

Labour Market Study

New Brunswick Forestry Industry



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Prepared for:



**FOREST NB
FORÊT NB**

Prepared by:



MALATEST



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EXECUTIVE SUMMARY

The New Brunswick forestry industry is a critical component of the province's economy, supporting over 24,000 jobs and generating \$5.64 billion in revenue. Despite increasing demand for sustainably sourced forest products, the industry faces labour shortages, an aging workforce, and competition from other sectors, making workforce sustainability a key concern.

To better understand these challenges, Forest NB commissioned a Labour Market Information Study conducted by Malatest. The study was undertaken in two phases, with Phase I focused on needs assessment and scoping, and Phase II involving employer surveys, employee and apprentice surveys, key informant interviews, and focus groups. The research explored workforce demographics, hiring and retention barriers, training gaps, and workforce development strategies.

Labour Market Highlights

The New Brunswick Forest Industry faces a major labour challenge due to the age of the workforce

- The New Brunswick forestry workforce is aging, with **over half of workers set to retire in the next 10–20 years** and limited younger replacements entering the industry. This suggests that the industry needs to adopt pro-active strategies to attract new workers.
- **Direct forestry employment is predominantly concentrated in rural regions**, specifically Campbellton–Miramichi (30%) and Edmundston–Woodstock (22%), where in-field and mill jobs are more common. However, there are indirect forestry-related jobs in urban centers, such as those in government, academia, and businesses associated with the forest products value chain.

The Industry will need to explore opportunities to attract “non-traditional” workers

- **The industry remains male-dominated**, with women representing less than 10% of workers in most occupations, though they are more represented in roles like nursery/greenhouse labourers (58%), logging and forestry labourers (41%), and forestry professionals (24%).

Several occupations are facing critical labour shortages

- **Labour shortages are particularly acute in skilled trades**, such as millwrights, logging machinery operators, and forest product supervisors/inspectors, which have some of the highest vacancy rates.
- **Long hours, remote worksites, and limited management capacity** contribute to **high turnover**.
- **Retention challenges** stem from **long hours, remote worksites, and work-life balance** concerns, as well as **wage disparities** with Western provinces, which lead to **outmigration**.

The Industry is challenged to attract new workers to the industry

- Workers cited **perceptions of insufficient wages** and **difficult working conditions** as major **barriers** to entering the industry.
- **Employers** struggle to **attract young workers** due to **negative perceptions** of forestry, **wage competition** with other sectors (e.g., construction, trucking), and **limited awareness** of career pathways.

- **Limited familiarity** with **wages**, **uncertainty** about available roles, and **advanced education** requirements can reduce the industry's appeal to prospective entrants, who may not fully recognize the breadth of opportunities the industry offers.
- Workers enter the industry primarily due to **personal values**, the **ability to stay in New Brunswick**, and **relatively easily accessible career opportunities**.

There is a need for additional training in the industry including training that can lead to credentials and/or certification

- **Training gaps** persist, with over a third of respondents expressing concerns about **training quality** and citing a lack of **employer recognition** for training.
- There is a lack of formal training and certification pathways, with **the industry still heavily reliant on on-the-job learning**. The limited availability of structured training programs has created barriers to attracting and upskilling new workers. In addition, there appears to be **limited training targeted to mid-level managers** to enable them to progress and transition into more senior roles that will increasingly require more staff as existing senior managers exit the industry through retirements.

Strategies & Recommendations

The New Brunswick forestry industry plays a vital role in the province's economy but is facing significant workforce challenges that require immediate and coordinated action. By enhancing training programs, increasing career awareness, and improving retention strategies, the industry can build a more resilient and sustainable workforce. Collaboration between government, educational institutions, and industry stakeholders will be essential in ensuring the long-term success of the industry. Key strategies that should be considered are detailed below:

WORKFORCE ATTRACTION & AWARENESS

- Mentorship programs for the next generation of managers.
- Integrate more forestry content in high schools
- Promote the diversity of forestry careers through open houses and job fairs.
- Industry-wide branding and promotion, emphasizing lower living costs and quality-of-life benefits to counteract wage competition from other regions and appeal to a larger labour pool.

RETENTION & COMPENSATION

- Introduce productivity-based wage incentives to improve competitiveness with other sectors.
- Improve work-life balance through flexible scheduling options where feasible.

TRAINING & SKILLS DEVELOPMENT

- Establish a “foundation year” forestry program at colleges, leading to specialized training streams.
- Develop industry-led certifications to create standardized qualifications for forestry workers.
- Integrated Professional Development: Provide ongoing training in both technical competencies (harvesters, machinery) and soft skills (leadership, team management) for employees and for contract workers.

Coordinating efforts among industry (including employers and labour), education and training providers, and government agencies at both federal and provincial levels is essential for implementing the strategies outlined in this project. Forest NB is uniquely positioned to lead this work, but there may be an opportunity to establish a more formal relationship with various partners to advance the findings and recommendations detailed in this report.

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1 PROJECT BACKGROUND & METHODOLOGY

1.1 About Forest NB

Forest NB is a not-for-profit industry organization that has been in operation for 68 years representing the interests of the forest industry in New Brunswick (NB). Forest NB membership includes 14 wood products producers and 16 other businesses in the forest industry value chain. Forest NB also works closely with educational entities, government departments, and other valued partners and stakeholders.

Forest NB's mandate on behalf of members includes coordination of sector interests, representation of industry interests in policy and planning processes, education and training enhancement, public advocacy for the sector, and engagement in research and development initiatives. Forest NB endeavours to raise public awareness of sustainable forest management practices, and to provide a forum for the exchange of information, ideas, and issues facing the industry and local communities in New Brunswick.

1.2 About the Labour Market Study

New Brunswick's forestry industry is a key economic driver and one of the province's most profitable sectors, supporting more than 24,000 jobs and generating \$5.64 billion in revenue¹. Demand for sustainably sourced forest products is at an all-time high and is only expected to increase.

Despite this growing demand, the forestry industry has experienced severe labour shortages in recent years with Forest NB members and other forest sector stakeholders reporting acute challenges in terms of recruiting and retaining qualified workers. However, there is a lack of comprehensive information as to the root cause of the labour shortages, as well as a lack of concrete solutions or strategies to overcome this issue.

Forest NB contracted Malatest to undertake a province-wide labour market report and strategy that was based on forward-looking research to better understand the forestry industry's current labour and training needs, with the goal of developing a strategy to overcome the existing and future labour and skills deficits.

This labour market information study was conducted in two phases: Phase I - the scope definition and preliminary research phase; Phase II – the data collection and strategy development phase. This report incorporates the key findings from both Phase 1 and Phase II, although much of the information and strategies are based on the Phase II activities.

1.3 Forestry Industry

To accurately characterize the forestry industry, relevant literature on the forestry industry of New Brunswick was reviewed, and consultations were carried out with Forest NB. This led to the identification of four sectors classified under the North American Industry Classification System (NAICS). Ultimately, this decision enabled us to effectively utilize the records from the 2021 Census and Labour Force Survey to provide a detailed profile of the forestry industry as a whole. The targeted industry sub-sectors (including appropriate NAICS codes) are:

¹ Natural Resources Canada. (2023). The state of Canada's forests: Annual report 2023. Government of Canada.

- **321 - Wood product manufacturing:** This subsector comprises establishments primarily engaged in manufacturing products from wood. There are three industry groups in this subsector, comprising establishments engaged in sawing logs into lumber and similar products, or preserving these products; making products that improve the natural characteristics of wood, by making veneers, plywood, reconstituted wood panel products or engineered wood assemblies; and making a diverse range of wood products, such as millwork.
- **113 - Forestry and logging:** This subsector comprises establishments primarily engaged in growing and harvesting timber on a long production cycle (of ten years or more). Long production cycles use different production processes than short production cycles, which require more horticultural interventions prior to harvest, resulting in processes more similar to those found in the Crop production subsector.
- **1153 - Support activities for forestry:** This industry comprises establishments primarily engaged in performing particular support activities related to harvesting timber.
- **3221 - Pulp, paper and paperboard mills:** This industry group comprises establishments primarily engaged in manufacturing pulp, paper or paperboard. Establishments that manufacture pulp, paper or paperboard, either alone or in combination with paper converting, are included.

