



BACCALAUREATE DEGREE PROGRAM LABOR MARKET ANALYSIS:

0948.00 AUTOMOTIVE TECHNOLOGY

47.0604 AUTOMOBILE/AUTOMOTIVE MECHANICS

TECHNOLOGY/TECHNICIAN



FOR LABOR MARKET RESEARCH
INLAND EMPIRE/DESERT

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Introduction

The Inland Empire/Desert (IED) Center of Excellence for Labor Market Research (COE) has prepared this report to support the program review process for a community college baccalaureate degree, specifically TOP 0948.00 Automotive Technology and CIP 47.0604 Automobile/Automotive Mechanics Technology/Technician. The report provides an analysis of student outcomes data, employment, and earnings to assess the level of workforce demand in support of this program.

Additionally, the report assesses the labor market demand for the following occupations:

- First-Line Supervisors of Mechanics, Installers, and Repairers
- Automotive Service Technicians and Mechanics

The proposed program is structured around the following foundational design elements:

- Master Automotive Technicians
- Automotive Servicing and Repair

EXECUTIVE SUMMARY

The Inland Empire/Desert Center of Excellence for Labor Market Research prepared this report to provide a labor market analysis of educational supply and occupational demand for master automotive technician careers in the San Bernardino and Riverside counties. This report aims to determine if a particular occupational group is an appropriate candidate for a community college baccalaureate degree program.

Key Findings:

- Education
 - Neither of the two occupations typically require a bachelor's degree for entry-level employment, instead both require either a high school diploma or equivalent award or a postsecondary nondegree award. In the past year, a minority of job postings across the state either required (18.4%) or preferred (26.6%) workers with a bachelor's degree. When taken together, the annual job openings related to occupations which typically require a bachelor's degree (0) and number of job postings requiring or preferring a bachelor's degree (18-26%) demonstrate that employers in this occupational group rarely require new workers to hold a bachelor's degree level of education.
- Wages
 - Statewide: Entry-level hourly wages for job postings for these two master automotive technician occupations from employers requiring a bachelor's degree are 21.7% higher when compared to those that required an associate degree and 52.7% higher when compared to those that required a high school diploma or equivalent. Similarly, median wages for job postings from employers requiring a bachelor's degree are 22.4% higher when compared to those that required an associate degree and 48.8% higher when compared to those that required a high school diploma or equivalent. This provides evidence that employers will consistently pay higher wages to bachelor's degree holders across their career progression, which is significantly higher at the higher wage percentiles.
 - Regional: Entry level wages for both master automotive technician occupations fall below the self-sufficiency standard target for one adult and one school-age child of \$34.35/hour by amounts ranging from \$3 to \$16. This provides evidence that entry level workers in the field are unlikely to earn a regional living wage.

- Job Demand
 - Statewide: From Apr 2025 – Mar 2026, there were 30,508 unique job postings for master automotive technician occupations from 5,946 employers.
 - Statewide: From 2024-2034, there is projected to be an average of 12,020 new and replacement job openings each year; this translates to a projected 10-year increase of 4.7%. This provides evidence that there will be increasing demand across the state over the next decade.
 - Regional: From 2024-2034, there is projected to be an average of 1,561 new and replacement job openings each year; this translates to a projected 10-year increase of 10.1%. This provides evidence that there will be substantial demand across the region over the next decade.
- Supply Gap
 - Based on a projected regional supply of 915 awards, and a projected regional demand of 1,561 annual job openings, there is projected to be a supply gap of 646 workers each year in the Inland Empire/Desert region. This provides evidence that, even with additional supply of workers from this proposed program, there will continue to be unmet demand from regional employers.

STATE DATA ANALYSIS

The following sections analyze labor market data for this master automotive technician occupational group in California to establish the relevancy of the occupation for preparation at the baccalaureate level, to quantify the employer preference (or lack of preference) for bachelor’s degree-level workers, and to detail other characteristics employers are considering when hiring for these occupations.

To better understand the statewide job market for professionals entering the field, the report includes 10-year employment projections with expected annual job openings.

Educational Requirements, Certifications, and Degree Alignment

In an effort to identify the preferred education and training levels for workers in this occupational group, Exhibit 1 includes the typical education, work experience, and on-the-job training needed for entry level master automotive technician workers.

