



FOREST PRODUCTS PRODUCTION WORKERS

Production workers in the Forest Products Sector operate machines and other equipment to transform raw forest products into value-added goods and materials ranging from wood pellets, construction lumber, to finished products like cabinets and furniture. According to employers, the most in-demand production occupations within the sector include:

- ♣ **Sawing Machine Setters, Operators, and Tenders, Wood**
- ♣ **Woodworking Machine Setters, Operators, and Tenders, Except Sawing**
- ♣ **Adhesive Bonding Machine Operators and Tenders**
- ♣ **Computer Numerically Controlled Tool Operators**



FOREST PRODUCTS PRODUCTION WORKERS

**Current Jobs
in Maine,
across all sectors
(2022)**



**Job Openings per
Year in Maine,
across all sectors
(average 2022 -32)**



**Median Hourly
Wages in Maine
across all sectors
(2022)**



Typical Entry Points

Little to no job preparation is required. Most workers have a high school diploma or equivalent and receive moderate-term on-the-job training, which can take 6 months or more. However, there are training programs and pathways available that can reduce the amount of time spent in training. Examples include:

Adult Education

- ✦ Machining
- ✦ Woodworking

Career & Tech. Education

- ✦ Manufacturing Technology
- ✦ Precision Manufacturing
- ✦ Machine Tool

Experience in Related Occupations

- ✦ Assemblers & Fabricators
- ✦ Cutting Machine Operators
- ✦ Stockers

Short-Term Training

- ✦ Manufacturing Tech
- ✦ CNC Academy

Professional Certifications

- ✦ Natl. Institute of Metal-working Skills (NIMS)

Career Progression

Career progression can take multiple forms depending on the worker's interests, prior experience, and skill attainment. To advance, workers need 1-5 years within the role and to demonstrate leadership, experience, and capabilities in one or more of the following areas.



Specialization

- ✦ Specific equipment and machines or processes



Management

- ✦ Team Lead
- ✦ Supervisor
- ✦ Manager
- ✦ Area Manager



Cross Training

- ✦ Relief Operator
- ✦ Maintenance
- ✦ Millwrights



Education and Training Providers

The following institutions provide training for production workers. In addition, there are numerous construction and carpentry training programs available throughout the state that provide skills training on woodworking and sawing machines, particularly in the career and technical education space.

Type	Institution	Location	Program	Relevant Industry Credentials & Certifications	Length
Career & Technical Education Programs	Biddeford Regional Center of Technology	Biddeford	Manufacturing Technology	None listed	
	Capital Area Technical Center	Augusta	Machine Tool With Welding	NOCTI, American Welding Society (AWS)	
	Foster CTE Center	Farmington	Composites Manufacturing	ACMA; Certified Composites Tech; OSHA-10; First Aid/CPR	
	Lewiston Regional Technical Center	Lewiston	Precision Machining Technology	Certificate (dual enrollment at Central Maine Community College)	1-2 years
	Mid-Coast School of Technology	Rockland	Machine Tool	National Institute of Metalworking Skills (NIMS)	
			Composites Manufacturing	None listed	
Sanford Regional Technical Center	Sanford	Precision Manufacturing	None listed		
Community College	Central Maine Community College	Auburn	Precision Machining Technology	Certificate, Associate's Degree, Advanced Certificate	1 - 2 years
	Kennebec Valley Community College	Fairfield	Precision Machining Technology	Certificate or Associate's Degree	4 months - 2 years
	Northern Maine Community College	Presque Isle	Computer Numerical Control (CNC)	Certificate, National Institute of Metalworking Skills (NIMS)	9 months
	Southern Maine Community College	South Portland	Manufacturing Technician	None listed	3 weeks
			Precision Machining & Manufacturing	Associate's Degree	2 years
			CNC Machine Operator	Certificate	1 year
York County Community College	Wells	Computer Numerical Control (CNC)	HAAS Mill and Lathe Certification, OSHA-10	14 weeks	
University	University of Southern Maine	Portland	Precision Manufacturing Concentration	Bachelor of Science (transfer agreement with Central Maine Community College)	2 - 4 years

