

# Automotive Service Technicians and Mechanics

## Labor Market Analysis: Imperial County

April 2021

### Summary

Do not Proceed

Proceed with Caution

Proceed

**PROCEED WITH  
NEW PROGRAM?**



**COE SUPPORT FOR  
PROGRAM MODIFICATION?**



**SUPPLY  
GAP?**



**NUMBER OF  
INSTITUTIONS THAT  
PROVIDE TRAINING**



**AT OR ABOVE  
THE LIVING WAGE**



**NUMBER OF ANNUAL  
JOB OPENINGS**

Bachelor's Degree+

Associate Degree

Some College or Certificate

High School Diploma or Equivalent

Less than a HS Diploma

Apprenticeship

**EXPECTED LEVEL  
OF EDUCATION**

The San Diego-Imperial Center of Excellence for Labor Market Research (COE) developed this brief to assist the region's community colleges with strategic planning and program development. According to available labor market information, *Automotive Service Technicians and Mechanics* in Imperial County have a labor market demand of 38 annual job openings (while average demand for a single occupation in Imperial County is 14 annual job openings), and one educational institution in Imperial County supplies 10 awards for this occupation, suggesting that there is a supply gap in the labor market. Entry-level wages are below the living wage, but median wages for this occupation are above the living wage. The COE recommends proceeding with caution when developing a new program because entry-level wages are below the living wage, but supports a program modification because there is a supply gap for these occupations. Colleges should note that **the percentage of students who complete a related program and earn a living wage is lower than students who complete Career Education programs in general.**

## Introduction

This report provides labor market information in Imperial County for the following occupational code in the Standard Occupational Classification (SOC)<sup>1</sup> system:

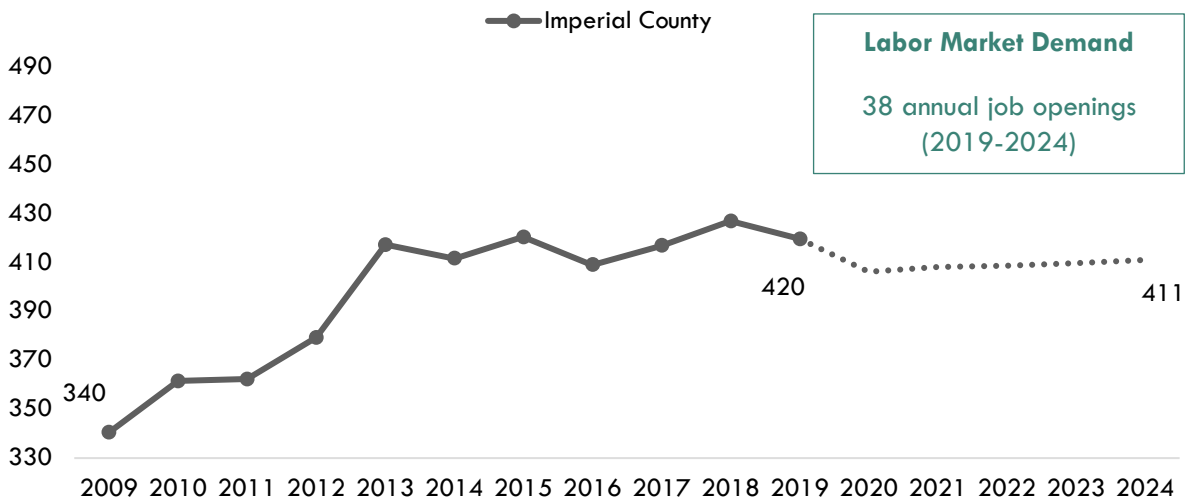
**Automotive Service Technicians and Mechanics (SOC 49-3023):** Diagnose, adjust, repair, or overhaul automotive vehicles. Sample reported job titles include:

- Transmission Rebuilder
- Automotive Mechanic
- Master Technician
- Master Automotive Technician
- Automobile Mechanic
- Lube Technician
- Automotive Technician

## Projected Occupational Demand

Between 2019 and 2024, *Automotive Service Technicians and Mechanics* are projected to decrease by **nine** net jobs or **two** percent (Exhibit 1). Employers in Imperial County will need to hire **38** workers annually to fill new jobs and backfill jobs due to attrition caused by turnover and retirement, for example.

