

# WOOD, WOOD PRODUCTS, AND PUBLISHING SECTOR GUIDE



2020

North Central Workforce Development Area

*Funded by Workforce Solutions for North Central Pennsylvania and the PA Department of Labor and Industry.*

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## *Introduction to the Sector Guide*

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The Career Pathways Sector Guides are designed to provide information about career pathways in the North Central Workforce Development Area in Pennsylvania. Each guide presents information that will benefit workforce development professionals, businesses, and job seekers.

### **Introduction to Career Pathways**

This section of the Sector Guide introduces you to career pathways. The information in this section will inform you about why career pathways are important and how the concept can be beneficial to businesses and job seekers. Information in this section can be shared with clients to help them get a better understanding of why we promote pathways.

### **Sector Description**

The sector descriptions provide a brief overview of the sector that the guide presents. Sector descriptions include information from Pennsylvania's Center for Workforce Information and Analysis <https://www.workstats.dli.pa.gov/Pages/default.aspx> that helps to give a snapshot of the sector as well as general information about education and experience levels associated with jobs in the sector and the types of businesses that employ in the sector.

Use the information in this section of the guide to share general information with job seekers, as more detailed information is provided throughout the guide.

### **Career Pathways Maps**

The jobs illustrated on the career pathway maps were identified using the North Central High Priority Occupations list. Information about the jobs was gathered through research using multiple sources to identify the salary, education required, and related occupations. Additionally, industry specific websites that contain career maps were used to inform the career map development. Most of the maps start with an entry-level job that requires less than a 2-year degree and demonstrate the ability to move up

the pathway by on the job training and work experience or through additional formal education and training.

Some occupations occur in multiple sectors and therefore may create a slightly different map for each sector. For example, janitors and cleaners are in manufacturing, healthcare, education, and hospitality. A worker who starts as a janitor and cleaner in education may move into maintenance and may possess the skills to move into a technical teaching role or departmental supervisory role within a school district or university. A janitor in manufacturing might be less likely to leave the sector to move into education and training of maintenance personnel. Technology and transportation related occupations are others that cross over many sectors and may look a little different.

Notice that some pathways seem to start at a higher “entry-level” than others. These would be appropriate for individuals that may have had some technical training while in high school or chose to do training before entering or reentering the workforce. These maps are also appropriate for places of employment that bring everyone in as a “general worker”, and in order to move up, an individual has to get a specialized training and compare multiple options/maps to make that decision.

These maps can be used with job seekers who are currently employed or choosing a career path. While these maps are general for the sector, they provide information about expected training, experience, and skills needed to move along a career path. This example illustrates the information that you will find about each job on every map.

**Occupation:** First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011)

**Education:** postsecondary certificate and/or associate’s degree

**Training:** postsecondary education

**Skills:** understands process and product or service, demonstrates self-management strategies, lifelong learning

**Salary Range:** \$25.50-46/hour

Use this information to assist job seekers with career exploration, career planning, and goal setting. It is important to review each map carefully to understand the requirements needed on all steps of the

career path. Each map shows potential opportunities for advancement that may be achieved through additional education and training and experience on-the-job. Additional ways to use career pathways maps can be found at *20 Ways to Use Career Pathways Maps* at <http://www.paadultedresources.org/wp-content/uploads/2017/02/20-ways-to-use-career-pathway-maps-12-18-17.pdf>.

## **Job Descriptions**

The job descriptions in the guide provide details of every job that is mentioned in each of the career pathways maps. Information from O\*NET Online <https://www.onetonline.org/> was used to inform the descriptions. Another key component of the job descriptions is the *Sample of reported job titles*. These job titles are important because they are examples that employers might use for the same job. For example, an *energy auditor* at ABC Company might have the job title of *Building Performance Specialist* at DEF Company even though they do essentially the same kind of work.

Job descriptions are helpful for job seekers to get a clearer understanding of the jobs in isolation. More importantly, the descriptions help to provide clarity on how a career pathway builds on the skills and knowledge, and abilities of the jobs on the pathways. Use the information in this section to discuss the general qualifications of the job and the alternative names associated with the work that the job requires. Each job's description includes a citation and reference in the bibliography that can easily be accessed to provide additional information about the job. Use the references to assist job seekers in further career exploration when making decisions about any career path.

