



Labor Market Analysis for Program Recommendation Union Pre-Apprenticeship Occupations Laney 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 Union Pre-Apprenticeship workers compared to the demand for this cluster of occupations in the Bay region and in the East Bay sub-region (Alameda, Contra Costa counties). There is a projected annual gap of about 11,874 students in the Bay region and 3,620 students in the East Bay 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 Laney College and in the region.

This report profiles Union Pre-Apprenticeship Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new program at Laney College.

- **Carpenters (47-2031):** Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways
Entry-Level Educational Requirement: High school diploma or equivalent
Training Requirement: Apprenticeship
Percentage of Community College Award Holders or Some Postsecondary Coursework: 24%
- **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. Construction laborers who primarily assist a particular craft worker are classified under “Helpers, Construction Trades” (47-3010). Excludes “Hazardous Materials Removal Workers” (47-4041).
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: 22%

- Helpers–Carpenters (47-3012):** Help carpenters 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 carpenters 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: No formal educational credential
 Training Requirement: Short-term on-the-job training
 Percentage of Community College Award Holders or Some Postsecondary Coursework: 25%
- 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: 25%
- Maintenance and Repair Workers, General (49-9071):** Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs. Excludes “Maintenance Workers, Machinery” (49-9043).
 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: 40%

Occupational Demand

Table 1. Employment Outlook for Union Pre-Apprenticeship Occupations in Bay Region

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Carpenters	33,349	33,898	550	2%	16,929	3,386	\$22	\$32
Construction Laborers	37,642	39,657	2,015	5%	21,130	4,226	\$17	\$24
Helpers--Carpenters	1,309	1,309	0	0%	819	164	\$20	\$23
Helpers, Construction Trades, All Other	750	786	37	5%	503	101	\$18	\$21
Maintenance and Repair Workers, General	33,832	37,118	3,286	10%	20,571	4,114	\$20	\$26
Total	106,881	112,768	5,887	6%	59,952	11,991		

Source: Lightcast 2022.3

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 Union Pre-Apprenticeship Occupations in East Bay Sub-region

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Carpenters	10,385	10,653	268	3%	5,392	1,078	\$21	\$30
Construction Laborers	12,608	13,090	483	4%	6,846	1,369	\$17	\$23
Helpers--Carpenters	347	358	11	3%	224	45	\$21	\$26
Helpers, Construction Trades, All Other	282	293	11	4%	184	37	\$17	\$20
Maintenance and Repair Workers, General	8,934	9,846	912	10%	5,484	1,097	\$19	\$24
Total	32,556	34,240	1,684	5%	18,132	3,626		

Source: Lightcast 2022.3

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
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East Bay Sub-Region includes: Alameda, Contra Costa Counties

Job Postings in Bay Region and East Bay Sub-Region

Table 3. Number of Job Postings by Occupation for latest 12 months (Aug. 2022 - July 2023)

Occupation	Bay Region	East Bay
Maintenance and Repair Workers, General	15,165	5,012
Construction Laborers	2,115	743
Carpenters	656	181
Helpers, Construction Trades, All Other	37	21
Helpers--Carpenters	7	2

Source: Lightcast

Table 4a. Top Job Titles for Union Pre-Apprenticeship Occupations for latest 12 months (Aug. 2022 – July 2023)

Bay Region

Title	Bay	Title	Bay
Maintenance Technicians	2,946	Installation Technicians	271
Field Service Technicians	1,296	Handymen	267
Service Technicians	784	Carpenters	233
Facilities Technicians	588	Technicians	171
Maintenance Workers	567	Maintenance Engineers	139
Apartment Maintenance Technicians	428	Building Engineers	138
Field Service Engineers	420	General Laborers	137
Facilities Maintenance Technicians	326	Equipment Technicians	128
Construction Laborers	302	Building Maintenance Workers	127

Source: Lightcast

Table 4b. Top Job Titles for Union Pre-Apprenticeship Occupations for latest 12 months (Aug. 2022 – July 2023)

East Bay Sub-Region

Title	East Bay	Title	East Bay
Maintenance Technicians	946	Handymen	81
Field Service Technicians	416	Construction Laborers	76
Service Technicians	290	Equipment Technicians	70
Facilities Technicians	177	Building Maintenance Workers	62

Title	East Bay	Title	East Bay
Apartment Maintenance Technicians	161	General Laborers	57
Maintenance Workers	155	Pest Control Service Technicians	52
Facilities Maintenance Technicians	123	Technicians	49
Installation Technicians	94	Carpenters	48
Field Service Engineers	84	Maintenance Mechanics	46

Source: Lightcast

Industry Concentration

Table 5. Industries hiring Union Pre-Apprenticeship Workers in Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2021)	Jobs in Industry (2026)	% Change (2021-26)	% Occupation Group in Industry (2022)
Residential Remodelers	13,255	14,329	8%	13%
New Single-Family Housing Construction (except For-Sale Builders)	8,584	8,582	0%	8%
Commercial and Institutional Building Construction	6,488	7,565	17%	7%
Local Government, Excluding Education and Hospitals	4,030	4,135	3%	4%
All Other Specialty Trade Contractors	3,890	3,837	-1%	4%
Site Preparation Contractors	3,011	2,977	-1%	3%
Residential Property Managers	2,406	2,470	3%	2%
Hotels (except Casino Hotels) and Motels	1,806	2,470	37%	2%
Drywall and Insulation Contractors	2,183	2,187	0%	2%
Offices of Real Estate Agents and Brokers	2,222	2,348	6%	2%