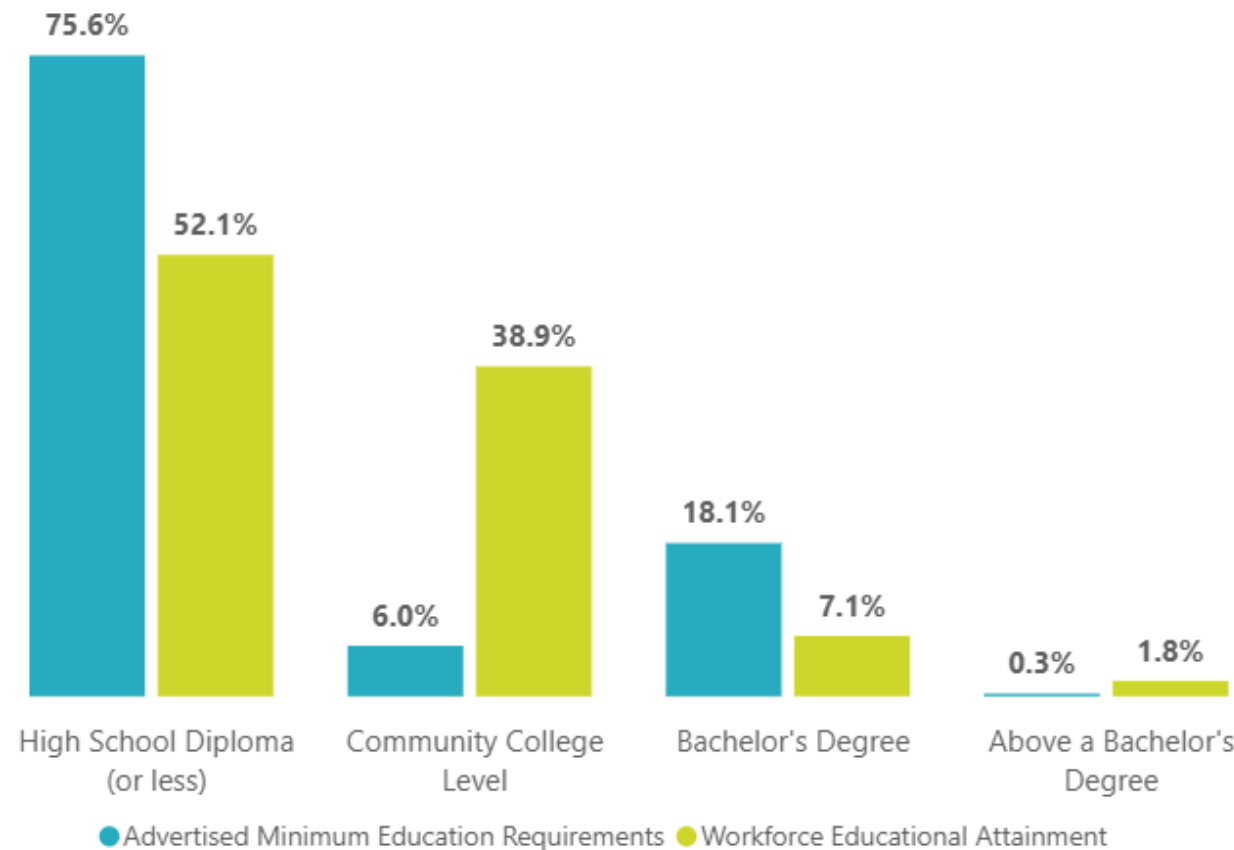
EXHIBIT 1.
Typical entry-level education and job requirements

SOC	Occupation	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	High school diploma or equivalent	Less than 5 years	None
49-3023	Automotive Service Technicians and Mechanics	Postsecondary nondegree award	None	Short-term on-the-job training

SOURCE: BLS TRAINING AND EDUCATION LEVELS, [HTTPS://WWW.BLS.GOV/EMP/DOCUMENTATION/EDUCATION/TECH.HTM](https://www.bls.gov/emp/documentation/education/tech.htm)

Exhibit 2 compares education attainment for the occupation, which is the highest degree or level of education attained by workers aged 25 or older in master automotive technician positions, against the minimum education requirements aggregated from job postings across California. A small percentage of workers (8.9%) in this occupation currently hold a bachelor’s degree or higher. The majority (7.1%) have a bachelor’s degree, while the remaining 1.8% report a master’s or doctorate degree. Similarly, a minority (18.4%) of job postings that specify a minimum education requirement list a bachelor’s degree or above as the minimum qualification.

EXHIBIT 2.
Workforce Education Attainment and Job Posting Minimum Education Requirements,
Job Postings from Apr 2025 - Mar 2026



SOURCE: LIGHTCAST 2026.1; BLS 2024

Our analysis indicates no licenses or certifications are required to join the occupations in this occupational group in the state of California.