## **Foundation Skills Framework**

Selected jobs in this section of the guide are aligned to specific workforce preparation skills detailed in the Foundation Skills Framework (FSF). The FSF is a tool developed by workforce development professionals that identifies skills, competencies, and tasks that individuals need to master to get a job, keep a job, and advance in a job.

The jobs in this section are primarily the entry level jobs identified on each map in the guide. Top *skills* for each job that are identified on O\*NET Online were aligned to the FSF and can be used to help job seekers get an understanding of the workforce preparation skills that they will need for a particular job.

While this section provides examples of the workforce preparation skills for some of the jobs in the sector, additional research can be completed for any of the jobs on the pathways. Encourage job seekers to review the skills needed for their jobs of interest and compare them to the FSF. Additional FSF resources, including an assessment and competency lists can be found at <https://www.paadultedresources.org/foundation-skills-framework/>.

## **Bibliography**

This final section of the guide is the bibliography. The bibliography provides a listing of all of the resources that were used to research the information in the guide and can be used to conduct further research on the sector or career pathways.

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## *Introduction to Career Pathways*

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The Workforce Innovation and Opportunity Act (WIOA) moved career pathways from just a good idea to a mandatory component of workforce development programming. While providing a comprehensive definition of and for career pathways, WIOA does little to describe the “how to” for this strategy. From the development of customized mapping tools for employers to integrated education and training programs for customers who are determined basic skills deficient, career pathways strategies are customized to the local labor market.

At a minimum, career pathways strategies for job seekers need to include opportunities to explore careers and occupations that fall within high priority occupation sectors, develop a career pathway plan that includes charting specific and realistic goals, and learn about and practice key employability skills. A concrete plan with established goals and steps to follow can offer guidance and structure to job seekers’ employment goals. This plan may include, for example, obtaining work while exploring careers, identifying and enrolling in educational or training opportunities, identifying, researching, and preparing for occupations so that they may be ready to begin the job search process immediately.

Workforce development professionals can use the information associated with career pathways to further develop opportunities for job seekers to enter a career path rather than just getting a job. To do this; however, career pathways strategies need to be recognized and embraced by workforce development professionals in order to coordinate service delivery so that individuals can become aware of opportunities and have access to what they need to move along a pathway.

While this guide presents the “nuts and bolts” of career pathways, professionals will need to work together to develop strategies to assist job seekers to move along these paths. Which of the illustrated pathways are most essential to the region? How can workforce development professionals work together to promote these essential pathways? What can we do to include postsecondary education and training partners to assist in these career pathways strategies? How can we include Title II adult education into our strategies? There are answers to all these questions when we work together with career pathways innovations.

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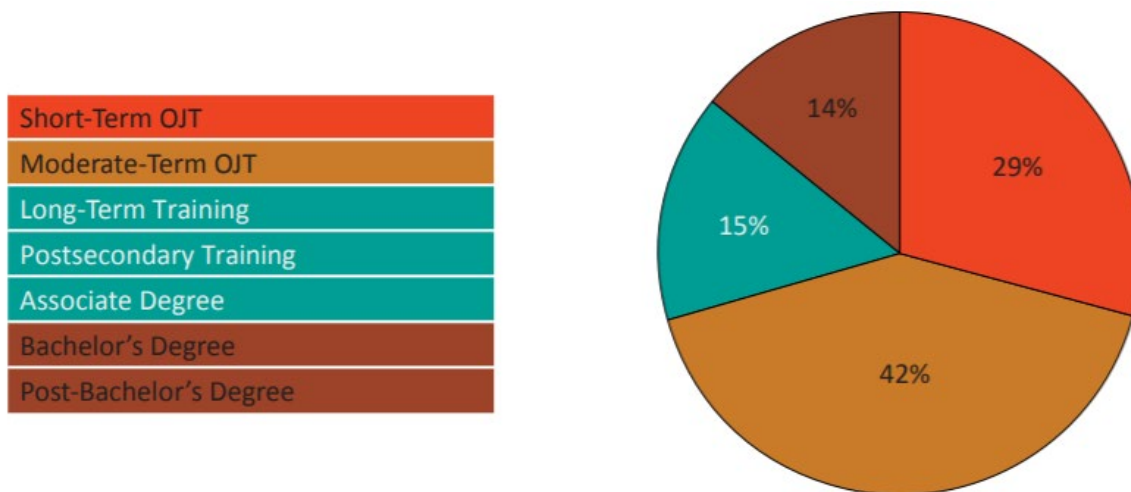
### *Sector Description*