Source: Lightcast 2022.3

Table 6. Top Employers Posting Union Pre-Apprenticeship Occupations in Bay Region and East Bay Sub-Region (Aug. 2022 - July 2023)

Employer	Bay	Employer	East Bay
Greystar	343	Aerotek	106
Aerotek	271	Greystar	86
Essex Property Trust	176	Fpi Management	69
CBRE	167	Tesla	64
PeopleReady	166	Essex Property Trust	54
Randstad	142	Eden Housing	51

Employer	Bay	Employer	East Bay
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Source: Lightcast

Educational Supply

There are four (4) community colleges in the Bay Region issuing 68 awards on average annually (last 3 years ending 2021-22) on TOP 0952.00 - Construction Crafts Technology. In the East Bay Sub-Region, there is one (1) community college that issued six (6) awards on average annually (last 3 years) on this TOP code.

There are a three (3) other CTE educational institutions in the Bay Region issuing 49 awards on average annually (last 3 years ending 2021-22) on CIP 46.0415 -Building Construction Technology/Technician. There are no other CTE educational institution in the East Bay Sub-Region issuing awards on average annually (last 3 years) on this CIP code.

Table 7a. Community College Awards on TOP 0952.00 - Construction Crafts Technology in Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Noncredit award	Total
Diablo Valley	East Bay	0	0	6	0	6
San Francisco	Mid-Peninsula	0	0	3	0	3
San Jose City	Silicon Valley	8	10	32	0	50
Santa Rosa	North Bay	0	0	0	9	9
Total		8	10	41	9	68

Source: Data Mart

Note: The annual average for awards is 2019-20 to 2021-22.

Table 7b. Other CTE Institutions Awards on CIP 46.0415 - Building Construction Technology/Technician in Bay Region

College	Subregion	Certificates of at least 1 but < 2 years	Total
CET-San Jose	Silicon Valley	9	9
CET-Soledad	SC-Monterey	22	22
CET-Watsonville	SC-Monterey	18	18
Total		49	49

Source: Data Mart

Note: The annual average for awards is 2019-20 to 2021-22.

Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 11,991 annual openings for the Union Pre-Apprenticeship occupational cluster and 117 annual (3-year average) awards for an annual undersupply of 11,874 students. In the East Bay Sub-Region, there is also a gap with 3,626 annual openings and six (6) annual (3-year average) awards for an annual undersupply of 3,620 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 Programs	Laney All CTE Programs	State 0952.00	Bay 0952.00	East Bay 0952.00	Laney 0952.00
Students with a Job Closely Related to Their Field of Study	74%	73%	74%	75%	N/A	N/A
Median Annual Earnings for SWP Exiting Students	\$53,090	\$47,158	\$45,440	\$52,272	\$29,670	N/A
Median Change in Earnings for SWP Exiting Students	24%	15%	28%	18%	58%	N/A
Exiting Students Who Attained the Living Wage	54%	54%	60%	47%	N/A	N/A

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

Skills, Certifications and Education

Table 9. Top Skills for Union Pre-Apprenticeship Occupations in Bay Region (Aug. 2022 - July 2023)

Skill	Posting	Skill	Posting
Plumbing	6,420	Facility Repair And Maintenance	1,545
HVAC	4,798	Drywall (Installation And Repair)	1,472
Painting	4,671	Machinery	1,440
Carpentry	4,531	Appliance Repair	1,273
Construction	2,876	Roofing	1,272
Preventive Maintenance	2,588	Furniture Cleaning	1,254
Field Service Management	2,334	Boilers	1,105
Power Tool Operation	2,137	Landscaping	1,084
Hand Tools	2,087	Network Switches	1,015
Swimming Pool Maintenance	2,058	Safety Standards	993

Source: Lightcast

Table 10. Certifications for Union Pre-Apprenticeship Occupations in Bay Region (Aug. 2022 - July 2023)

Certification	Posting	Certification	Posting
Valid Driver's License	6,262	Forklift Certification	107
HVAC Certification	429	First Aid Certification	101
EPA 608 Technician Certification	207	CompTIA A+	94
Certified Apartment Service Technician	205	Automotive Service Excellence (ASE) Certification	88

Certification	Posting	Certification	Posting
Commercial Driver's License (CDL)	188	EPA Type II Certification	80
CDL Class C License	177	CDL Class B License	77
EPA Universal Certification	152	Security Clearance	71
CFC Refrigeration Certification	122	Pesticide Applicator License	69
10-Hour OSHA General Industry Card	120	Certified Pool & Spa Operator	66

Source: Lightcast

Table 11. Education Requirements for Union Pre-Apprenticeship Occupations in Bay Region (Aug. 2022 - July 2023)

Education Level	Job Postings	% of Total
High school or GED	6,872	70%
Associate degree	1,386	14%
Bachelor's degree & higher	1,580	16%

Source: Lightcast

Note: 53% 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
 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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