

Automotive Service Technicians and Mechanics Labor Market Analysis: San Diego County

January 2018

Summary

The following list summarizes findings from the labor market analysis below for *Automotive Service Technicians and Mechanics*:

- Between 2016 and 2021, *Automotive Service Technicians and Mechanics* are projected to increase by 208 jobs (or three percent) in San Diego County.
- Employers in San Diego County will need to hire 744 workers annually to fill new jobs and to backfill jobs due to attrition such as retirement or turnover.
- Between 2010 and 2017, there was an average of 264 online job postings per year for *Automotive Service Technicians and Mechanics* in San Diego County.
- *Automotive Service Technicians and Mechanics* earn median hourly earnings of \$17.30, more than the self-sufficient wage (\$13.09 per hour) for a single adult in San Diego County
- According to the California Community Colleges Chancellor's Office Management Information System (MIS) Data Mart, three colleges supply the region with an annual average of 48 awards for this occupation: San Diego Continuing Ed, Imperial Valley College and Palomar College.
- Comparing the labor demand with labor supply, there is a supply gap for this occupation in San Diego County, with 744 annual openings and 48 awards. Comparatively, there are 8,658 annual openings in California and 4,990 completions.
- Between January 1, 2015 and December 31, 2017, the top five employers in San Diego County for this occupation were Jiffy Lube, Bridgestone/Firestone, Pep Boys, Nissan North American Incorporated and Penske.
- The typical on-the-job training for this occupation is short-term on-the-job training. The typical entry-level education is a postsecondary non-degree award.

Introduction

This report provides labor market information in San Diego County for the following occupational code in the Standard Occupational Classification (SOC)¹ system:

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

¹ 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.

Truck Mechanics and Diesel Engine Specialists" (49-3031), and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096). Sample reported job titles include:

- Transmission Rebuilder
- Service Technician
- Mechanic
- Truck Technician
- Shop Foreman
- Automobile Mechanic (Auto Mechanic)
- Master Technician
- Lube Technician
- Trim Technician

Projected Occupational Demand

Between 2016 and 2021, *Automotive Service Technicians and Mechanics* are projected to increase by 208 jobs (or three percent) in San Diego County (Exhibit 1a and Exhibit 1b).²

Exhibit 1a: Number of Jobs for Automotive Service Technicians and Mechanics (2006-2021)³

