** Construction Occupations**

**Labor Market Information Report**

**City College of San Francisco**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

March 2019

# Recommendation

Based on all available data, there appears to be a significant undersupply of Construction workers compared to the demand for this cluster of occupations in the Bay region and in the Mid-Peninsula sub-region (San Francisco and San Mateo Counties.) There is a projected annual gap of about 3,956 students in the Bay region and 920 students in the Mid-Peninsula Sub-Region.

This report also provides student outcomes data on employment and earnings for programs on TOP 0952.00 - Construction Crafts Technology 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 City College of San Francisco (CCSF) and in the region.

# Introduction

This report profiles Construction Occupations in the 12 county Bay region and in the Mid-Peninsula sub-region for a proposed new program at City College of San Francisco.

|  |
| --- |
| * **Carpenters (SOC 47-2031):** Construct, erect, install, or repairstructures 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% |

# Occupational Demand

**Table 1. Employment Outlook for Construction Occupations in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2017 Jobs | 2022 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Carpenters | 37,301 | 39,609 | 2,308  | 6% | 19,970 | 3,994 | $14.05  | $26.15  |

*Source: EMSI 2019.1*

**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 Construction Occupations in Mid-Peninsula Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2017 Jobs | 2022 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Carpenters | 8,486 | 9,035 | 549  | 6% | 4,621 | 924 | $13.64  | $24.40  |

*Source: EMSI 2019.1*

**Mid-Peninsula Sub-Region** includes San Francisco and San Mateo Counties

### Job Postings in Bay Region and Mid-Peninsula Sub-Region

**Table 3. Number of Job Postings by Occupation for latest 12 months (March 2018 - Feb 2019)**

| Occupation | Bay Region | Mid-Peninsula |
| --- | --- | --- |
|  Construction Carpenters | 178 | 49 |

*Source: Burning Glass*

**Table 4. Top Job Titles for Construction Occupations for latest 12 months (March 2018 - Feb 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Common Title | Bay | Mid-Peninsula | Common Title | Bay | Mid-Peninsula |
| Finish Carpenter | 28 | 6 | Commercial Framer | 2 | 0 |
| Art Framer | 27 | 5 | Counter - Building | 2 | 2 |
| Garage Support | 18 | 6 | Framing Specialist | 2 | 0 |
| Carpentry and Masonry Specialist | 12 | 2 | Wood Framer | 2 | 0 |
| Installer | 9 | 0 | Applicator | 1 | 1 |
| Concrete Carpenter | 8 | 5 | Assessor | 1 | 1 |
| Framer | 7 | 5 | Associate Framer, Design | 1 | 1 |
| Carpenter | 6 | 0 | Boba-Rista | 1 | 1 |
| Maker | 6 | 0 | Commercial Construction Framer | 1 | 0 |
| Metal Stud Framer | 6 | 1 | Con | 1 | 0 |
| Lead Installer | 5 | 2 | Construction Laborer | 1 | 0 |
| Certified Art Framer | 3 | 0 | Countertop Installer | 1 | 1 |
| Tank Builder | 3 | 2 | Custom Framer | 1 | 0 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Construction Workers in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Industry – 6 Digit NAICS (No. American Industry Classification) Codes | Jobs in Industry (2017) | Jobs in Industry (2022) | % Change (2017-22) | % in Industry (2017) |
| Residential Remodelers (236118) | 7,305 | 7,605 | 12% | 20.1% |
| New Single-Family Housing Construction (except For-Sale Builders) (236115) | 5,734 | 5,724 |  (3%) | 15.1% |
| Commercial and Institutional Building Construction (236220) | 4,185 | 4,309 | 14% | 11.4% |
| Drywall and Insulation Contractors (238310) | 1,881 | 1,933 | 11% | 5.1% |
| All Other Specialty Trade Contractors (238990) | 1,342 | 1,340 |  (0%) | 3.5% |
| Finish Carpentry Contractors (238350) | 1,140 | 1,154 | 6% | 3.1% |
| Flooring Contractors (238330) | 1,091 | 1,100 | 2% | 2.9% |
| Tile and Terrazzo Contractors (238340) | 928 | 950 | 10% | 2.5% |
| Site Preparation Contractors (238910) | 945 | 934 |  (4%) | 2.5% |
| Other Building Finishing Contractors (238390) | 1,009 | 907 |  (7%) | 2.4% |
| Painting and Wall Covering Contractors (238320) | 879 | 866 |  (6%) | 2.3% |
| Framing Contractors (238130) | 822 | 847 | 3% | 2.2% |
| Poured Concrete Foundation and Structure Contractors (238110) | 793 | 831 | 1% | 2.2% |
| Structural Steel and Precast Concrete Contractors (238120) | 849 | 830 | 10% | 2.2% |
| New Multifamily Housing Construction (except For-Sale Builders) (236116) | 592 | 621 | 19% | 1.6% |
| Electrical Contractors and Other Wiring Installation Contractors (238210) | 617 | 615 |  (1%) | 1.6% |
| Plumbing, Heating, and Air-Conditioning Contractors (238220) | 609 | 612 | 2% | 1.6% |
| Glass and Glazing Contractors (238150) | 604 | 596 | 2% | 1.6% |
| Industrial Building Construction (236210) | 390 | 397 | 9% | 1.0% |
| Highway, Street, and Bridge Construction (237310) | 389 | 388 | 5% | 1.0% |
| Other Foundation, Structure, and Building Exterior Contractors (238190) | 366 | 377 | 22% | 1.0% |

