

# Labor Market Analysis for Program Recommendation

# Light Rail Operations Occupations

# Mission 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 Light Rail Operations 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 52 students in the Bay region and 4 students in the Silicon Valley Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 0947.40 Railroad and Light Rail Operations 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 Light Rail Operations Occupations in the 12 county Bay region and in the Silicon Valley sub-region for a proposed new program at Mission College.

* **Subway and Streetcar Operators (53-4041):** Operate subway or elevated suburban trains with no separate locomotive, or electric-powered streetcar, to transport passengers. May handle fares.  
    Entry-Level Educational Requirement: High school diploma or equivalent  
    Training Requirement: Moderate-term on-the-job training  
    Percentage of Community College Award Holders or Some Postsecondary Coursework: 42%
* **Rail Transportation Workers, All Other (53-4099):** All rail transportation workers not listed separately.  
    Entry-Level Educational Requirement: High school diploma or equivalent  
    Training Requirement: Moderate-term on-the-job training  
    Percentage of Community College Award Holders or Some Postsecondary Coursework: 42%

## Occupational Demand

**Table 1. Employment Outlook for Light Rail Operations Occupations in Bay Region**

| **Occupation** | **2020 Jobs** | **2025 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Subway and Streetcar Operators | 427 | 438 | 11 | 3% | 250 | 50 | $26 | $51 |
| Rail Transportation Workers, All Other | 11 | 15 | 3 | 28% | 10 | 2 | $18 | $43 |
| **Total** | **438** | **453** | **15** | **3%** | **260** | **52** |  |  |
| Source: EMSI 2021.3 | | | | | | | | |

**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 Light Rail Operations Occupations in Silicon Valley Sub-region**

| **Occupation** | **2020 Jobs** | **2025 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Subway and Streetcar Operators | 28 | 31 | 2 | 9% | 19 | 4 | $36 | $65 |
| Rail Transportation Workers, All Other | 0 | 0 | Insf | 0% | 0 | 0 | $104 | $131 |
| **Total** | **28** | **31** | **3** | **11%** | **19** | **4** |  |  |
| Source: EMSI 2021.3 | | | | | | | | |

**Silicon Valley Sub-Region includes:** Santa Clara County

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

**Table 3. Number of Job Postings by Occupation for latest 12 months (Nov 2020 - Oct 2021)**

| **Occupation** | **Bay Region** | **Silicon Valley** |
| --- | --- | --- |
| Rail Transportation Workers, All Other | 13 | 1 |
| Subway and Streetcar Operators | 9 | 1 |
| Source: Burning Glass | | |

**Table 4a. Top Job Titles for Light Rail Operations Occupations for latest 12 months (Nov 2020 - Oct 2021) Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Receptor | 3 | Fix Route -Transit Operator | 1 |
| Transit Operator | 4 | Premier Transportation | 1 |
| Towerman Ibew - Gc | 2 | Senior Adult Transportation | 1 |
| Train Spotter/Track Watchman | 2 | Transportation Supervisior | 1 |
| Transportation Eit | 2 |  |  |
| Source: Burning Glass | | | |

**Table 4b. Top Job Titles for Light Rail Operations Occupations for latest 12 months (Nov 2020 - Oct 2021) Silicon Valley Sub-Region**

| **Title** | **Silicon Valley** |
| --- | --- |
| Receptor | 1 |

## Industry Concentration

**Table 5. Industries hiring Light Rail Operations Workers in Bay Region**

| **Industry – 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2020)** | **Jobs in Industry (2025)** | **% Change (2020-25)** | **% Occupation Group in Industry (2020)** |
| --- | --- | --- | --- | --- |
| Local Government, Excluding Education and Hospitals | 317 | 328 | 4% | 75% |
| State Government, Excluding Education and Hospitals | 41 | 43 | 5% | 10% |
| Mixed Mode Transit Systems | 13 | 14 | 7% | 3% |
| Bus and Other Motor Vehicle Transit Systems | NA | NA | NA% | 1% |
| Deep Sea Freight Transportation | NA | NA | NA% | 1% |
| Colleges, Universities, and Professional Schools | NA | NA | NA% | 0% |
| Coastal and Great Lakes Passenger Transportation | NA | NA | NA% | 0% |
| Offices of Real Estate Agents and Brokers | NA | NA | NA% | 0% |
| Residential Property Managers | NA | NA | NA% | 0% |
| Coastal and Great Lakes Freight Transportation | NA | NA | NA% | 0% |
| Source: EMSI 2021.3 | | | | |