Preference for Bachelor's Degree Holders

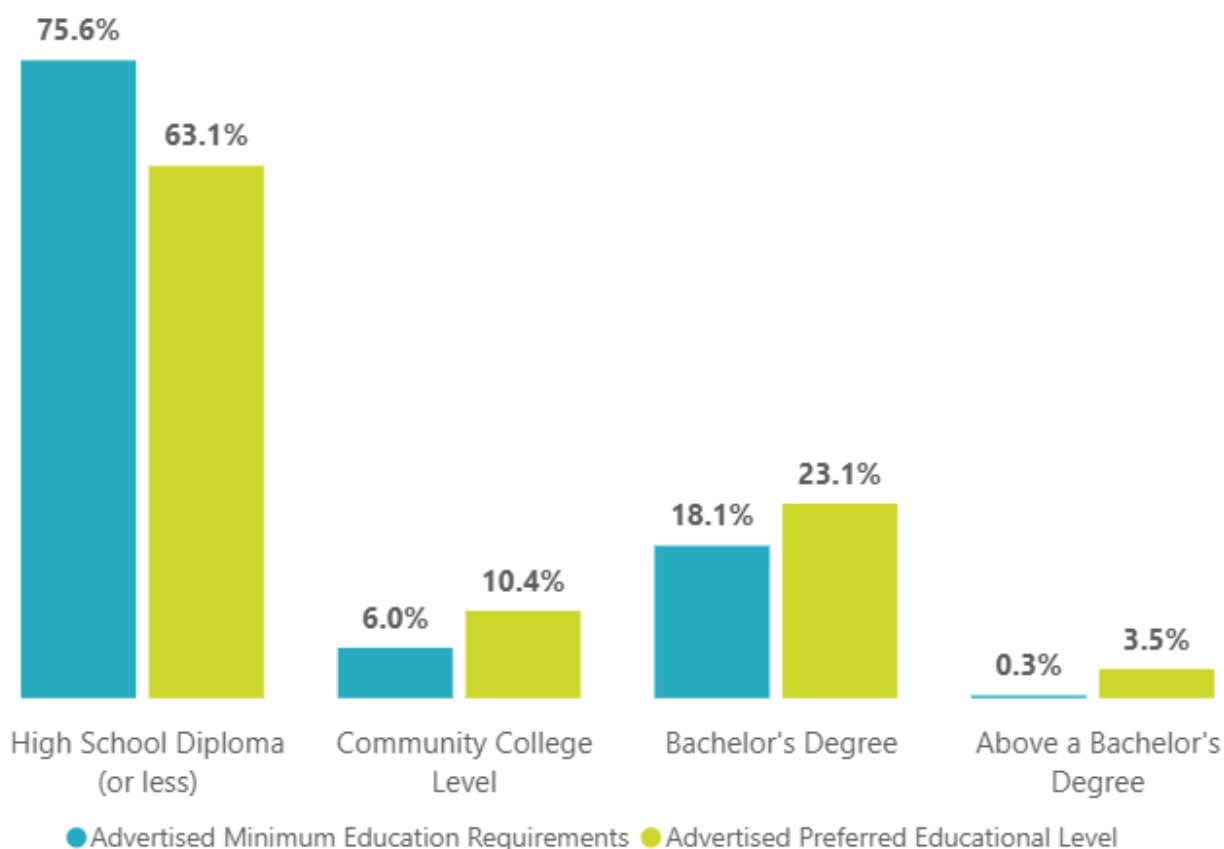
In an effort to establish evidence that employers prefer entry level workers with bachelor's degrees, Exhibit 3 shows the percentage of job postings that have both minimum education requirements and preferred education requirements for candidates for master automotive technician positions. The minority (18.4%) of job postings with an education requirement listed bachelor's degree or above as the minimum requirement for this occupation in the past 12 months. Similarly, slightly more than a quarter (26.6%) of job postings with an education requirement listed bachelor's degree or above as the preferred requirement for this occupation in the past 12 months.

Exhibit 1 above demonstrates that neither of the two occupations typically require a bachelor's degree for entry-level employment, instead requiring either a high school diploma or equivalent award or a postsecondary nondegree award.

Over the past 12 months, the majority of job postings within the state (81.6%) or preferred (73.5%) required qualifications less than a bachelor's degree, as evidenced by Exhibit 3. Consequently, there is limited evidence to suggest that a bachelor's degree is consistently required for positions in this group of occupations.

EXHIBIT 3.

