

ECC Academic Program Review for Career and Technical Education

The Automotive Technology Program

The Automotive repair and service industry is a very large commercial industry in the Los Angeles County, Long Beach area, Orange County, Ventura County, San Diego County, Riverside County and San Bernardino County where many of our Graduates and Certificated students from El Camino College Automotive Technology Program (ATEC) are currently working and prospering.

The Automotive Technology Program (ATEC) serves the automotive educational needs of the Lomita, Torrance, Inglewood, Redondo Beach, Hawthorne, Gardena, Long Beach and many South Bay areas. Recently, because nearby colleges have closed their ATEC related programs through program discontinuance, the ATEC service area has expanded to include areas previously served by Santa Monica College, Long Beach City College, and Harbor College.

The Bureau of Labor Statistics summary below demonstrates the median annual wage earned by an automotive technician in May of 2014 was \$39,450 per year. The job outlook projects an average growth rate of 17% from 2010 through 2020, which generally is as fast as other occupations. Opportunities for qualified technicians should be very good. These statistics may vary according to region, individual technician ability, the job market, and other factors. One dated but exemplary example of success is an El Camino College student who relocated to another state, worked for a dealership in local area repair shop and grossed \$85,000 during 2001.

The Bureau of Labor Statistics has provided the following Occupational Employment and Wage data as of May of 2014 specifically pertaining to Automotive Service Technicians and Mechanics (49-3023) who diagnose, adjust, repair, or overhaul automotive vehicles. This group excludes Automotive Body and Related Repairers (49-3021), Bus and Truck Mechanics and Diesel Engine Specialists (49-3031), and Electronic Equipment Installers and Repairers(49-2096). National employment and mean wage estimates for this occupation from the Bureau of Labor Statistics are listed in the table below.

Wages	Percentile				
	10%	25%	(Mean) 50%	75%	90%
Hourly	\$10.06	\$13.10	\$17.65	\$23.49	\$29.43
Annual	\$20,920	\$27,250	\$36,710	\$48,860	\$61,210

In the past five years in the Automotive Technology Department, we have realized a greater demand from the automotive, truck, equipment and bus repair facilities in the El Camino College District for our students who have completed their Associate Degree and Certificates of completion and competency. The faculty in the Automotive

Technology Program have facilitated in providing more pathways for the students in the Automotive Technology program to earn many other certificates of accomplishment and updated certificates of completion. The faculty have also written curriculum for two new Smog Check Program courses and an Alternate Fuel/Hybrid Vehicle courses for our students to take and complete and receive certificates for these classes so that the students are better qualified for the jobs that they apply for.

Demand for past 5 years (2013-2018):

Region	2013 Jobs	2018 Jobs	Change	% Change	Median Hourly Earnings
All Available Counties	46,531	48,614	2,083	4%	\$16.83
State	78,536	81,986	3,450	4%	\$17.85
Los Angeles County	19,843	20,465	622	3%	\$15.50
Nation	766,371	799,711	33,340	4%	\$16.49
7.5 mile zip radius	3,195	3,293	98	3%	\$15.64

There are great expectations that the demand for new technicians will increase within these counties as the population continues to grow and the need for good Technicians is also required to service Automotive, Bus and Truck industry which is growing and expanding at very fast pace. Below are some charts of expected growth in next four years.

Automotive Service Technicians and Mechanics in Los Angeles-Long Beach-Anaheim, CA

Automotive Service Technicians and Mechanics (SOC 49-3023):

Diagnose, adjust, repair, or overhaul automotive vehicles. Excludes 'Automotive Body and Related Repairers' (49-3021), 'Bus and Truck Mechanics and Diesel Engine Specialists' (49-3031), and 'Electronic Equipment Installers and Repairers, Motor Vehicles' (492096).

Sample of Reported Job Titles:

- Transmission Rebuilder
- Automotive Mechanic (Auto Mechanic)
- Mechanic
- Master Technician
- Master Automotive Technician
- Lube Technician
- Automobile Mechanic (Auto Mechanic)
- Service Technician

Related O*NET Occupations:

Automotive Master Mechanics (49-3023.01)