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The Center for Workforce Information and Analysis states:

The Wood, Wood Products and Publishing (WWP) cluster incorporates a supply line from raw material to finished product. It includes logging and lumber production, through the production of paper, to the publishing of magazines and newspapers. Industries found within the cluster include sawmills, truss manufacturing, stationery product manufacturing, printing machinery & equipment manufacturing, bookstores and greeting card publishers. The cluster still pays a reasonable average wage, and is very close to the statewide average for all jobs (\$53,996).

This graph illustrates that about 71 percent of WWP jobs require less than one year of on-the-job training to enter employment. Many of these jobs fall into the skilled trades category and do not suffer from high-turnover and low-wages.



As noted in the North Central Multi-year Regional Plan, “High location quotients (LQs) indicate sectors in which a region has high concentrations of employment compared to the national average. According to the Pennsylvania Center for Workforce Information and Analysis, the sectors with the largest location quotients (LQ) in the region include Energy (LQ=2.94), Wood/Wood Products and Publishing (LQ=2.71), and Advanced Manufacturing (LQ=2.17).”



The high LQ and high percentage of jobs that require less than one year on-the-job training, make the WWP sector a potential match for individuals looking to quickly enter the workforce and have career pathway options that require minimal additional education. According to The Keystone Wood Products Association, the WWP sector offers “more than 225 job categories — from forestry to manufacturing, management to sales and more and provides good career opportunities for energetic, hardworking people of all education and skill levels.” (Keystone Wood Product Association, 2009).

Additionally, The Center for Workforce Information and Analysis identifies the following top industries:

#### Top Industries Based on Employment

- Printing
- Newspaper Publishers
- Wood Kitchen Cabinet & Countertop Manufacturing
- Corrugated & Solid Fiber Box Manufacturing
- Lumber & Wood Merchant Wholesalers
- Sanitary Paper Product Manufacturing
- Periodical Publishers
- Sawmills
- Wood Container & Pallet Manufacturing
- All Other Miscellaneous Wood Product Mfg
- Industrial Paper Merchant Wholesalers
- Book Stores
- Paper, Except Newsprint, Mills
- Paper Bag & Coated & Treated Paper Manufacturing
- Stationery Product Manufacturing
- Book & Periodical Merchant Wholesalers
- Book Publishers
- Wood Window & Door Manufacturing
- Other Paperboard Container Manufacturing
- Other Millwork, Including Flooring

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## *Career Pathways Maps*

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# Wood, Wood Products, and Publishing- Helpers, Production Workers

Additional training and education



**Occupation:** General and Operations Managers (11-1021)

**Education:** bachelor's degree

**Training:** long-term on-the-job training and postsecondary

**Skills:** understands finances, lifelong learning, demonstrates effective interpersonal relations

**Salary Range:** \$25-54/hour

**Occupation:** First-Line Supervisors of Production and Operating Workers (51-1011)

**Education:** high school diploma or equivalent and/or some postsecondary education

**Training:** on-the-job and vocational training

**Skills:** writes clearly and concisely, listens with understanding, speaks clearly and concisely

**Salary Range:** \$18-29/hour

**Occupation:** Print Binding and Finishing Workers (51-5113)

**Education:** high school diploma or equivalent

**Training:** short-term on-the-job training

**Skills:** demonstrates quality consciousness, speaks clearly and concisely, makes decisions

**Salary Range:** \$10.50-15.75/hour

**Occupation:** Helpers, Production Workers (51-9198)

**Education:** high school diploma or equivalent

**Training:** short-term on-the-job training

**Skills:** uses technology, applies health and safety concepts, demonstrates self-management strategies

**Salary Range:** \$9.25-13.75/hour

2019 HPO list retrieved from <https://www.workstats.dli.pa.gov/Products/HPOs/Pages/default.aspx>

Hardwood Development Council website retrieved from <https://paforestcareers.com/find-a-job>

