** Wood Technology Occupations**

**Labor Market Information Report**

**Laney College**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

November 2019

# Recommendation

Based on all available data, there appears to be an undersupply of Wood Technology workers compared to the demand for this cluster of occupations in the Bay region and in the East Bay sub-region (Alameda and Contra Costa Counties). There is a projected annual gap of about 327 students in the Bay region and 111students in the East Bay 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 Laney College and in the region.

# Introduction

This report profiles Wood Technology Occupations in the 12 county Bay region and in the East Bay sub-region for two proposed new programs and the review of an existing program at Laney College. When submitting to the BACCC, this LMI report can be used for all three Certificate programs that Laney College has requested LMI reports for: Wood Technology, Fundamentals of Wood Technology, and Fundamentals of Computer Numerical Control (CNC) Manufacturing. This is because the TOP code and SOC (occupation) codes selected are exactly the same for all three programs.

|  |
| --- |
| * **Cabinetmakers and Bench Carpenters (SOC 51-7011):** Cut, shape, and assemble wooden articles or set up and operate a variety of woodworking machines, such as power saws, jointers, and mortisers to surface, cut, or shape lumber or to fabricate parts for wood products. Excludes “Woodworking Machine Setters, Operators, and Tenders" (51-7040).
 |
| 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: 25% |
| * **Model Makers, Wood (SOC 51-7031):** Construct full-size and scale wooden precisionmodels of products. Includes wood jig builders and loft workers.
 |
| 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: 29*%* |
| * **Patternmakers, Wood (SOC 51-7032**)**:** Plan, lay out, and construct wooden unit or sectional patterns used in forming sand molds for castings.
 |
| 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: 29*%* |
| * **Woodworking Machine Setters, Operators, and Tenders**, **Except Sawing (SOC 51-7042):** Set up, operate, or tend woodworking machines, such as drill presses, lathes, shapers, routers, sanders, planers, and wood nailing machines. May operate CNC equipment.
 |
| 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: 16*%* |
| * **Sawing Machine Setters, Operators, and Tenders, Wood (SOC 51-7041):** Set up, operate, or tend wood sawing machines. May operate CNC equipment. Includes lead sawyers.
 |
| *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: 18%* |

# Occupational Demand

**Table 1. Employment Outlook for Wood Technology Occupations in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2018 Jobs | 2023 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Cabinetmakers and Bench Carpenters |  2,380  |  2,428  | 48 | 2% |  1,329  |  266  | $11.35 | $19.16 |
| Woodworking Machine Setters, Operators, and Tenders, Except Sawing |  561  |  587  | 26 | 5% |  346  |  69  | $12.12 | $15.68 |
| Sawing Machine Setters, Operators, and Tenders, Wood |  231  |  244  | 13 | 6% |  153  |  31  | $11.01 | $13.71 |
| Model Makers, Wood |  29  |  27  | -2 | -6% |  16  |  3  | $4.46 | $26.38 |
| Patternmakers, Wood |  22  |  22  | 1 | 3% |  13  |  3  | $3.68 | $22.39 |
| **Total** |  **3,222**  |  **3,308**  | **86** | **3%** |  **1,857**  |  **371**  | **$11.35** | **$18.25** |

*Source: EMSI 2019.2*

**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 Wood Technology Occupations in East Bay Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2018 Jobs | 2023 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Cabinetmakers and Bench Carpenters |  840  |  848  | 8 | 1% |  447  |  89  | $11.18 | $18.92 |
| Woodworking Machine Setters, Operators, and Tenders, Except Sawing |  181  |  190  | 9 | 5% |  114  |  23  | $11.83 | $14.57 |
| Sawing Machine Setters, Operators, and Tenders, Wood |  48  |  51  | 3 | 5% |  25  |  5  | $11.70 | $14.40 |
| Model Makers, Wood |  -  |  -  | 0 |  |  -  |  -  |  |  |
| Patternmakers, Wood |  -  |  -  | 0 |  |  -  |  -  |  |  |
| **TOTAL** |  **1,068**  |  **1,088**  | **20** | **2%** |  **586**  |  **117**  | **$11.31** | **$17.99** |

*Source: EMSI 2019.2*

**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 by Occupation for latest 12 months (October 2018 - September 2019)**

| Occupation | Bay Region | East Bay |
| --- | --- | --- |
|  Cabinetmakers and Bench Carpenters | 127 | 40 |
|  Woodworking Machine Setters, Operators, and Tenders, Except Sawing | 75 | 29 |
|  Sawing Machine Setters, Operators, and Tenders, Wood | 19 | 5 |
|  **Total** | **221** | **74** |

