

# Electronic Equipment Installers and Repairers, Motor Vehicles

## Labor Market Analysis: San Diego County

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January 2018

### Summary

The following list summarizes findings from the labor market analysis below for *Electronic Equipment Installers and Repairers, Motor Vehicles*:

- Between 2016 and 2021, *Electronic Equipment Installers and Repairers, Motor Vehicles* are projected to decline by 28 jobs (or 18 percent) in San Diego County.
- Though the overall number of jobs for this occupation is projected to decline, employers in San Diego County will need to hire 14 workers annually to fill new jobs and backfill jobs due to attrition such as retirement or turnover.
- Between 2010 and 2017, there was an average of 38 online job postings per year for *Electronic Equipment Installers and Repairers, Motor Vehicles* in San Diego County.
- *Electronic Equipment Installers and Repairers, Motor Vehicles* earn median hourly earnings of \$14.60, more than the self-sufficiency 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, eight colleges supply the region with an annual average of 351 awards for this occupation: CET – El Centro, San Diego Continuing Ed, Cuyamaca College, Imperial Valley College, MiraCosta College, Palomar College, San Diego Miramar College and Southwestern College.
- Comparing the labor market demand with labor supply, there is an oversupply for this occupation in San Diego County, with 14 annual openings and 643 awards. Comparatively, there are 153 annual openings in California and 4,892 awards.
- Between January 1, 2015 and December 31, 2017, the top five employers in San Diego County for this occupation were Best Buy, Serco, Fastsigns, Ferrellgas and U.S. Marine Corps.
- The typical on-the-job training for this profession is short-term. The typical entry-level education is a post-secondary degree.

### Introduction

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

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<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](http://bls.gov/soc).

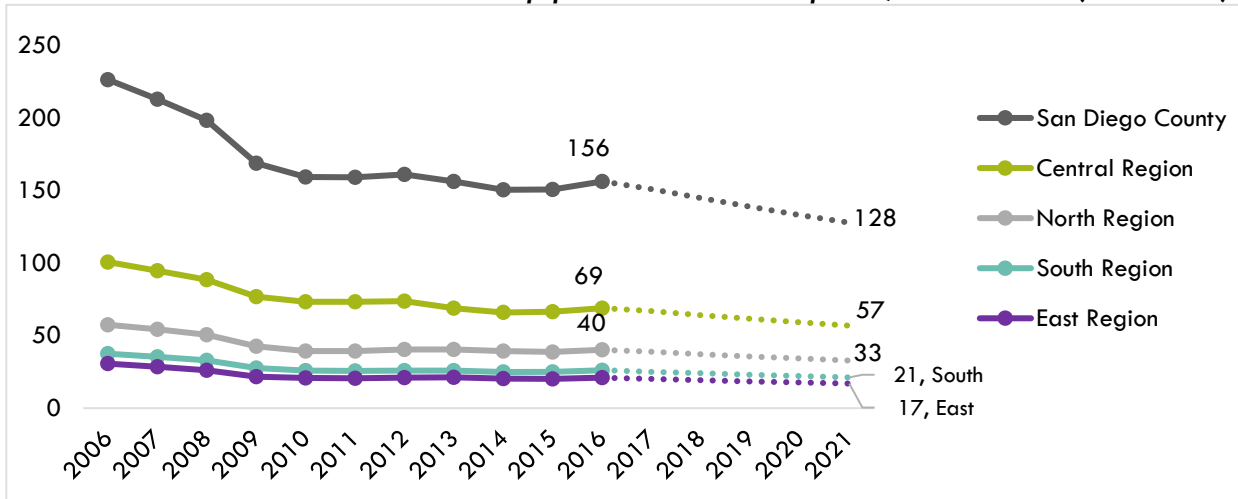
**Electronic Equipment Installers and Repairers, Motor Vehicles (SOC 49-2096):** Install, diagnose or repair communications, sound, security or navigation equipment in motor vehicles. Sample reported job titles include:

- Mobile Electronics Installer
- Car Stereo Installer
- Mobile Electronics Installation Specialist
- Car Audio Installer
- Installer
- Electronic Technician
- Electronic Equipment Installer
- Car Electronics Installer
- Automotive Technician
- Installation Technician