**Exhibit 1: Number of Jobs for Automotive Service Technicians and Mechanics (2009-2024)<sup>2</sup>**



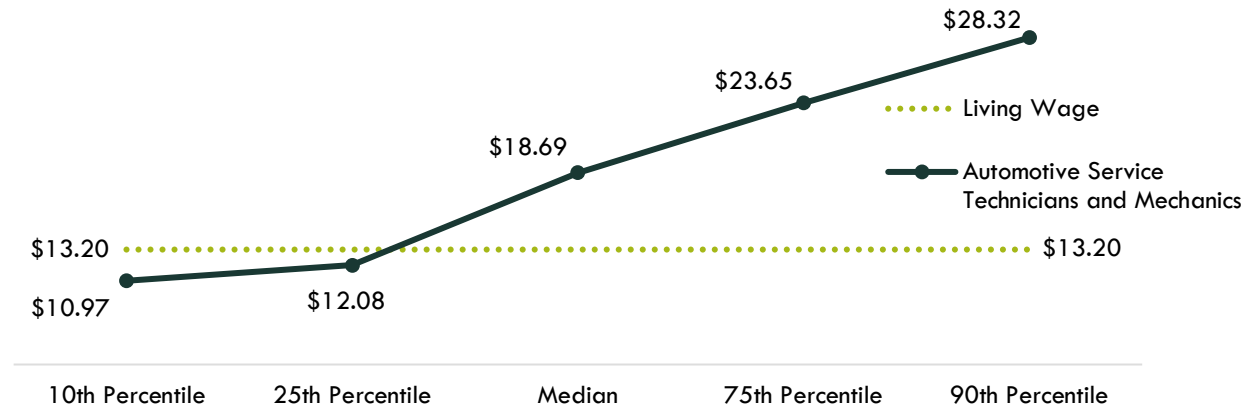
<sup>1</sup> The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. [bls.gov/soc](https://www.bls.gov/soc).

<sup>2</sup> EMSI 2021.1; QCEW, Non-QCEW, Self-Employed.

## Earnings

*Automotive Service Technicians and Mechanics* receive entry-level hourly earnings of **\$12.08**; this is less than the living wage for a household of two adults and two school-age children in Imperial County, which is **\$13.20** per hour (Exhibit 2).<sup>3</sup>

**Exhibit 2: Hourly Earnings<sup>4</sup> for Automotive Service Technicians and Mechanics in Imperial County<sup>5</sup>**



## Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes.<sup>6</sup> There are **two** TOP codes and **three** CIP codes related to *Automotive Service Technicians and Mechanics* (Exhibit 3).

**Exhibit 3: Related TOP and CIP Codes for Automotive Service Technicians and Mechanics**

### *Automotive Service Technicians and Mechanics*

TOP 0948.00: Automotive Technology

TOP 0948.40: Alternative Fuels and Advanced Transportation Technology

CIP 47.0604: Automobile/Automotive Mechanics Technology/Technician

CIP 47.0612: Vehicle Emissions Inspection and Maintenance Technology/Technician

CIP 47.0614: Alternative Fuel Vehicle Technology/Technician

<sup>3</sup> "California Family Needs Calculator (formerly the Self-Sufficiency Standard)," Insight: Center for Community Economic Development, last updated 2018. [insightccd.org/2018-self-sufficiency-standard](https://insightccd.org/2018-self-sufficiency-standard).

<sup>4</sup> 10th and 25th percentiles could be considered entry-level wages, and 75th and 90th percentiles could be considered experienced wages for individuals who may have been in the occupation longer, received more training than others, etc.

<sup>5</sup> EMSI 2021.1; QCEW, Non-QCEW, Self-Employed.

<sup>6</sup> TOP data comes from the California Community Colleges Chancellor's Office MIS Data Mart ([datamart.cccco.edu](https://datamart.cccco.edu)) and CIP data comes from the Integrated Postsecondary Education Data System ([nces.ed.gov/ipeds/use-the-data](https://nces.ed.gov/ipeds/use-the-data)).

According to TOP data, **one** community college supplies the region with awards for this occupation, **Imperial Valley College**. According to CIP data, no non-community college institution supplies the region with awards (Exhibit 4).

