



# Labor Market Analysis for Program Recommendation Technology and Trades Occupations Cabrillo 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 Technology and Trades workers compared to the demand for this cluster of occupations in the Bay Region and in the SC-Monterey Sub-Region (Monterey, San Benito, Santa Cruz counties). There is a projected annual gap of about 3,539 students in the Bay Region and 320 students in the SC-Monterey Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 0952.00 - Construction Crafts Technology 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 Cabrillo College and in the region.

This report profiles Technology and Trades Occupations in the 12 county Bay region and in the SC-Monterey Sub-Region for program recommendation at Cabrillo College.

- **Construction Laborers (47-2061):** Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris, and other waste materials. May assist other craft workers.  
Entry-Level Educational Requirement: No formal educational credential  
Training Requirement: Short-term on-the-job training  
Percentage of Community College Award Holders or Some Postsecondary Coursework: 20%
- **Operating Engineers and Other Construction Equipment Operators (47-2073):** Operate one or several types of power construction equipment, such as motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. May repair and maintain equipment in addition to other duties.  
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: 24%
- **Helpers, Construction Trades, All Other (47-3019):** All construction trades helpers not listed separately.  
Entry-Level Educational Requirement: No formal educational credential  
Training Requirement: Short-term on-the-job training  
Percentage of Community College Award Holders or Some Postsecondary Coursework: 18%

## Occupational Demand

**Table 1. Employment Outlook for Technology and Trades Occupations in the Bay Region**

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Construction Laborers	29,130	30,143	1,013	3%	13,962	2,792	\$21	\$27
Operating Engineers and Other Construction Equipment Operators	7,260	7,605	345	5%	3,496	699	\$33	\$47
Helpers, Construction Trades, All Other	990	1,021	30	3%	587	117	\$22	\$25
<b>Total</b>	<b>37,380</b>	<b>38,769</b>	<b>1,389</b>	<b>4%</b>	<b>18,045</b>	<b>3,608</b>	<b>\$23</b>	<b>\$31</b>

Source: Lightcast 2024.3

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 Technology and Trades Occupations in the SC-Monterey Sub-Region**

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Construction Laborers	2,464	2,592	128	5%	1,255	251	\$17	\$22
Operating Engineers and Other Construction Equipment Operators	555	603	48	9%	292	58	\$28	\$34
Helpers, Construction Trades, All Other	87	91	4	4%	53	11	\$22	\$24
<b>Total</b>	<b>3,106</b>	<b>3,286</b>	<b>180</b>	<b>6%</b>	<b>1,600</b>	<b>320</b>	<b>\$19</b>	<b>\$24</b>

Source: Lightcast 2024.3

SC-Monterey Sub-Region includes: Monterey, San Benito, Santa Cruz Counties

### Job Postings in Bay Region and SC-Monterey Sub-Region

**Table 3. Number of Job Postings by Occupation for latest 12 months (Oct. 2023 - Sep. 2024)**

Occupation	Bay Region	SC-Monterey
Construction Laborers	1,358	124
Operating Engineers and Other Construction Equipment Operators	416	38
Helpers, Construction Trades, All Other	25	1

Source: Lightcast

**Table 4a. Top Job Titles in Job Postings for Technology and Trades Occupations in the Bay Region**

Title	Bay	Title	Bay
General Laborers	439	Landscape Laborers	24
Construction Laborers	204	Excavation Laborers	23
Heavy Equipment Operators	117	Construction Helpers	19
Equipment Operators	94	General Runners	14
Laborers	91	Laborers/Operators	14

Title	Bay	Title	Bay
Construction Workers	73	Motor Vehicle Clerks	14
Skilled Laborers	54	Construction Technicians	12
General Construction Laborers	28	Heavy Equipment Operators/Laborers	12
Operating Engineers	28	General Labor Leads	11

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

**Table 4b. Top Job Titles in Job Postings for Technology and Trades Occupations in the SC-Monterey Sub-Region**

Title	SC-Monterey	Title	SC-Monterey
General Laborers	49	Automated Testers	2
Construction Laborers	17	General Labor Leads	2
Equipment Operators	15	Landscape Laborers	2
Heavy Equipment Operators	12	Combo Drivers	1
Laborers	9	Construction Apprentices	1
Skilled Laborers	9	Construction Equipment Operators	1
Motor Vehicle Clerks	4	Construction Helpers	1
Construction Workers	3	Drivers/General Labor	1
General Construction Laborers	3	Equipment Operators/Laborers	1