### Projected Occupational Demand

Between 2016 and 2021, *Electronic Equipment Installers and Repairers, Motor Vehicles* are projected to decline by 28 jobs (or 18 percent) in San Diego County (Exhibit 1a and Exhibit 1b).<sup>2</sup>

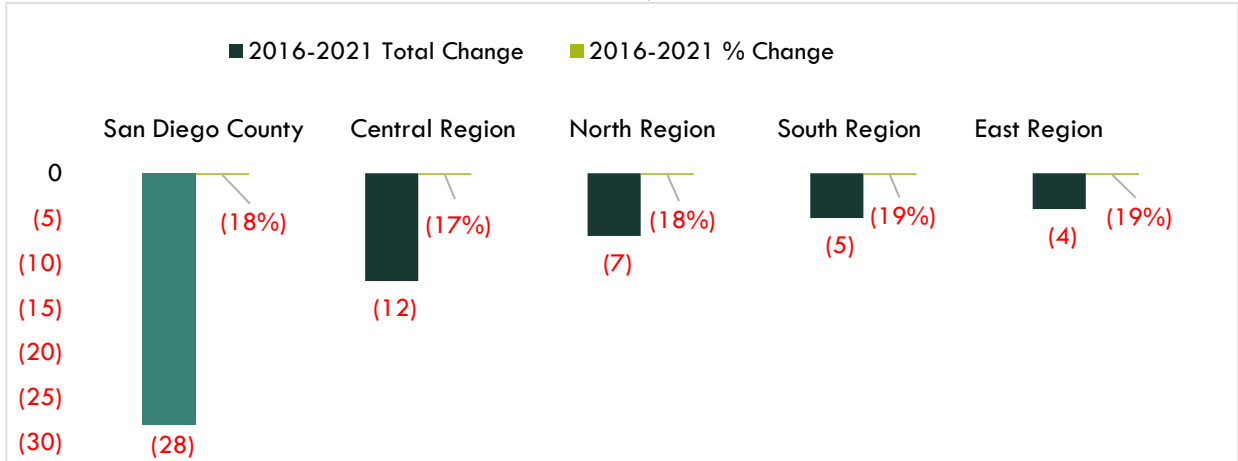
**Exhibit 1a: Number of Jobs for *Electronic Equipment Installers and Repairers, Motor Vehicles* (2006-2021)<sup>3</sup>**



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

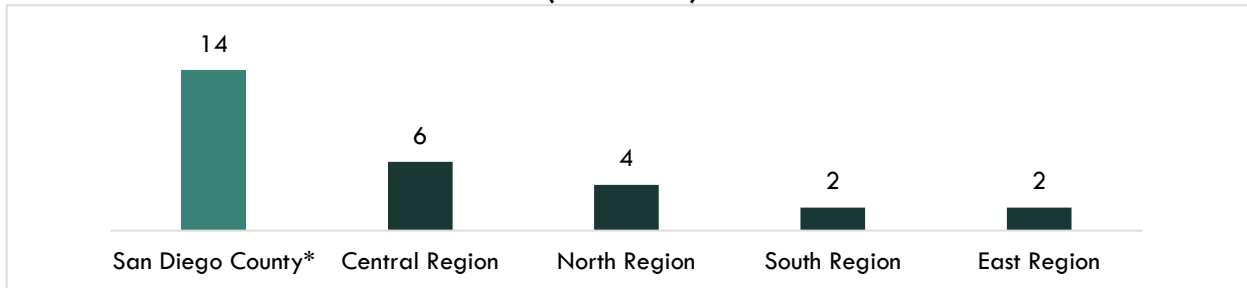
<sup>3</sup> Economic Modeling Specialists, Int'l. (EMS). San Diego County (6073). 2017.03 Class of Worker. QCEW + Non-QCEW+ Self-Employed. 2006-2021.