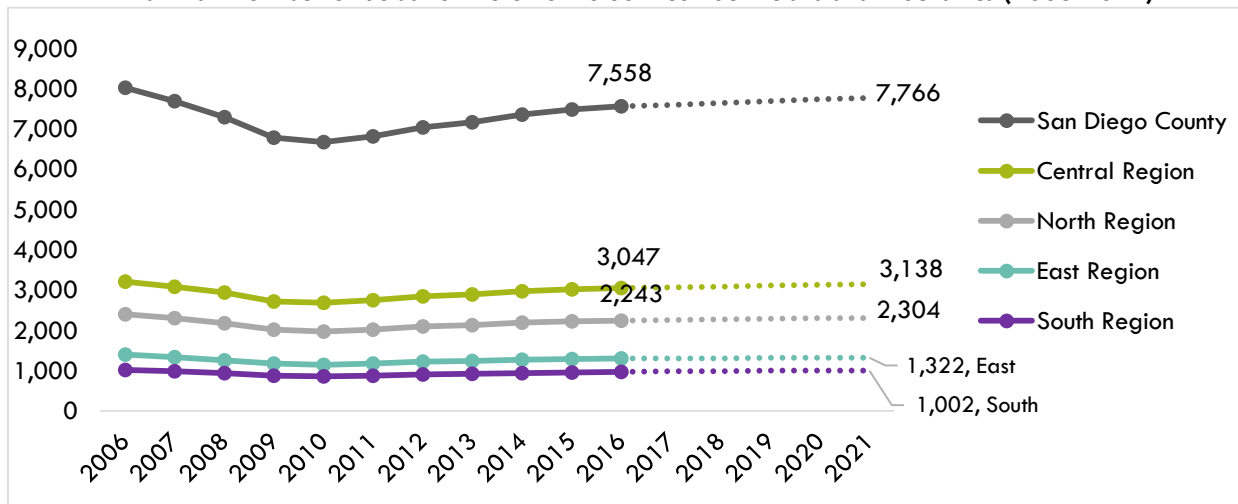
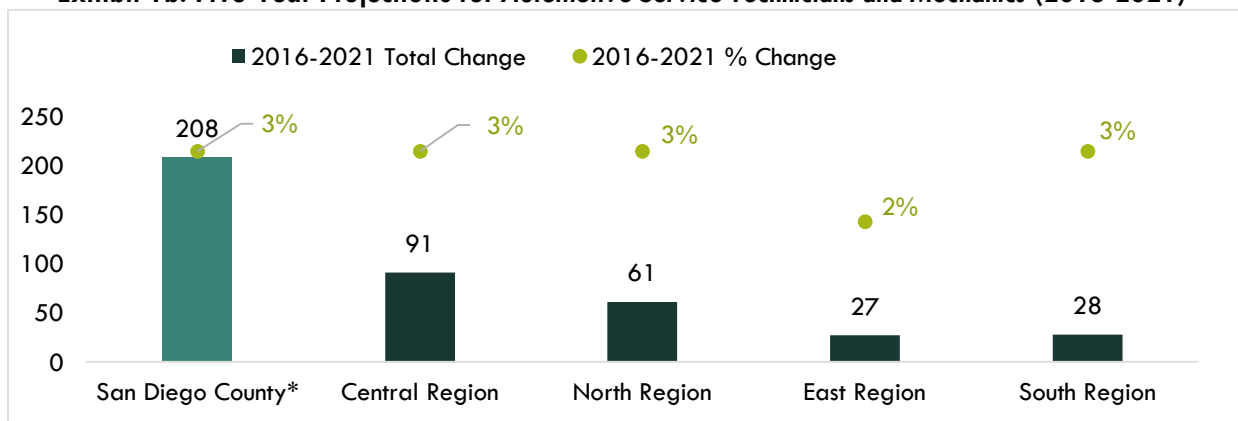


Exhibit 1b: Five-Year Projections for Automotive Service Technicians and Mechanics (2016-2021)⁴



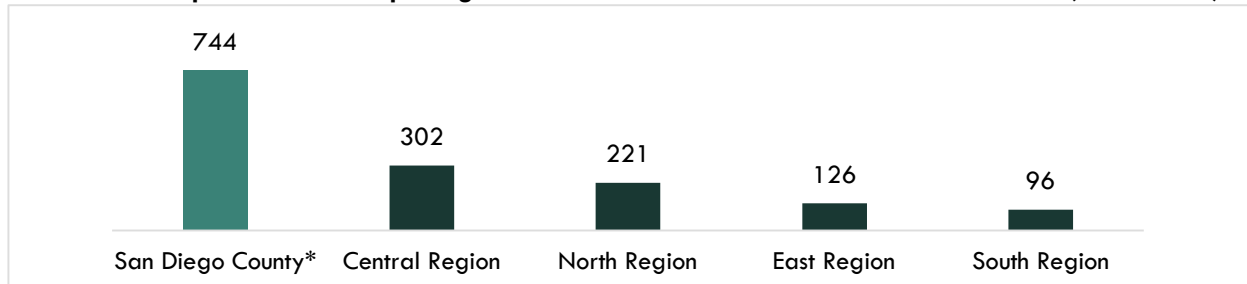
² South, East, Central and North Regions' zip codes in this report are defined by the local Workforce Development Board, the San Diego Workforce Partnership.

³ Economic Modeling Specialists, Int'l. (EMSI). San Diego County (6073). 2017.03 Class of Worker. QCEW + Non-QCEW+ Self-employed. 2006-2021.

⁴ EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-employed. 2016-2021.

Employers in San Diego County will need to hire **744** workers annually to fill new jobs and backfill jobs due to attrition such as retirement or turnover (Exhibit 2).