U.S. Department of Labor, Employment and Training Administration. (2019). O\*NET OnLine. National Center for O\*NET Development. Retrieved from <https://www.onetonline.org/>

# Wood, Wood Products, and Publishing- Industrial Truck and Tractor Operators

Additional training and education



**Occupation:** General and Operations Managers (11-1021)

**Education:** bachelor's degree or higher

**Training:** vocational and on-the-job training

**Skills:** understands process and product or service, lifelong learning, demonstrates effective interpersonal relations

**Salary Range:** \$25-54/hour

**Occupation:** First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators (53-1031)

**Education:** high school diploma or equivalent

**Training:** long-term on-the-job training or apprenticeship

**Skills:** solves problems, listens with understanding, makes decisions

**Salary Range:** \$16.75-28/hour

**Occupation:** Heavy & Tractor Trailer Truck Drivers (53-3032)

**Education:** high school diploma or equivalent and/or some postsecondary education

**Training:** commercial driver's license and additional endorsements

**Skills:** observes critically, demonstrates self-management strategies, uses technology

**Salary Range:** \$15-21.75/hour

**Occupation:** Industrial Truck and Tractor Operators (53-7051)

**Education:** high school diploma or equivalent

**Training:** short-term on-the-job training, forklift operator safety training, and/or apprenticeship

**Skills:** observes critically, uses technology, applies health and safety concepts

**Salary Range:** \$13-17/hour

2019 HPO list retrieved from <https://www.workstats.dli.pa.gov/Products/HPOs/Pages/default.aspx>  
Hardwood Development Council website retrieved from <https://paforestcareers.com/find-a-job>

U.S. Department of Labor, Employment and Training Administration. (2019). O\*NET OnLine. National Center for O\*NET Development. Retrieved from <https://www.onetonline.org/>

# Wood, Wood Products, and Publishing- Janitors and Cleaners

Additional training and education



**Occupation:** Occupational Health and Safety Specialists (29-9011)  
**Education:** bachelor's degree or higher  
**Training:** on-the-job and vocational training  
**Skills:** applies mathematical concepts and operations, makes decisions, demonstrates self-management strategies  
**Salary Range:** \$20-33.25/hour

**Occupation:** First-Line Supervisors of Housekeeping and Janitorial Workers (37-1011)  
**Education:** high school diploma or equivalent and/or some postsecondary education  
**Training:** on-the-job and vocational training  
**Skills:** writes clearly and concisely, listens with understanding, speaks clearly and concisely  
**Salary Range:** \$12.50-20.50/hour

**Occupation:** Landscaping and Groundskeeping Workers (37-3011)  
**Education:** high school diploma or equivalent and/or some postsecondary education  
**Training:** short-term on-the-job training  
**Skills:** demonstrates self-management strategies, locates and uses resources, observes critically  
**Salary Range:** \$9.50-14/hour

**Occupation:** Janitors and Cleaners (37-2011)  
**Education:** high school diploma or equivalent  
**Training:** short-term on-the-job training  
**Skills:** listens with understanding, applies health and safety concepts, locates and uses resources  
**Salary Range:** \$8.75-13/hour

2019 HPO list retrieved from <https://www.workstats.dli.pa.gov/Products/HPOs/Pages/default.aspx>  
Hardwood Development Council website retrieved from <https://paforestcareers.com/find-a-job>

U.S. Department of Labor, Employment and Training Administration. (2019). O\*NET OnLine. National Center for O\*NET Development. Retrieved from <https://www.onetonline.org/>