**Exhibit 1b: Five-Year Projections for *Electronic Equipment Installers and Repairers, Motor Vehicles* (2016-2021)<sup>4</sup>**



While the overall number of jobs for this occupation is projected to decline, employers in San Diego County will need to hire **14** 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 *Electronic Equipment Installers and Repairers, Motor Vehicles* (2016-2021)<sup>5</sup>**



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

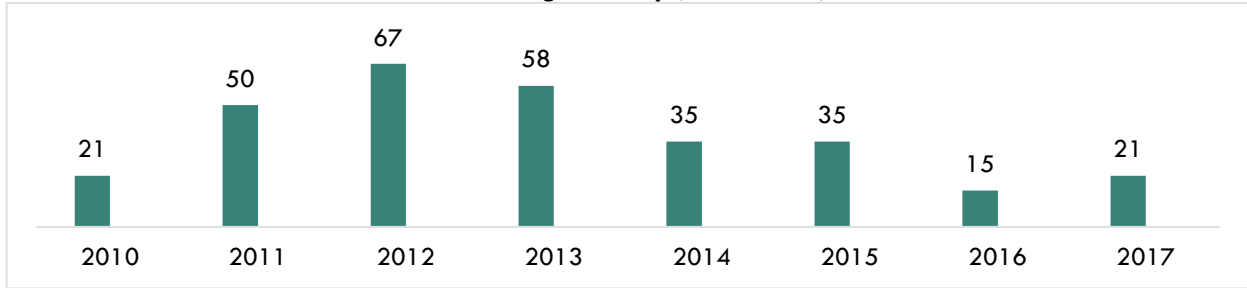
### Online Job Postings

Between 2010 and 2017, there was an average of **38** online job postings per year for *Electronic Equipment Installers and Repairers, Motor Vehicles* in San Diego County (Exhibit 3).

<sup>4</sup> EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2016-2021.

<sup>5</sup> EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2016-2021.

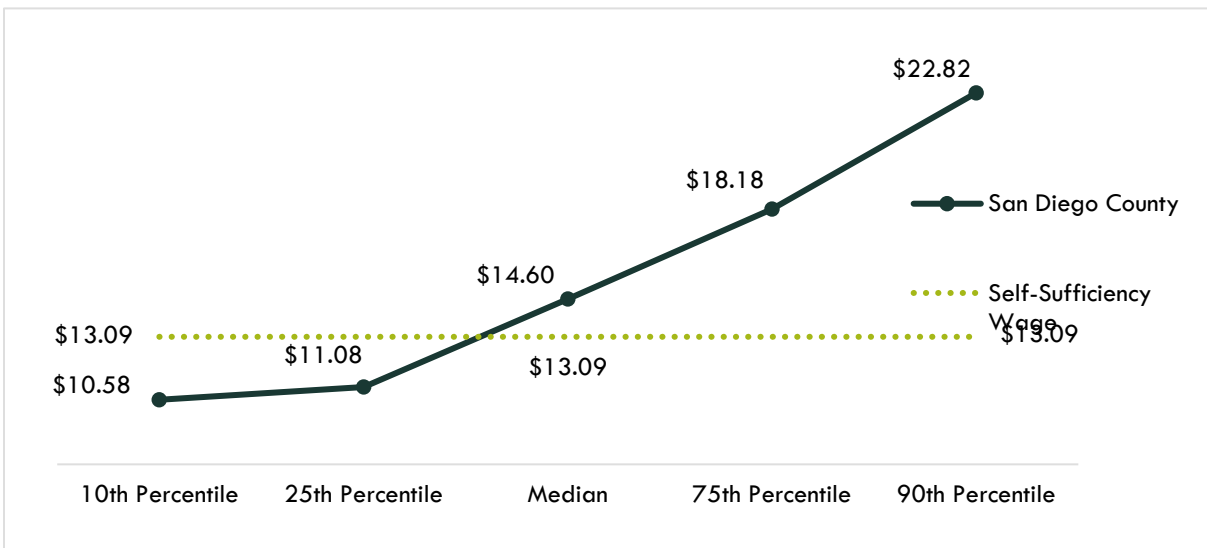
**Exhibit 3: Number of Online Job Postings for *Electronic Equipment Installers and Repairers, Motor Vehicles* in San Diego County (2010-2017)<sup>6</sup>**



## Earnings

*Electronic Equipment Installers and Repairers, Motor Vehicles* earn median hourly earnings of **\$14.60**, more than the self-sufficiency wage (\$13.09 per hour)<sup>7</sup> for a single adult in San Diego County (Exhibit 4).