*Shaded programs provide short-term training at no cost to the student

Forest Products Production Workers



Typical Entry Points

Some job preparation is needed. Most workers have a high school diploma or equivalent and receive moderate-term on-the-job training (OJT), which can range from a few months up to a year. However, there are training programs and pathways available that can reduce the amount of time spent in training. Examples include (but are not limited to):

Adult Education

- ✦ Machining
- ✦ Woodworking



Career & Tech. Education

- ✦ Manufacturing Technology
- ✦ Precision Manufacturing
- ✦ Machine Tool



Experience in Related Occupations

- ✦ Assemblers
- ✦ Cutting Machine Operators
- ✦ Stockers



Short-Term Training

- ✦ Manufacturing Tech
- ✦ CNC Academy



Professional Certifications

- ✦ Natl. Institute of Metal-working Skills (NIMS)



PRODUCTION WORKERS

Avg. Hourly Salary Range: \$13.63 - \$21.78

Depending on the entry point, workers will require moderate-term OTJ to develop the necessary skills to operate independently.

Behavioral Skills

- ✦ Attention to detail
- ✦ Safe working skills
- ✦ Willingness to learn
- ✦ Attention to detail
- ✦ Soft skills

Technical Skills

- ✦ Basic math
- ✦ Ability to use tape measures and calipers
- ✦ Operating standard pieces of mobilized equipment
- ✦ Machining experience
- ✦ Ability to read and interpret blueprints, mechanical documents, and drawings

Career Progression

Career progression can take multiple forms depending on the worker's interests, prior experience, skill attainment, or degree attainment. To advance, workers need 1-5 years within the role and to demonstrate leadership, experience, and capabilities in one or more of the following areas. These skills may be learned through OTJ or external training.

Behavioral Skills

- ✦ Willingness to be trained
- ✦ Good attitude
- ✦ Work ethic
- ✦ Willingness to work long hours
- ✦ Reliability
- ✦ Leadership

Technical Skills

- ✦ Understanding of and experience with computer programming and CAD/CAM
- ✦ Experience operating various equipment
- ✦ Ability to troubleshoot



Specialization

- ✦ Specific equipment and machines or processes



Management

- ✦ Team Lead
- ✦ Supervisor
- ✦ Manager
- ✦ Area Manager



Cross Training

- ✦ Relief Operator
- ✦ Maintenance
- ✦ Millwrights



COMPUTER NUMERICALLY CONTROLLED TOOL OPERATORS

51-9161

Operate computer-controlled tools, machines, or robots to machine or process parts, tools, or other work pieces made of metal, plastic, wood, stone, or other materials. May also set up and maintain equipment.

Skills

- ✦ Operation and control
- ✦ Operations monitoring
- ✦ Critical thinking
- ✦ Monitoring
- ✦ Quality Control Analysis

Typical Work Activities

- ✦ Using software to control machines and processes
- ✦ Getting information
- ✦ Communicating with coworkers
- ✦ Making decisions and solving problems
- ✦ Inspecting equipment, structures, or materials

Typical Work Context

- ✦ Distracting or uncomfortable sounds or noise levels
- ✦ Using hands to handle, control, or feel objects, tools, or controls
- ✦ Wear protective or safety gear such as shoes, glasses, gloves, hearing protection, or hard hats
- ✦ Important to be exact or accurate
- ✦ Face-to-face discussions



CNC Tool Operators



Maine Employment Outlook 2022 - 2032

📌 Current Jobs (2022): **961**

📌 Projected Growth:

📌 **-3% in Maine**

📌 **-1% in the US**

📌 Hires (2022): **381**

📌 Near-Term Retirements: **239 (37%)**

📌 Average Annual Openings: **105**

Average annual openings account for industry growth and worker replacements needed due to retirements or workers permanently leaving an occupation

Job Preparation Needed: Some

Typical requirements for entry:

- 📌 High school diploma or equivalent
- 📌 Moderate-term on-the-job training
- 📌 No work experience required

