



Labor Market Analysis for Program Recommendation

Line Maintenance Occupations

Mission College

Prepared by the Bay Region Center of Excellence for Labor Market Research

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Recommendation

Based on all available data, there appears to be an “undersupply” of Line Maintenance 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 171 students in the Bay Region and 27 students in the Silicon Valley Sub-Region. However, the occupation of electrical power-line installers and repairers requires only a high school diploma or an equivalent degree, and 83% of job postings list a high school diploma as the required level of education.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0934.40 - Electrical Systems and Power Transmission programs 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 Mission College and in the region.

This report profiles Line Maintenance Occupations in the 12 county Bay Region and in the Silicon Valley Sub-Region for program recommendation at Mission College.

- **Electrical Power-Line Installers and Repairers (49-9051):** Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy-duty transmission towers.
Typical Entry-Level Educational: High school diploma or equivalent
Typical On-the-Job Training: Long-term on-the-job training
Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 47%

Occupational Demand

Table 1. Employment Outlook for Line Maintenance Occupations in the Bay Region

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
Electrical Power-Line Installers and Repairers	1,787	1,961	174	10%	877	175	\$39	\$61
Total	1,787	1,961	174	10%	877	175	\$39	\$61

Source: Lightcast 2024.3

The 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 Line Maintenance Occupations in the Silicon Valley Sub-Region

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
Electrical Power-Line Installers and Repairers	251	286	35	14%	135	27	\$44	\$61
Total	251	286	35	14%	135	27	\$44	\$61

Source: Lightcast 2024.3
Silicon Valley Sub-Region includes: Santa Clara County

Job Postings in the Bay Region and Silicon Valley Sub-Region

Table 3. Number of Job Postings by Occupation for the latest 12 months

Occupation	Bay Region	Silicon Valley
Electrical Power-Line Installers and Repairers	298	71

Source: Lightcast 2025.1; “Job Posting Analytics.” Feb. 2024 - Jan. 2025

Table 4a. Top Job Titles in Job Postings for Line Maintenance Occupations in the Bay Region

Title	Bay	Title	Bay
Utility Locators	59	Utility Locate Technicians	5
Utility Technicians	36	Journeymen	4
Journeyman Linemen	26	Underground Miners	4
Aerial Linemen	18	Utility Engineers	4
Overhead Crane Service Technicians	15	Captains	3
Linemen	11	AS/400 Administrators	2
Electricians	8	Civil CAD Technicians	2
Installation Technicians	5	Clinical Specialists	2
Power Installers	5	Contractors	2

Source: Lightcast 2025.1; “Job Posting Analytics.” Feb. 2024 - Jan. 2025

Table 4b. Top Job Titles in Job Posting for Line Maintenance Occupations in the Silicon Valley Sub-Region

Title	Silicon Valley	Title	Silicon Valley
Utility Technicians	12	Furniture Installers	2
Utility Locators	9	Installation Technicians	2
Linemen	7	Underground Miners	2

Title	Silicon Valley	Title	Silicon Valley
Electricians	5	AS/400 Administrators	1
Aerial Linemen	4	Contractors	1
Journeyman	4	Crew Supervisors	1
Power Installers	3	Electrical Workers	1
Civil CAD Technicians	2	Facilities and IT Managers	1
Clinical Specialists	2	Formulation Technicians	1

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Industry Concentration

Table 5. Industries Hiring for Line Maintenance Occupations in the Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2023)	Jobs in Industry (2028)	% Change (2023-28)	% Occupation Group in Industry (2023)
Power and Communication Line and Related Structures Construction	625	626	0%	32%
Local Government, Excluding Education and Hospitals	318	342	7%	18%
Natural Gas Distribution	241	259	7%	14%
Electric Bulk Power Transmission and Control	187	273	46%	11%
Electrical Contractors and Other Wiring Installation Contractors	157	162	3%	9%
Electric Power Distribution	109	97	-11%	6%
Fossil Fuel Electric Power Generation	24	25	3%	1%
Federal Government, Civilian, Excluding Postal Service	18	17	-3%	1%
Other Electric Power Generation	13	22	69%	1%
Crop Production	NA	NA	NA%	0%

Source: Lightcast 2025.1

Table 6. Top Employers Posting Line Maintenance Occupations in the Bay Region and the Silicon Valley Sub-Region

Employer	Bay	Employer	Silicon Valley
PG&E	39	Kanaan Communications	7
Kanaan Communications	32	SBM Management Services	7

Employer	Bay	Employer	Silicon Valley
UtiliQuest	30	PG&E	5
SBM Management Services	21	UtiliQuest	4
Konecranes	10	Golden State Utility Company	3
City & County of San Francisco	7	Peterson Consulting	3

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Educational Supply

There is one community college in the Bay Region issuing 4 awards on average annually (last 3 years ending 2021-23) on TOP 0934.40 - Electrical Systems and Power Transmission. In the Silicon Valley Sub-Region, there are no community colleges that issued awards on average annually (last 3 years) on this TOP code.

Table 7. Community College Awards on TOP 0934.40 - Electrical Systems and Power Transmission in the Bay Region

College	Subregion	Low unit Certificate	Total
Laney	East Bay	4	4
Total	-	4	4

Source: Data Mart

Note: The annual average for awards is 2020-21 to 2022-23.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 175 annual openings for the Line Maintenance occupational cluster and 4 annual (3-year average) awards for an annual undersupply of 171 students. In the Silicon Valley Sub-Region, there is also a gap with 27 annual openings and no annual (3-year average) awards for an annual undersupply of 27 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0934.40 - Electrical Systems and Power Transmission

Metric Outcomes	Bay All CTE Program	Mission College All CTE Program	State 0934.40	Bay 0934.40	Silicon Valley 0934.40	Mission College 0934.40
Students with a Job Closely Related to Their Field of Study	74%	75%	84%	79%	NA	NA
Median Annual Earnings for SWP Exiting Students	\$53,090	\$59,106	\$67,660	\$53,847	NA	NA
Median Change in Earnings for SWP Exiting Students	24%	22%	55%	31%	NA	NA

Metric Outcomes	Bay All CTE Program	Mission College All CTE Program	State 0934.40	Bay 0934.40	Silicon Valley 0934.40	Mission College 0934.40
Exiting Students Who Attained the Living Wage	54%	52%	75%	62%	NA	NA

Source: Launchboard Strong Workforce Program Median of 2018 to 2021.

Skills and Education

Table 9. Top Skills in Job Postings for Line Maintenance Occupations in the Bay Region

Skill	Posting	Skill	Posting
Construction	103	Power Tool Operation	44
Underground Utilities	81	Landscaping	43
Excavation	72	Surveying	41
Hand Tools	64	Electric Power Distribution	38
Facility Repair And Maintenance	50	Emergency Response	37
Forklift Truck	49	Telecommunications	37
Pest Control	48	Network Switches	32
High Voltage	46	Transmission	32
Pole Climbing	45	Trenching	31
Meter Reading	44	Transformers (Electrical)	29

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Table 10. Education Requirements for Line Maintenance Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	157	83%
Associate degree	20	11%
Bachelor's degree & higher	13	7%

Source: Lightcast 2025.1; "Job Posting Analytics." Feb. 2024 - Jan. 2025

Note: 40% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample.

Methodology

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

Sources

O*Net Online

Lightcast

CTE LaunchBoard www.calpassplus.org
Statewide CTE Outcomes Survey
Employment Development Department Unemployment Insurance Dataset
CCCCO Data Mart

Contacts

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