**Carpentry Occupations**

**Labor Market Information Report**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

March 2018

# Recommendation

Based on all available data, there appears to be a large undersupply of Carpentry workers compared to the demand for this cluster of occupations in the Bay region and the East Bay sub-region. The annual gap between demand and supply is about 8,750 in the region and about 2,740 in the East Bay sub-region.

This report also provides student outcomes data on employment and earnings for Carpentry programs (TOP 0952.10) in the region and state. It is recommended that this data be reviewed to better understand how student outcomes for Laney College compare to potentially similar programs at colleges in the state and region, as well as for outcomes across all CTE programs at Laney College and in the region.

# Introduction

This report profiles Carpentry occupations in the 12 county Bay region and the East Bay sub-region (Alameda and Contra Costa counties) for revision of an existing program at Laney College. The two eight-digit SOC codes listed under the six-digit codes were included in the LMI submission to COE. However, traditional labor market information is not available at the eight-digit level; only at the six-digit level. Labor market information from online job postings is available at the eight-digit level from Burning Glass.

* **Carpenters (SOC 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.
	+ **Construction Carpenters (SOC 47-2031.01)**:Construct, erect, install, and repair structures and fixtures of wood, plywood, and wallboard, using carpenter's hand tools and power tools.

*Entry-Level Educational Requirement:* *High school diploma or equivalent*

*Training Requirement:* *Apprenticeship*

*Percentage of Community College Award Holders or Some Postsecondary Coursework:* 25%

* **Construction Laborers (SOC 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%

* **Helpers--Carpenters (SOC 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.

*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, Construction Trades, All Other (SOC 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:* 22%

* **Construction and Related Workers, All Other (SOC 47-4099)**: All construction and related workers not listed separately.
	+ **Weatherization Installers and Technicians (47-4099.03):** Perform a variety of activities to weatherize homes and make them more energy efficient. Duties include repairing windows, insulating ducts, and performing heating, ventilating, and air-conditioning (HVAC) work. May perform energy audits and advise clients on energy conservation measures.

*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:* 31%

# Occupational Demand

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

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2016 Jobs | 2021 Jobs | 5-Yr Change | 5-Yr % Change | 5-year Openings | Annual Openings | 10% Hrly Wage | Median Hrly Wage |
| Carpenters | 38,615 | 40,488 | 1,873 | 5% | 20,015 | 4,003 | $13.65 | $25.92 |
| Construction Laborers | 35,740 | 38,950 | 3,210 | 9% | 22,009 | 4,402 | $11.92 | $18.31 |
| Helpers--Carpenters | 813 | 898 | 85 | 10% | 679 | 136 | $11.25 | $17.41 |
| Helpers, Construction Trades, All Other | 615 | 675 | 60 | 10% | 508 | 102 | $11.36 | $15.91 |
| Construction and Related Workers, All Other | 903 | 982 | 79 | 9% | 569 | 114 | $13.73 | $18.63 |
| **Total** | **76,685** | **81,994** | **5,309** | **7%** | **43,780** | **8,756** | **$12.80**  | **$22.12**  |

*Source: EMSI 2018.1*

**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 Carpentry Occupations in East Bay Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2016 Jobs | 2021 Jobs | 5-Yr Change | 5-Yr % Change | 5-year Openings | Annual Openings | 10% Hrly Wage | Median Hrly Wage |
| Carpenters | 12,119 | 12,497 | 378 | 3% | 5,940 | 1,188 | $13.61 | $25.92 |
| Construction Laborers | 12,330 | 13,271 | 941 | 8% | 7,379 | 1,476 | $12.11 | $20.25 |
| Helpers--Carpenters | 129 | 141 | 12 | 9% | 106 | 21 | $10.78 | $16.02 |
| Helpers, Construction Trades, All Other | 138 | 153 | 15 | 11% | 116 | 23 | $10.18 | $13.65 |
| Construction and Related Workers, All Other | 334 | 362 | 28 | 8% | 209 | 42 | $13.09 | $16.83 |
| **Total** | **25,050** | **26,425** | **1,375** | **5%** | **13,750** | **2,750** | **$12.83**  | **$22.89**  |

*Source: EMSI 2018.1***East Bay Sub-Region** includes Alameda and Contra Costa counties

### Job Postings in Bay Region and East Bay Sub-Region

**Table 3. Number of Job Postings for Carpentry Occupations for latest 12 months (March 2017 – February 2018)**

|  |  |  |
| --- | --- | --- |
| Occupation | Bay Region | East Bay |
| Construction Laborers (47-2061.00) | 1,260 | 470 |
| Construction Carpenters (47-2031.01) | 82 | 20 |
| Helpers--Carpenters (47-3012.00) | 6 | 5 |
| Weatherization Installers and Technicians (47-4099.03) | 3 | 1 |
| **Total** | **1,351** | **496** |

*Source: Burning Glass*

**Table 4. Top Job Titles for Carpentry Occupations for latest 12 months (March 2017 – February 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Common Title | Bay Region | East Bay | Common Title | Bay Region | East Bay |
| Construction Laborer | 98 | 52 | Construction Laborer | 29 | 8 |
| Handyman Get Paid Weekly | 90 | 42 | Construction Worker | 26 | 4 |
| Handyman Pick Own | 90 | 40 | Handyman | 25 | 8 |
| Handyman Make | 85 | 38 | Scheduler | 25 | 4 |
| General Laborer | 51 | 8 | Construction Coordinator | 22 | 8 |
| Carpenter | 43 | 6 | General Labor | 20 | 6 |
| Construction Administrator | 33 | 18 | Finish Carpenter | 18 | 6 |