Workforce Demographics

- 📌 24% of workers are over the age of 55
- 📌 5% BIPOC workers
- 📌 7% female workers
- 📌 National education attainment:
 - 📌 38% high school graduates
 - 📌 30% some college, no degree
 - 📌 14% Associate's degree



Jobs Postings for CNC Tool Operators in Maine

Top Job Titles: CNC Operators | Machine Operators | CNC Set Up Operators | CNC Machinists

Specialized Skills:

- 📌 CNC Machining
- 📌 Machine Operation
- 📌 Machining

Qualifications:

- 📌 Valid Driver's License
- 📌 Forklift Certification
- 📌 10-Hour OSHA General Industry Card

CNC Tool Operators



Wages by Years of Experience

Low (15% below median), Median, and High (15% above median)

Overall Median
Hourly Wage:
\$22.95



Top Compatible Occupations

The following occupations have comparable skills to *CNC Tool Operators* based on the levels and importance of knowledge, skills, and abilities. This means workers in these occupations could easily transfer their competencies to work in the forest products sector.

- ♣ Industrial Machinery Mechanics
- ♣ Electric Motor, Power Tool, and Related Repairers
- ♣ Petroleum Pump System Operators, Refinery Operators, and Gaugers
- ♣ Electro-Mechanical and Mechatronics Technologists and Technicians
- ♣ Gas Plant Operators



Note: Maine's minimum wage in 2023 is \$13.80. Data reflects 2022 wages.

Source: Lightcast 2023.2

Feeder and Next Step Occupations

Related occupations are plotted based on their skills transferability to *CNC Tool Operators* (the x axis) and their salary difference (the y axis, with \$0 indicating the occupation has the same salary as *CNC Tool Operators*). Current employment in the occupation is represented by the bubble size (and in the data label) to indicate the size of the labor pool.

Feeder Occupations earn less than *CNC Tool Operators*; therefore, becoming a *CNC Tool Operator* would represent upward mobility with minimal training. These are potential sources of labor that could be drawn from to meet demand for this occupation.



Next Step Occupations have higher wages than *CNC Tool Operators* and present opportunities for advancement with minimal upskilling.





WOOD SAWING MACHINE SETTERS, OPERATORS, & TENDERS

51-7041

Set up, operate, or tend wood sawing machines. May operate computer numerically controlled (CNC) equipment. Includes lead sawyers. Workers who primarily program or operate CNC equipment are classified in “Computer Numerically Controlled Tool Operators and Programmers.”

Skills

- ✦ Operation and control
- ✦ Operations monitoring
- ✦ Critical thinking
- ✦ Monitoring
- ✦ Quality Control Analysis

Typical Work Activities

- ✦ Controlling Machines and Processes
- ✦ Handling and Moving Objects
- ✦ Performing General Physical Activities
- ✦ Inspecting Equipment, Structures, or Materials
- ✦ Identifying Objects, Actions, and Events

Typical Work Context

- ✦ Wear common protective or safety equipment such as safety shoes, glasses, gloves, hearing protection, or hard hats
- ✦ Exposed to Hazardous Equipment
- ✦ Exposed to Contaminants
- ✦ Distracting or Uncomfortable Sounds or Noise Levels
- ✦ Important to be Exact or Accurate



Wood Sawing Machine Setters, Operators & Tenders



Maine Employment Outlook 2022 - 2032

📌 Current Jobs (2022): **500**

📌 Projected Growth:

📌 **-7% in Maine**

📌 **10% in the US**

📌 Hires (2022): **247**

📌 Near-Term Retirements: **115 (23%)**

📌 Average Annual Openings: **58**

Average annual openings account for industry growth and worker replacements needed due to retirements or workers permanently leaving an occupation

Job Preparation Needed: Some

Typical requirements for entry:

- 📌 High school diploma or equivalent
- 📌 Moderate-term on-the-job training
- 📌 No work experience required

