



Automotive Technology (TOP: 0948.00)

September 2020

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

Program Recommendation

This report was compiled by the South Central Coast¹ 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 Automotive Technology are expected to remain steady** for Motorboat Mechanics and Service Technicians, Motorcycle Mechanics, and Recreational Vehicle Service Technicians and Maintenance Workers; **increase** for Bus and Truck Mechanics and Diesel Engine Specialists, Farm Equipment Mechanics and Service Technicians, and Outdoor Power Equipment and Other Small Engine Mechanics; and **decrease** for Automotive Service Technicians and Mechanics.
- Automotive Technology is anticipated to experience a **high risk of automation** for all selected occupations.
- In 2019 there were 277 regional completions in programs related to the occupations identified as related to Automotive Technology and 639 openings, indicating an **undersupply**.
- Typical entry-level education is **a postsecondary nondegree award** for Automotive Service Technicians and Mechanics & Motorcycle Mechanics, and **a high school diploma or equivalent** for the remaining occupations.
- Completers of regional Automotive Technology programs from the 2017-2018 academic year had a **median annual wage upon completion of \$27,646**.
- 69% of students are **employed within a year** after completing a program.
- 39% of students **attained a living wage** within a year of completion.
- +62% **change in earnings** for completers.
- 75% of students were **part time**, 16% **skill builders**, 42% **first-generation**, and 84% **economically disadvantaged**.

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

There are seven 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
49-3023	Automotive Service Technicians and Mechanics	Diagnose, adjust, repair, or overhaul automotive vehicles.	ASE Master Mechanic (Automotive Service Excellence Master Mechanic), Automotive Drivability Technician, Automotive Mechanic, Automotive Service Technician, Certified ASE Master Automotive Technician, Master Automotive Technician, Master Technician, Mechanic, Transmission Rebuilder
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.	Bus Mechanic, Diesel Mechanic, Diesel Technician, Fleet Mechanic, General Repair Mechanic
49-3041	Farm Equipment Mechanics and Service Technicians	Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.	Agricultural Mechanic, Agricultural Technician, Agriculture Mechanic, Farm Equipment Mechanic, Farm Equipment Service Technician, Field Mechanic, Mechanic, Service Technician, Tractor Mechanic, Tractor Technician
49-3051	Motorboat Mechanics and Service Technicians	Repair and adjust electrical and mechanical equipment of inboard or inboard-outboard boat engines.	Boat Mechanics, Boat Motor Mechanics, Boat Rigger, Marine Mechanic, Marine Propulsion Technician, Marine Technician, Mechanic, Outboard Motor Mechanic, Outboard Technician, Service Technician
49-3052	Motorcycle Mechanics	Diagnose, adjust, repair, or overhaul motorcycles, scooters, mopeds, dirt bikes, or similar motorized vehicles.	All-Terrain Vehicle Technician (ATV Technician), Custom Bike Builder, Master Motorcycle Technician, Motorcycle Mechanic, Motorcycle Service Technician, Motorcycle Technician, Motorsports Technician, Scooter Mechanic, Service Technician, Shop Foreman

SOC Code	Title	Description	Sample of Reported Job Titles
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	Diagnose, adjust, repair, or overhaul small engines used to power lawn mowers, chain saws, recreational sporting equipment and related equipment.	Chainsaw Technician, Golf Cart Mechanic, Lawnmower Repair Mechanic, Mechanic, Outdoor Power Equipment Service Technician, Service Technician, Shop Mechanic, Small Engine Mechanic, Small Engine Technician
49-3092	Recreational Vehicle Service Technicians	Diagnose, inspect, adjust, repair, or overhaul recreational vehicles including travel trailers. May specialize in maintaining gas, electrical, hydraulic, plumbing, or chassis/towing systems as well as repairing generators, appliances, and interior components. Includes workers who perform customized van conversions.	Hitch Technician, Master Certified RV Technician, Mobile Service RV Technician, RV Body Mechanic, RV Parts and Service Director, RV Repair Technician, RV Service Technician, RV Technician, RVDA Master Certified RV Technician, Service Technician

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 remain steady for Motorboat Mechanics and Service Technicians, Motorcycle Mechanics, and Recreational Vehicle Service Technicians and Maintenance Workers; increase for Bus and Truck Mechanics and Diesel Engine Specialists, Farm Equipment Mechanics and Service Technicians, and Outdoor Power Equipment and Other Small Engine Mechanics; and decrease for Automotive Service Technicians and Mechanics.

