

Occupation	Top Employers
Woodworking Machine Setters, Operators, and Tenders, Except Sawing* (n=66)	<ul style="list-style-type: none"> Mendocino Redwood Company Group Delphi Fender CABA Design

Source: Burning Glass – Labor Insights

*California job advertisement information

Exhibit 7 lists a sample of specialized and employability skills employers seek when looking for workers to fill positions in the mill and cabinet work occupational group. Specialized skills are occupation-specific skills that employers request for industry or job competency. Employability skills are foundational skills that transcend industries and occupations; this category is often referred to as "soft skills." The skills requested in job ads may be utilized to guide curriculum development.

Exhibit 7: Sample of in-demand skills from employer job ads

Occupation	Specialized skills	Employability skills
Community College-level Occupation		
Carpenters (n=162)	<ul style="list-style-type: none"> Repair Drywall Finish Carpentry Framing Cabinetry 	<ul style="list-style-type: none"> Detail-Oriented Physical Abilities English Organizational Skills Communication Skills
High School-level Occupations		
Cabinetmakers and Bench Carpenters (n=97)	<ul style="list-style-type: none"> Cabinetry Table Saws Hand Tools Cabinet Installation Routers 	<ul style="list-style-type: none"> Detail-Oriented English Teamwork/Collaboration Spanish Problem Solving
Sawing Machine Setters, Operators, and Tenders, Wood* (n=77)	<ul style="list-style-type: none"> Lifting Ability Power Tools Forklift Operation Band Saw Basic Mathematics 	<ul style="list-style-type: none"> Physical Abilities Teamwork/Collaboration Work Area Maintenance Positive Disposition Communication Skills
Woodworking Machine Setters, Operators, and Tenders, Except Sawing* (n=63)	<ul style="list-style-type: none"> Hand Tools Cleaning Power Tools Repair Lathes 	<ul style="list-style-type: none"> Teamwork/Collaboration Physical Abilities Detail-Oriented Work Area Maintenance English

Source: Burning Glass – Labor Insights

*California job advertisement information

Occupation	Work Experience Typically Required	Real-Time Work Experience			
		Number of job ads	0 2 years	3 5 years	6+ years
High School-level Occupations					
Cabinetmakers and Bench Carpenters	None	43	70%	28%	2%
Sawing Machine Setters, Operators, and Tenders, Wood*	None	15	N/A	N/A	N/A
Woodworking Machine Setters, Operators, and Tenders, Except Sawing*	None	34	82%	12%	6%

Source: Emsi 2021.3, Burning Glass Labor Insights
 *California job advertisement information

Programs Completions and Student Outcomes

Regional community colleges do not currently offer mill and cabinet work (0952.50) programs. Program outcome data may provide a useful insight into the likelihood of success for the proposed program. Community college student outcome information based on the selected TOP code and region is provided in Exhibit 10. The outcome methodology is available in the appendix section of this report. Student outcome methodologies can be found in the appendix.

Exhibit 10: 0952.50 – Mill and cabinet work strong workforce program outcomes

Strong Workforce Program Metrics: 0952.50 – Mill and Cabinet Work Academic Year 2018-19, unless noted otherwise	Inland Empire/Desert Region	California
Unduplicated count of enrolled students (2019-20)	49	1,383
Completed 9+ career education units in one year (2019-20)	39%	20%
Perkins Economically disadvantaged students	62%	51%
Students who earned a degree, certificate, or attained apprenticeship (2019-20)	-	54
Transferred to a four-year institution (transfers)	-	16
Job closely related to the field of study (2017-18)	-	62%
Median annual earnings (all exiters)	\$38,482	\$50,108
Median change in earnings (all exiters)	-	20%
Attained a living wage (completers and skills-builders)	-	63%

Sources: LaunchBoard Community College Pipeline and Strong Workforce Program Metrics

Carpentry (0952.10) programs provide training and instruction related to mill and cabinet work (0952.50) programs. Carpentry programs prepare students for employment through instruction related to the layout, fabrication, erection, and installation of structures using common systems of framing, construction materials, estimating, and blueprint reading (Taxonomy of Programs, 2012). Regional community colleges do not currently offer carpentry programs (0952.10).

Recommendation

The mill and cabinet work occupational group is expected to have 2,211 annual job openings and increase employment by 2% over the next five years. The median hourly earnings for the mill and cabinet work occupational group are between \$15.22 and \$23.57 per hour, below the regional \$24.36 per hour self-sustainable wage standard for a single adult with one child. The 75th percentile hourly earnings for carpenters is \$31.08, above the \$24.36 per hour self-sustainable wage standard.

Regional community colleges do not currently offer mill and cabinet work (0952.50) or carpentry (0952.10) programs.

The COE recommends developing mill and cabinet programs due to strong regional demand and the lack of current program offerings. Colleges considering this program should partner with relevant employers to verify demand for these workers and to ensure that students have the required knowledge, skills, and abilities to earn a wage that meets or exceeds the self-sustainable hourly wage of \$24.36 per hour after completing the program.

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Appendix: Occupation definitions, sample job titles, five-year projections, and earnings for mill and cabinet work occupations

Occupation Definitions (SOC code), Education and Training Requirement, Community College Education Attainment

Community College-level Occupation

Carpenters (47-2031)

Construct, erect, install, or repair structures and fixtures made of wood and comparable materials, 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.