Workforce Demographics

- 📌 27% of workers are over the age of 55
- 📌 8% BIPOC workers
- 📌 8% female workers
- 📌 National education attainment:
 - 📌 34% less than high school diploma
 - 📌 45% high school graduates
 - 📌 12% some college, no degree



Jobs Postings for Wood Sawing Machine Operators in Maine

Top Job Titles: Sawmill Supervisor | Trimmers | Saw Operator | Woodworkers | Lumber Graders

Specialized Skills:

- 📌 Mills
- 📌 Flooring
- 📌 Sawing

Qualifications:

- 📌 Valid Driver's License
- 📌 10-Hour OSHA General Industry Card

Wood Sawing Machine Setters, Operators & Tenders



Wages by Years of Experience

Low (15% below median), Median, and High (15% above median)

Overall Median
Hourly Wage:
\$17.60



Top Compatible Occupations

The following occupations have comparable skills to *Wood Sawing Machine Operators* based on the levels and importance of knowledge, skills, and abilities. This means workers in these occupations could easily transfer their competencies to work in the forest products sector.

- ♣ Helpers – Production Workers
- ♣ Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
- ♣ Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
- ♣ Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
- ♣ Textile Cutting Machine Setters, Operators, and Tenders, Except Sawing



Note: Maine's minimum wage in 2023 is \$13.80. Data reflects 2022 wages.

Source: Lightcast 2023.1

Wood Sawing Machine Setters, Operators & Tenders



Feeder and Next Step Occupations

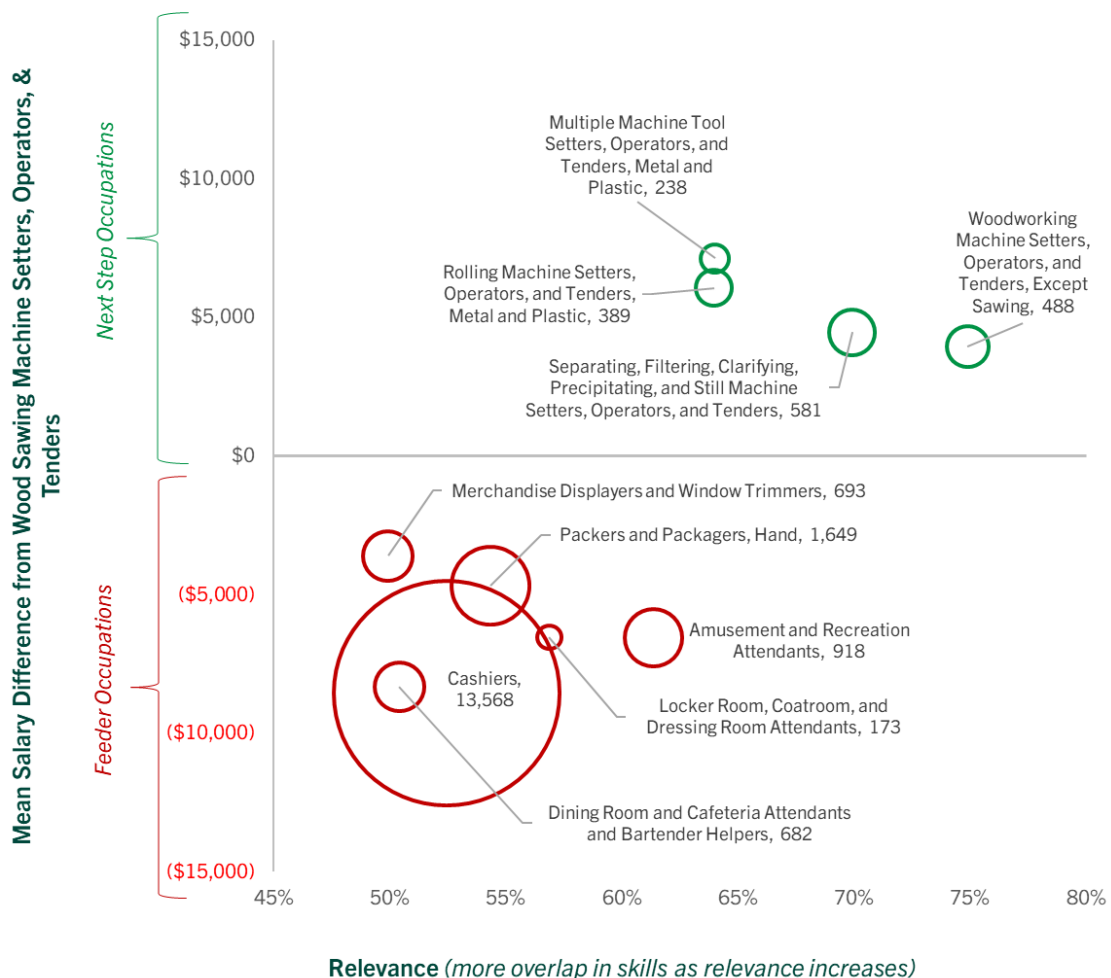
Related occupations are plotted based on their skills transferability to *Wood Sawing Machine Operators* (the x axis) and their salary difference (the y axis, with \$0 indicating the occupation has the same salary as *Wood Sawing Machine Operators*). Current employment in the occupation is represented by the bubble size (and in the data label) to indicate the size of the labor pool.