**Exhibit 4: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions (Program Year 2014-15 through PY2018-19 Average)**

TOP6 or CIP	TOP6 or CIP Title	3-Yr Annual Average CC Awards (PY16-17 to PY18-19)	Other Educational Institutions 3-Yr Annual Average Awards (PY14-15 to PY16-17)	3-Yr Total Average Supply (PY14-15 to PY18-19)
0948.00	Automotive Technology	<b>10</b>	<b>0</b>	<b>10</b>
	<ul style="list-style-type: none"> <li>Imperial Valley</li> </ul>	10	0	
			<b>Total</b>	<b>10</b>

## Demand vs. Supply

Comparing labor demand (annual openings) with labor supply<sup>7</sup> suggests that there is a **supply gap** for this occupation in Imperial County, with **38** annual openings and **10** awards. Comparatively, there are **7,315** annual openings in California and **5,867** awards, suggesting that there is also a supply gap across the state<sup>8</sup> (Exhibit 5).

**Exhibit 5: Labor Demand (Annual Openings) Compared with Labor Supply (Average Annual Awards)**

Community Colleges and Other Postsecondary Educational Institutions	Demand (Annual Openings)	Supply (Total Annual Average Supply)	Supply Gap or Oversupply
Imperial	38	10	<b>28</b>
California	7,315	5,867	<b>1,448</b>

**Please note:** This is a basic analysis of supply and demand of labor. The data does not include workers currently in the labor force who could fill these positions or workers who are not captured by publicly available data. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed.

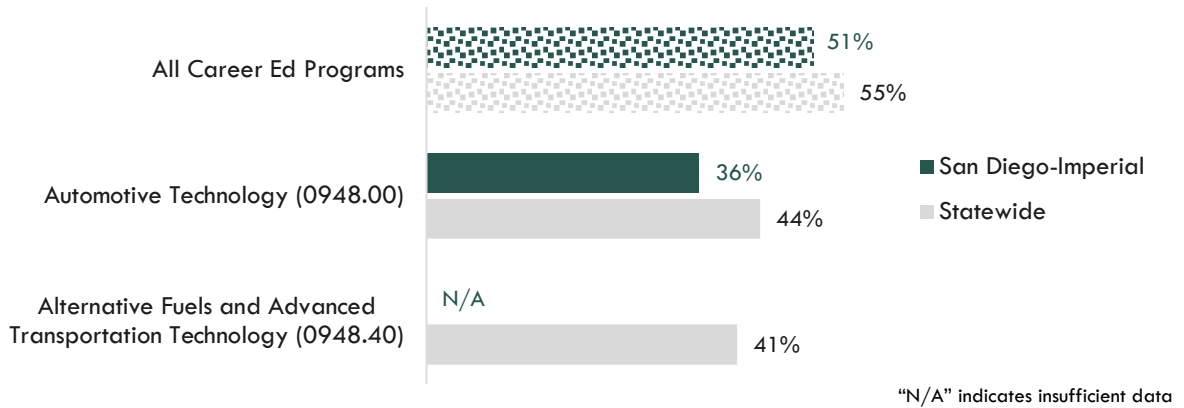
<sup>7</sup> Labor supply can be found from two different sources: EMSI or the California Community Colleges Chancellor's Office MIS Data Mart. EMSI uses CIP codes while MIS uses TOP codes. Different coding systems result in differences in the supply numbers.

<sup>8</sup> "Supply and Demand," Centers of Excellence Student Outcomes, [coecc.net/Supply-and-Demand.aspx](http://coecc.net/Supply-and-Demand.aspx).

## Student Outcomes and Regional Comparisons

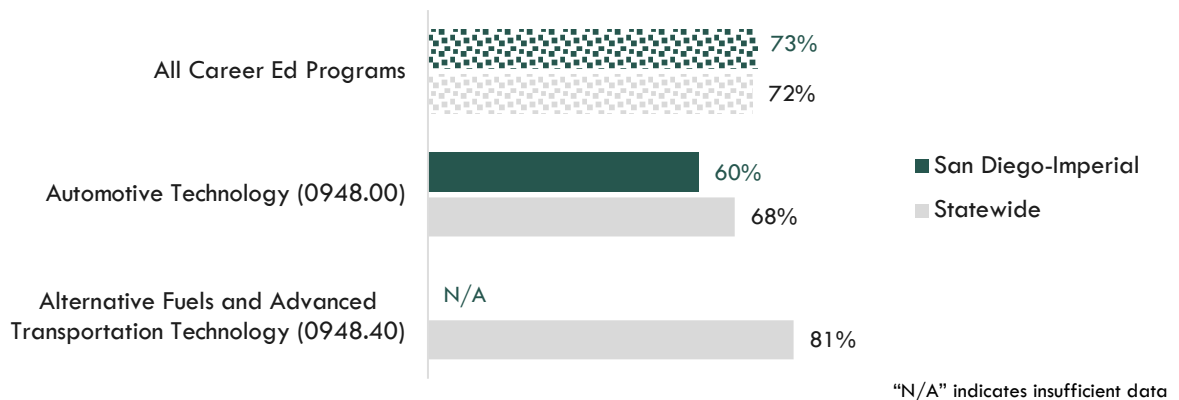
According to the California Community Colleges LaunchBoard, 36 percent of students in the San Diego-Imperial region earned a living wage after completing a program related to *Automotive Service Technicians and Mechanics*, compared to 41 to 44 percent statewide and 55 percent of students in Career Education programs in general across the state (Exhibit 6a).<sup>9</sup>