It should be noted that limiting the analysis to only those firms designated as a forestry employer likely understates the actual employment in forest-related jobs. Under the NAICS classification, a business can only be assigned one code, even though it may be involved in several activities. Such classifications will assign a business to one industry on the basis of the greatest share of economic activity. For example, a farming establishment that has 70% of its revenue from agriculture and 30% from timber processing would only be classified as an agricultural industry despite having a portion of its activity related to forestry operations. Examining forest-related employment solely on industry assignment will likely under-estimate total employment in such operations. For this reason, the study examines forestry-related employment in terms of occupational classifications (see **Section 1.4** below).

1.4 Forestry Occupations

To refine the selection of occupations pertinent to this study, and in a similar manner to the definition of the forestry industry, a review of existing literature was conducted, and Forest NB was consulted. This process led to the identification of fifteen occupations classified under the National Occupational Classification (NOC) system that would be deemed to be representative of key forestry-related employment. This allows for a comprehensive analysis of the workforce size across various demographic variables by examining the records of the 2021 Census and Labour Force Survey within the province of New Brunswick, without relying solely on industry classifications. A detailed overview of the occupations of interest, including the typically required education levels and associated skills as outlined by the Canada Job Bank², is provided in **Appendix A**.

1.5 Data Collection

The data collection activities in Phase II of this research build on the findings from the Phase I needs assessment. The approach integrates multiple research methods to ensure a comprehensive understanding of training, recruitment, and retention needs within the New Brunswick forestry industry.

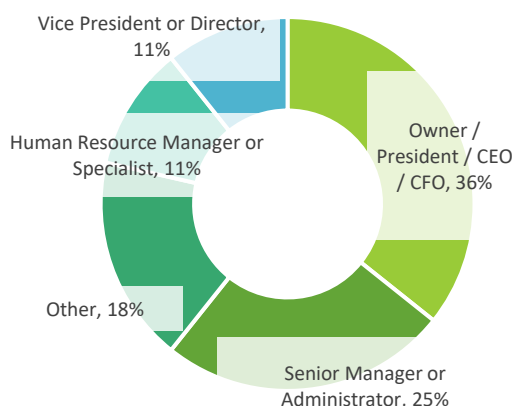
² Job Bank. Retrieved from <https://www.jobbank.gc.ca/home>

1.5.1 Employer Survey

A survey was conducted with employers (**Appendix E**) in the New Brunswick forestry industry to assess their workforce development needs, focusing on training, recruitment, and retention. The survey was administered between November 4, 2024, and February 18, 2025, yielding 39 completions from employers collectively representing 3,130 employees. It is estimated that these employers represent 38% of the total employment in the occupations of interest. Due to the open nature of survey distribution, where participants were encouraged to share the survey with others, the precise sample size could not be determined. However, it is estimated that the survey reached 100–150 employers, with an actual response rate of approximately 26%–39%.

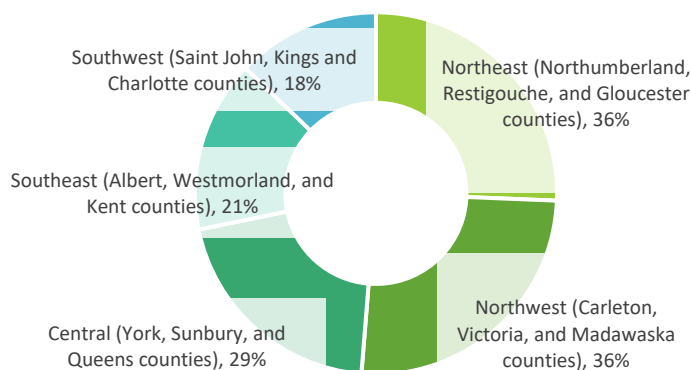
Respondents were primarily owners, executives, or senior management, reflecting high-level insights into workforce challenges and needs. Surveyed worksites were distributed across the province, with the Northeast and Northwest regions being the most commonly represented.

Figure 1.1: Survey Completions by Respondent's Title



Source: Employer Survey (Questions: A01); n=28

Figure 1.2: Survey Completions by Region



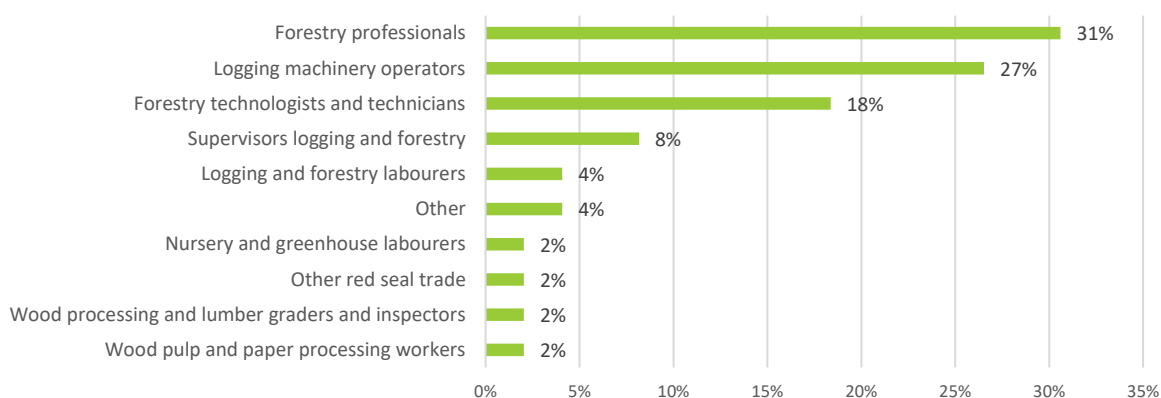
Source: Employer Survey (Questions: A02); n=28

1.5.2 Employee and Apprentice Survey

A survey was conducted to gather insights from individuals employed in forestry-related occupations and apprenticeships (**Appendix F**). The survey was distributed using social media advertising and other outreach methods. The survey was administered from November 4, 2024, to December 20, 2024, and resulted in 60 completions. Due to the open nature of distribution, where participants were encouraged to share the survey with others and through social media, the precise sample size could not be determined. In this context, results of the employee and apprentice survey should be viewed as adding additional qualitative insights to the study, as the survey results should not be construed to be statistically representative of the forest sector workforce.

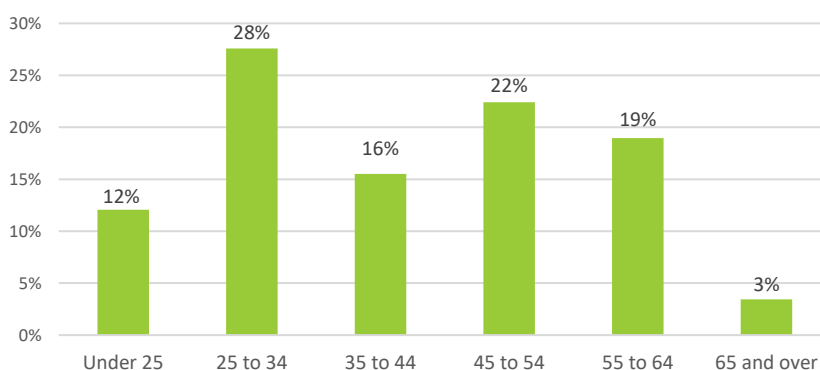
The majority of responses came from forestry technicians, professionals, and machinery operators, reflecting key occupations within the industry (**Figure 1.3**). Participants represented a broad range of age groups, including both younger and older workers (**Figure 1.4**).