Feeder Occupations earn less than *Wood Sawing Machine Operators*; therefore, becoming a *Wood Sawing Machine Operator* would represent upward mobility with minimal training. These are potential sources of labor that could be drawn from to meet demand for this occupation.



Next Step Occupations have higher wages than *Wood Sawing Machine Operators* and present opportunities for advancement with minimal upskilling.

Bubble size = 2022 employment
(also included in the data label)





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. Workers who primarily program or operate CNC equipment are classified in “Computer Numerically Controlled Tool Operators and Programmers”.

Skills

- ⬆ Operations monitoring
- ⬆ Operation and control
- ⬆ Quality Control Analysis
- ⬆ Monitoring
- ⬆ Critical Thinking

Typical Work Activities

- ⬆ Controlling Machines and Processes
- ⬆ Handling and Moving Objects
- ⬆ Inspecting Equipment, Structures, or Materials
- ⬆ Getting Information
- ⬆ Performing General Physical Activities

Typical Work Context

- ⬆ Exposed to Contaminants
- ⬆ Face-to-Face Discussions
- ⬆ Distracting or Uncomfortable Sounds or Noise Levels
- ⬆ Spend Time Using Hands to Handle, Control, or Feel Objects, Tools, or Controls
- ⬆ Spend Time Standing



Woodworking Machine Setters, Operators & Tenders



Maine Employment Outlook 2022 - 2032

📌 Current Jobs (2022): **488**

📌 Projected Growth:

📌 **-11% in Maine**

📌 **8% in the US**

📌 Hires (2022): **248**

📌 Near-Term Retirements: **100 (20%)**

📌 Average Annual Openings: **47**

Average annual openings account for industry growth and worker replacements needed due to retirements or workers permanently leaving an occupation

Job Preparation Needed: Some

Typical requirements for entry:

- 📌 High school diploma or equivalent
- 📌 Moderate-term on-the-job training
- 📌 No work experience required

Workforce Demographics

- 📌 24% of workers are over the age of 55
- 📌 3% BIPOC workers
- 📌 15% female workers
- 📌 National education attainment:
 - 📌 23% less than high school diploma
 - 📌 48% high school graduates
 - 📌 21% some college, no degree



Jobs Postings for Woodworking Machine Operators in Maine

Top Job Titles: Console Operators | Routers | Machine Setup Operators

Specialized Skills:

- 📌 Safety Standards
- 📌 Hoisting

Qualifications:

- 📌 Valid Driver's License
- 📌 10-Hour OSHA General Industry Card

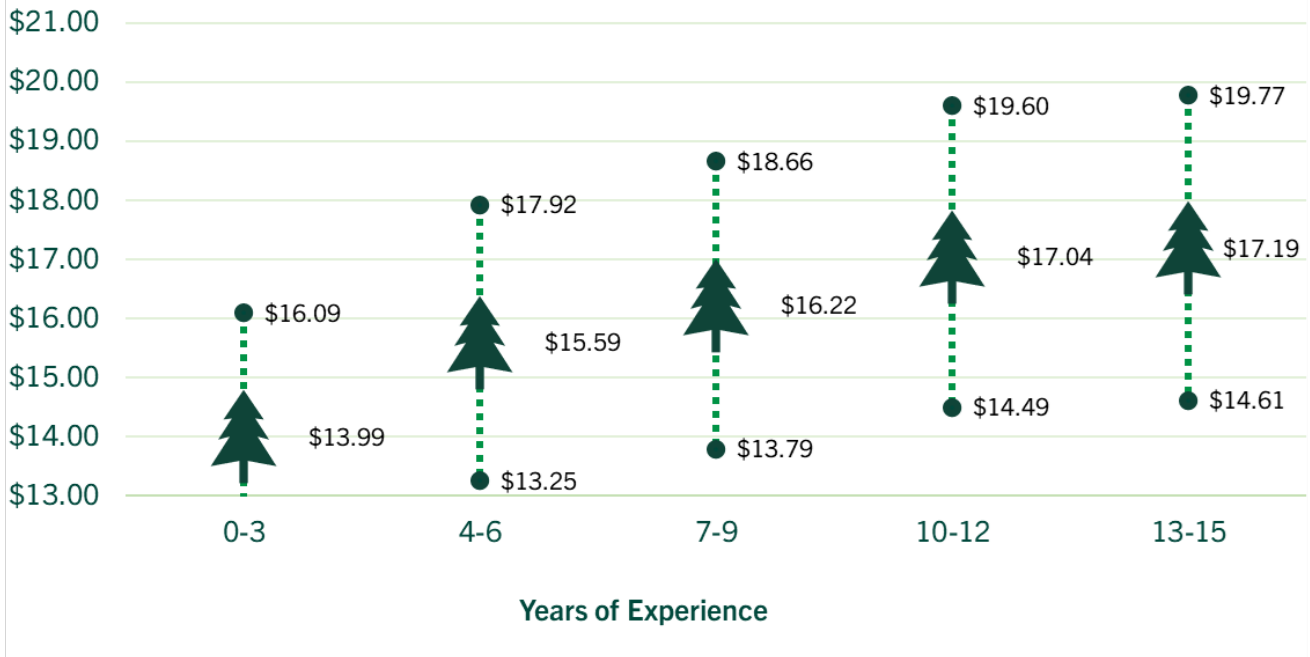
Woodworking Machine Setters, Operators & Tenders



Wages by Years of Experience

Low (15% below median), Median, and High (15% above median)

Overall Median
Hourly Wage:
\$17.46



Top Compatible Occupations

The following occupations have comparable skills to *Woodworking Machine Operators* based on the levels and importance of knowledge, skills, and abilities. This means workers in these occupations could easily transfer their competencies to work in the forest products sector.

- ♣ Cutting, Punching, and Press Machine setters, Operators, and Tenders
- ♣ Textile Cutting Machine Setters, Operators, and Tenders
- ♣ Wood Sawing Machine Setters, Operators, and Tenders
- ♣ Metal and Plastic Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders
- ♣ Cutting and Slicing Machine Setters, Operators, and Tenders



Note: Maine's minimum wage in 2023 is \$13.80. Data reflects 2022 wages.