**Exhibit 4: Hourly Earnings for *Electronic Equipment Installers and Repairers, Motor Vehicles* in San Diego County<sup>8</sup>**



## 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.

<sup>6</sup> Labor Insight Jobs. Burning Glass Technologies. San Diego, CA. Full years 2010, 2011, 2012, 2013, 2014, 2015, 2016, and 2017.

<sup>7</sup> The self-sufficiency wage in San Diego for one adult is \$13.09 ([insightcced.org/tools-metrics/self-sufficiency-standard-tool-for-california](https://insightcced.org/tools-metrics/self-sufficiency-standard-tool-for-california)).

<sup>8</sup> EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2016-2021.

**Exhibit 5: Related TOP Codes in San Diego County**

**SOC 49-2096: Electronic Equipment Installers and Repairers, Motor Vehicles**

TOP 094800: Automotive Technology

According to the California Community Colleges Chancellor’s Office Management Information System (MIS) Data Mart, **eight** colleges supply the region with an annual average of **643** awards for this occupation:

CET – El Centro, San Diego Continuing Education, Cuyamaca College, Imperial Valley College, MiraCosta College, Palomar College, San Diego Miramar College and Southwestern 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 because a student may earn more than one award such as an associate degree in addition to a certificate.

**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)
094800	Automotive Technology	<b>682</b>	<b>643</b>	<b>39</b>
	<ul style="list-style-type: none"> <li>CET – El Centro</li> </ul>			39
	<ul style="list-style-type: none"> <li>San Diego Continuing Education</li> </ul>		340	
	<ul style="list-style-type: none"> <li>Cuyamaca College</li> </ul>		18	
	<ul style="list-style-type: none"> <li>Imperial Valley College</li> </ul>		4	
	<ul style="list-style-type: none"> <li>MiraCosta College</li> </ul>		74	
	<ul style="list-style-type: none"> <li>Palomar College</li> </ul>		34	
	<ul style="list-style-type: none"> <li>San Diego Miramar College</li> </ul>		144	
	<ul style="list-style-type: none"> <li>Southwestern College</li> </ul>		30	

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

## Demand vs. Supply

Comparing the labor demand (annual openings) with labor supply<sup>9</sup> from the region's community colleges, there is an **oversupply** for this occupation in San Diego County, with **14** annual openings and **643** awards. Comparatively, there are **153** annual openings in California and **4,892** completions.<sup>10</sup>

**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	14	643	<b>629</b>
California	153	4,892	<b>4,739</b>

**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 who could fill these positions or workers who are not captured by publicly available data.

## Student Outcomes

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

**Exhibit 8: Strong Workforce Program Metrics for  
TOP 094800 Automotive Technology vs. All Programs in San Diego-Imperial Region (PY2014-15)**

Metric	TOP 094800	All Programs
Number of course enrollments <sup>12</sup>	5,390	1,009,712
Number of students who got a degree or certificate <sup>13</sup>	330	17,536
Number of students who transferred <sup>14</sup>	20	6,269
Employed in the second fiscal quarter after exit <sup>15</sup>	67%	66%
Employed in the fourth fiscal quarter after exit <sup>16</sup>	66%	65%

<sup>9</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>10</sup> EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2016-2021.

<sup>11</sup> [calpassplus.org/LaunchBoard/SWP.aspx](http://calpassplus.org/LaunchBoard/SWP.aspx).

<sup>12</sup> The number of enrollments in courses assigned to the TOP code in the selected year.

<sup>13</sup> The number of unduplicated students who earned a locally-issued certificate, Chancellor's Office approved certificate, associate degree, and/or California Community Colleges bachelor's degree in the selected TOP code.

<sup>14</sup> Students who took non-introductory courses or completed a California Community Colleges Chancellor's Office award in the selected TOP code in selected year who subsequently enrolled for the first time in a four-year institution the following year.

<sup>15</sup> Among all exiters with a valid SSN, the percentage who were employed two quarters after exiting California Community Colleges.

<sup>16</sup> Among Exiting students with a valid SSN, the percentage who were employed four quarters after exiting California Community Colleges.