Figure 1.3: Survey Completions by Occupation



Source: Employee/Apprentice Survey (Questions: E01); n=60

Figure 1.4: Survey Completions by Age Groups



Source: Employee/Apprentice Survey (Questions: A01); n=60

1.5.3 Key Informant Interviews

A total of six semi-structured interviews (see **Appendix G** for the interview guide) were conducted with training providers and other key stakeholders, including forest contractors, industry associations,

unions, and government representatives. These interviews provided qualitative insights into the challenges and opportunities related to workforce development in the New Brunswick forestry industry. The discussions explored key industry trends, skill gaps, training needs, and potential strategies to support workforce sustainability.

1.5.4 Focus Groups

One focus group and two interviews were conducted to further explore perspectives from young adults and other underrepresented groups in the forestry industry (see **Appendix H** for the discussion guide). To encourage participation, each participant received a \$75 gratuity.

These discussions provided insights into training, recruitment, and retention challenges within the forestry workforce. Additionally, input was gathered to explore potential solutions to address workforce development issues.

1.6 Survey Development and Testing

All survey instruments, interview guides, and focus group discussion guides were developed based on insights gained from Phase I research. Malatest implemented a three-phased approach to survey programming and testing:

1. **Initial Review:** The programming team verified that all functions, skips, and calculations operated as intended.
2. **Internal Testing:** Researchers reviewed the survey to ensure proper flow and usability of the online form.
3. **Final Validation:** Research staff confirmed that the electronic survey accurately reflected the intended instrument.

Forest NB received a pre-test version of the survey instruments to review and suggest any necessary programming adjustments. The Employee & Apprentice Survey was available in English and French to accommodate linguistic diversity, while the Employer Survey was only available in English.

1.7 Data Analysis

Following the closure of the survey period, the survey data was cleaned and coded. To ensure consistency and accuracy, whenever possible, the same individual coded each question in its entirety.

Once the data was cleaned and coded, we collaborated with Forest NB to develop and implement an analysis plan. Quantitative data from closed-ended survey questions was analyzed descriptively. Additional analyses were conducted as deemed feasible. Qualitative data from open-ended survey questions, focus groups, and interviews was analyzed using a thematic approach. Responses were summarized and categorized by theme, as well as by respondent type.

An inductive content analysis was also conducted, in which responses were reviewed in relation to the research objectives to identify key themes and areas of convergence or divergence within and across respondent groups.

1.8 Limitations

The data collected offers an insightful perspective into the labour and workforce landscape of New Brunswick's forestry industry. Nonetheless, it's important to interpret this information with awareness of certain research constraints that could affect the depth and scope of our conclusions.

Data Suppression

Statistics Canada, in accordance with the *Statistics Act*, suppresses certain data from the Labour Force Survey when counts fall below 500 for specific data points³ (for example, employment figures by gender for certain occupations within a given subsector). These thresholds vary from one province to another. To help address these gaps, the 2021 Census was used to supplement missing information where possible, but preference was given to the most recent Labour Force Survey. However, all figures should ultimately be interpreted as estimates rather than precise counts.

Small Sample Size

The workforce and employer survey response pool were relatively small, which may affect the reliability of the estimates. Although the survey is representative of the forestry industry with an occupational coverage rate of 38%, the relative smaller respondent pool introduced a higher variance in estimates.

Typical Variance Associated with Survey Data

The typical variance associated with survey data can be influenced by several factors, such as population variance, and measurement error (i.e., respondent's interpretation of the questions).

Data Weighting

Employer data could not be weighted due to the small sample size, as doing so would have significantly increased variance and reduced the reliability of estimates. However, workforce growth estimates were weighted, as this was fundamental to the scope of the study. Given that larger employers have a greater impact on the industry, their weighted projected growth was considered critical in the overall analysis.

Similarly, employee data was not weighted due to both sample size constraints and the qualitative nature of many responses. This approach ensured that findings remained reflective of the data collected without introducing additional variance.

Difficulty engaging with Employees and Apprentices

Recruiting employees and apprentices for key informant interviews and focus group sessions proved to be challenging. This difficulty was largely attributed to conflicting schedules and limited availability, making it difficult to coordinate participation. To improve engagement in future research, it is recommended to establish a panel of employees and apprentices. This would allow for more efficient outreach and scheduling.

Contextual Considerations

The study was conducted prior to the recent (early 2025) implementation of U.S. tariffs on Canadian products, meaning that potential impacts of these tariffs on the forestry industry were not reflected in the findings.

³ Statistics Canada. Labour Force Survey (LFS). Retrieved from <https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3701>



2 LABOUR MARKET LANDSCAPE

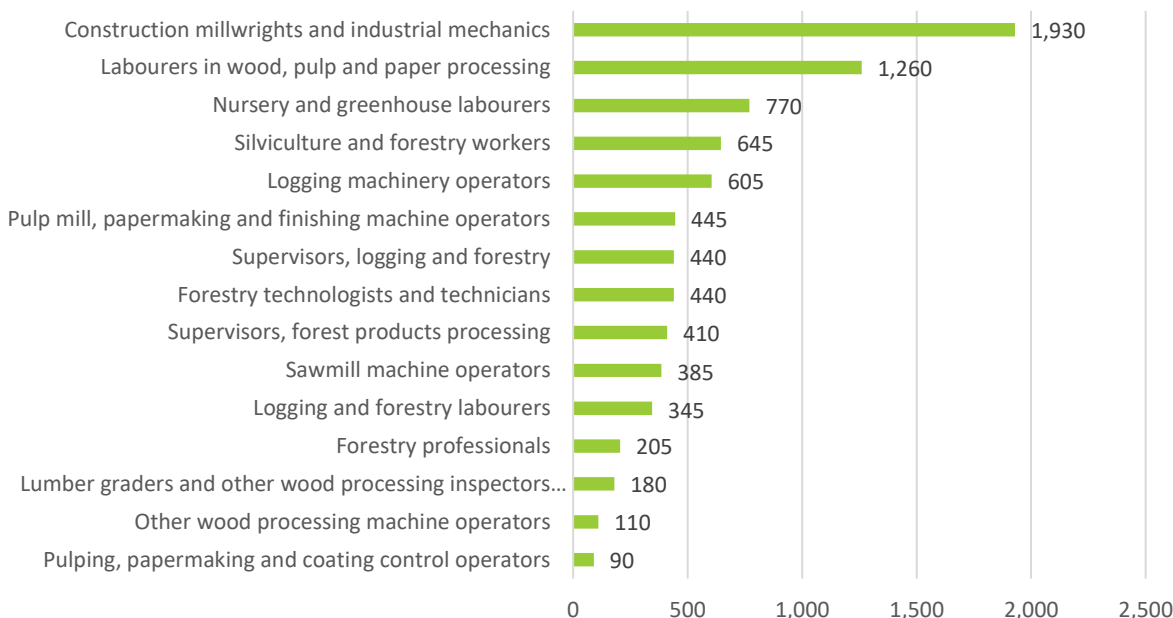
This section provides an overview of New Brunswick's forestry labour market, drawing on data from the 2021 Census and the Labour Force Survey to highlight key employment trends. It examines the distribution of the workforce across various occupations, the geographical concentration of forestry jobs, and the composition of the workforce by gender and age. Although 'NAICS 3221 – Pulp, Paper, and Paperboard Mills' is part of our broader data collection, it is not fully captured here due to its small scale. This is due to it being part of the broader 'NAICS 322 – Paper Manufacturing', which also includes converted paper product manufacturing activities outside the forestry industry. As a result, NAICS 3221 is the only 4-digit NAICS code within our industry definition. As discussed in **Section 1.3**, the classification structure can understate labour force counts, a challenge compounded by data suppression issues. Nevertheless, this omission minimally affects the overall findings since occupation-level data still encompasses those roles.

As highlighted in this section, analysis of the workforce demographics underscores the significant human resources challenges facing New Brunswick's forestry sector, namely, that is a sector largely dominated by male workers who tend to be older than most employees in other industries. Understanding these factors is crucial for identifying current challenges and for informing strategic workforce planning in the forestry industry.

