Wisconsin Forestry Center Launches Career Pathway Program to Address Workforce Shortage

By Megan Espe
Outreach Education & Communications Program Manager
Wisconsin Forestry Center, UW-Stevens Point

For Wisconsin residents, the logging and forest products sector is big business. In 10 counties, it's the No. 1 employer, and it ranks among the top 10 employers in 31 counties. This natural resource requires sustainable management by trained professionals.

However, an aging workforce and declining populations have resulted in significant employee shortages and skill gaps, an issue exacerbated by the pandemic. Based on surveys and industry reports, employers in all forestry sectors have an urgent need for skilled workers, particularly entry-level employees.

The Wisconsin Forestry Center (WFC) at UW-Stevens Point has launched the Wisconsin Forest Careers Pathway Program to address the urgent need for skilled workers. With support from a three-year $8 million state Workforce Innovation Grant and in collaboration with partners such as the Great Lakes Timber Professionals Association, the pathway program will educate students and train workers for a forestry career pathway with growth potential.

For years, forestry employers visiting the UW-Stevens campus have said their business growth is hampered by a lack of skilled entry-level employees, according to Les Werner, WFC director and a forestry professor in the College of Natural Resources.

Les Werner

"Today the message is sounding more dire," Werner said. "The future of their businesses and that of the industry rests on the ability to secure trained, productive employees to backfill positions or take over operations."

The pathway program has three focus areas: educating high schoolers through applied curriculum, training entry-level employees through immersion programs, and raising public awareness of the forest industry and its careers.

Applied Forestry Education for Career Readiness

The Forest Career Pathways Program will not only raise awareness of job opportunities but also equip students with the knowledge and skills needed for those careers. To

achieve this objective, the program features applied forestry curriculum for high schools.

As part of the grant, the WFC has hired Jared Schroeder as a curriculum developer and manager. Schroeder, a former teacher in the Amherst school district for 14 years, is writing lesson plans and working with partnering school districts.

Jared Schroeder

"When I was a biology teacher, students would ask me, 'When am I ever going to use this?' or 'Why are we learning math, this is a science class?' " Schroeder said. "Applied, interdisciplinary curriculum is the answer to those questions. This program will weave multiple subjects together to not only address educational standards but also prepare students for entry-level forestry careers or additional education at two- or four-year schools."

Based on input the WFC gathered from forestry professionals, the curriculum will cover key knowledge and skills needed for entry-level forestry careers. Students will learn and apply concepts in tree and wood identification, forest health, wood products, forestry equipment, and chainsaw safety and tree felling.

The curriculum will culminate in a one-week Skills Camp at a new grant-funded Forestry Advancement Center classroom at Treehaven, UW-Stevens Point's 1,400-acre field station near Tomahawk.

"The Skills Camp offers a unique opportunity for students to further develop skills through replicated activities in a real-world setting," Werner said. "An added benefit is that most, if not all, of these skills have broad application within the collective forest industry, which has the potential to open a whole lot of doors."

High schoolers who complete the program will be prepared to directly enter the workforce or can complete additional schooling. The curriculum will give them pre-earned credit they can apply toward the grant's immersion training programs, technical colleges, or UW-Stevens Point.

The curriculum will be piloted in several northern Wisconsin high schools. Additional schools can sign up to participate after the rollout phase. Train-the-teacher workshops will help ensure successful implementation of the curriculum.

While the program initially focuses on rural districts, it later will be expanded to include urban and suburban districts, with a goal of

drawing more women and students of diverse backgrounds to forestry careers.

Immersion Training Programs

In addition to high school curriculum, the Forest Careers Pathway Program will include low-cost, short-duration immersion training programs in forest operations and mill technology to provide participants quick entry to jobs. These 240-hour training programs will benefit recent high school graduates, returning veterans, career changers, and employees already in the forestry sector who want to advance their careers.

"The intent of the immersion program is to not simply introduce participants to equipment and processes common to forest operations or milling, but to give them the opportunity to develop transferrable skills in operating and maintaining this equipment in a real-world setting," Werner said. "Added benefits include reduced on-the-job training costs, increased productivity, and better employee retention."

Forest Operations Training Program: The 240-hour Forest Operations immersion training program based at Treehaven will cover industry-identified skills to prepare participants for forestry equipment operation and mechanic jobs.