Job Postings, Minimum and Preferred Education Requirements, California,
Apr 2025 - Mar 2026



SOURCE: LIGHTCAST 2026.1

Work Experience

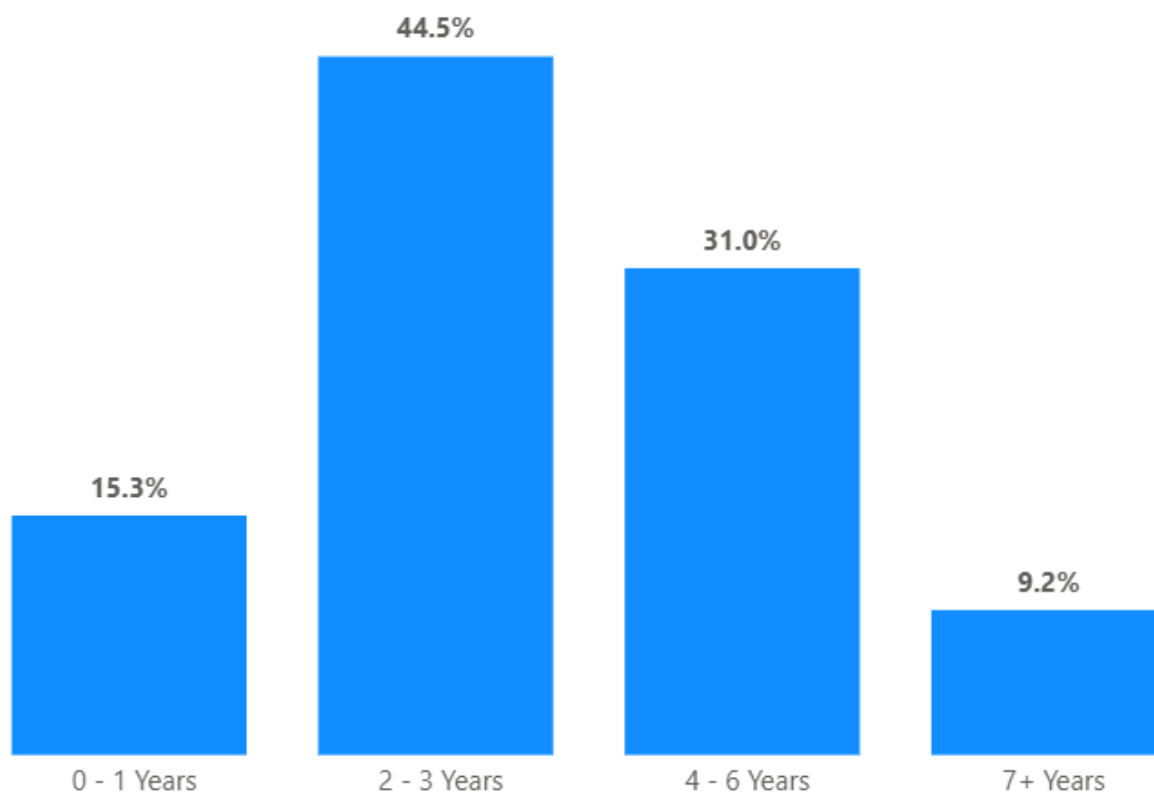
In an effort to establish evidence that employers prefer workers with a specific level of previous job experience, Exhibit 4 includes the distribution of minimum work experience

requirements advertised in job postings for master automotive technician occupations across California. The largest grouping (44.5%) of job postings for this occupational group requires a minimum of 2-3 years of previous work experience, while substantially fewer required 0-1 years (15.3%), 4-6 years (31.0%), or 7+ years (9.2%) of previous work experience.

Due to the preference for 2+ years of previous work experience, the majority of this occupational group's entry level workers should have previous experience in the industry in other related roles to gain employment. Gathering more information from employers on what qualifies as acceptable work experience is recommended.

EXHIBIT 4.