**Exhibit 6a: Percentage of Students Who Earned a Living Wage by Program, PY2017-18<sup>10</sup>**



According to the California Community Colleges LaunchBoard, 60 percent of students in the San Diego-Imperial region obtained a job closely related to their field of study after completing a program related to *Automotive Service Technicians and Mechanics*, compared to 68 to 81 percent statewide and 72 percent of students in Career Education programs in general across the state (Exhibit 6b).<sup>11</sup>

**Exhibit 6b: Percentage of Students in a Job Closely Related to Field of Study by Program, PY2016-17<sup>12</sup>**



<sup>9</sup> "California Community Colleges Strong Workforce Program," California Community Colleges, [calpassplus.org/LaunchBoard/SWP.aspx](http://calpassplus.org/LaunchBoard/SWP.aspx).

<sup>10</sup> Among completers and skills builders who exited, the proportion of students who attained a living wage.

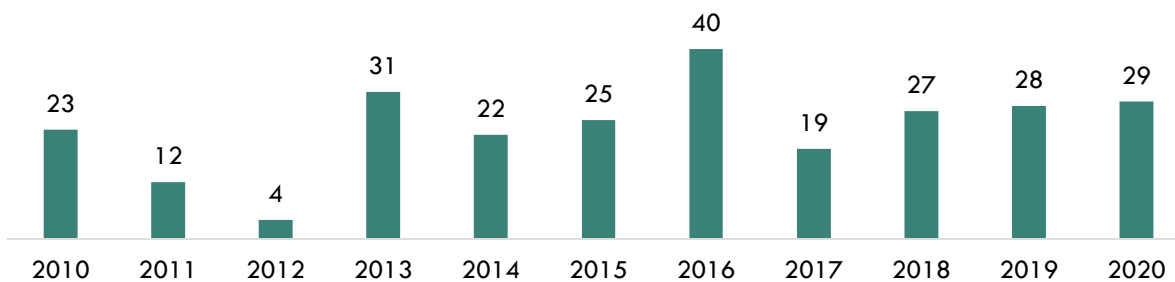
<sup>11</sup> "California Community Colleges Strong Workforce Program," California Community Colleges, [calpassplus.org/LaunchBoard/SWP.aspx](http://calpassplus.org/LaunchBoard/SWP.aspx).

<sup>12</sup> Most recent year with available data is Program Year 2016-17. Percentage of Students in a Job Closely Related to Field of Study: Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

## Online Job Postings

This report analyzes not only historical and projected (traditional LMI) data, but also recent data from online job postings (real-time LMI). Online job postings may provide additional insight about recent changes in the labor market that are not captured by historical data. Between 2010 and 2020, there was an average of 24 online job postings per year for *Automotive Service Technicians and Mechanics* in Imperial County (Exhibit 7). Please note that online job postings do **not** equal labor market demand; demand is represented by annual job openings (see Exhibit 1). Employers may post a position multiple times for various reasons, such as increasing the pool of applicants, for example.

**Exhibit 7: Number of Online Job Postings for Automotive Service Technicians and Mechanics in Imperial County (2010-2020)<sup>13</sup>**



## Top Employers

Between January 1, 2018 and December 31, 2020, the top five employers in Imperial County for this occupation were [Pep Boys](#), [U.S. Customs and Border Protection](#), [Enterprise Rent-A-Car](#), [ACV Auctions](#), and [United Parcel Service](#) based on online job postings (Exhibit 8).

**Exhibit 8: Top Employers in Imperial County for Automotive Service Technicians and Mechanics<sup>14</sup>**

Top Employers	
<ul style="list-style-type: none"> <li>• Pep Boys</li> <li>• U.S. Customs and Border Protection</li> <li>• Enterprise Rent-A-Car</li> <li>• ACV Auctions, Inc.</li> <li>• United Parcel Service</li> </ul>	<ul style="list-style-type: none"> <li>• U.S. Department of Homeland Security</li> <li>• Empire CAT</li> <li>• Safelite Autoglass</li> <li>• Rush Truck Centers</li> <li>• Johnson &amp; Johnson</li> </ul>

<sup>13</sup> Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2010-2020.