Exhibit 2: Projected Annual Openings for Automotive Service Technicians and Mechanics (2016-2021)⁵

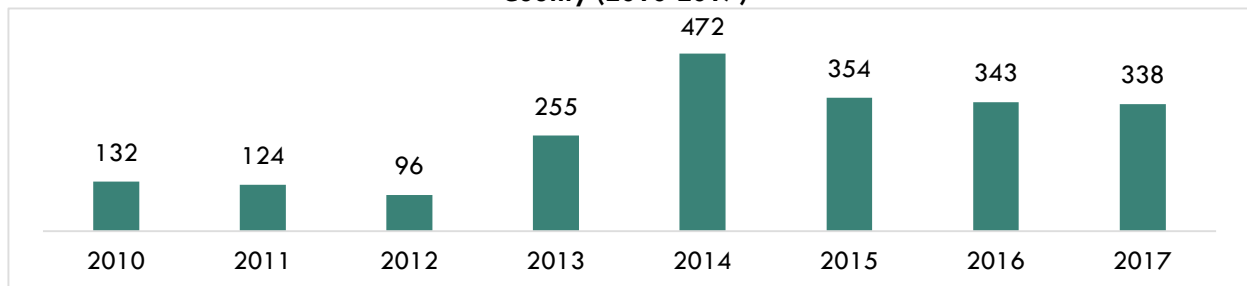


*Total annual openings for the subregions in San Diego County may not added up exactly due to rounding.

Online Job Postings

Between 2010 and 2017, there was an average of **264** online job postings per year for *Automotive Service Technicians and Mechanics* in San Diego County (Exhibit 3).

Exhibit 3: Number of Online Job Postings for Automotive Service Technicians and Mechanics in San Diego County (2010-2017)⁶



Earnings

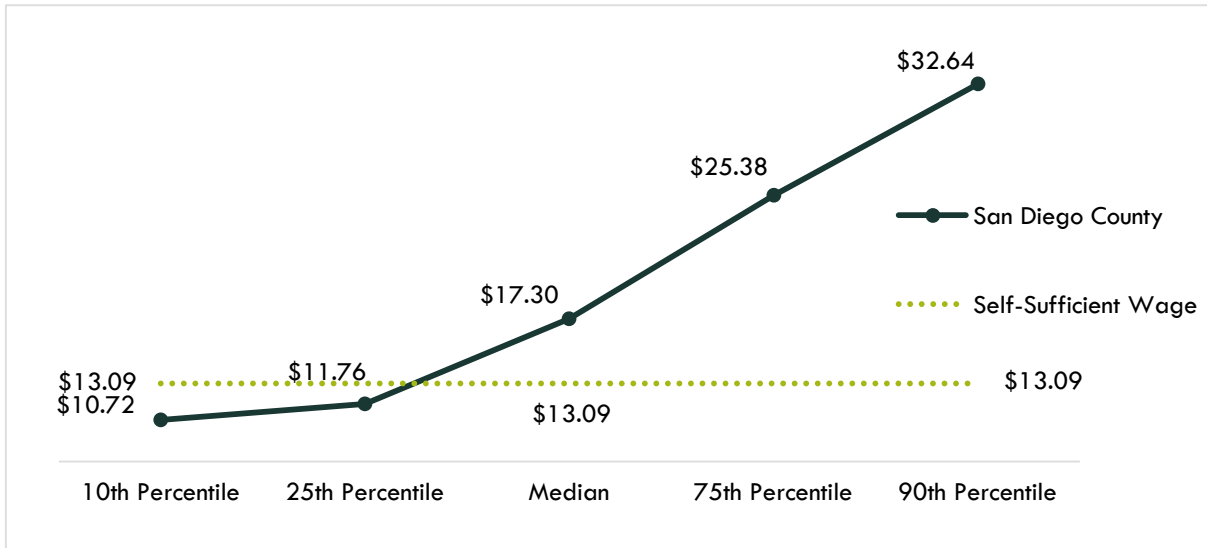
Automotive Service Technicians and Mechanics earn median hourly earnings of **\$17.30**, more than the self-sufficient wage (\$13.09 per hour)⁷ for a single adult in San Diego County (Exhibit 4).