Work Experience Required, Job Posting Data, California, Apr 2025 - Mar 2026



SOURCE: LIGHTCAST 2026.1

Salary Differentials

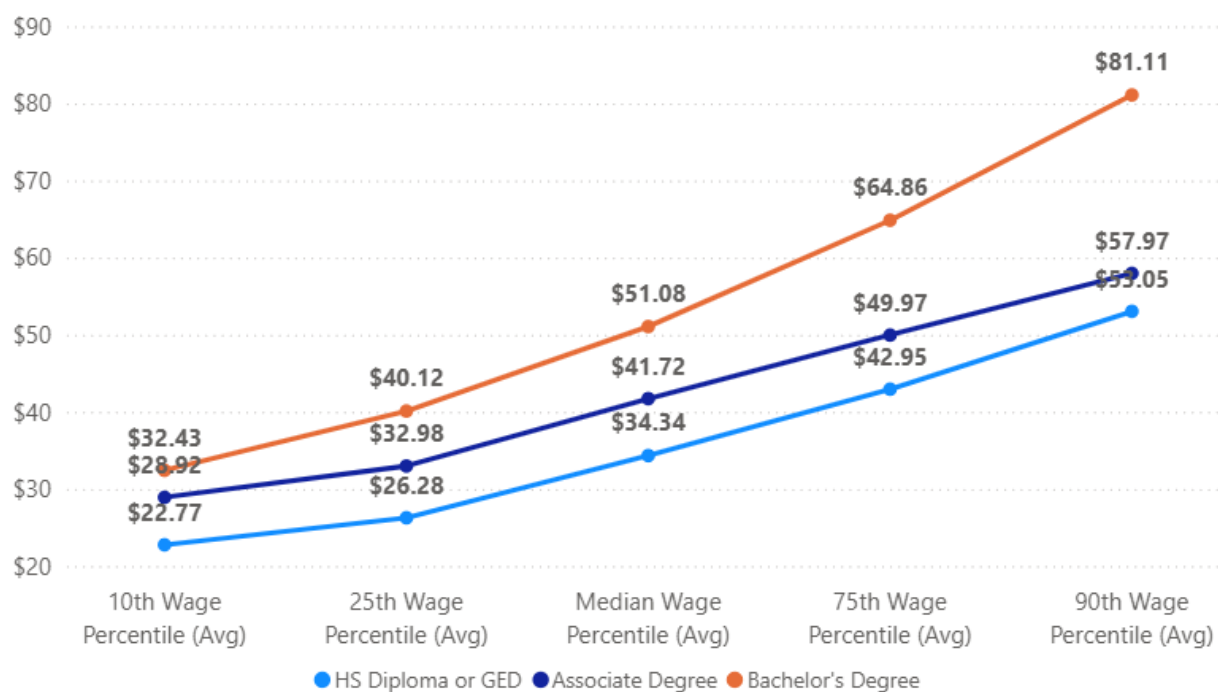
In an effort to establish evidence that employers offer higher salaries to entry-level workers with a bachelor's degree, we analyzed 30,508 job ads posted in the state for master automotive technician occupation ads: (a) job postings that require a minimum

education requirement of high school diploma and (b) associate degree and (c) bachelor's degree. Additionally, wages from both occupations were averaged to generate a single data point for each wage percentile.

Exhibit 5 displays the entry level (25th Pct.) hourly wage advertised in job postings that require a minimum education requirement of high school diploma (\$26.28) and associate degree (\$32.98) and bachelor's degree (\$40.12) This demonstrates that the advertised entry level wages for job postings are 21.7% higher for job postings that require a minimum of a bachelor's degree when compared to entry level wages for job postings that require a minimum of an associate degree and 52.7% higher when compared to entry level wages for job postings that require a minimum of a high school diploma or GED.

EXHIBIT 5.

Job Posting Hourly Wages (Averaged Across Occupations),
Minimum Education Requirements, California, Apr 2025 - Mar 2026



SOURCE: LIGHTCAST 2026.1

Employment Outlook

In an effort to establish evidence that this occupation has a positive employment outlook in the state, this section analyzes job demand projection data from 2024-2034.

In 2024, California had 135,445 positions for master automotive technician occupations. Projections indicate an increase to 141,769 positions by 2034, as detailed in Exhibit 6. Annually, there is an average of 12,020 new and replacement job openings expected. This represents 4.7% growth in the number of these roles over the next decade, as illustrated in Exhibit 7.

EXHIBIT 6.

Projected Jobs by Year, California, 2024-2034

SOC	Occupation	2024 Jobs	2025 Jobs	2026 Jobs	2027 Jobs	2028 Jobs	2029 Jobs
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	55,389	55,471	56,087	56,593	57,023	57,396
49-3023	Automotive Service Technicians and Mechanics	80,056	80,120	80,630	81,084	81,483	81,864
Total		135,445	135,591	136,718	137,677	138,505	139,260

SOC	Occupation	2030 Jobs	2031 Jobs	2032 Jobs	2033 Jobs	2034 Jobs
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	57,575	57,879	58,147	58,369	58,561
49-3023	Automotive Service Technicians and Mechanics	82,102	82,416	82,705	82,967	83,207
Total		139,677	140,296	140,852	141,336	141,769

SOURCE: LIGHTCAST 2025.4

EXHIBIT 7.

Projected Job Growth and Annual Job Openings, California, 2024-2034

SOC	Occupation	2024 Jobs	2034 Jobs	Job Growth	Avg. Annual Openings
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	55,389	58,561	5.7%	4,956
49-3023	Automotive Service Technicians and Mechanics	80,056	83,207	3.9%	7,064
Total		135,445	141,769	4.7%	12,020

SOURCE: LIGHTCAST 2026.1

REGIONAL DATA ANALYSIS

To compare projected demand and program supply, the following section analyzes historical employment trends over the past decade for target occupations in the region, details projected demand through 10-year forecasts, annual average job openings, and the supply of graduates from comparable higher education programs, including projections from new programs. Also included is a comparison of entry-level wages for these occupations with the living wage requirements for both single adults and single parents with one child in the region.