2.1 Labour Force Across Occupations

Based on using the occupational definitions of forestry-related employment, the total labour force across all industries (**Figure 2.1**) was 8,260, with 3,972 individuals employed specifically in the forestry industry. Within the forestry industry, the highest proportion of the labour force is found in wood, pulp, and paper processing, logging machinery operators, silviculture and forestry workers, and sawmill machine operators. These occupations represent key roles within the industry, reflecting the industry's reliance on both manual labour and specialized machinery operations.

Figure 2.1: Total Labour Force Across Occupations of Interest (All Industries)

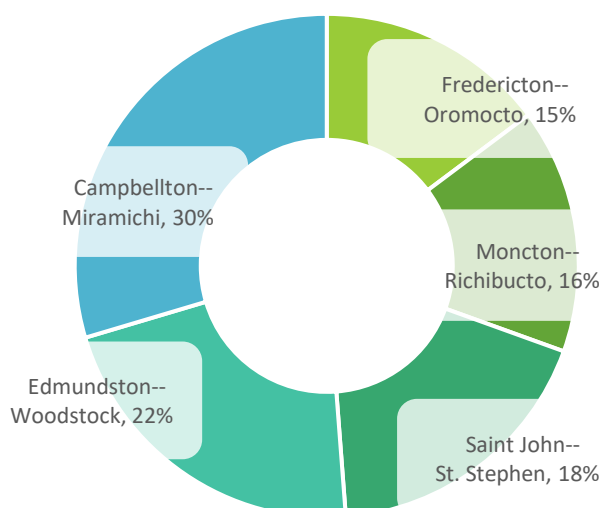


Source: 2021 Census Custom Order; Labour Force Survey (2024) Semi-Custom Order

2.2 Employment Force Across Regions

Forestry employment was highest in the Campbellton–Miramichi region, which accounted for 30% of total employment in the industry. This was followed by Edmundston–Woodstock at 22%, while Saint John–St. Stephen, Moncton–Richibucto, and Fredericton–Oromocto accounted for 18%, 16%, and 15%, respectively. Notably, more than 50% of forestry employment was concentrated outside the province’s three largest urban centers—Fredericton, Moncton, and Saint John—highlighting the industry’s significant presence in rural and smaller regional areas.

Figure 2.2: Distribution of Employment Across Regions

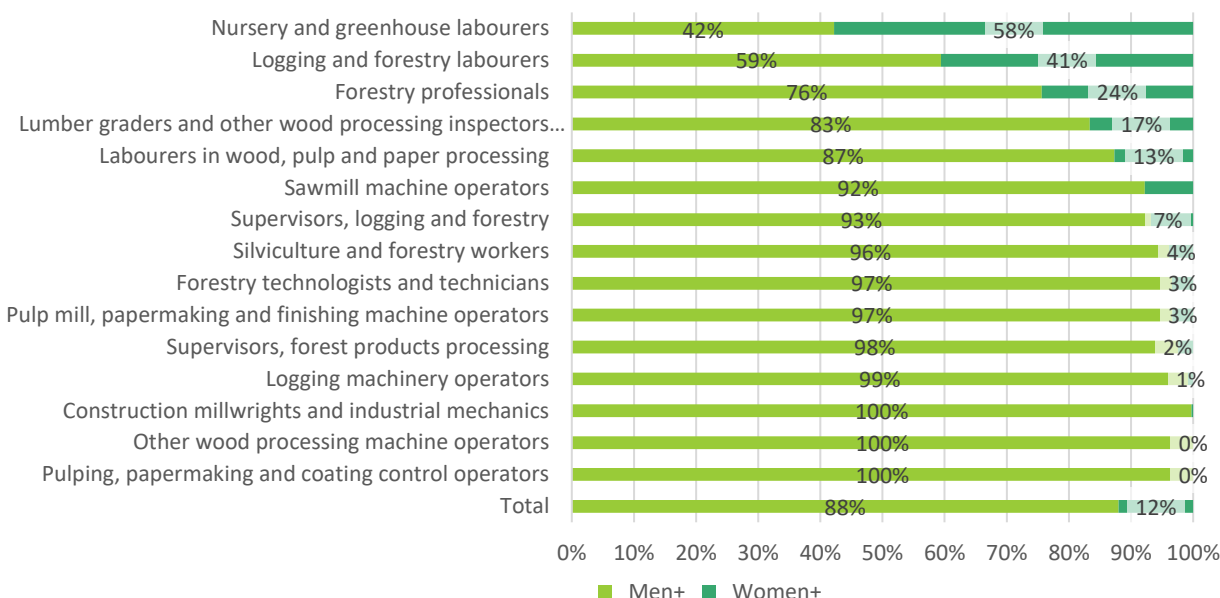


Source: 2021 Census Custom Order; Labour Force Survey (2024) Semi-Custom Order

2.3 Employment Force Across Gender

The forestry workforce remains predominantly male, with men representing over 88% of workers in most occupations. However, women had higher representation in specific roles. The highest female representation was found among nursery and greenhouse labourers, where 58% of workers were women, reflecting their greater presence in plant cultivation and reforestation efforts. Women also held a notable share of forestry professional roles, accounting for 24% of the workforce in this category. Despite these areas of female participation, the forestry industry remains male-dominated, with women still underrepresented in most operational and machinery-intensive roles.

Figure 2.3: Distribution of Employment Across Gender by Occupation

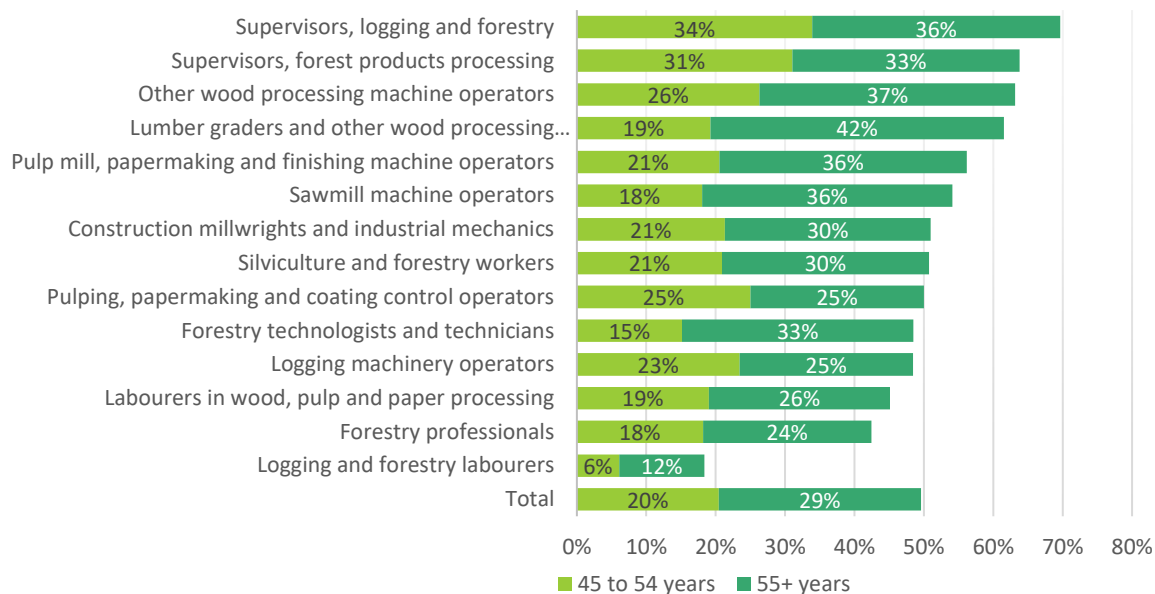


Source: 2021 Census Custom Order; Labour Force Survey (2024) Semi-Custom Order

2.4 Aging Workforce

The forestry workforce in New Brunswick is aging, with a large proportion of workers nearing retirement (**Figure 2.4**). While the 25 to 44 age group remains well-represented in the industry, a significant share of workers are already 45 and older. Within the next 10 to 20 years, more than half of the current workforce in most occupations will reach retirement age, creating major challenges for workforce renewal and succession planning. The industry is already facing labour shortages in many occupations, underscoring the importance of initiating targeted recruitment and training efforts now. By starting these initiatives early, the incoming workforce can acquire critical skills while experienced employees are still available to provide hands-on knowledge transfer. Without these proactive measures, the industry may face significant labour shortages that could impact its long-term sustainability.

