

Residential Wireman Occupations Labor Market Information Report Foothill College College

Prepared by the San Francisco Bay Center of Excellence
for Labor Market Research
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Recommendation

Based on all available data, there appears to be an undersupply of Residential Wireman workers compared to the demand for this cluster of occupations in the Bay region and in the Silicon Valley sub-region (Santa Clara County). There is a projected annual gap of about 2,918 students in the Bay region and 631 students in the Silicon Valley Sub-Region.

This report also provides student outcomes data on employment and earnings for programs on 0952.20 - Electrical in the state and region. It is recommended that these data be reviewed to better understand how outcomes for students taking courses on this TOP code compare to potentially similar programs at colleges in the state and region, as well as to outcomes across all CTE programs at Foothill College and in the region.

Introduction

This report profiles Residential Wireman Occupations in the 12 county Bay region and in the Silicon Valley sub-region for the review of an existing program at Foothill College.

- **Electricians (SOC 47-2111):** Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems. Excludes "Security and Fire Alarm Systems Installers" (49-2098).
 Entry-Level Educational Requirement: High school *diploma or equivalent*
 Training Requirement: Apprenticeship
 Percentage of Community College Award Holders or Some Postsecondary Coursework: 47%
- **Helpers--Electricians (SOC 47-3013):** Help electricians by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist electricians are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).
 Entry-Level Educational Requirement: High school *diploma or equivalent*
 Training Requirement: Short-term *on-the-job training*
 Percentage of Community College Award Holders or Some Postsecondary Coursework: 21%
- **Electrical and Electronics Installers and Repairers, Transportation Equipment (SOC 49-2093):** Install, adjust, or maintain mobile electronics communication equipment, including sound, sonar, security, navigation, and surveillance systems on trains, watercraft, or other mobile equipment. Excludes "Avionics Technicians" (49-2091) and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).
 Entry-Level Educational Requirement: *Postsecondary nondegree award*
 Training Requirement: Long-term *on-the-job training*
 Percentage of Community College Award Holders or Some Postsecondary Coursework: 51%

Occupational Demand

Table 1. Employment Outlook for Residential Wireman Occupations in Bay Region

Occupation	2018 Jobs	2023 Jobs	5-Yr Change	5-Yr % Change	5-Yr Openings	Average Annual Openings	25% Hourly Wage	Median Hourly Wage
Electricians	20,279	22,652	2,374	12%	14,126	2,825	\$19.93	\$36.47
Helpers--Electricians	1,040	1,257	217	21%	1,016	203	\$13.20	\$21.25
Electrical and Electronics Installers and Repairers, Transportation Equipment	426	434	8	2%	197	39	\$24.12	\$32.82
Total	21,745	24,343	2,599	12%	15,339	3,068	\$19.69	\$35.67

Source: EMSI 2019.4

Bay Region includes Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

Table 2. Employment Outlook for Residential Wireman Occupations in Silicon Valley Sub-Region

Occupation	2018 Jobs	2023 Jobs	5-Yr Change	5-Yr % Change	5-Yr Openings	Average Annual Openings	25% Hourly Wage	Median Hourly Wage
Electricians	5,369	5,851	483	9%	3,538	708	\$20.34	\$34.34
Helpers--Electricians	354	403	49	14%	313	63	\$17.40	\$25.34
Electrical and Electronics Installers and Repairers, Transportation Equipment	31	33	2	5%	15	3	\$26.64	\$37.44
Total	5,754	6,288	534	9%	3,866	773	\$20.19	\$33.80

Source: EMSI 2019.4

Silicon Valley Sub-Region includes Santa Clara County

Educational Supply

There are three (3) community colleges in the Bay Region issuing 150 awards on average annually (last 3 years) on TOP 0952.20 – Electrical. There is one college (Foothill College) in the Silicon Valley Sub-Region issuing 142 awards on average annually (last 3 years) on this TOP code.

Table 7. Awards on TOP 0952.20 - Electrical in Bay Region

College	Sub-Region	Associates	Certificate 18+ Units	Certificate Low Unit	Total
City College of San Francisco	Mid-Peninsula			3	3
College of San Mateo	Mid-Peninsula		5		5
Foothill College	Silicon Valley	2	89	51	142
Total Bay Region		2	94	54	150
Total Silicon Valley Sub-Region		2	89	51	142

Source: Data Mart

Note: The annual average for awards is 2015-16 to 2017-18.

Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 3,068 annual openings for the Residential Wireman occupational cluster and 150 annual (3-year average) awards for an annual undersupply of 2,918 students. In the Silicon Valley Sub-Region, there is also a gap with 773 annual openings and 142 annual (3-year average) awards for an annual undersupply of 631 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0952.20 - Electrical

2015-16	Bay (All CTE Programs)	Foothill College (All CTE Programs)	State (0952.20)	Bay (0952.20)	Silicon Valley (0952.20)	Foothill College (0952.20)
% Employed Four Quarters After Exit	74%	77%	79%	82%	83%	89%
Median Quarterly Earnings Two Quarters After Exit	\$10,550	\$15,301	\$13,572	\$21,301	23,136	\$26,048
Median % Change in Earnings	46%	82%	72%	83%	88%	89%
% of Students Earning a Living Wage	63%	76%	74%	83%	85%	89%

Source: Launchboard Pipeline (version available on 3/6/20)

Methodology

Occupations for this report were identified by use of skills listed in O*Net descriptions and job descriptions in Burning Glass. Labor demand data is sourced from Economic Modeling Specialists International (EMSI) occupation data and Burning Glass job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CTE Launchboard and CCCCO Data Mart.

Sources

O*Net Online
Labor Insight/Jobs (Burning Glass)
Economic Modeling Specialists International (EMSI)
CTE LaunchBoard www.calpassplus.org/Launchboard/
Statewide CTE Outcomes Survey
Employment Development Department Unemployment Insurance Dataset
Living Insight Center for Community Economic Development
Chancellor's Office MIS system

Contacts

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