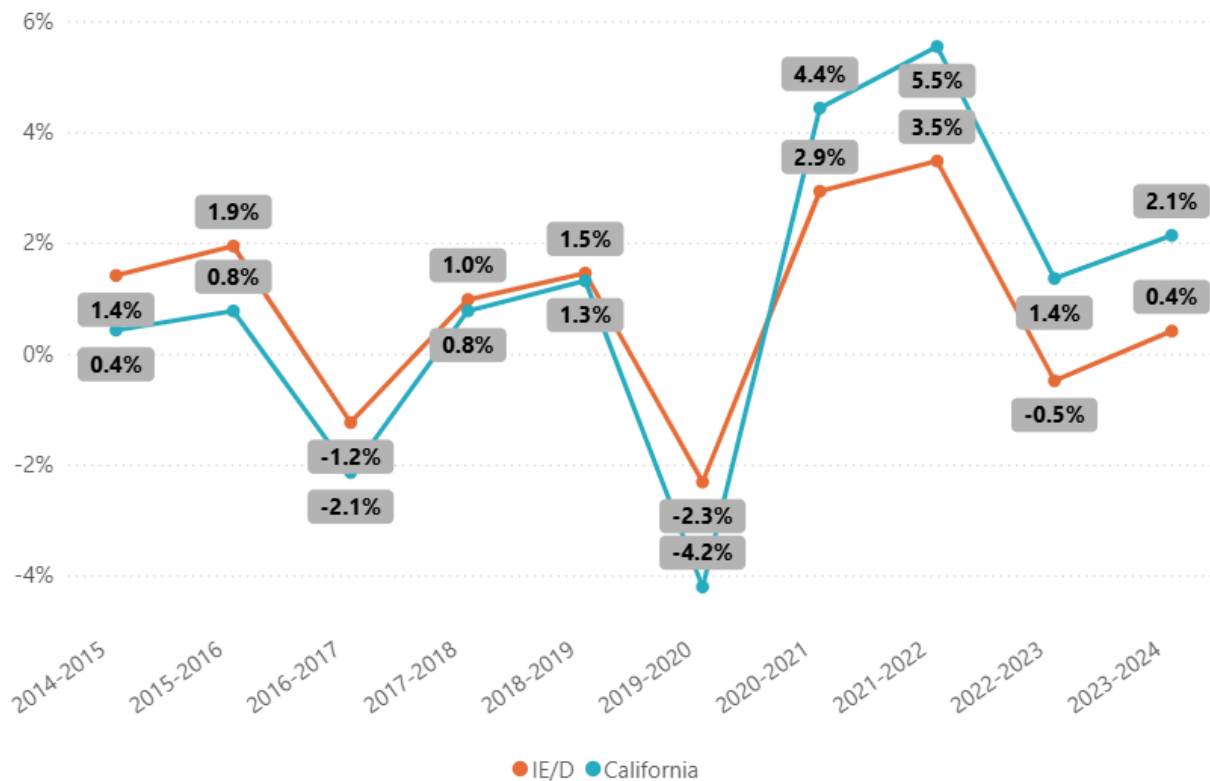
Employment Trends and Projections

In an effort to establish if this occupation has a positive employment outlook in the Inland Empire/Desert region, this section analyzes historic job change data from 2014-2024 and projected employment from 2024-2034.

Exhibit 8 shows the year-over-year job change for master automotive technician occupations in both the Inland Empire-Desert region and California from 2014-2024. This suggests that the growth of this occupational group in both regions has been slightly unpredictable, but the shifts in most years appear to be in the same direction. Both California and the IED region experienced negative growth for several years over the past decade, but ultimately showed overall positive growth.

EXHIBIT 8.

Historic Job Percent Change by Year, master automotive technician Occupations, Inland Empire-Desert Region and California, 2014-2024



SOURCE: LIGHTCAST 2026.1

As shown in Exhibit 9, in 2014, there were 15,091 jobs for master automotive technician occupations in the IE/D region as compared to 16,406 jobs in 2024. This represents an 8.0% increase in the number of jobs in the region over the period, while California saw a 9.5% increase. Since 2014, this group of occupations has seen an average annual growth rate of 0.8% in the IE/D region.

EXHIBIT 9.