Figure 2.4: Employment Across Age Groups by Occupation



Source: 2021 Census Custom Order; Labour Force Survey (2024) Semi-Custom Order

3 EMPLOYER PERSPECTIVES & INSIGHTS

Employers in New Brunswick's forestry industry play a critical role in shaping the industry's workforce landscape. Their perspectives provide valuable insights into labour demand, workforce challenges, and strategies for attracting and retaining talent. This section presents findings from employer surveys and interviews, highlighting key workforce trends, hiring challenges, and industry-wide opportunities for workforce development.

The analysis covers vacancy rates, workforce growth expectations, experience requirements, recruitment and retention barriers, and employer-driven strategies for addressing ongoing labour shortages. Additionally, it explores broader challenges, such as competition for skilled workers, training gaps, and economic uncertainties, while also identifying potential solutions through industry collaboration, policy support, and education partnerships.

3.1 Vacancy Rates by Occupation

Vacancy rates varied significantly across forestry occupations in New Brunswick, with some roles experiencing low turnover and stable demand, while others faced higher vacancy rates, indicating more immediate hiring needs and recruitment challenges.

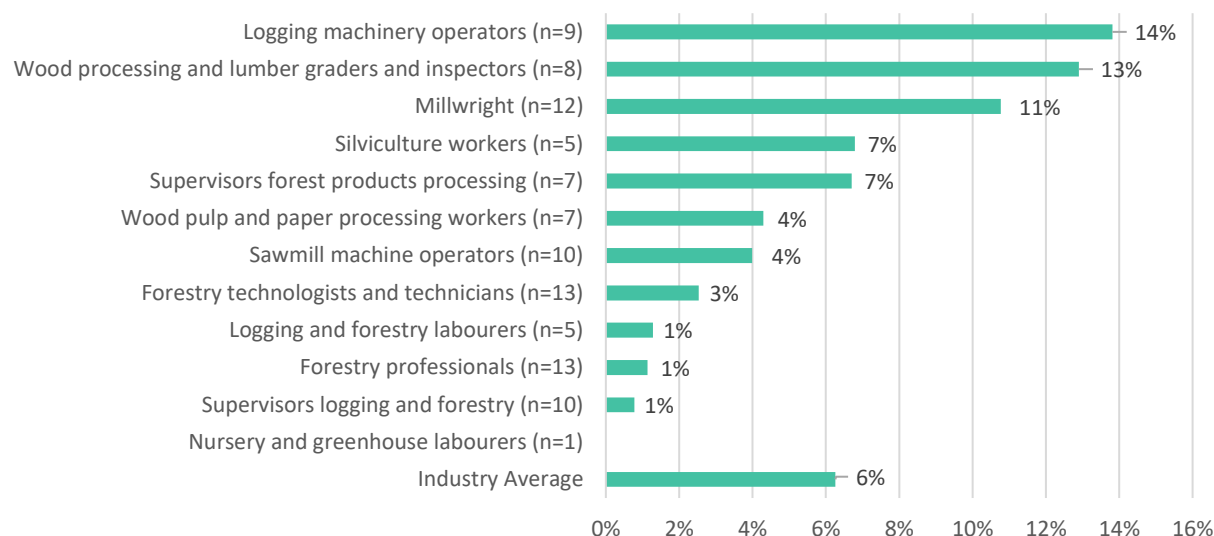
Several positions, such as nursery and greenhouse labourers (0%), supervisors in logging and forestry (1%), forestry professionals (1%), and logging and forestry labourers (1%), reported very low vacancy rates, suggesting steady employment levels and limited immediate job openings. Similarly, forestry technologists and technicians (3%), pulping and coating control operators (4%), and sawmill machine operators (4%) had relatively low vacancy rates, reflecting consistent workforce availability.



Conversely, some occupations experienced higher vacancy rates, indicating labour shortages or increased hiring demand. Supervisors in forest product processing (7%) and silviculture workers (7%) had moderate vacancy levels, while millwrights (11%), wood processing and lumber graders/inspectors (13%), and logging machinery operators (14%) had the highest vacancy rates, highlighting ongoing challenges in filling these roles. Within individual discussions with employers, occupations within skilled trades were consistently described as having a high vacancy rate.

Overall, it is estimated that the sector has approximately 500 unfilled positions based on vacancy rate data provided by employers and extrapolated to represent the entire sector.

Figure 3.1: Vacancies as a Percentage of the Reported Number of Employees



Source: Employer Survey (Questions: B02, B03); n=28

3.2 Workforce Growth

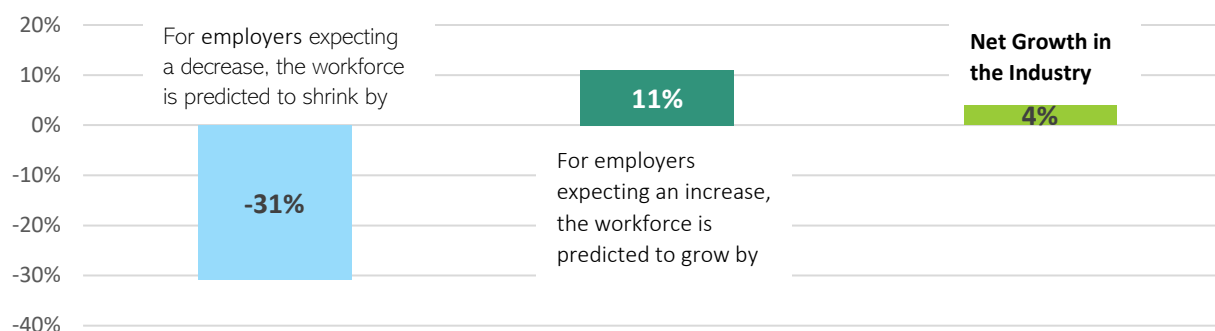
The majority of employers in the New Brunswick forestry industry anticipate workforce growth over the next five to ten years, with only a small fraction expecting a decline. However, despite this projected growth, many employers reported challenges in finding skilled talent, which could impact the industry's ability to meet labour demands.

Among the 39 employers surveyed, 61% expected workforce growth, 32% anticipated no change, and 7% predicted a decrease. Based on these reported expectations and as shown in **Figure 3.2**, workforce projections weighted by employer size indicate:

- Employers forecasting growth expect their workforce to expand by 10.5%.
- Employers predicting a decline estimate a 30.9% workforce reduction.
- Overall, these trends result in a net workforce growth of 4.2%.

While these projections suggest a modest increase in employment, the ability to attract and retain skilled workers remains a key challenge for the industry's long-term sustainability.