Participants will complete modules covering silviculture basics, mechanized felling, log scaling and grading, pesticide application, woods road maintenance and BMPs for water quality, and log loading and transport. Nicolet College in Rhinelander will include a modified version of its forestry equipment maintenance certificate.

Wisconsin Department of Workforce Development Secretary Amy Pechacek tests out a Ponsse North America timber harvester simulator at a roundtable event for the Forest Careers Pathway Program in October 2022 in Stevens Point. The grant program will use harvester simulators and portable sawmills in high school education and public outreach events. *Photo courtesy of the Wisconsin Forestry Center*

Graduates will earn a UW-Stevens Point certificate upon completion, other industry-recognized certificates, and credits that will transfer to technical schools and UW-Stevens Point.

Mill Technology: The 240-hour Mill Technology program will cover several industry-identified skills to prepare employees for sawmill maintenance and operation jobs. Participants will learn to use cutting-edge technology to turn logs into lumber for making trim, cabinets, and other products. Modules will cover site safety, log and lumber grading, hardwood sawing, edging, and trimming.

The training program will be based at the Wood Technology Center of Excellence at Northcentral Technical College (NTC) in Antigo, the Midwest's only primary-to-secondary wood manufacturing training center. About $4.5 million of the grant will be used to build a state-of-the-art training sawmill, a significant upgrade from the portable sawmill equipment currently used in NTC's Wood Science program.

Logan Wells

"This grant investment shows that people are listening. We've endured struggles through Covid and seen firsthand the impacts of volatile forest product markets, from toilet paper to dimension lumber," said Logan Wells, NTC wood science instructor. "We're seeing this investment as very much needed in our industries and our local communities. At the end of the day, we want to help our communities be able to adapt and our whole society to understand the importance of forest products."

The industrial training sawmill will be the only one of its kind in the country. It will feature a double-cut band head rig with a tilted carriage, horizontal resaw, pre-turner workstation, a fully optimized edger, and a trim saw. Highlighting its educational purpose, the sawmill will feature viewing platforms for students and tour groups to learn about milling technology.

Students at Northcentral Technical College in Antigo benefit from hands-on learning in the Wood Technology Center for Excellence. As part of the grant-funded Forest Careers Pathway Program, the center will be installing an industrial sawmill for training purposes. *Photo courtesy of Northcentral Technical College*

Even training program participants who have sawmill experience can improve their skills, Wells said.

"For people currently in the industry, it will give them a place to learn without the pressure of production, which can be a tough learning environment," he said. "For us to have a place where we can focus on doing the best job we can, the safest we can, we can give employees some good habits to take with them to help their company be more profitable."

Upon completion from the Mill Technology program, graduates will earn a certificate and credits toward degree programs at NTC and UW-Stevens Point.

Increasing Public Understanding of Forestry

The forest industry sometimes suffers from an outdated image. People without knowledge of how the field has transformed might think of men in red checkered flannels swinging axes. Youth likely don't know that forestry careers heavily emphasize the STEM fields.

To update forestry's image in the public's mind, the Career Pathways Program is developing Forestry on the Road (FORward) mobile education units. They will be outfitted with timber harvester simulators from Ponsse North America and portable sawmills, providing hands-on exploration and skill development at public events, teachers' conferences, and school forests.

"There remains a need to change the public's ideas of what a career path in forestry looks like," Werner said. "There are so many employment and entrepreneurial opportunities in forestry — opportunities that span the breadth of academic interest, including the sciences, technology, engineering, and equipment operators to name but a handful."

Ensuring Program Sustainability

To be successful, to truly be part of the solution that addresses the industry's workforce needs, the WFC is working with its partners to develop strategies to sustain this program beyond the three-year grant period.

"The most pressing issues that need to be addressed are ongoing recruitment of students and participants; partnering with employers to help them fill vacant positions or expand their workforce; securing reliable, consistent funding to support the WFC's oversight and continued development of the program; and identifying companies or individuals willing to help serve as trainers within the program," Werner said. "If the broad spectrum of industry support that was generated through this grant is any indication, I am confident we will successfully navigate these issues."

For more information about the Forest Careers Pathway Program:

Contact the Wisconsin Forestry Center at:

Email: ***wfc@uwsp.edu***
Phone: Les Werner, Director, 715-346-4189
WFC website: ***www.uwsp.edu/wfc***