<sup>14</sup> Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2018-2020.

## Education, Skills, and Certifications

Exhibit 9 indicates the educational attainment for the occupation found currently in the national labor force. The typical entry-level education is a [postsecondary non-degree award](#).<sup>15</sup>

**Exhibit 9: National Educational Attainment of Automotive Service Technicians and Mechanics<sup>16</sup>**

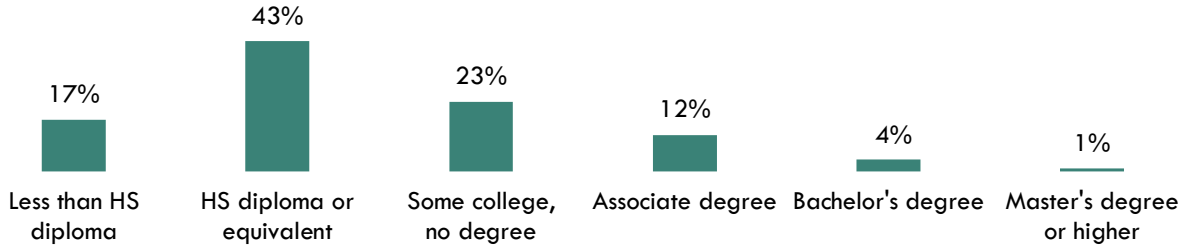


Exhibit 10 lists the top specialized, soft, and software skills that appeared in online job postings between January 1, 2018 and December 31, 2020.

**Exhibit 10: Top Skills for Automotive Service Technicians and Mechanics in Imperial County<sup>17</sup>**

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> <li>• Repair</li> <li>• Automotive Services Industry Knowledge</li> <li>• Schematic Diagrams</li> <li>• Auto Repair</li> <li>• Experiments</li> <li>• Personnel Management</li> <li>• Cleaning</li> <li>• Test Equipment</li> <li>• Customer Service</li> <li>• Mechanical Repair</li> <li>• Electrical Systems</li> <li>• Inventory Control</li> <li>• Hand Tools</li> <li>• Lifting Ability</li> <li>• Power Tools</li> </ul>	<ul style="list-style-type: none"> <li>• Physical Abilities</li> <li>• Communication Skills</li> <li>• Troubleshooting</li> <li>• Teamwork / Collaboration</li> <li>• Organizational Skills</li> <li>• Preventive Maintenance</li> <li>• Problem Solving</li> <li>• Work Area Maintenance</li> <li>• Writing</li> <li>• Range of Motion</li> <li>• Listening</li> <li>• Research</li> <li>• Typing</li> <li>• Building Effective Relationships</li> <li>• Decision Making</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft Excel</li> <li>• Microsoft Word</li> <li>• Microsoft Access</li> <li>• Microsoft Outlook</li> </ul>

<sup>15</sup> EMSI 2021.1; QCEW, Non-QCEW, Self-Employed.

<sup>16</sup> "Educational Attainment for Workers 25 Years and Older by Detailed Occupation," Bureau of Labor Statistics, last modified September 4, 2019. [bls.gov/emp/tables/educational-attainment.htm](https://bls.gov/emp/tables/educational-attainment.htm).

<sup>17</sup> Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2018-2020.

Exhibit 11 lists the top certifications that appeared in online job postings between January 1, 2018 and December 31, 2020.

**Exhibit 11: Top 10 Certifications for Automotive Service Technicians and Mechanics in Imperial County<sup>18</sup>**

Top Certifications in Online Job Postings

1. Automotive Service Excellence (ASE) Certification
2. EPA 609
3. Security Clearance
4. Mobile Electronics Certified Professional (MECP)
5. MECP Basic Installation
6. MECP Advanced Certification
7. CDL Class B
8. CDL Class A
9. Electric Vehicle Technician (EVT)
10. Air Brake Certified
11. Advanced Engine Performance Certified

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<sup>18</sup> Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2018-2020.



### **Important Disclaimers**

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; 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 the report 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.

This workforce demand report uses state and federal job projection data that was developed before the economic impact of COVID-19. The COE is monitoring the situation and will provide more information as it becomes available. Please consult with local employers to understand their current employment needs.