Figure 3.2: Workforce Growth (Weighted by Employer Size)



Source: Employer Survey (Questions: C01, C02, C03); n=28

Appendix B provides a detailed breakdown of projected workforce needs by occupation. These projections are informed by vacancy rates reported in **Section 3.1**, along with other key data points collected throughout this study—including the anticipated sector growth described above, expected retirements, and estimates of the available labour pool. Together, these inputs support an estimate of the number of employees required to meet industry demand over the next five to ten years. Overall, it is projected that the industry will need approximately:

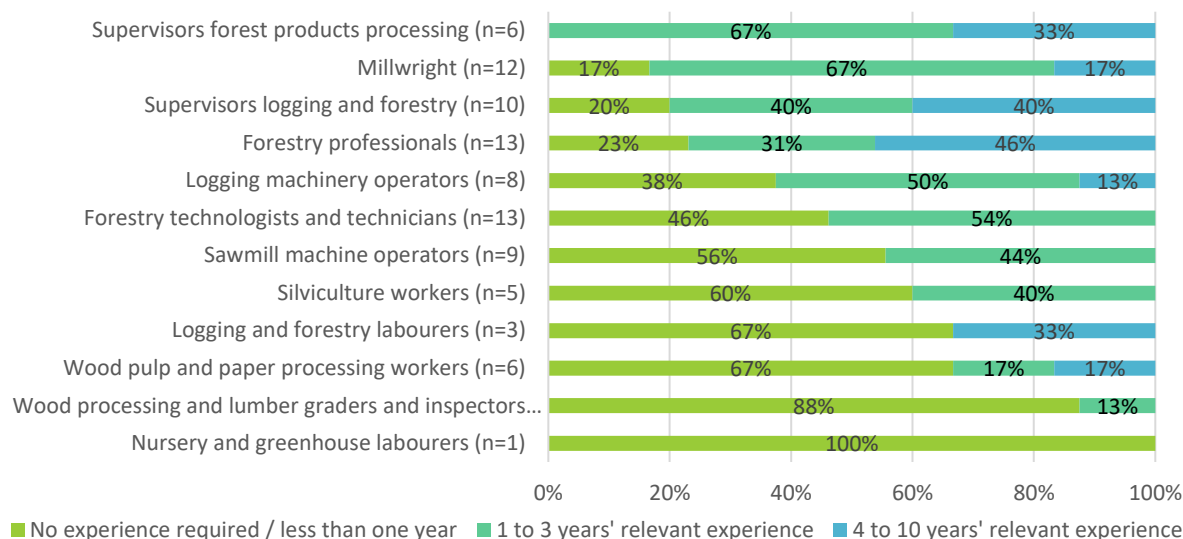
- 500 employees to fill existing vacancies
- 370 employees to meet expected demand-related growth
- 2,350 employees to replace those employees expected to retire over the next 10 years.

In total, the industry is projected to require approximately 3,220 new workers over the next five to ten years.

3.3 Experience Requirements

Experience requirements in New Brunswick's forestry sector vary significantly by occupation (see **Figure 3.3** on the next page). Entry-level roles such as nursery and greenhouse labourers often demand no prior experience (100%), making them accessible to newcomers. Similarly, wood processing and lumber graders/inspectors (88%), wood pulp and paper processing workers (67%), and logging/forestry labourers (67%) frequently accept candidates with minimal or no experience. In contrast, positions like forestry technologists and technicians, logging machinery operators, and sawmill machine operators typically require 1 to 3 years of relevant experience. Forestry professionals and supervisory roles (both in logging/forestry and forest products processing) demonstrate the highest expectations, with many requiring 4 to 10 years of relevant experience. Millwrights similarly present more stringent criteria, as 67% of employers seek candidates with 1 to 3 years of experience. Overall, while labour-intensive roles provide more entry-level opportunities, technical, supervisory, and professional positions demand greater expertise and experience.

Figure 3.3: Experience Required by Employers (%) by Occupation



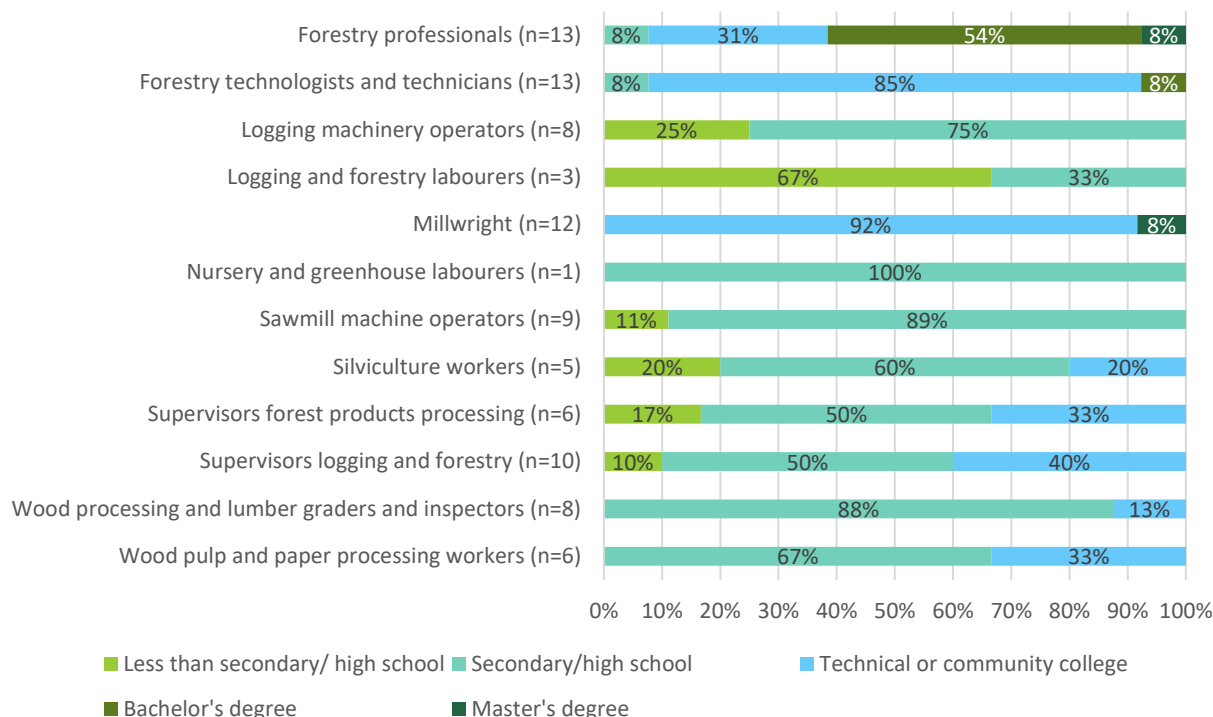
Source: Employer Survey (Question: D01B); n=28

3.4 Training & Credential Requirements

In the forestry industry, while many entry-level positions call for minimal education, roles that are more technical or leadership-oriented increasingly require formal training and recognized credentials (see **Figure 3.4** on the next page). Entry-level positions such as nursery and greenhouse labourers, wood processing and lumber graders/inspectors, and sawmill machine operators are largely accessible with a high school education (100%, 88%, and 89% respectively), with little to no need for post-secondary training. Logging and forestry labourers also show minimal educational barriers, with two-thirds (67%) of workers holding less than a high school diploma. Similarly, logging machinery operators and silviculture workers often enter the workforce with a high school education (75% and 60% respectively), though some have less or more formal education.

In contrast, technical and supervisory positions generally require post-secondary education. Forestry technologists and technicians (85%) and millwrights (92%) are primarily expected to have technical or college-level training. Supervisory roles show slightly more variation, with about 40–50% holding college diplomas and the rest typically having completed high school. The most rigorous credential expectations are reserved for forestry professionals, where over half (54%) hold a bachelor's degree and another 8% possess a master's. This trend underscores a broader pattern: while many frontline roles remain accessible with minimal formal training, more specialized, supervisory, and professional roles increasingly demand post-secondary credentials.