*Source: EMSI 2019.1*

**Table 6. Top Employers Construction Occupations in Bay and Mid-Peninsula Sub-Region (March 2018 - Feb 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | Mid-Peninsula |
| Michaels Arts and Crafts | 21 | Workyard | 3 | Amerit Fleet Solutions | 6 |
| Amerit Fleet Solutions | 18 | Essential Construction Company | 2 | Lek Enterprises, Inc | 3 |
| US Army | 11 | Johnson & Johnson | 2 | Michaels Arts and Crafts | 3 |
| Michaels Art & Crafts | 7 | Phoenix Industrial Inc | 2 | Catalyst Solutions | 2 |
| Catalyst Solutions | 4 | Schuchart/Dow | 2 | Michaels Art & Crafts | 2 |
| Precision Cabinets | 4 | Tanco Engineering Incorporated | 2 | Tanco Engineering Incorporated | 2 |
| Workyard Holdings Inc | 4 | Akd Construction | 1 | US Army | 2 |
| Eldredge Woodworks, Inc | 3 | Amg Doors & Windows | 1 | Akd Construction | 1 |
| Hitachi America | 3 | Arctic Slope Regional Corporation | 1 | Arctic Slope Regional Corporation | 1 |
| Lek Enterprises, Inc | 3 | Army National Guard | 1 | Blick Art Materials | 1 |
| Lowe's Companies, Inc | 3 | Bay Ship Yacht Company | 1 | Corna Kokosing | 1 |
| Michaels Stores | 3 | Blick Art Materials | 1 | Cowgirl Creamery 2 More | 1 |
| Ministerie Van Buitenlandse Zaken | 3 | Bsm Construction Company Incorporated | 1 | Cowgirl Creamery 3 More | 1 |
| Reborn Cabinets Inc | 3 | Canning Development Inc | 1 | Eldredge Woodworks, Inc | 1 |

*Source: Burning Glass*

# Educational Supply

There are four community colleges in the Bay Region issuing 38 awards on average annually (last 3 years) on TOP 0952.00 - Construction Crafts Technology. CCSF is the only college in the Mid-Peninsula Sub-Region issuing awards on this TOP code, issuing 4 awards on average annually (last 3 years).

**Table 7. Awards on TOP 0952.00 - Construction Crafts Technology in the Bay Region**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Headcount | Associates | Certificates | Noncredit | Total |
| **Diablo Valley** | East Bay | 34 |  | 2 |  | 2 |
| **Hartnell** | Santa Cruz & Monterey | 106 |  | 1 |  | 1 |
| **San Francisco** | Mid-Peninsula | 249 |  | 4 |  | 4 |
| **San Francisco Ctrs** | Mid-Peninsula | 10 |  |  |  |  |
| **San Jose City** | Silicon Valley | 168 | 10 | 21 |  | 31 |
| **Total Bay Region** |  **567**  |  **10**  |  **28**  |  **0**  |  **38**  |
| **Total Mid-Peninsula Sub-Region** |  **259**  |  **-**  |  **4**  |  **0**  |  **4**  |

# *Source: IPEDS, Data Mart and Launchboard*

NOTE: Headcount of students who took one or more courses is for 2016-17. The annual average for awards is 2014-17 unless there are only awards in 2016-17. The annual average for other postsecondary is for 2013-16.

# Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 3,994 annual openings for the Construction occupational cluster and 38 annual (3-year average) awards for an annual undersupply of 3,956 students. In the Mid-Peninsula Sub-Region, there is also a gap with 924 annual openings and 4 annual (3-year average) awards for an annual undersupply of 920 students.

# Student Outcomes

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2015-16 | Bay (All CTE Programs) | City College of San Francisco (All CTE Programs) | State (0952.00) | Bay (0952.00) | Mid-Peninsula (0952.00) | City College of San Francisco (0952.00) |
| % Employed Four Quarters After Exit | 74% | 72% | 63% | 72% | 75% | 75% |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $10,170 | $9,201 | $9,832 | $9,672 | $9,672 |
| Median % Change in Earnings | 46% | 31% | 50% | 57% | 63% | 63% |
| % of Students Earning a Living Wage | 63% | 65% | 53% | 53% | 46% | 46% |

*Source: Launchboard Pipeline (version available on 3/14/19)*

# Skills, Certifications and Education

**Table 9. Top Skills for Construction Occupations in Bay Region (March 2018 - Feb 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Framing | 73 | Chop Saw | 7 | Retail Industry Knowledge | 4 |
| Carpentry | 57 | Door Installation | 7 | Retail Management | 4 |
| Finish Carpentry | 27 | Plumbing | 7 | Business Development | 3 |
| Repair | 25 | Table Saws | 7 | Caulking | 3 |
| Hand Tools | 18 | Cabinetry | 6 | Competitive Analysis | 3 |
| Basic Carpentry | 17 | Construction Labor | 6 | Contract Negotiation | 3 |
| Post Trip Inspections | 17 | Hardware and Software Installation | 6 | Framing Squares | 3 |
| Power Tools | 16 | Lifting Ability | 6 | Hammering | 3 |
| Customer Service | 13 | Sales | 6 | Interior Trim | 3 |
| Drywall | 12 | Circular Saws | 5 | Merchandising | 3 |
| Masonry | 12 | Customer Contact | 5 | Nail Guns | 3 |
| Roofing | 11 | Occupational Health and Safety | 5 | Negotiation Skills | 3 |
| Commercial Construction | 9 | Construction Carpentry | 4 | Palm OS | 3 |
| Remodeling | 8 | Painting | 4 | Product Sales | 3 |
| Residential Construction | 8 | Product Knowledge | 4 | Project Management | 3 |

*Source: Burning Glass*

**Table 10. Certifications for Construction Occupations in the Bay Region (March 2018 - Feb 2019)**

Note: 65% of records have been excluded because they do not include a certification. As a result, the chart below may not be representative of the full sample.

|  |  |  |  |
| --- | --- | --- | --- |
| Certification | Postings | Certification | Postings |
| Driver's License | 35 | ServSafe | 2 |
| Bronze Level Certification | 24 | Certified Teacher | 1 |
| Certified Framer | 24 | Contractors License | 1 |
| Automotive Service Excellence (ASE) Certification | 10 | Home Care Certificate | 1 |
| Certified Art Framer | 3 | Home Health Aide | 1 |

*Source: Burning Glass*

**Table 11. Education Requirements for Construction Occupations in Bay Region**

Note: 84% of records have been excluded because they do not include a degree level. As a result, the chart below may not be representative of the full sample.

|  |  |
| --- | --- |
| Education (minimum advertised) | Latest 12 Mos. Postings |
| High school or vocational training | 28 (100%) |
| Associate Degree | 0 (0%) |
| Bachelor’s Degree or Higher | 0 (0%) |

*Source: Burning Glass*

# 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/](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:

* Doreen O’Donovan, Data Research Analyst, for Bay Area Community College Consortium (BACCC) and Centers of Excellence (CoE), doreen@baccc.net or (831) 479-6481
* John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, jcarrese@ccsf.edu or (415) 267-6544