# Wood, Wood Products, and Publishing-

## Paper Goods Machine Setters, Operators, and Tenders

Additional training and education



**Occupation:** Industrial Production Managers (11-3051)

**Education:** bachelor's degree

**Training:** long-term on-the-job training and vocational training

**Skills:** demonstrates quality consciousness, solves problems, makes decisions

**Salary Range:** \$31.75-49/hour

**Occupation:** First-Line Supervisors of Production and Operating Workers (51-1011)

**Education:** high school diploma or equivalent and/or some postsecondary education

**Training:** on-the-job and vocational training

**Skills:** writes clearly and concisely, listens with understanding, speaks clearly and concisely

**Salary Range:** \$18-29/hour

**Occupation:** Paper Goods Machine Setters, Operators, and Tenders (51-9196)

**Education:** high school diploma or equivalent

**Training:** short-term on-the-job training

**Skills:** observes critically, solve problems, demonstrates quality consciousness

**Salary Range:** \$13.50-20.25/hour

**Occupation:** Adhesive Bonding Machine Operators and Tenders (51-9191)

**Education:** high school diploma or equivalent

**Training:** short-term on-the-job training

**Skills:** solves problems, demonstrates self-management strategies, listens with understanding

**Salary Range:** \$11-15.50/hour

2019 HPO list retrieved from <https://www.workstats.dli.pa.gov/Products/HPOs/Pages/default.aspx>

Hardwood Development Council website retrieved from <https://paforestcareers.com/find-a-job>

U.S. Department of Labor, Employment and Training Administration. (2019). O\*NET OnLine. National Center for O\*NET Development. Retrieved from <https://www.onetonline.org/>

# Wood, Wood Products, and Publishing-

## Sawing Machine Setters, Operators, and Tenders, Wood

Additional training and education



**Occupation:** First-Line Supervisors of Production and Operating Workers (51-1011)

**Education:** high school diploma or equivalent and/or some postsecondary education

**Training:** on-the-job and vocational training

**Skills:** writes clearly and concisely, listens with understanding, speaks clearly and concisely

**Salary Range:** \$18-29/hour

**Occupation:** Industrial Machinery Mechanics (49-9041)

**Education:** high school diploma or equivalent and postsecondary certificate

**Training:** on-the-job and vocational training

**Skills:** solves problems, makes decisions, listens with understanding

**Salary Range:** \$16.50-24.75/hour

**Occupation:** Cutting and Slicing Machine Setters, Operators, and Tenders (51-9032)

**Education:** high school diploma or equivalent

**Training:** short-term on-the-job training

**Skills:** demonstrates quality consciousness, solves problems, reads with understanding

**Salary Range:** \$11-16/hour

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

**Education:** high school diploma or equivalent

**Training:** short-term on-the-job training

**Skills:** observes critically, solve problems, locates and uses resources

**Salary Range:** \$10.50-14.50/hour

# Wood, Wood Products, and Publishing- Tree Trimmers and Pruners

Additional training and education



**Occupation:** Soil and Plant Scientists (19-1013)

**Education:** master's degree or higher

**Training:** vocational training

**Skills:** applies mathematical concepts and operations, demonstrates quality consciousness, solves problems

**Salary Range:** \$17.75-27.25/hour

**Occupation:** First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (37-1012)

**Education:** high school diploma or equivalent and/or some postsecondary education

**Training:** on-the-job and vocational training

**Skills:** writes clearly and concisely, listens with understanding, speaks clearly and concisely

**Salary Range:** \$15.75-24/hour

**Occupation:** Landscaping and Groundskeeping Workers (37-3011)

**Education:** high school diploma or equivalent and/or some postsecondary education

**Training:** short-term on-the-job training

**Skills:** demonstrates self-management strategies, locates and uses resources, observes critically

**Salary Range:** \$9.50-14/hour

**Occupation:** Tree Trimmers and Pruners (37-3013)

**Education:** high school diploma or equivalent

**Training:** short-term on-the-job training

**Skills:** observes critically, applies health and safety concepts, solves problems

**Salary Range:** \$8.50-14/hour

2019 HPO list retrieved from <https://www.workstats.dli.pa.gov/Products/HPOs/Pages/default.aspx>

Hardwood Development Council website retrieved from <https://paforestcareers.com/find-a-job>

U.S. Department of Labor, Employment and Training Administration. (2019). O\*NET OnLine. National Center for O\*NET Development. Retrieved from <https://www.onetonline.org/>



### **Adhesive Bonding Machine Operators and Tenders**

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.