⁵ EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-employed. 2016-2021.

⁶ Labor Insight Jobs. Burning Glass Technologies. San Diego, CA. Full years 2010-2017.

⁷ The self-sufficient wage in San Diego for one adult is \$13.09 (insightcced.org/tools-metrics/self-sufficiency-standard-tool-for-california)

Exhibit 4: Hourly Earnings for Automotive Service Technicians and Mechanics in San Diego County⁸



Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of related program completers/graduates/awards in San Diego County. To determine what programs are available, Exhibit 5 lists the Taxonomy of Programs (TOP) code(s) related to the SOC code analyzed.

Exhibit 5: Related TOP Codes in San Diego County

SOC 49-3023: Automotive Service Technicians and Mechanics

TOP 094900: Automotive Collision Repair

TOP 094840: Alternative Fuels and Advanced Transportation Technology

According to the California Community Colleges Chancellor's Office Management Information System (MIS) Data Mart, **three** colleges supply the region with an annual average of **48** awards for this occupation: **San Diego Continuing Ed, Imperial Valley College and Palomar College** (Exhibit 6).

Exhibit 6 shows the annual average regional community college awards (associate degrees and certificates) conferred during the three academic years between 2013 and 2016, as well as other awards granted outside the California Community Colleges from 2012 to 2015, with the relevant TOP code.

Please note: An award is not equivalent to a single person in search of a job opening since a student may earn more than one award, such as an associate degree in addition to a certificate.

⁸ EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-employed. 2016-2021.

Exhibit 6: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions by Occupation (Program Year 2012-13 through PY2015-16 Average)

TOP06	TOP06 Title	3-Yr Annual Average Supply (PY13-14 to PY15-16)	3-Yr Annual Average CC Awards (PY13-14 to PY15-16)	Other Educational Institutions 3-Yr Annual Average Awards (PY12-13 to PY14-15)
094900	Automotive Collision Repair	48	48	0
	<ul style="list-style-type: none"> San Diego Continuing Ed 		45	
	<ul style="list-style-type: none"> Imperial Valley College 		0	
	<ul style="list-style-type: none"> Palomar College 		3	
094840	Alternative Fuels and Advanced Transportation Technology	0	0	0

*Total number of awards may not add up exactly due to rounding.

Demand vs. Supply

Comparing the labor demand (annual openings) with labor supply⁹ from the region's colleges, there is a **supply gap** for this occupation in San Diego County, with **744** annual openings and **48** awards.

Comparatively, there are **8,658** annual openings in California and **4,990** completions.¹⁰

Exhibit 7: Labor Demand (Annual Openings) Compared to Labor Supply (Average Annual Awards)

Community Colleges and Other Postsecondary Educational Institutions	Demand (Annual Openings)	Supply (Total Annual Average Supply)	Supply Gap or Oversupply
San Diego County	744	48	696
California	8,658	4,990	3,668

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

⁹ 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.

¹⁰ EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-employed. 2016-2021.

Student Outcomes

Based on the information available in the CTE LaunchBoard,¹¹ students who took courses in the related TOP codes exhibited the following outcomes (Exhibit 8).

**Exhibit 8: Strong Workforce Program Metrics for
094900 Automotive Collision Repair vs. All Programs in San Diego-Imperial Region (PY2014-15)**

Metric	TOP 094900	All Programs
Number of course enrollments ¹²	329	1,009,712
Number of students who got a degree or certificate ¹³	41	17,536
Number of students who transferred ¹⁴	1	6,269
Employed in the second fiscal quarter after exit ¹⁵	60%	66%
Employed in the fourth fiscal quarter after exit ¹⁶	63%	65%
Job closely related to field of study ¹⁷	N/A	N/A ¹⁸
Median earnings in the second fiscal quarter after exit ¹⁹	\$7,044	\$9,134
Median change in earnings ²⁰	60%	31%
Attained a living wage ²¹	51%	50%

Top Employers and Work Locations

Between January 1, 2015 and December 31, 2017, the top five employers in San Diego County for this occupation were *Jiffy Lube, Bridgestone/Firestone, Pep Boys, Nissan North American Incorporated and Penske* (Exhibit 9).