*Source: Burning Glass*

**Table 4a. Top Job Titles for Wood Technology Occupations for latest 12 months (October 2018 - September 2019) Bay Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | Bay | Common Title | Bay |
| Cabinet Maker | 41 | Trimmers For Cannabis Cultivation | 2 |
| Cabinet Installer | 30 | Touch Up Rework With BGA | 2 |
| Operator | 29 | Multi-Purpose Valley Blvd | 2 |
| Installer | 15 | Lead Carpenter | 2 |
| Tester | 13 | Guitar Technician | 2 |
| Router | 8 | Guitar Maker | 2 |
| Shop Associate | 7 | Feeder/Operator | 2 |
| Small Craft Operator | 5 | Custom Cabinet Builder | 2 |
| Packager | 4 | Cabinetmakers - Skilled - Manufacturing | 2 |
| Touch Up Rework | 3 | American Heart Association Bls Instructor/Cabinet Installer | 2 |
| Imaging Operator | 3 | Wood Work | 1 |
| Fabricator | 3 | Whit Box Testers | 1 |
| Cabinetmakers | 3 | Trimmers/Rollers | 1 |
| Work At Bowl | 2 | Trimmer | 1 |

**Table 4b. Top Job Titles for Wood Technology Occupations for latest 12 months (October 2018 - September 2019) East Bay Sub-Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | East Bay | Common Title | East Bay |
| Cabinet Maker | 17 | Touch-Up Rework | 1 |
| Operator | 8 | Touch Up Rework Bga | 1 |
| Installer | 6 | Swing Production Seasonal | 1 |
| Cabinet Installer | 5 | Shop Associate | 1 |
| Cabinetmakers | 3 | Sander | 1 |
| Touch Up Rework With Bga | 2 | Router | 1 |
| Touch Up Rework | 2 | Packer | 1 |
| Multi-Purpose Valley Blvd | 2 | Line Carver | 1 |
| Lead Carpenter | 2 | Jumper | 1 |
| Guitar Technician | 2 | Jobid Zr 139 Job, Touch Up/Rework | 1 |
| Fabricator | 2 | Head, Fund | 1 |
| Cabinetmakers - Skilled - Manufacturing | 2 | Guitar Technician, Guitar, Information And Technology Industry | 1 |
| Trimmer | 1 | Flooring Design | 1 |
| Touch-Up/Rework | 1 | Evaluator | 1 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Wood Technology Workers in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Industry – 6 Digit NAICS (No. American Industry Classification) Codes | Jobs in Industry (2018) | Jobs in Industry (2022) | % Change (2018-22) | % in Industry (2018) |
| Wood Kitchen Cabinet and Countertop Manufacturing (337110) | 725 | 724 | -4% | 22% |
| Wood Container and Pallet Manufacturing (321920) | 311 | 326 | 5% | 10% |
| Custom Architectural Woodwork and Millwork Manufacturing (337212) | 233 | 242 | 21% | 7% |
| Nonupholstered Wood Household Furniture Manufacturing (337122) | 239 | 234 | 5% | 7% |
| Wood Office Furniture Manufacturing (337211) | 159 | 161 | 13% | 5% |
| Showcase, Partition, Shelving, and Locker Manufacturing (337215) | 151 | 152 | 1% | 5% |
| Wood Window and Door Manufacturing (321911) | 77 | 91 | 23% | 3% |
| All Other Miscellaneous Wood Product Manufacturing (321999) | 73 | 74 | 12% | 2% |
| Finish Carpentry Contractors (238350) | 72 | 73 | 13% | 2% |
| Flooring Contractors (238330) | 70 | 71 | 6% | 2% |
| Upholstered Household Furniture Manufacturing (337121) | 74 | 71 | -22% | 2% |
| Tile and Terrazzo Contractors (238340) | 68 | 68 | 10% | 2% |
| Temporary Help Services (561320) | 67 | 67 | 9% | 2% |
| Other Building Finishing Contractors (238390) | 63 | 64 | 8% | 2% |
| Office Furniture (except Wood) Manufacturing (337214) | 53 | 54 | -8% | 2% |
| Prefabricated Wood Building Manufacturing (321992) | 49 | 49 | 37% | 1% |
| Metal Household Furniture Manufacturing (337124) | 42 | 42 | -12% | 1% |
| Other Millwork (including Flooring) (321918) | 40 | 40 | 3% | 1% |
| Institutional Furniture Manufacturing (337127) | 36 | 38 | 17% | 1% |
| Sawmills (321113) | 30 | 35 | 40% | 1% |

*Source: EMSI 2019.2*

**Table 6. Top Employers Posting Wood Technology Occupations in Bay Region and East Bay Sub-Region (October 2018 - September 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | East Bay |
| Sanmina Corporation | 8 | Proexhibits | 2 | Precision Cabinets Trim | 4 |
| Precision Cabinets Trim | 6 | Presidio Incorporated | 2 | Precision Cabinets | 4 |
| Precision Cabinets | 5 | Performance Food Group Company | 2 | Acara Solutions | 3 |
| Ca Technology | 5 | National Park Service | 2 | Wellex Corporation | 2 |
| Benicia Cabinetry | 5 | Lsc Cabinetry Inc | 2 | Line Incorporated | 2 |
| Migros Group | 4 | Line Incorporated | 2 | Lanz Cabinets | 2 |
| Eurowood Custom Cabinetry | 4 | Kanaplya | 2 | Furniture Medic On Call | 2 |
| Eldredge Woodworks, Inc | 4 | Furniture Medic On Call | 2 | Eby Construction | 2 |
| Six Sigma | 3 | Eby Construction | 2 | Urban Plates | 1 |
| Sierra Circuits | 3 | Department Interior | 2 | University Of California Berkeley | 1 |
| Lanz Cabinets | 3 | California Closets | 2 | University California | 1 |
| Closet Factory | 3 | Bay Area Woodworking | 2 | UC San Diego | 1 |
| Acara Solutions | 3 | Annuvia | 2 | Trustmark Company | 1 |
| Winslow Automation/Six Sigma | 2 | Advanta Cabinets | 2 | Tile Shop | 1 |
| Wellex Corporation | 2 | Abi Sf | 2 | The Save Mart Companies | 1 |
| Sterling Woodcraft | 2 | Zephyr Express | 1 | Tci Aluminum North | 1 |
| Santa Cruz Guitar Company | 2 | Woodenbridge Inc Custom Cabinets | 1 | Sysco Corporation | 1 |