*Sample of reported job titles:* Coater Operator, Glue Line Operator, Glue Reel Operator, Gluer Machine Operator, Gluing Pressman, Machine Operator, Perfect Bind Machine Operator, Process Assistant, Sealer Operator, Utility Worker (U.S. Department of Labor, O\*NET, Adhesive Bonding Machine Operators and Tenders, 2020a)

### **Cutting and Slicing Machine Setters, Operators, and Tenders**

Set up, operate, or tend machines that cut or slice materials, such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material.

*Sample of reported job titles:* Cutter, Cutter Operator, Cutting Pressman, Die Cutter Operator, Flat Cutter, Machine Operator, Paper Cutter, Sheeter, Skiver Operator, Slitter (U.S. Department of Labor, O\*NET, Cutting and Slicing Machine Setters, Operators, and Tenders, 2020b)

### **First-Line Supervisors of Housekeeping and Janitorial Workers**

Directly supervise and coordinate work activities of cleaning personnel in hotels, hospitals, offices, and other establishments.

*Sample of reported job titles:* Buildings and Grounds Supervisor, Custodian, Environmental Services Director, Environmental Services Supervisor (EVS), Executive Housekeeper, Facilities Manager, Head Custodian, Housekeeping Director, Housekeeping Supervisor, Maintenance Supervisor (U.S. Department of Labor, O\*NET, First-Line Supervisors of Housekeeping and Janitorial Workers, 2020c)

### **First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers**

Directly supervise and coordinate activities of workers engaged in landscaping or groundskeeping activities. Work may involve reviewing contracts to ascertain service, machine, and workforce requirements; answering inquiries from potential customers regarding methods,

material, and price ranges; and preparing estimates according to labor, material, and machine costs.

*Sample of reported job titles:* Field Manager, Golf Course Superintendent, Grounds Crew Supervisor, Grounds Foreman, Grounds Maintenance Supervisor, Grounds Manager, Grounds Supervisor, Groundskeeper Supervisor, Landscape Manager, Landscape Supervisor (U.S. Department of Labor, O\*NET, First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers, 2020d)

### **First-Line Supervisors of Production and Operating Workers**

Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.

*Sample of reported job titles:* Assembly Supervisor, Department Manager, Manufacturing Supervisor, Molding Supervisor, Production Manager, Production Supervisor, Quality Assurance Supervisor (QA Supervisor), Shift Supervisor, Supervisor, Team Leader (U.S. Department of Labor, O\*NET, First-Line Supervisors of Production and Operating Workers, 2020e)

### **First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators**

Directly supervise and coordinate activities of transportation and material-moving machine and vehicle operators and helpers.

*Sample of reported job titles:* Dock Supervisor, Driver Manager, Fleet Manager, On Car Supervisor, Operations Supervisor, Street Supervisor, Supervisor, Trainmaster, Transportation Supervisor, Warehouse Supervisor (U.S. Department of Labor, O\*NET, First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators, 2020f)

### **General and Operations Managers**

Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services.

*Sample of reported job titles:* Business Manager, Facility Manager, General Manager (GM), Operations Director, Operations Manager, Plant Superintendent, Store Manager (U.S. Department of Labor, O\*NET, General and Operations Managers, 2020g)

### **Heavy & Tractor Trailer Truck Drivers**

Drive a tractor-trailer combination or a truck with a capacity of at least 26,000 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license.

*Sample of reported job titles:* Delivery Driver, Driver, Line Haul Driver, Log Truck Driver, Over the Road Driver (OTR Driver), Production Truck Driver, Road Driver, Semi Truck Driver, Tractor Trailer Operator, Truck Driver (U.S. Department of Labor, O\*NET, Heavy & Tractor Trailer Truck Drivers, 2020h)

### **Helpers, Production Workers**

Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment.