Source: Lightcast 2023.2

Woodworking Machine Setters, Operators & Tenders



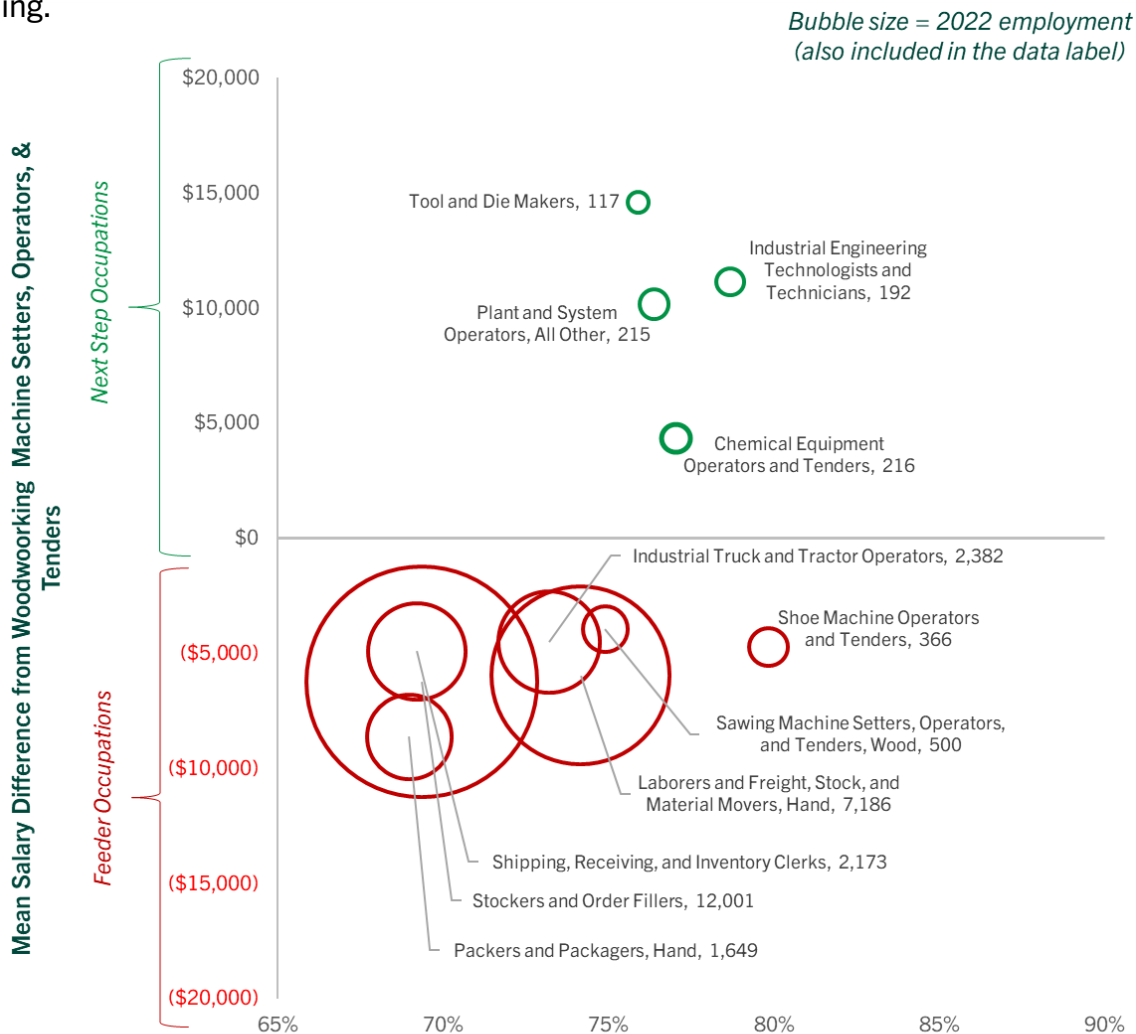
Feeder and Next Step Occupations

Related occupations are plotted based on their skills transferability to *Woodworking Machine Operators* (the x axis) and their salary difference (the y axis, with \$0 indicating the occupation has the same salary as *Woodworking Machine Operators*). Current employment in the occupation is represented by the bubble size (and in the data label) to indicate the size of the labor pool.

Feeder Occupations earn less than *Woodworking Machine Operators*; therefore, becoming a *Woodworking Machine Operator* would represent upward mobility with minimal training. These are potential sources of labor that could be drawn from to meet demand for this occupation.



Next Step Occupations have higher wages than *Woodworking Machine Operators* and present opportunities for advancement with minimal upskilling.