Sample job titles: Assembler, Bridge Carpenter, Bridge Repair Crew Person, Cabinet Maker, Carpenter, Concrete Carpenter, Construction Worker, Form Carpenter, Framar, Rough Carpenter

Entry-Level Educational Requirement: High school diploma or equivalent

Training Requirement: Apprenticeship

Work Experience: None

Percentage of incumbent workers with a Community College Award or Some Postsecondary Coursework: 25%

High School-level Occupations

Cabinetmakers and Bench Carpenters (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.

Sample job titles: Cabinet Assembler, Cabinet Builder, Cabinet Installer, Cabinetmaker, Double End Tenon Operator, Frame Builder, Framing, Woodworker

Entry-Level Educational Requirement: High school diploma or equivalent

Training Requirement: Between one and twelve months on-the-job training

Work Experience: None

Percentage of incumbent workers with a Community College Award or Some Postsecondary Coursework: 27%

Sawing Machine Setters, Operators, and Tenders, Wood (51-7041)

Set up, operate, or tend wood sawing machines. May operate computer numerically controlled (CNC) equipment. Includes lead sawyers.

Sample job titles: Bandmill Operator, Cut Off Saw Operator, Edgerman, Knot Saw Operator, Panel Saw Operator, Planer, Resaw Operator, Rip Saw Operator, Saw Operator, Sawyer

Entry-Level Educational Requirement: High school diploma or equivalent

Training Requirement: Between one and twelve months on-the-job training

Work Experience: None

Percentage of incumbent workers with a Community College Award or Some Postsecondary Coursework: 16%

Woodworking Machine Setters, Operators, and Tenders, Except Sawing (51-7042)

Set up, operate, or tend woodworking machines, such as drill presses, lathes, shapers, routers, sanders, planers, and wood nailing machines. May operate computer numerically controlled (CNC) equipment.

Sample job titles: Boring Machine Operator, Cabinet Maker, Knot Saw Operator, Lathe Operator, Machine Operator, Molder Operator, Router Operator, Sander, Sander Operator

Entry-Level Educational Requirement: High school diploma or equivalent

Training Requirement: Between one and twelve months on-the-job training

Work Experience: None

Percentage of incumbent workers with a Community College Award or Some Postsecondary Coursework: 26%

Appendix: Methodology

Community college student outcome information is from LaunchBoard and based on the selected TOP code and region. These metrics are based on records submitted to the California Community Colleges Chancellor's Office Management Information Systems (MIS) by community colleges, which come from self-reported student information from CCC Apply and the National Student Clearinghouse. Employment and earnings metrics are sourced from records provided by California's Employment Development Department's Unemployment Insurance database. When available, outcomes for completers are reported to demonstrate the impact that earning a degree or certificate can have on employment and earnings. For more information on the types of students included for each metric, please see the web link for LaunchBoard's Strong Workforce Program Metrics Data Element Dictionary in the References section (LaunchBoard, 2021 a). Finally, employment in a job closely related to the field of study comes from self-reported student responses on the CTE Employment Outcomes Survey (CTEOS), administered by Santa Rosa Junior College (LaunchBoard, 2021 a).

Job postings data is limited to the information provided by employers and the ability of artificial intelligence search engines to identify this information. Additionally, preliminary calculations by Georgetown Center on Education and the Workforce found that "just 30 to 40 percent of openings for candidates with some college or an associate degree, and only 40 to 60 percent of openings for high school diploma holders appear online" (Carnevale et al., 2014). Online job postings often do not reveal the hiring intentions of employers; it is unknown if employers plan to hire one or multiple workers from a single online job posting, or if they are collecting resumes for future hiring needs. A closed job posting may not be the result of a hired worker.

Table 1. 2020 to 2025 job growth, wages, entry-level education, training, and work experience required for the mill and cabinet work occupational group

Occupation (SOC)	2020 Jobs	5-Year Change (New Jobs)	5-Year % Change (New Jobs)	Annual Openings (New + Replacement Jobs)	Entry-Experienced Hourly Wage (10 th to 90 th percentile)	Median Hourly Wage (50 th percentile)	Average Annual Earnings	Entry-Level Education & On-The-Job-Training	Work Experience Required
Carpenters (47-2031)	20,521	651	3%	1,967	\$12.85 to \$42.43	\$23.57	\$53,500	High school diploma or equivalent & Apprenticeship	None
Community College-level Total	20,521	651	3%	1,967	-	-	-	-	-
Cabinetmakers and Bench Carpenters (51-7011)	1,324	(92)	(7%)	119	\$12.94 to \$23.60	\$15.22	\$36,200	High school diploma or equivalent & 1-12 months	None
Woodworking Machine Setters, Operators, and Tenders, Except Sawing (51-7042)	807	(0)	(0%)	100	\$13.29 to \$20.98	\$15.27	\$33,800	High school diploma or equivalent & 1-12 months	None
Sawing Machine Setters, Operators, and Tenders, Wood (51-7041)	228	8	3%	26	\$13.49 to \$19.07	\$15.85	\$33,500	High school diploma or equivalent & 1-12 months	None
High School-level Total	2,359	(84)	(4%)	245	-	-	-	-	-
Total	22,880	567	2%	2,211	-	-	-	-	-

Source: Emsi 2021.3