*Sample of reported job titles:* Assistant Operator, Helper, Laborer, Machine Operator, Material Handler, Press Helper, Production Worker, Service Person, Support Team Member, Utility Worker (U.S. Department of Labor, O\*NET, Helpers, Production Workers, 2020i)

### **Industrial Machinery Mechanics**

Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.

*Sample of reported job titles:* Fixer, Industrial Machinery Mechanic, Industrial Mechanic, Loom Fixer, Machine Adjuster, Maintenance Mechanic, Maintenance Technician, Master Mechanic, Mechanic, Overhauler (U.S. Department of Labor, O\*NET, Industrial Machinery Mechanics, 2020j)

### **Industrial Production Managers**

Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.

*Sample of reported job titles:* Area Plant Manager, General Production Manager, Manufacturing Coordinator, Manufacturing Manager, Plant Manager, Plant Senior Manager, Product Line

Manager, Production Control Manager, Production Manager, Sub Plant Manager (U.S. Department of Labor, O\*NET, Industrial Production Managers, 2020k)

### **Industrial Truck and Tractor Operators**

Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location.

*Sample of reported job titles:* Checker Loader, Fork Lift Technician, Fork Truck Driver, Forklift Driver, Forklift Operator, Lift Truck Operator, Shag Truck Driver, Spotter Driver, Tow Motor Operator, Truck Driver (U.S. Department of Labor, O\*NET, Industrial Truck and Tractor Operators, 2020l)

### **Janitors and Cleaners**

Keep buildings in clean and orderly condition. Perform heavy cleaning duties, such as cleaning floors, shampooing rugs, washing walls and glass, and removing rubbish. Duties may include tending furnace and boiler, performing routine maintenance activities, notifying management of need for repairs, and cleaning snow or debris from sidewalk.

*Sample of reported job titles:* Building Custodian, Building Service Worker, Building Services Technician, Cleaner, Custodial Worker, Custodian, Floor Tech (Floor Technician), Heavy Duty Custodian, Institutional Custodian, Janitor (U.S. Department of Labor, O\*NET, Janitors and Cleaners, 2020m)

### **Landscaping and Groundskeeping Workers**

Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units.

*Sample of reported job titles:* Gardener, Greenskeeper, Grounds Maintenance Worker, Grounds Person, Grounds Worker, Grounds/Maintenance Specialist, Groundskeeper, Landscape Specialist, Landscape Technician, Outside Maintenance Worker (U.S. Department of Labor, O\*NET, Landscaping and Groundskeeping Workers, 2020n)

## **Occupational Health and Safety Specialists**

Review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector. Includes environmental protection officers.

*Sample of reported job titles:* Certified Industrial Hygienist (CIH); Chemical Hygiene Officer; Environmental Health and Safety Officer; Environmental, Health, and Safety Officer (EHS Officer); Industrial Hygienist; Industrial Hygienist Consultant; Safety Consultant; Safety Management Consultant; Safety Officer; Safety Specialist (U.S. Department of Labor, O\*NET, Occupational Health and Safety Specialists, 2020o)

## **Paper Goods Machine Setters, Operators, and Tenders**

Set up, operate, or tend paper goods machines that perform a variety of functions, such as converting, sawing, corrugating, banding, wrapping, boxing, stitching, forming, or sealing paper or paperboard sheets into products.

*Sample of reported job titles:* Corrugator Operator, Cup Room Technician, Folder Machine Operator, Gluer Operator, Paper Cutter Operator, Paper Machine Backtender, Paper Machine Operator, Stitching Machine Operator, Winder Operator, Winderman (U.S. Department of Labor, O\*NET, Paper Goods Machine Setters, Operators, and tenders, 2020p)

## **Print Binding and Finishing Workers**

Bind books and other publications or finish printed products by hand or machine. May set up binding and finishing machines.

*Sample of reported job titles:* Binder Operator, Bindery Operator, Bindery Production Manager, Bindery Technician, Bindery Worker, Book Binder, Custom Bookbinder, Machine Operator, Perfect Binder Operator, Production Associate (U.S. Department of Labor, O\*NET, Print Binding and Finishing Workers, 2020q)

### **Sawing Machine Setters, Operators, and Tenders, Wood**

Set up, operate, or tend wood sawing machines. May operate CNC equipment. Includes lead sawyers.