**Table 6. Top Employers Posting Light Rail Operations Occupations in Bay Region and Silicon Valley Sub-Region (Nov 2020 - Oct 2021)**

| **Employer** | **Bay** | **Employer** | **Silicon Valley** |
| --- | --- | --- | --- |
| Hollins Consulting | 2 | Hyatt | 1 |
| HDR Incorporated | 2 |  |  |
| SFMTA | 1 |  |  |
| Pg And Amp E Corporation | 1 |  |  |
| Performance Food Group Company | 1 |  |  |
| Pacific Gas and Electric Company | 1 |  |  |
| Landmark Health | 1 |  |  |
| Hyatt | 1 |  |  |
| County Connection | 1 |  |  |
| Central Contra Costa Transit Authority | 1 |  |  |
| Source: Burning Glass | | | |

## Educational Supply

There are no community colleges in the Bay Region issuing awards on average annually (last 3 years ending 2018-19) on TOP 0947.40 Railroad and Light Rail Operations.

## Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 52 annual openings for the Light Rail Operations occupational cluster and no annual (3-year average) awards for an annual undersupply of 52 students. In the Silicon Valley Sub-Region, there is also a gap with 4 annual openings and no annual (3-year average) awards for an annual undersupply of 4 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0947.40 Railroad and Light Rail Operations**

| **Metric Outcomes** | **Bay All CTE Programs** | **Mission All CTE Programs** | **State 0947.40** | **Bay 0947.40** | **Silicon Valley 0947.40** | **Mission 0947.40** |
| --- | --- | --- | --- | --- | --- | --- |
| Students with a Job Closely Related to Their Field of Study | 73% | 73% | N/A | N/A | N/A | N/A |
| Median Annual Earnings for SWP Exiting Students | $44,575 | $46,809 | $49,718 | N/A | N/A | N/A |
| Median Change in Earnings for SWP Exiting Students | 30% | 31% | N/A | N/A | N/A | N/A |
| Exiting Students Who Attained the Living Wage | 53% | 50% | N/A | N/A | N/A | N/A |
| Source: Launchboard Strong Workforce Program Median of 2016-18. | | | | | | |

## Skills, Certifications and Education

**Table 9. Top Skills for Light Rail Operations Occupations in Bay Region (Nov 2020 - Oct 2021)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| Scheduling | 6 | Highway Design | 2 |
| Customer Service | 4 | Inroads | 2 |
| Budgeting | 3 | Intersection Design | 2 |
| Passenger Transport | 3 | Jackhammers | 2 |
| AutoCAD | 2 | Memoranda Preparation | 2 |
| Chain Saws | 2 | Microstation | 2 |
| Civil 3D | 2 | Onboarding | 2 |
| Collective Bargaining | 2 | Pavement Markings | 2 |
| Concrete Pouring | 2 | Personal Protective Equipment (PPE) | 2 |
| Customer Contact | 2 | Power Tools | 2 |
| Design Software | 2 | Rebar | 2 |
| Digging Trenches | 2 | Repair | 2 |
| Erosion Control | 2 | Roadway Design | 2 |
| Geopak | 2 | Telecommunications | 2 |
| Source: Burning Glass | | | |

**Table 10. Certifications for Light Rail Operations Occupations in Bay Region (Nov 2020 - Oct 2021)**

| **Certification** | **Posting** |
| --- | --- |
| Driver's License | 8 |
| Cdl Class C | 1 |
| Air Brake Certified | 1 |

*Note: 59% of records have been excluded because they do not include a certification. As a result, the chart above may not be representative of the full sample.*

**Table 11. Education Requirements for Light Rail Operations Occupations in Bay Region**

| **Education (minimum advertised)** | **Latest 12 Mos. Postings** | **Percent 12 Mos. Postings** |
| --- | --- | --- |
| High school or vocational training | 6 | 67% |
| Bachelor's degree | 3 | 33% |
| Source: Burning Glass | | |

*Note: 59% 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 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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