Figure 3.4: Training & Credential Requirements as Reported by Employers (%)



Source: Employer Survey (Question: D01A); n=28

Considering the projected sector growth outlined in **Section 3.2**, the anticipated wave of retirements among workers aged 55 and older (**Section 2.4**), and the vacancy rates outlined in **Section 3.1**, the estimated education and training demand over the next five to ten years in New Brunswick's forestry industry is expected to be at least:

- 1,300 entrants will require technical or community college credentials
- 1,400 entrants will require at least a secondary/high school education
- 320 entrants will require less than a secondary/high school education
- 90 entrants will require a bachelor's degree
- 80 entrants will require a master's degree

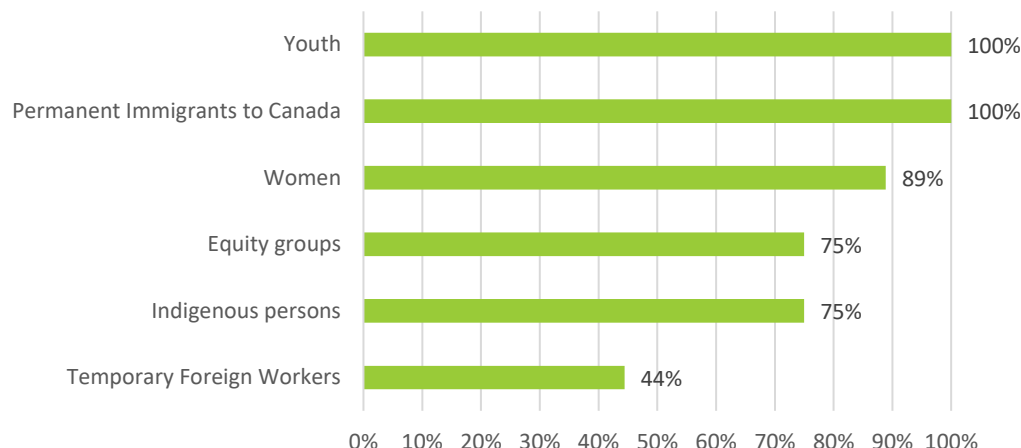
3.5 **Recruitment Strategy**

Employers in New Brunswick's forestry industry actively sought to diversify their workforce, with many emphasizing recruitment of immigrants, youth, women, and other underrepresented groups (**Figure 3.5**). Specifically, 100% of employers surveyed targeted recruitment efforts toward permanent immigrants and youth, while 89% actively recruited women. Recruitment efforts also commonly included Indigenous persons (75%) and other under-represented groups (75%).

In comparison, temporary foreign workers were less frequently targeted, with 44% of employers considering this group for recruitment. While not the primary recruitment channel, temporary foreign workers remained a viable supplementary source of labour for some employers. However, the recent

and forthcoming changes to the TFW Program⁴— including new limits on the percentage of temporary foreign workers that employers can hire and a reduced maximum duration for Low-Wage stream positions—will likely further restrict this supplementary pipeline in the future.

Figure 3.5: Employer Recruitment Strategies for Target Demographics (%)



Source: Employer Survey (Question: D07); n=28

3.6 Recruitment Barriers

Employers in New Brunswick's forestry sector encounter various challenges in attracting new talent (**Figure 3.6**). The most frequently cited barrier is limited interest at current pay rates (61%), reflecting concerns about wage competitiveness.

As shown in **Appendix C**, the average hourly wages for forestry-related occupations in New Brunswick are substantially lower than those in other major forestry provinces, with the sharpest disparities observed when compared to Alberta, British Columbia, and Ontario. On average, New Brunswick has nominal wages that are approximately 12% lower than the Canadian average. However, when adjusted for cost of living (**Appendix D**), New Brunswick appears more competitive—showing wage advantages of 15% over Alberta, 37% over British Columbia, and 33% over Ontario. Wages are also roughly on par with those in Nova Scotia, while Quebec is the only province where adjusted wages remain higher than those in New Brunswick, by approximately 8%. Nevertheless, wages were consistently identified as a key barrier to recruitment—likely due to perceptions based on unadjusted, nominal wage levels rather than cost-of-living-adjusted comparisons. It is also important to note that developing a generalized cost of living index is inherently challenging, given its multidimensional nature and the variability in individual household circumstances.

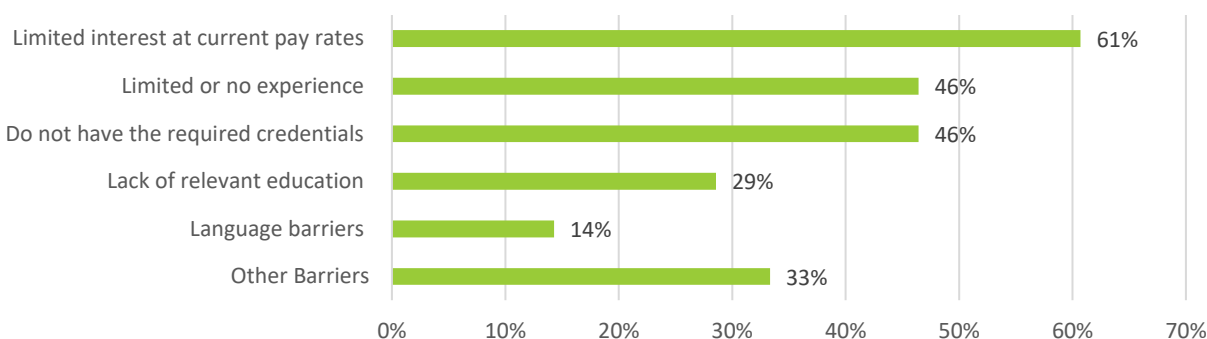
Equally common obstacles include lack of required credentials (46%) and limited or no experience (46%), underscoring the need for more accessible training pathways and on-the-job learning opportunities. Additionally, lack of relevant education (29%) and language barriers (14%) pose further hiring difficulties, particularly in regions where bilingual or specialized skill requirements exist. Other

⁴ Employment and Social Development Canada. (2024, August 26). Minister Boissonnault reducing the number of temporary foreign workers in Canada. Government of Canada. Retrieved from <https://www.canada.ca/en/employment-social-development/news/2024/08/minister-boissonnault-reducing-the-number-of-temporary-foreign-workers-in-canada.html>

barriers (33%) include a range of factors such as negative perceptions of the industry, international accreditation that does not align with Canadian standards, low participant interest, limited awareness of forestry careers, and geographical challenges—specifically, limited rural infrastructure and the outmigration of youth from rural areas.

Beyond these structured barriers, employers also noted limited awareness of forestry jobs, a general lack of interest in forestry work, and challenges related to international accreditation not aligning with Canadian standards. These findings highlight the need for enhanced outreach, training and accreditation programs, and competitive compensation strategies to attract and retain workers in the industry.

Figure 3.6: Moderate and Significant Recruitment Barriers Reported by Employers (%)



Source: Employer Survey (Question: D02); n=28

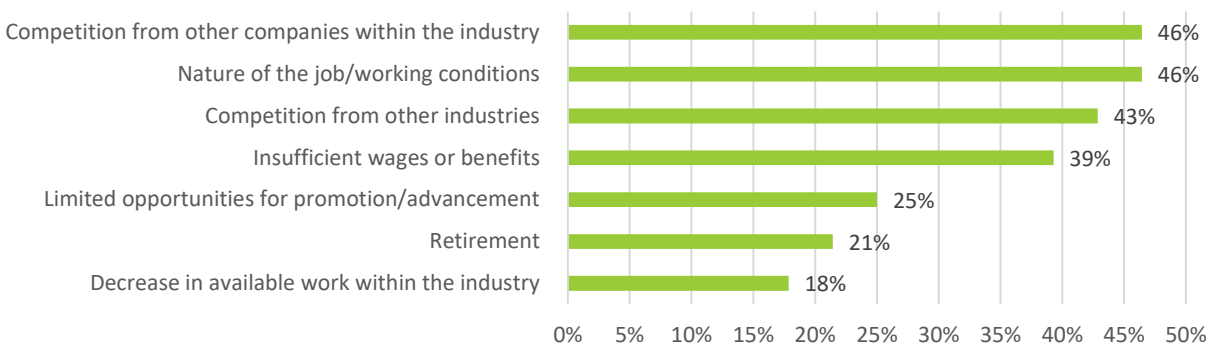
3.7 Retention Barriers

Employers in New Brunswick's forestry industry faced significant challenges in retaining workers, with competition from other companies, working conditions, and wages being the most frequently cited issues (see **Figure 3.7** on next page).

Nearly 46% of employers identified competition from other forestry companies as a moderate or significant barrier to retention, while 43% pointed to competition from other industries drawing workers away. Additionally, 46% of employers cited the nature of the job and working conditions as a challenge, reflecting concerns over the physically demanding and seasonal aspects of forestry work. Wages and benefits were also a major factor, with 39% of employers indicating that insufficient compensation contributed to retention difficulties—as discussed previously and shown in **Appendix C**. Limited opportunities for promotion (25%), retirement (21%), and a decline in available work (18%) were additional concerns

Overall, these findings suggest that retention strategies should focus on improving wages, enhancing career progression opportunities, and addressing workplace conditions to maintain a stable workforce.