*Sample of reported job titles:* Bandmill Operator, Cut Off Saw Operator, Edgerman, Knot Saw Operator, Panel Saw Operator, Planer, Resaw Operator, Rip Saw Operator, Saw Operator, Sawyer (U.S. Department of Labor, O\*NET, Sawing Machine Setters, Operators, and Tenders, Wood, 2020r)

### **Soil and Plant Scientists**

Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants or trees, shrubs, and nursery stock, their growth in soils, and control of pests; or study the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.

*Sample of reported job titles:* Agronomist, Agronomy Research Manager, Agronomy Specialist, Crop Nutrition Scientist, Extension Specialist, Microbiology Soil Scientist, On-Site Soil Evaluator, Research Soil Scientist, Soil Fertility Extension Specialist, Soil Scientist (U.S. Department of Labor, O\*NET, Soil and Plant Scientists, 2020s)

### **Tree Trimmers and Pruners**

Using sophisticated climbing and rigging techniques, cut away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or to improve appearance, health, and value of tree. Prune or treat trees or shrubs using handsaws, hand pruners, clippers, and power pruners. Works off the ground in the tree canopy and may use truck-mounted lifts.

*Sample of reported job titles:* Arborist, Climber, Ground Worker, Groundsman, Laborer, Line Clearance Foreman, Plant Health Care Technician, Tree Climber, Tree Trimmer, Trimmer (U.S. Department of Labor, O\*NET, Tree Trimmers and Pruners, 2020t)

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*Top Foundation Skills Required for Jobs in the  
Wood, Wood Products, and Publishing Sector*

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Using information from O\*NET job summaries, the following skills from the Foundation Skills Framework were identified as important skills for jobs in the Wood, Wood Products, and Publishing sector.

***Janitors and Cleaners***

*Listens with Understanding*

Skills needed to comprehend, analyze, and interpret orally presented communications and directions on familiar and unfamiliar topics

***Adhesive Bonding Machine Operators and Tenders***

*Listens with Understanding*

Skills needed to comprehend, analyze, and interpret orally presented communications and directions on familiar and unfamiliar topics

*Speaks Clearly and Concisely*

Skills needed to express ideas and information orally in a clear and understandable manner while sustaining interest and attention

*Demonstrates Self-Management Strategies*

Skills and knowledge needed to understand how personal factors contribute to employability and how to manage time and tasks effectively

*Reads with Understanding*

Skills needed to read and understand written work-related information, such as reading for various purposes - reading to complete a task, locate specific information, or critically analyze information

*Makes Decisions*

Critical, creative, and reflective thinking skills needed to consider relevant facts and opinions, evaluate potential risks and benefits of various decisions, make a decision, and analyze its outcome

***Sawing Machine Setters, Operators, and Tenders, Wood***

*Makes Decisions*

Critical, creative, and reflective thinking skills needed to consider relevant facts and opinions, evaluate potential risks and benefits of various decisions, make a decision, and analyze its outcome

*Observes Critically*

Critical and reflective thinking and discrimination skills needed to notice, analyze, and respond to visual information, especially in irregular or unusual situations

***Industrial Truck and Tractor Operators***

*Demonstrates Self-Management Strategies*

Skills and knowledge needed to understand how personal factors contribute to employability and how to manage time and tasks effectively

***Tree Trimmers and Pruners***

*Observes Critically*

Critical and reflective thinking and discrimination skills needed to notice, analyze, and respond to visual information, especially in irregular or unusual situations

*Speaks Clearly and Concisely*

Skills needed to express ideas and information orally in a clear and understandable manner while sustaining interest and attention

*NOTE: All the information on pages 23-24 of this guide is taken verbatim from the Foundation Skills Framework Competency Lists (2016) accessed at [http://www.paadultedresources.org/wp-content/uploads/2016/05/FSF-competency\\_list-12-18-17.pdf](http://www.paadultedresources.org/wp-content/uploads/2016/05/FSF-competency_list-12-18-17.pdf)*



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