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

## Industry Concentration

**Table 5. Industries Hiring Technology and Trades Workers 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)
Residential Remodelers	4,914	5,396	10%	13%
All Other Specialty Trade Contractors	3,504	3,468	-1%	9%
Commercial and Institutional Building Construction	3,007	3,408	13%	8%
Site Preparation Contractors	2,818	2,860	1%	8%
New Single-Family Housing Construction (except For-Sale Builders)	2,626	2,561	-3%	7%
Highway, Street, and Bridge Construction	1,954	1,966	1%	5%
Local Government, Excluding Education and Hospitals	1,915	2,066	8%	5%

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)
Water and Sewer Line and Related Structures Construction	1,712	1,759	3%	5%
Poured Concrete Foundation and Structure Contractors	1,204	1,233	2%	3%
Electrical Contractors and Other Wiring Installation Contractors	1,101	1,152	5%	3%

Source: Lightcast 2024.3

**Table 6. Top Employers Posting Technology and Trades Occupations in the Bay Region and SC-Monterey Sub-Region**

Employer	Bay	Employer	SC-Monterey
PeopleReady	95	PeopleReady	17
Aerotek	77	State of California	7
Official Pest Prevention	53	Schnitzer Steel	6
1-800-GOT-JUNK?	21	United States Department of Transportation	5
Schnitzer Steel	21	Essel	4
State of California	18	Waste Connections	4

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

## Educational Supply

There are four community colleges in the Bay Region issuing 69 awards on average annually (last 3 years ending 2021-23) on TOP 0952.00 - Construction Crafts Technology. In the SC-Monterey 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 0952.00 - Construction Crafts Technology in the Bay Region**

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Noncredit award	Total
Diablo Valley	East Bay	1	0	6	0	7
San Francisco	Mid-Peninsula	0	0	1	0	1
San Jose City	Silicon Valley	10	11	30	0	51
Santa Rosa	North Bay	0	0	0	10	10
<b>Total</b>	<b>-</b>	<b>11</b>	<b>11</b>	<b>37</b>	<b>10</b>	<b>69</b>

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 3,608 annual openings for the Technology and Trades occupational cluster and 69 annual (3-year average) awards for an annual undersupply of 3,539 students. In the SC-Monterey Sub-Region, there is also a gap with 320 annual openings and no annual (3-year average) awards for an annual undersupply of 320 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0952.00 - Construction Crafts Technology**

Metric Outcomes	Bay All CTE Program	Cabrillo College All CTE Program	State 0952.00	Bay 0952.00	SC-Monterey 0952.00	Cabrillo College 0952.00
Students with a Job Closely Related to Their Field of Study	74%	80%	74%	75%	NA	NA
Median Annual Earnings for SWP Exiting Students	\$53,090	\$46,381	\$45,440	\$52,272	NA	NA
Median Change in Earnings for SWP Exiting Students	24%	23%	28%	18%	NA	NA
Exiting Students Who Attained the Living Wage	54%	44%	60%	47%	NA	NA

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

## Skills, Certifications and Education

**Table 9. Top Skills in Job Postings for Technology and Trades Occupations in the Bay Region**

Skill	Posting	Skill	Posting
Construction	462	Demolition	111
Trenching	221	Backhoes	106
Heavy Equipment	219	Painting	104
Power Tool Operation	213	Forklift Truck	84
Machinery	168	Equipment Operation	78
Carpentry	162	Grading (Landscape)	67
Excavation	160	Safety Standards	66
Hand Tools	155	Drywall (Installation And Repair)	63
Plumbing	134	HVAC	59
Landscaping	123	Drilling	57

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

**Table 10. Certifications in Job Postings for Technology and Trades Occupations in the Bay Region**

Certification	Posting
Forklift Certification	9
Operator Certification	7

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

**Table 11. Education Requirements for Technology and Trades Occupations in the Bay Region**

Education Level	Job Postings	% of Total
High school or GED	295	82%
Other	16	4%
Bachelor's degree & higher	49	14%

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

Note: 81% 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](http://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

For more information, please contact:

- Yumi Huang, Research Analyst, Bay Region Center of Excellence, [yuhuang@cabrillo.edu](mailto:yuhuang@cabrillo.edu) or (831) 275-0043
- Marcela Reyes, Director, Research and Center of Excellence, [mareyes@cabrillo.edu](mailto:mareyes@cabrillo.edu) or (831) 219-8875