Metric	TOP 094800	All Programs
Job closely related to field of study <sup>17</sup>	N/A <sup>18</sup>	N/A <sup>19</sup>
Median earnings in the second fiscal quarter after exit <sup>20</sup>	\$6,116	\$9,134
Median change in earnings <sup>21</sup>	51%	31%
Attained a living wage <sup>22</sup>	40%	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 **Best Buy, Serco, Fastsigns, Ferrellgas and U.S. Marine Corps** (Exhibit 9).

### Exhibit 9: Top Industries and Employers in San Diego County for *Electronic Equipment Installers and Repairers, Motor Vehicles*

Top Employers	Top Industries
<ul style="list-style-type: none"> <li>• Best Buy</li> <li>• Serco</li> <li>• Fastsigns</li> <li>• Ferrellgas</li> <li>• U.S. Marine Corps</li> </ul>	<ul style="list-style-type: none"> <li>• Electronics and Appliance Stores</li> <li>• National Security and International Affairs</li> <li>• Computer Systems Design and Related Services</li> <li>• Direct Selling Establishments</li> <li>• Semiconductor and Other Electronic Component Manufacturing</li> </ul>

## 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**.<sup>23</sup>

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

<sup>18</sup> Data for this metric has not been released for PY2014-15; however, in PY2013-14, the result was 67%.

<sup>19</sup> Data for this metric has not been released for PY2014-15; however, in PY2013-14, the result was 81%.

<sup>20</sup> Among exiting students, the median second-quarter earnings one year after the year in which they exited California Community Colleges.

<sup>21</sup> Among exiting students with a valid SSN, the percentage change in earnings one year before and one year after exiting California Community Colleges.

<sup>22</sup> Among completers and skills-builders who exited, the proportion of students who attained a living wage.

<sup>23</sup> EMSI. San Diego County (6073). 2017.04 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2016-2021.

**Exhibit 10: National Educational Attainment of Electronic Equipment Installers and Repairers, Motor Vehicles**

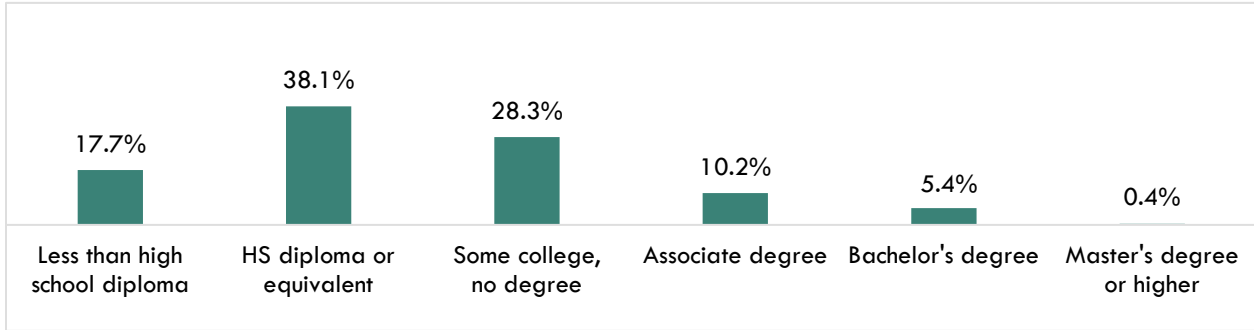


Exhibit 11 lists the top specialized, soft and software skills that appeared in online job postings between January 1, 2015 and December 31, 2017.

**Exhibit 11: Top Skills for Electronic Equipment Installers and Repairers, Motor Vehicles in San Diego County<sup>24</sup>**

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> <li>• Scheduling</li> <li>• Retail Setting</li> <li>• Sales</li> <li>• Administrative Functions</li> <li>• Global Positioning Systems (GPS)</li> </ul>	<ul style="list-style-type: none"> <li>• Physical Demand</li> <li>• Troubleshooting</li> <li>• Creativity</li> <li>• Communication Skills</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft Vista</li> <li>• Microsoft Office</li> <li>• LINUX</li> <li>• Windows Server</li> <li>• Oracle</li> <li>• Microsoft Operating Systems</li> </ul>

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<sup>24</sup> Labor Insight Jobs. Burning Glass Technologies. San Diego, CA. Full years 2015, 2016, and 2017.