Historical Employment, Inland Empire-Desert Region and California, 2014-2024

SOC and Description	2014 Jobs	2024 Jobs	Job Growth
49-1011 First-Line Supervisors of Mechanics, Installers, and Repairers			
IE/D	4,228	5,967	41.1%
California	41,384	55,389	33.8%
49-3023 Automotive Service Technicians and Mechanics			
IE/D	10,863	10,439	-3.9%
California	81,196	80,056	-1.4%
Total IE/D	15,091	16,406	8.0%
Total California	122,580	135,445	9.5%

SOURCE: LIGHTCAST 2026.1

Exhibit 10 displays the projected job demand for this occupational group, which will be compared to the projected supply of graduates from similar programs in the region in a later section. In 2024, the region had 16,406 jobs for master automotive technician occupations. By 2034, projections show a 10.1% increase to 18,060 jobs, as shown in Exhibit 11.

EXHIBIT 10.

Projected Jobs by Year, Inland Empire-Desert Region, 2024-2034

SOC	Occupation	2024 Jobs	2025 Jobs	2026 Jobs	2027 Jobs	2028 Jobs	2029 Jobs
49-3023	Automotive Service Technicians and Mechanics	10,439	10,464	10,646	10,802	10,939	11,060
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	5,967	5,977	6,087	6,177	6,255	6,322
Total		16,406	16,440	16,732	16,979	17,195	17,382

SOC	Occupation	2030 Jobs	2031 Jobs	2032 Jobs	2033 Jobs	2034 Jobs
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	6,358	6,412	6,463	6,505	6,541
49-3023	Automotive Service Technicians and Mechanics	11,144	11,250	11,347	11,437	11,519
Total		17,501	17,662	17,810	17,942	18,060

SOURCE: LIGHTCAST 2026.1

EXHIBIT 11.
Projected Job Growth and Annual Job Openings, Inland Empire-Desert Region,
2024-2034

SOC	Occupation	2024 Jobs	2034 Jobs	Job Growth	Avg. Annual Openings
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	5,967	6,541	9.6%	564
49-3023	Automotive Service Technicians and Mechanics	10,439	11,519	10.3%	996
Total		16,406	18,060	10.1%	1,561

SOURCE: LIGHTCAST 2026.1

Exhibit 11 displays an expected average of 1,561 new and replacement job openings annually, representing a 10.1% increase over the next decade, which is greater than the statewide growth of 4.7% for the same timeframe.

Occupational Wages

To determine if entry level wages for this occupation meet or exceed a self-sufficiency standard in the Inland Empire/Desert region, this section compares occupation wage estimates against the regional self-sufficiency standard. Exhibit 12 displays the hourly earnings by quartile for master automotive technician occupations and compares those to the UW Self-Sufficiency Standard for the IE/D against a variety of family-size scenarios. However, the primarily self-sufficiency benchmark includes one adult and one school-age child, \$34.35¹. This can be compared to the 25th percentile hourly earnings, which are generally considered entry level wages for an occupation.

When compared against the self-sufficiency standard, an adult and one school-age child, the entry level wages for both occupations are below the target (\$34.35) by almost \$3-\$16. This denotes that this occupational field is not positioned to provide a self-sustaining wage for new entrants to the field.

¹ The [UW self-sufficiency standard](#) is currently used by the CCCCCO and COE; the self-sufficiency standard was last updated by UW in 2024. UW estimates the living wage for an adult with one school-age child living in 2024 is \$34.35 in Riverside County and \$33.50 in San Bernadino County. The higher of the two is used to determine the single standard, \$34.35.

EXHIBIT 12.

Occupational Wage Estimates, Inland Empire-Desert Region, 2024-2034

Hourly Self-Sufficiency Standard				
1 Adult	Adult + Infant	Adult + Preschool Child	Adult + School-age Child	Adult + Teen
\$20.76	\$38.88	\$36.10	\$34.35	\$27.66

SOC	Occupation	25% Hourly Wages	50% Hourly Wages
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$31.42	\$39.66
49-3023	Automotive Service Technicians and Mechanics	\$18.86	\$27.46

SOURCE: LIGHTCAST 2026.1

Projected Supply

To project the supply of workers in this occupation for the Inland Empire/Desert region, this section analyzes past student award data, using the most recent data available for each dataset, for related programs combined with anticipated awards from proposed new programs. The CIP codes were chosen based on the CCCCCO TOP-CIP crosswalk.

Exhibit 13 displays student completions for any Automotive Technology (TOP 0948.00) programs over the last three academic years (2022-2025). In the previous three academic years, nine regional community colleges issued an average of 354 awards in relevant programs.

EXHIBIT 13.