*Source: Burning Glass*

# Educational Supply

There are four (4) community colleges in the Bay Region issuing 44 awards on average annually (last 3 years) on TOP 0952.00 - Construction Crafts Technology. There is one college (DVC) in the East Bay Sub-Region issuing 6 awards on average annually (last 3 years) on this TOP code.

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Associates | Certificate 18+ units | Certificate Low unit | Total |
| City College of San Francisco  | Mid-Peninsula |  |  |  4  |  4  |
| Diablo Valley College  | East Bay |  |  3  |  3  |  6  |
| Hartnell College  | Santa Cruz - Monterey |  |  1  |  |  1  |
| San Jose City College  | Silicon Valley |  8  |  18  |  7  |  33  |
| **Total Bay Region** | **8** | **22** | **14** | **44** |
| **Total East Bay Sub-Region** | **0** | **3** | **3** | **6** |

# *Source: Data Mart*

Note: The annual average for awards is 2015-16 to 2017-18.

# Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 371 annual openings for the Wood Technology occupational cluster and 44 annual (3-year average) awards for an annual undersupply of 327 students. In the East Bay Sub-Region, there is also a gap with 117 annual openings and 6 annual (3-year average) awards for an annual undersupply of 111 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) | Laney College (All CTE Programs) | State (0952.00) | Bay (0952.00) | East Bay (0952.00) | Laney College (0952.00) |
| % Employed Four Quarters After Exit | 74% | 66% | 63% | 72% | n/a | n/a |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $9,865 | $9,201 | $9,832 | n/a | n/a |
| Median % Change in Earnings | 46% | 45% | 50% | 57% | n/a | n/a |
| % of Students Earning a Living Wage | 63% | 61% | 53% | 53% | n/a | n/a |

*Source: Launchboard Pipeline (version available on 10/31/19)*

# Skills, Certifications and Education

**Table 9. Top Skills for Wood Technology Occupations in Bay Region (October 2018 - September 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Cabinetry | 57 | Routers | 10 | Materials Transport | 5 |
| Soldering | 26 | Packaging | 9 | Procurement | 5 |
| Hand Tools | 24 | Quality Assurance and Control | 9 | Project Management | 5 |
| Cabinet Installation | 23 | Calculation | 8 | Purchasing | 5 |
| Customer Service | 19 | Cleaning | 8 | Safety Training | 5 |
| Power Tools | 18 | Forklift Operation | 8 | Vessel Maintenance | 5 |
| Machinery | 17 | Microscope | 8 | Cardiopulmonary Resuscitation (CPR) | 4 |
| Scheduling | 17 | Six Sigma | 8 | Copying | 4 |
| Shop Drawings | 15 | Staff Management | 8 | Identifying and Evaluating Defects | 4 |
| International Traffic in Arms Regulations (ITAR) | 14 | Surgery | 8 | Painting | 4 |
| Lifting Ability | 14 | Computer Numerical Control (CNC) | 7 | Performance Appraisals | 4 |
| Table Saws | 14 | Hardware and Software Installation | 6 | White-box testing | 4 |
| Finish Carpentry | 13 | Heavy Lifting | 6 | Appointment Setting | 3 |
| Repair | 12 | Public Speaking | 6 | Bill of Materials | 3 |
| Carpentry | 10 | Guitar | 5 | Budgeting | 3 |

*Source: Burning Glass*

**Table 10. Certifications for Wood Technology Occupations in Bay Region (October 2018 - September 2019)**

Note: 76% 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 | 34 | Fundamental Payroll Certification | 2 |
| IPC Certification | 11 | First Aid CPR AED | 2 |
| Contractors License | 3 | Basic Life Saving (BLS) | 2 |
| American Heart Association Certification | 3 | Forklift Operator Certification | 1 |
| Security Clearance | 2 | CDL Class B | 1 |

*Source: Burning Glass*

**Table 11. Education Requirements for Wood Technology Occupations in Bay Region**

Note: 24% 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 | Percent 12 Mos. Postings |
| High school or vocational training | 46 | 84% |
| Associate Degree | 3 | 5% |
| Bachelor’s Degree or Higher | 4 | 11% |

*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, 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