Exhibit 9: Top Employers in San Diego County for Automotive Service Technicians and Mechanics

Top Employers
<ul style="list-style-type: none"> • Jiffy Lube • Staples

¹¹ calpassplus.org/LaunchBoard/SWP.aspx

¹² The number of enrollments in courses assigned to the TOP code in the selected year

¹³ The number of unduplicated students who earned a locally-issued certificate, Chancellor's Office approved certificate, associate degree, and/or CCC bachelor's degree in the selected TOP code

¹⁴ Students who took non-introductory courses or completed a CCCC award in the selected TOP code in selected year who subsequently enrolled for the first time in a four-year institution the following year

¹⁵ Among all exiters with a valid SSN, the percentage who were employed two quarters after exiting the Community college system

¹⁶ Among exiting students with a valid SSN, the percentage who were employed four quarters after exiting the California community college system

¹⁷ Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study

¹⁸ Data for this metric has not been released for PY2014-15; however, in PY2013-14, the result was 81%.

¹⁹ Among exiting students, the median second quarter earnings one year after the year in which they exited the California community college system

²⁰ Among exiting students with a valid SSN, the percentage change in earnings one year before and one year after exiting the California community college system

²¹ Among completers and skills-builders who exited, the proportion of students who attained a living wage

- Bridgestone/Firestone
- Pep Boys
- Nissan North America Incorporated
- Penske
- AutoNation
- Amsec, LLC
- Oremor Automotive Group
- Park Shore BMW

Skills, Education and Certifications

Exhibit 10 indicates the educational attainment for the occupation found currently in the national labor force. The typical on-the-job training for this occupation is **short-term on-the-job training**. The typical entry-level education is a **postsecondary non-degree award**.²²

Exhibit 10: National Educational Attainment of Automotive Service Technicians and Mechanics

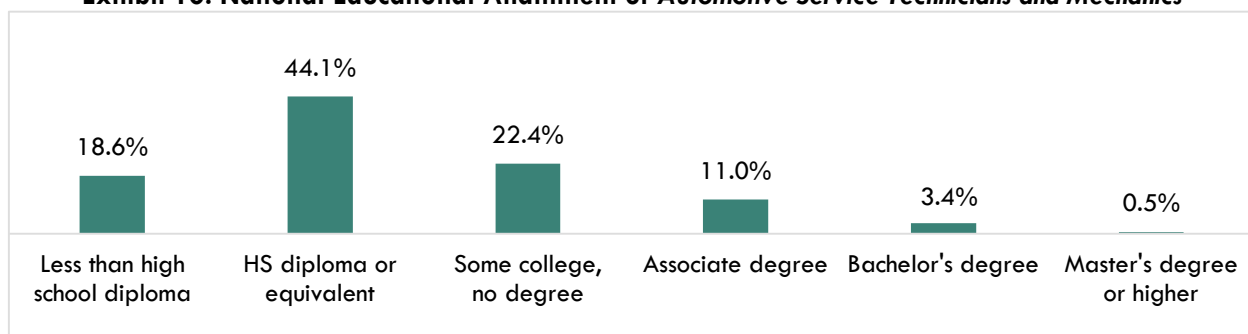


Exhibit 11 lists the top specialized, soft and software skills that appeared in online job postings for between January 1, 2015 and November 30, 2017.

Exhibit 11: Top Skills for Automotive Service Technicians and Mechanics in San Diego County²³

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> • Repair • Inspection • Hand Tools • Vehicle Inspection • Customer Service 	<ul style="list-style-type: none"> • Physical Demand • Communication Skills • Organizational Skills • Leadership • Troubleshooting 	<ul style="list-style-type: none"> • Microsoft Vista • Microsoft Office • Microsoft Excel • Microsoft Word • Microsoft PowerPoint

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²² EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-employed. 2016-2021.

²³ Labor Insight Jobs. Burning Glass Technologies. San Diego, CA. Full years 2015-2017.