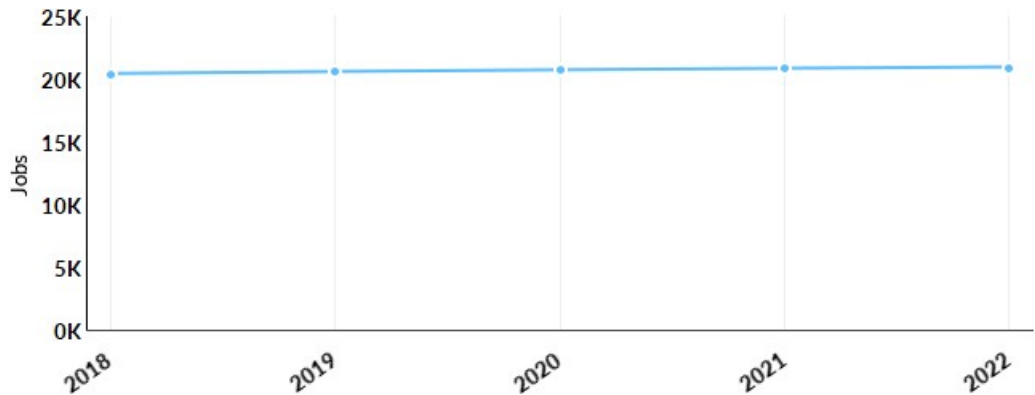
Automotive Specialty Technicians (49-3023.02)

Occupation Summary for Automotive Service Technicians and Mechanics

<p>20,421</p> <p>Jobs (2018)</p> <p>23% below National average</p>	<p>+2.6%</p> <p>% Change (2018-2022)</p> <p>Na on: +4.2%</p>	<p>\$20.00/hr</p> <p>Median Hourly Earnings</p> <p>Na on: \$19.02/hr</p>
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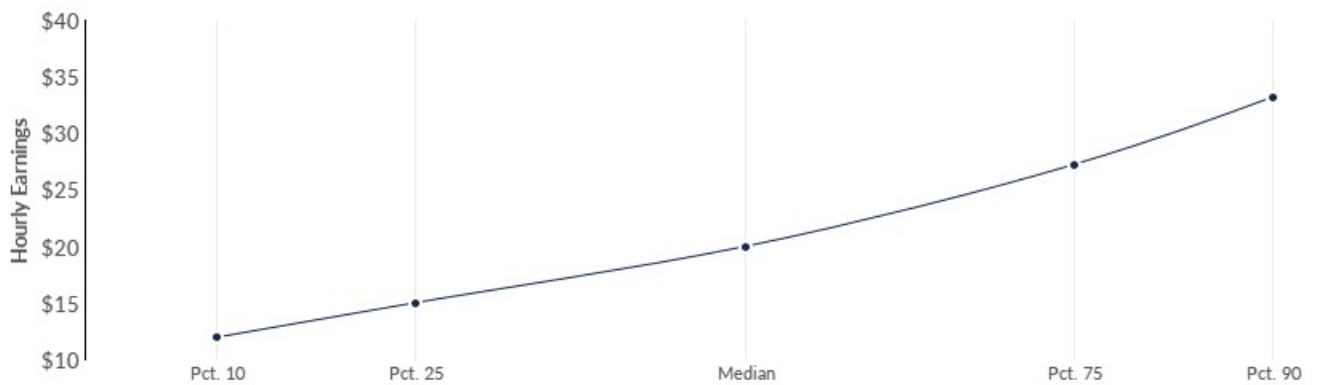
Growth for Automotive Service Technicians and Mechanics (49-3023)

<p>20,421</p> <p>2018 Jobs</p>	<p>20,945</p> <p>2022 Jobs</p>	<p>524</p> <p>Change (2018-2022)</p>	<p>2.6%</p> <p>% Change (2018-2022)</p>
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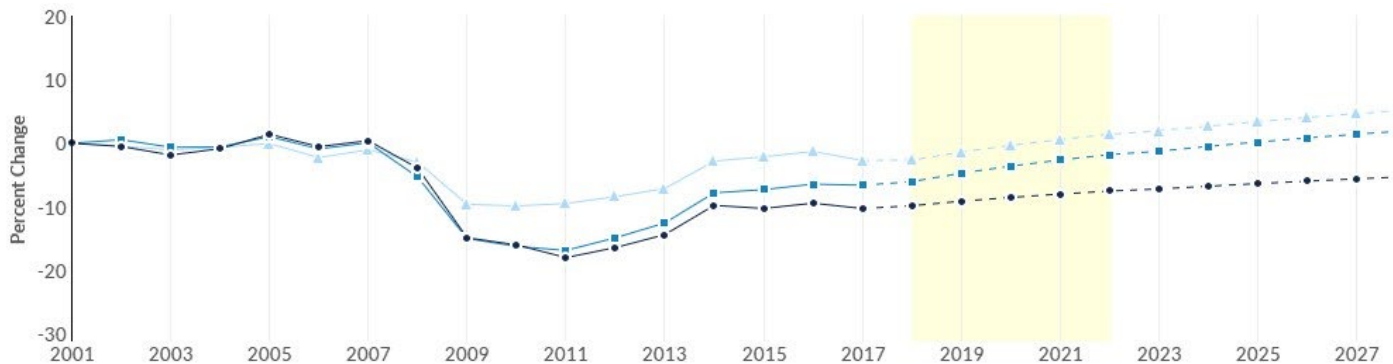