Community College Program Awards, Inland Empire-Desert Region, AY 2022-2025

TOP	Program Name	College	2022-23 Awards	2023-24 Awards	2024-25 Awards	3 Year Award Average
0948.00	Automotive Technology	Barstow	10	28	26	21
0948.00	Automotive Technology	Chaffey	53	59	95	69
0948.00	Automotive Technology	College of the Desert	29	109	40	59
0948.00	Automotive Technology	Copper Mountain College	0	10	3	4
0948.00	Automotive Technology	Mt. San Jacinto	18	30	24	24
0948.00	Automotive Technology	Palo Verde	15	22	51	29
0948.00	Automotive Technology	Riverside	51	73	113	79
0948.00	Automotive Technology	San Bernardino	4	16	32	17
0948.00	Automotive Technology	Victor Valley	29	48	73	50
Total			209	395	457	354

SOURCE: MIS DATAMART

Exhibit 14 displays student completions for any related non-community college programs over the last three academic years (2021-2024). In the previous three academic years, two regional non-community college institutions issued an average of 522 awards in relevant programs.

EXHIBIT 14.

Non-Community College Program Awards, Inland Empire-Desert Region, AY 2021-2024

CIP	Title	Institution Name	2021-22 Awards	2022-23 Awards	2023-24 Awards	3 Year Award Average
47.0604	Automobile/Automotive Mechanics Technology/Technician	CET-Colton	24	7	12	14
47.0604	Automobile/Automotive Mechanics Technology/Technician	Universal Technical Institute of California Inc	469	516	539	508
Total			493	523	551	522

No student completions were found for related programs – Motorsports Engineering Technology/Technician (CIP 15.0807), High Performance and Custom Engine Technician/Mechanic (CIP 47.0617), Vehicle Emissions Inspection and Maintenance Technology/Technician (CIP 47.0612) – over the last three academic years (2021-2024).

To project the number of awards that may come from programs potentially offered in the region, we include the following assumptions:

1. College(s) would continue to confer awards based on the average annual baccalaureate degree awards amount as shown in Exhibit 13 and Exhibit 14.
2. The proposed program would be offered at a single community college within academic year 2027-2028.

Exhibit 15 displays the total projected supply with current average awards and a potential bachelor's degree program in TOP Automotive Technology 0948.00. In future years there are projected to be 915 awards across existing community college programs, existing non-community college programs, and a class of regional BA program graduates.

EXHIBIT 15.

CCC Award Data, Projected Total Awards, Inland Empire-Desert Region, 2027-2028

Program Code and Title	Program Type	Avg. Annual Awards
TOP 0948.00 Automotive Technology	Existing CCC Programs	354
CIP 47.0604 Automobile/Automotive Mechanics Technology/Technician	Existing Non-CC Programs	522
	Projected BA Program	39
Total:		915

SOURCE: MIS DATAMART

Appendix: Methodology and Sources

Exhibit 13 displays the average annual California Community College (CCC) awards conferred during the three academic years between 2022 and 2025 from the California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart. Awards are the combined total during the timeframe, divided by three in this case to calculate an annual average. This is being done to minimize the effect of atypical variations that might be present in a single year.

Type of Data	Source
Occupational Projections, Wages, and Job Postings	Traditional labor market information data is sourced from Lightcast, a labor market analytics firm. Lightcast occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment. https://lightcast.io/ The job posting data is collected from scraping online job boards such as LinkedIn, Indeed, Glassdoor and many others. The process Lightcast uses to assemble this data does have some limitations due to methods that recruitment professionals sometimes use (e.g., posting one job to fill multiple positions). For example, the number of jobs posted is not necessarily the same as the number of job vacancies. While not perfect, Lightcast leverages machine learning and other AI technologies to enrich, deduplicate and aggregate this information to make it a meaningful dataset.
Self-Sufficiency Standard	Center for Women's Welfare, University of Washington. (2024). The self-sufficiency standard for California 2024. http://www.selfsufficiencystandard.org/. This calculation measures the income necessary for an individual of family to afford basic expenses. The data assesses the cost of housing, food, childcare, health care, transportation, and taxes.
Typical Education and Training Requirements, and Educational Attainment	The Bureau of Labor Statistics (BLS) provides information about education and training requirements for hundreds of occupations. BLS uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which BLS publishes projections data. For more information, see https://www.bls.gov/emp/documentation/education/tech.htm

Educational Supply

The CCCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: <https://datamart.cccco.edu>
The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions). For more information, see <https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions>

IPUMS USA

Steven Ruggles, Sarah Flood, Matthew Sobek, Daniel Backman, Annie Chen, Grace Cooper, Stephanie Richards, Renae Rodgers, and Megan Schouweiler. IPUMS USA: Version 15.0 [dataset]. Minneapolis, MN: IPUMS, 2024.
<https://doi.org/10.18128/D010.V15.0>. Available at [IPUMS USA](#)