currently, there are two occupations in the standard occupational classification (SOC) system that were identified as related to Automotive Technology for this analysis. The occupation titles and descriptions, as well as reported job titles are included in Exhibit 1.

Exhibit 1 – Occupation, description, and sample job titles

SOC Code	Title	Description	Sample of Reported Job Titles
49-3021	Automotive Body and Related Repairs	Repair and refinish automotive vehicle bodies and straighten vehicle frames.	Auto Body Repair Technician, Auto Body Repairman, Auto Body Technician, Body Man, Body Technician, Collision Repair, Collision Technician, Frame Man, Refinish Technician
49-3023	Automotive Service Technicians and Mechanics	Repair automobiles, trucks, buses, and other vehicles. Master mechanics repair virtually any part on the vehicle or specialize in the transmission system.	ASE Master Mechanic, Auto Technician, Automotive Drivability Technician, Automotive Mechanic, Automotive Service Technician, Certified ASE Master Automotive Technician, Master Automotive Technician, Mechanic, Transmission Rebuilder

Source: O*NET Online

Current and Future Employment

In the South Central Coast region, the number of jobs related to Automotive Technology are expected to experience minimal decreases for both related occupations over a five year period.

Exhibit 2 – Five-year projections for Automotive Technology in the South Central Coast region

SOC	Occupation	2018 Jobs	2023 Jobs	2018-2023 Change	2018-2023 % Change
49-3021	Automotive Body and Related Repairs	5,506	5,464	-42	-1%
49-3023	Automotive Service Technicians and Mechanics	23,584	22,890	-694	-3%

Source: Economic Modeling Specialists International (EMSI)

Earnings

In the South Central Coast region, the average wage for the listed occupations is \$19.80 per hour.

Exhibit 3 contains hourly wages and annual average earnings for these occupations. Entry-level hourly earnings are represented by the 25th percentile of wages, median hourly earnings are represented by the 50th percentile of wages, and experienced hourly earnings is represented by the 75th percentile of wages, demonstrating various levels of employment.

Exhibit 3 – Earnings for Automotive Technology in the South Central Coast region

SOC	Occupation	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
49-3021	Automotive Body and Related Repairs	\$13.91	\$20.87	\$28.45
49-3023	Automotive Service Technicians and Mechanics	\$13.34	\$19.65	\$26.79

Source: Economic Modeling Specialists International (EMSI)

Employer Job Postings

In this research brief, real-time labor market information is used to provide a more nuanced view of the current job market, as it captures job advertisements for occupations relevant to the field of study. Employer job postings are consulted to understand who is looking for automotive mechanics, and what they are looking for in potential candidates. To identify job postings related to Automotive Technology the following standard occupational classifications were used:

49-3021	Automotive Body and Related Repairs
49-3023	Automotive Service Technicians and Mechanics

Top Occupations

In 2018, there were 738 employer postings for occupations related to Automotive Technology.

Exhibit 4 – Top occupations in job postings and risk of automation tables

SOC Code	Occupation	Job Postings, Full Year 2018
49-3023	Automotive Service Technicians and Mechanics	689
49-3021	Automotive Body and Related Repairs	49

Source: Labor Insight/Jobs (Burning Glass)

SOC Code	Occupation	Risk of Automation
49-3023	Automotive Service Technicians and Mechanics	High
49-3021	Automotive Body and Related Repairs	High

Source: Labor Insight/Jobs (Burning Glass)

Top Titles

The top job titles for employers posting ads for jobs related to Automotive Technology are listed in Exhibit 5. Auto Technician is mentioned as the job title in 21% of all relevant job postings (156 postings).

Exhibit 5 –Job titles

Title	Job Postings, Full Year 2018
Auto Technician	156
Mechanic	68
Service Technician	65
Lube Technician	41
Auto Mechanic	32

Source: Labor Insight/Jobs (Burning Glass)

Top Employers

Exhibit 6 lists the major employers hiring professionals in the Automotive Technology field. The top employer posting job ads was Autonation. The top worksite cities in the region for these occupations were Oxnard, Santa Clarita, Ventura, Simi Valley, and Thousand Oaks.

Exhibit 6 – Top employers (n=738)

Employer	Job Postings, Full Year 2018
Autonation	53
Lithia Motors Incorporated	41
Chrysler	40
Pep Boys	35
United Parcel Service Incorporated	24

Source: Labor Insight/Jobs (Burning Glass)

Skills

Repair is the most sought after skill for employers hiring for jobs related to Automotive Technology.

Exhibit 7 –Job skills (n=626)

Skills	Job Postings, Full Year 2018
Repair	480
Auto Repair	268
Automotive Services Industry Knowledge	221
Customer Service	184
Sales	62
Hand Tools	52
Predictive/Preventative Maintenance	49

Source: Labor Insight/Jobs (Burning Glass)

Industry Concentration

Exhibit 8 shows the industries with most Automotive Technology postings in the South Central Coast. Note: 17% of records have been excluded because they do not include an industry. As a result, the chart below may not be representative of the full sample.

Exhibit 8 – Industries employing the most in the Automotive Technology field, 2018

Industry	Occupation Group Jobs in Industry	% of Occupation Group in Industry
Retail Trade	208	33.9%
Other Services (except Public Administration)	145	23.6%
Manufacturing	113	18.4%
Transportation and Warehousing	41	6.7%
Public Administration	21	3.4%

Source: Labor Insight/Jobs (Burning Glass)

Education and Training

Exhibit 9 shows the typical entry-level education requirement for the occupations of interest, along with the typical on-the-job training needed to attain competency in the occupation.

Exhibit 9 – Education and training requirements

SOC	Occupation	Typical entry-level education	Typical on-the-job training
49-3021	Automotive Body and Related Repairs	High school diploma or equivalent	Long-term on-the-job training
49-3023	Automotive Service Technicians and Mechanics	Postsecondary nondegree award	Short-term on-the-job training

Source: Bureau of Labor Statistics Employment Projections (Educational Attainment)

Regional Completions and Openings

There were 1,673 regional completions (2018) and 2,844 regional openings (2018) in the South Central Coast region in programs related to the occupations identified as related to Automotive Technology.

Exhibit 10 – Completions and Openings

4 Regional Institutions had Related Programs (2018)	1,673 Regional Completions (2018)	2,844 Annual Openings (2018)
---	---	--

Source: Economic Modeling Specialists International (EMSI)

Related Programs

CIP Code	Program	Completions (2018)
47.0604	Automobile/Automotive Mechanics Technology/Technician	1,358
47.0603	Autobody/Collision and Repair Technology/Technician	219
15.0803	Automotive Engineering Technology/Technician	56
47.0614	Alternative Fuel Vehicle Technology/Technician	40

Source: Economic Modeling Specialists International (EMSI)

Student Outcomes

The CTE LaunchBoard provides student outcome data on the effectiveness of CTE programs. The following student outcome information was collected from exiters of the Automotive Technology Program (TOP: 0948.00) in the South Central Coast Region for the 2015-16 academic year.

- The median annual wage for students after exiting is \$23,263.
- 68% of students are employed within a year after completing a program.
- 41% of students attained a living wage within a year of completion.

Source: CTE LaunchBoard

Sources

O*Net Online, Labor Insight/Jobs (Burning Glass), Economic Modeling Specialists International (EMSI), MIT Living Wage Calculator, Bureau of Labor Statistics (BLS) Education Attainment, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, CTE LaunchBoard, Statewide CTE Outcomes Survey, Employment Development Department Unemployment Insurance Dataset

Notes

Data included in this analysis represent the labor market demand for relevant positions most closely related to Automotive Technology. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study and can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions. All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.