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

SOC	Occupation	2019 Jobs	2024 Jobs	2019-2024 Change	2019-2024 % Change
49-3023	Automotive Service Technicians and Mechanics	4,555	4,449	-106	-2%
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	953	1,005	52	5%
49-3041	Farm Equipment Mechanics and Service Technicians	309	333	24	8%
49-3051	Motorboat Mechanics and Service Technicians	157	157	0	0%
49-3052	Motorcycle Mechanics	122	122	0	0%
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	162	176	14	9%
49-3092	Recreational Vehicle Service Technicians	134	134	0	0%

Source: Economic Modeling Specialists International (EMSI)

Earnings

In the South Central Coast region, the average wage for the listed occupations is \$21.71 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 are 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
49-3023	Automotive Service Technicians and Mechanics	\$14.39	\$21.11	\$28.18
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	\$20.34	\$25.91	\$32.54
49-3041	Farm Equipment Mechanics and Service Technicians	\$15.41	\$18.19	\$22.75
49-3051	Motorboat Mechanics and Service Technicians	\$15.25	\$22.53	\$30.57
49-3052	Motorcycle Mechanics	\$17.24	\$24.05	\$32.06
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	\$14.67	\$17.68	\$22.82
49-3092	Recreational Vehicle Service Technicians	\$17.67	\$22.63	\$27.59

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 mechanics and technicians, and what they are looking for in potential candidates. To identify job postings related to Automotive Technology the following standard occupational classifications were used:

49-3023	Automotive Service Technicians and Mechanics
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
49-3041	Farm Equipment Mechanics and Service Technicians
49-3051	Motorboat Mechanics and Service Technicians
49-3052	Motorcycle Mechanics
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics
49-3092	Recreational Vehicle Service Technicians

Top Occupations

In 2019, there were 796 employer postings for the occupations related to Automotive Technology.

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

SOC Code	Occupation	Job Postings, Full Year 2019
49-3023	Automotive Service Technicians and Mechanics	678
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	96
49-3092	Recreational Vehicle Service Technicians	10
49-3041	Farm Equipment Mechanics and Service Technicians	7
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	3
49-3052	Motorcycle Mechanics	2
49-3051	Motorboat Mechanics and Service Technicians	0

Source: Labor Insight/Jobs (Burning Glass)

SOC Code	Occupation	Risk of Automation
49-3023	Automotive Service Technicians and Mechanics	High
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	High
49-3092	Recreational Vehicle Service Technicians	High
49-3041	Farm Equipment Mechanics and Service Technicians	High
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	High
49-3052	Motorcycle Mechanics	High
49-3051	Motorboat Mechanics and Service Technicians	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. Automotive Technician is mentioned as the job title in 5% of all relevant job postings (38 postings).

Exhibit 5 –Job titles

Title	Job Postings, Full Year 2019
Automotive Technician	38
Lube Technician	31
Service Technician	20
Automotive Technician/Mechanic	16
General Service Technician	15

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 Santa Clarita, Oxnard, Ventura, Thousand Oaks, and Simi Valley.

Exhibit 6 – Top employers (n=691)

Employer	Job Postings, Full Year 2019
Autonation	53
Chrysler	45
Lithia Motors Inc	43
Pep Boys	35
Waste Management	31

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=695)

Skills	Job Postings, Full Year 2019
Repair	567
Auto Repair	277
Automotive Services Industry Knowledge	233
Customer Service	184
Occupational Health and Safety	65
Predictive/Preventative Maintenance	64
Sales	60

Source: Labor Insight/Jobs (Burning Glass)

Industry Concentration

Exhibit 8 shows the industries with most Automotive Technology postings in the South Central Coast. Note: 18% 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, 2019

Industry	Occupation Group Jobs in Industry	% of Occupation Group in Industry
Retail Trade	210	32.0%
Other Services (Except Public Administration)	141	21.5%
Manufacturing	113	17.2%
Transportation and Warehousing	49	7.5%
Administrative and Support and Waste Management and Remediation Services	40	6.1%

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
49-3023	Automotive Service Technicians and Mechanics	Postsecondary nondegree award	Short-term on-the-job training
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	High school diploma or equivalent	Long-term on-the-job training
49-3041	Farm Equipment Mechanics and Service Technicians	High school diploma or equivalent	Long-term on-the-job training
49-3051	Motorboat Mechanics and Service Technicians	High school diploma or equivalent	Long-term on-the-job training
49-3052	Motorcycle Mechanics	Postsecondary nondegree award	Short-term on-the-job training
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	High school diploma or equivalent	Moderate-term on-the-job training
49-3092	Recreational Vehicle Service Technicians	High school diploma or equivalent	Long-term on-the-job training

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

Regional Completions and Openings

There were 277 regional completions (2019) and 639 regional openings (2019) in the South Central Coast region in programs related to the occupations identified as related to Automotive Technology.

Exhibit 10 – Completions and Openings

3 Regional Institutions had Related Programs (2019)	277 Regional Completions (2019)	639 Annual Openings (2019)
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Source: Economic Modeling Specialists International (EMSI)

Related Programs

CIP Code	Program	Completions (2019)
47.0604	Automobile/Automotive Mechanics Technology/Technician	238
01.0201	Agricultural Mechanization, General	34
47.0605	Diesel Mechanics Technology/Technician	5

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 current students and exiters of regional Automotive Technology (TOP: 0948.00) programs for the 2017-18 academic year.

- Completers of regional Automotive Technology programs from the 2017-2018 academic year had a **median annual wage upon completion of \$27,646.**
- 69% of students are **employed within a year** after completing a program.
- 39% of students **attained a living wage** within a year of completion.
- +62% **change in earnings** for completers.
- 75% of students were **part time**, 16% **skill builders**, 42% **first-generation**, and 84% **economically disadvantaged.**

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.