*Source: Burning Glass*

# Industry Concentration

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Industry – 4 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2016)** | **Jobs in Industry (2021)** | **% Change (2016-21)** | **% in Industry (2016)** |
| Residential Building Construction (2361) | 23,356 | 24,578 | 5% | 30.5% |
| Building Finishing Contractors (2383) | 11,148 | 11,653 | 5% | 14.5% |
| Nonresidential Building Construction (2362) | 8,457 | 9,694 | 15% | 11.0% |
| Other Specialty Trade Contractors (2389) | 8,213 | 8,394 | 2% | 10.7% |
| Foundation, Structure, and Building Exterior Contractors (2381) | 7,588 | 8,359 | 10% | 9.9% |
| Building Equipment Contractors (2382) | 3,887 | 4,138 | 6% | 5.1% |
| Utility System Construction (2371) | 2,291 | 2,605 | 14% | 3.0% |
| Highway, Street, and Bridge Construction (2373) | 2,077 | 2,166 | 4% | 2.7% |
| Employment Services (5613) | 1,728 | 1,913 | 11% | 2.3% |
| Local Government, Excluding Education and Hospitals (9039) | 1,426 | 1,505 | 6% | 1.9% |
| Other Heavy and Civil Engineering Construction (2379) | 898 | 962 | 7% | 1.2% |

*Source: EMSI 2018.1*

**Table 6. Top Employers Posting Carpentry Occupations in Bay Region and East Bay for latest 12 months
(March 2017 – February 2018)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Employer** | **Bay Region** |  | **Employer** | **East Bay** |
| Handy | 266 |  | Handy | 120 |
| Hayward Unified School District | 11 |  | Hayward Unified School District | 11 |
| The Kleinfelder Group, Inc | 10 |  | The Kleinfelder Group, Inc | 7 |
| Cbre | 8 |  | Aegion Corporation | 6 |
| Comcast | 8 |  | Bright Power | 5 |
| Cablecom Llc | 7 |  | Comcast | 5 |

*Source: Burning Glass*

# Educational Supply

On the supply side, for Carpentry (TOP 0952.10), Laney is the only community college in the Bay region issuing awards annually. On average, Laney issues seven awards annually.

**Table 7. Carpentry Programs on TOP 0952.10 in the Bay Region**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| College | Sub-Region | CC Headcount | Associate Degrees | Certificates | Total Awards |
| Laney | East Bay | 315 | 3 | 4 | 7 |
| San Francisco | Mid-Peninsula | 186 | 0 | 0 | 0 |
| San Jose | Silicon Valley | 18 | 0 | 0 | 0 |
| **Total Bay Region** | **521** | **3** | **4** | **7** |
| **Total East Bay Sub-Region** | **315** | **3** | **4** | **7** |

# *Sources: IPEDS, Data Mart and Launchboard*

NOTE: For Community Colleges, the annual average for awards is 2014-17. Headcount is for 2016-17.

# Gap Analysis

The labor market gap is significant in the Bay region for this cluster of occupation with total annual openings of 8,756 in the Bay region and only seven awards issued annually. In the East Bay sub-region, there are 2,750 annual openings and only seven awards annually.

# Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0952.10 - Carpentry**

* On TOP 0952.10 - Carpentry in 2015-16, Gavilan College had 455 students and Hartnell College had 15 students. However, there were no students taking courses on that TOP code in 2016-17 at either college. There were also no awards issued on that TOP code by either college for 2014-17.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **2015-16** | **Bay Region (All CTE Programs)** | **Laney (All CTE Programs)** | **State (0952.10)** | **Bay Region (0952.10)** | **Laney (0952.10)** | **Top Colleges in State****on TOP 0952.10** **Carpentry** |
| % Employed Four Quarters After Exit | 74% | 67% | 69% | 72% | 61% | San Francisco | 75% (40 students) |
| Median Earnings Two Quarters After Exit | $10,310 | $9,960 | $11,950 | $12,750 | $14,035 | Gavilan | $20,075 (107 students) |
| Median % Change in Earnings | 46% | 46% | 51% | 49% | 5% | Gavilan | 70% (49 students) |
| % of Students Earning a Living Wage | 63% | 61% | 62% | 66% | 66% | Gavilan | 67% (57 students) |

 *Source: Launchboard*

# Skills, Certifications and Education

**Table 9. Top Skills for Carpentry Occupations in Bay Region (March 2017 – February 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Skill** | **Postings** | **Skill** | **Postings** | **Skill** | **Postings** |
| Hand Tools | 348 | Budgeting | 111 | Cleaning | 46 |
| Power Tools | 298 | Painting | 89 | Building Codes | 44 |
| Project Management | 179 | Construction Labor | 81 | Customer Contact | 43 |
| Scheduling | 173 | Drywall | 62 | HVAC | 39 |
| Repair | 152 | Construction Industry Knowledge | 61 | Occupational Health and Safety | 39 |
| Microsoft Excel | 144 | Framing | 57 | Contract Review | 38 |
| Inspection | 137 | Machinery | 54 | Supervisory Skills | 38 |
| Carpentry | 134 | Commercial Construction | 53 | Contract Management | 36 |
| Microsoft Office | 128 | Forklift Operation | 52 | Schematic Diagrams | 34 |
| Construction Management | 120 | Roofing | 50 | Sales | 32 |
| Plumbing | 120 | Accounting | 47 | Microsoft Powerpoint | 31 |
| Customer Service | 112 | Microsoft Word | 47 | Residential Construction | 31 |

*Source: Burning Glass*

**Table 10. Education Requirements for Carpentry Occupations in Bay Region**

Note: 88% 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 |  | 159 |
| Associate Degree |  | 1 |

*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

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