Relevance (more overlap in skills as relevance increases)



ADHESIVE BONDING MACHINE OPERATORS & TENDERS

51-9191

Operate or tend bonding machines that use adhesives to join items for further processing or to form a completed product. Processes include joining veneer sheets into plywood; gluing paper; or joining rubber and rubberized fabric parts, plastic, simulated leather, or other materials.

Skills

- ✦ Operation and control
- ✦ Operations monitoring
- ✦ Active listening
- ✦ Monitoring
- ✦ Quality Control Analysis

Typical Work Activities

- ✦ Controlling Machines or Processes
- ✦ Handling and Moving Objects
- ✦ Inspecting Equipment, Structures, or Materials
- ✦ Getting Information
- ✦ Performing General Physical Activities

Typical Work Context

- ✦ Exposed to contaminants
- ✦ Spend time using hands to handle, control, or feel objects, tools, or controls
- ✦ Contact with others
- ✦ Spend time standing
- ✦ Wear common protective or safety equipment such as safety shoes, glasses, gloves, hearing protection, or hard hats



Adhesive Bonding Machine Operators & Tenders



Maine Employment Outlook 2022 - 2032

- 📌 Current Jobs (2022): **64**
- 📌 Projected Growth:
 - 📌 -5% in Maine
 - 📌 6% in the US
- 📌 Hires (2022): **34**
- 📌 Near-Term Retirements: **20 (31%)**
- 📌 Average Annual Openings: **105**

Average annual openings account for industry growth and worker replacements needed due to retirements or workers permanently leaving an occupation

Job Preparation Needed: Some

Typical requirements for entry:

- 📌 High school diploma or equivalent
- 📌 Moderate-term on-the-job training
- 📌 No work experience required

Workforce Demographics

- 📌 31% of workers are over the age of 55
- 📌 9% BIPOC workers
- 📌 38% female workers
- 📌 National education attainment:
 - 📌 43% high school graduates
 - 📌 22% some college, no degree
 - 📌 13% Associate's degree



Jobs Postings for Adhesive Bonding Machine Operators in Maine

Top Job Titles: Heat Treat Operators | Adhesive Bonders | Microwave Engineers

Specialized Skills:

- 📌 Standard Operating Procedure
- 📌 Automation
- 📌 Performance Management

Qualifications:

- 📌 Valid Driver's License
- 📌 10-Hour OSHA General Industry Card

Adhesive Bonding Machine Operators & Tenders



Wages by Years of Experience

Low (15% below median), Median, and High (15% above median)

Overall Median Hourly Wage: \$18.09



Top Compatible Occupations

The following occupations have comparable skills to *Adhesive Bonding Machine Operators* based on the levels and importance of knowledge, skills, and abilities. This means workers in these occupations could easily transfer their competencies to work in the forest products sector.

- ♣ Metal & Plastic Heat-Treating Equipment Setters, Operators, and Tenders
- ♣ Extruding & Forming Machine Setters, Operators, and Tenders (Synthetic and Glass Fibers)
- ♣ Cutting and Slicing Machine Setters, Operators, or Tenders
- ♣ Metal-Refining Furnace Operators and Tenders
- ♣ Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders (Metal and Plastic)



Note: Maine's minimum wage in 2023 is \$13.80. Data reflects 2022 wages.

Source: Lightcast 2023.2

Adhesive Bonding Machine Operators & Tenders



Feeder and Next Step Occupations

Related occupations are plotted based on their skills transferability to *Adhesive Bonding Machine Operators* (the x axis) and their salary difference (the y axis, with \$0 indicating the occupation has the same salary as *Adhesive Bonding Machine Operators*). Current employment in the occupation is represented by the bubble size (and in the data label) to indicate the size of the labor pool.

Feeder Occupations earn less than *Adhesive Bonding Machine Operators*; therefore, becoming an *Adhesive Bonding Machine Operator* would represent upward mobility with minimal training. These are potential sources of labor that could be drawn from to meet demand for this occupation.



Next Step Occupations have higher wages than *Adhesive Bonding Machine Operators* and present opportunities for advancement with minimal upskilling.