Percentile Earnings for Automotive Service Technicians and Mechanics (49-3023)

<p>\$15.03/hr</p> <p>25th Percentile Earnings</p>	<p>\$20.00/hr</p> <p>Median Earnings</p>	<p>\$27.27/hr</p> <p>75th Percentile Earnings</p>
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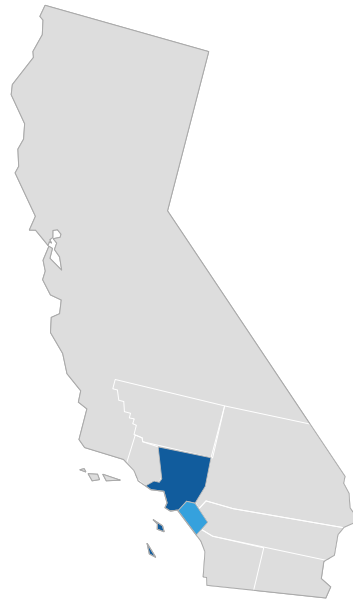


Regional Trends



Region	2018 Jobs	2022 Jobs	Change	% Change
A Region	20,421	20,945	524	2.6%
B State	65,069	68,020	2,951	4.5%
C Nation	636,701	663,327	26,626	4.2%

Regional Breakdown



County	2022 Jobs
Los Angeles County, CA	15,197
Orange County, CA	5,748

Job Postings Summary

<p>5,804</p> <p>Unique Postings</p> <p>25,338 Total Postings</p>	<p>4 : 1</p> <p>Posting Intensity</p> <p>Regional Average: 4 : 1</p>	<p>46 days</p> <p>Median Posting Duration</p> <p>Regional Average: 32 days</p>
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There were **25,338** total job postings for your selection from January 2018 to March 2019, of which **5,804** were unique. These numbers give us a Posting Intensity of **4-to-1**, meaning that for every 4 postings there is 1 unique job posting.

This is close to the Posting Intensity for all other occupations and companies in the region (4-to-1), indicating that they are putting average effort toward hiring for this position.

ATEC provides both day and night programs to meet the needs of full-time, part-time, and returning students. Many students complete the program successfully and acquire certificates of completion, certificates of competency and associate degrees. Success rates are shown in section B. ATEC Program Degree and Certificates. Many students return to update their skills, knowledge, and training in new automotive and truck repair technologies.

The Automotive Department serves the students in our local municipalities in the El Camino College district and other districts, because of the different in-depth courses and the variety training courses offered in ATEC at El Camino College. We train the students to be ready for placement in an automotive repair shop, Automotive Dealership or a automotive machine shop and be able to work at an entry level to mid advanced level depending on the individual students ability. Many of students have been employed at the mid advance level to an advanced level of employment.

One very strong aspect of this program is that it promotes critical thinking and problem solving. Students are taught systematic approaches to diagnose, trouble shoot, repair, and maintain all manner of automobile and truck components, assemblies, and systems. An abbreviated critical thinking diagnostic algorithm sample follows.

1. Identify and verify the complaint/problem.
2. Gather accurate data.
3. Analyze the data to determine an accurate diagnosis.
4. Develop a repair plan.
5. Implement the repair plan.
6. Verify the success of the repair.

By providing students a critical thinking process, ATEC has produced successful professional technicians. Our graduates work at independent shops, car/truck dealerships, MTA (Metropolitan Transit Authority) and other repair facilities. Many of our students are working in city organizations and municipal repair facilities. Some of the city fleets that employ our graduates include: Gardena, Hawthorne, Lawndale, Long Beach, Los Angeles, Redondo Beach, Santa Monica; Torrance; municipal employers include: Metropolitan Transit Authority and Los Angeles County. Many of our students have advanced to become experienced team leaders, and managers. Other students now own and operate successful repair shops of their own. A few have returned to pass on their knowledge and experience as automotive instructors.

At El Camino College we are offering new courses in Alternate Fuel/Hybrid courses in the Fall of 2019. We are planning on offering in the near future, possibly Spring of 2020, Smog Check courses that will provide the students with certificates of completion from El Camino College and State of California Certificate which will qualify the students to take the

State of California Smog Check Exam, and on successful completion of the state exam the student will receive State of California Smog Inspection and Maintenance license.

We currently have a new facility, 5 years old, two new electric vehicles, a Chevy Bolt, a Toyota RAV-4 which are electric vehicles, a VW Jetta that is also an electric vehicle. We currently have a new Toyota Prius Hybrid and a Ford Hybrid vehicles. With these vehicles we will be able to offer electric vehicle and hybrid vehicle training.

This is a listing of how many students have received Degrees from the ATEC program and how many students have received Certificates from the ATEC program. The number of degrees remains unchanged through the years. The number of certificates have almost quadrupled in the past 4 years. The ATEC department has a large number students who have completed the requirements for their certificates and the number of received certificates in 2017-2018 school year are second only to Fire & Emergency Medical Technician Program in acquiring certificates in the Industry Technology Division.

Trade Advisory Meeting Minutes:

Advisory Meeting Minutes

Auto Technology-Spring 2019

Meeting Attendees:

Rob Lee

Jim Curtin

Harry Stockwell

Mike Anderson

Craig Marshall

Steve Liebsack

Eric Edberg/Steve Ethridge

Rick Cuesta

Brock Temple

Steve Caruso

Steve Claude

Adam Martinez

Jay La Plante

Clark Davis

Feria Villarreal

Frank Ceccacci

Meeting Started: 6:05 pm, April 23rd, 2019

Intro:

***Edward:** Advisory Purpose- To make sure El Camino is providing relevant education to the students*

****Question brought forth: What issues do you think are currently affecting work in your locations/hot-topic issues?*****

Brock Temple: There needs to be a better understanding of basic mechanics. It's not there, techs in general. (Not exclusively El Camino graduates.)

-these are techs from dealers, that probably took entry level courses.

Feria Villarreal:

-Typing skills. Taking notes, noting information of whatever services were rendered.
-Navigating the computer of cars is important, not really related to the field but it is needed.

Edward: Same thing mentioned in alumni meeting. Learning system was begun with manufacturing training. Warranty claims, pressure reading as they went, documenting. It is being worked on here to work on a solution for computer literacy or lack thereof.

Steve Caruso: Clear and concise documentation

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All nod about the issue with documentation.

Feria Villarreal: Grammar is of importance.

Steve Liebsack: Work is being redone because lack of understanding on the written specs.

Edward: Writing courses are encouraged at El Camino.

Rick Cuesta: in order to move up into management, writing is a prerequisite

Harry Stockwell: No more keyboard classes or grammar training like in the old days.

Summary: Basic mechanical skills and electrical knowledge as well as better documentation, communication and typing are areas in need of improvement

Clark Davis: “sense of urgency is sense of hustle”

-efficiency is primordial. Triple checking is good but the worker takes too long.

Edward: Agrees when giving the example of a student replacing one shock on a Chevy and takes them hours...”come on guys, you can do better than that”

Clark Davis: efficiency is rewarded. Inefficient people stave off.

Steve Liebsack: Are students taught a correlation between grades earned here and earning money?

Edward: Yes, as an instructor I let them know which tasks will make them more money

Example: We point out the easy tasks at the beginning of the inspection, which are tactics to make more money and take on better opportunities (shocks;work done under two hours)

Edward: ASE certifications asked and received the answer that indeed ASE certs do reflect well onto the motor groups.

-only those certified can work on recalls

Question Brought Forth: Are there any credentials or tests you would like to see when hiring prospects such 609 certification?

Rick Cuesta: 609 test, only once done at the time of hire. Must clean up before being hired.

Harry Stockwell: Drug testing?

Craig Marshall: We are willing to work with people that consume by offering more time.

Rick Cuesta: no random drug testing unless necessary (accidents).

Harry Stockwell: Law makes it legal but one cannot be loaded on the job.

Updates

High school classes being taught: Funding has been approved. Will be funded on accredited certificate.

Issue: CA changed laws, they will pay only if students receive an accredited certificate.

Frank Ceccacci: How many in the class?

Edward: 15, looking for more.

-hoping for free advertisement. Family speaks out about their kids having such a program, redirecting more to El Camino.

Craig Marshall: turnout?

Edward: yes, we got a really good group.

-certificates approved, greenlight for electric cars classes on the fall 2019.

-grants coming too, more on that later

Mike Anderson: Chancellor's office must be satisfied, level 1,2 smog courses done.

thanking Steve Caruso with the level 1 and 2 courses. He was stuck, years ago, but changes have occurred, success came after.

-We are on standby for a year, because of El Camino's whole new curriculum creation system that is now in effect. This move is taking a lot of time due to the many classes and departments. A few more months and level 2 can be ready by the fall. Funding looks to be a yes.

-title 5 involves the chancellor office, which will give grads two required courses to set them up well to get out and work. After, they can take the BAR test.

-adult ed seems to be better way because it is a semester based system.

Edward: Adult Education certificate. (for bolts transmissions, engine repair, air conditioning etc)

-will help

MLR maintenance and light repairs. Covered for non-credit because: A- repeatable, B-tuition free.

-eliminates barriers for students.

-non credit course.

-tires, quick services things on the G1.