Figure 3.7: Moderate and Significant Retention Barriers Reported by Employers (%)



Source: Employer Survey (Question: D03); n=28

3.8 Challenges & Opportunities

The New Brunswick forestry industry faces a combination of labour shortages, workforce aging, recruitment barriers, and training gaps that pose significant challenges to long-term sustainability. While many employers are actively seeking diverse recruitment strategies and workforce development initiatives, structural issues such as competition for skilled workers, limited training pathways, and economic uncertainties continue to affect the industry.

Despite these challenges, there are opportunities for growth through enhanced industry collaboration, government support, and stronger partnerships with educational institutions.

3.8.1 Recruitment Challenges

The forestry industry in New Brunswick is facing labour shortages across both woodland management and mill operations, exacerbated by difficulty attracting young workers. Many younger individuals show limited interest in outdoor, physically demanding jobs, often influenced by negative or outdated perceptions of the industry. Additionally, concerns about seasonal employment and job security further discourage new entrants.

High competition for skilled workers is another major challenge —both within New Brunswick and across provincial borders. Operators and technicians are frequently poached by higher-paying competitors, and larger companies often pull talent from smaller firms. Wage disparities have contributed to outmigration, making it harder for smaller employers to retain skilled workers who are drawn to the higher wages offered in the oil, gas, and construction sectors.

3.8.2 Retention Challenges

An aging workforce and impending retirements pose significant retention challenges, with a large cohort of older workers nearing retirement and few trained replacements available. Even when positions are filled by younger or newer entrants, the loss of institutional knowledge and experience—due to limited knowledge transfer—can significantly impact operations and productivity.

Additionally, changing worker expectations are reshaping retention efforts. Younger workers prioritize stability and flexibility, but flexible work arrangements remain rare in the industry, making it harder to attract and retain new talent.

Some employers have sought to fill labour gaps through immigration, though shifting immigration policies and international issues have complicated hiring and retention efforts.

3.8.3 Training & Skills Gaps

There is a lack of formal training and certification pathways, with the industry still heavily reliant on on-the-job learning. The limited availability of structured training programs has created barriers to attracting and upskilling new workers. In addition, there appears to be limited training targeted to mid-level managers to enable them to progress and transition into more senior roles that will increasingly require more staff as existing senior managers exit the industry through retirements. Notably, occupations related to mill and manufacturing trades, such as millwrights, electricians, and automation technicians, are in high demand, highlighting a need for specialized training and recruitment efforts in these areas.

New Brunswick is home to several post-secondary institutions that already offer structured training programs tailored to the forestry industry, which includes:

- University of New Brunswick (UNB): Bachelor of Science in Forestry
- Maritime College of Forest Technology (MCFT): Forest Technology Program
- New Brunswick Community College (NBCC): Mechanized Forest Equipment Operator Program
- Université de Moncton: Bachelor of Forest Management and Master of Forest Science programs
- Collège communautaire du Nouveau-Brunswick (CCNB): Fishing, Forestry, or Agriculture Program

These institutions provide an important foundation but expanding access to and awareness of these offerings, alongside developing targeted programs for mid-level and technical roles, will be key to meeting future workforce needs.

3.8.4 Workforce Development & Industry Collaboration

Employers have expressed growing interest in partnerships with schools and post-secondary training institutions, with an increase in high school outreach, scholarships, and summer work placements. However, these efforts remain largely uncoordinated, and there is demand for stronger industry-driven certification programs and better coordination between post-secondary institutions and industry to meet industry needs.

Calls for greater inter-industry coordination and government support have also emerged, with better workforce planning and shared talent pools seen as potential solutions to reduce competition for workers. A few interview participants expressed interest in exploring shared training and recruitment strategies with adjacent sectors, particularly construction, given the overlap in trade-related occupations. While promising, this concept requires further exploration to assess its feasibility and potential benefits across industries.

3.8.5 Economic & Policy Uncertainties

Trade and political factors continue to create a sense of uncertainty within the forestry sector, which may impact workforce stability and industry growth. While we did not collect direct evidence on the economic impacts of tariffs or interprovincial trade barriers, several employers cited these factors during interviews as contributing to a challenging and unpredictable business environment. Although

speculative, these perceptions reflect broader concerns about growth opportunities and profitability, particularly for smaller or export-dependent operations. It should be noted that this study was conducted prior to the introduction of significant US tariffs on Canadian forest products scheduled for April 2, 2025. In this context, given the lack of information as to the scale of possible US tariffs, employers were not in a position to identify how such tariffs would affect their hiring and investment decisions.



4 INSIGHTS FROM EMPLOYEES & APPRENTICES

The perspectives of employees and apprentices provide valuable insight into the realities of working in New Brunswick's forestry industry, from motivations for entering the industry to barriers to employment, training, and career development. Workers highlighted the appeal of hands-on, outdoor work, but also noted challenges related to wages, job security, and limited training opportunities.

This section explores key themes, including entry into the industry, recruitment and retention barriers, access to training and education, professional development, and preferred human resource strategies. Additionally, it identifies opportunities to strengthen workforce development through expanded training pathways, improved career awareness, and better alignment between employer needs and worker expectations.

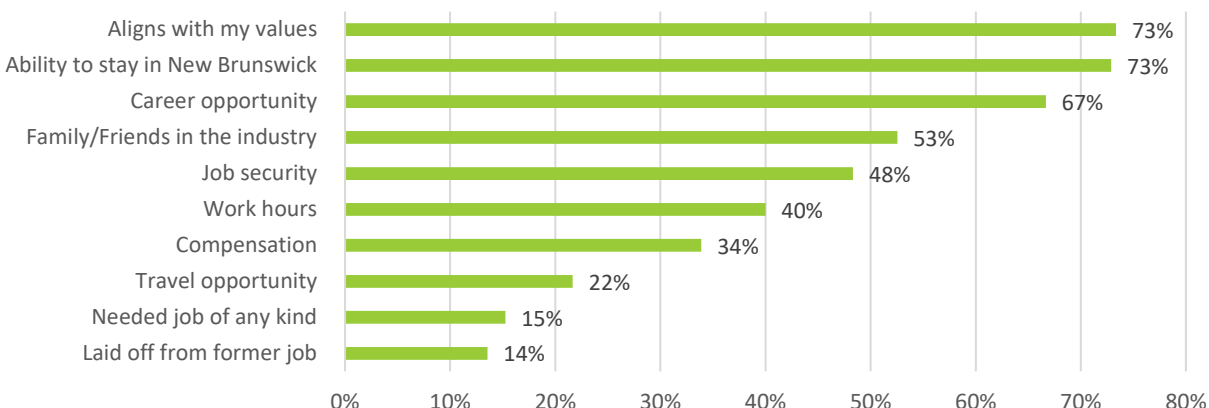
4.1 Entry to the Forestry Industry

Workers enter the New Brunswick forestry industry for a variety of reasons, with personal values, career opportunities, and the ability to remain in the province being among the most common motivations. Many individuals are drawn to the industry due to a strong connection to nature, job stability, and the influence of family or friends already working in the forest industry.

The most frequently cited reasons for entering the industry (**Figure 4.1**) included alignment with personal values (73%), the ability to stay in New Brunswick (73%), and career opportunities (67%). Additionally, 53% of workers indicated that having family or friends in the industry influenced their decision. Other factors such as job security (48%), work hours (40%), and compensation (34%) also played a role in career decisions. For some, forestry provided a travel opportunity (22%), while 15%

entered due to needing any available job, and 14% had transitioned after being laid off from a previous position.

Figure 4.1: Reasons to Start Working in the Forestry Industry Reported by Employees/Apprentices (Strongly Agree/Agree %)



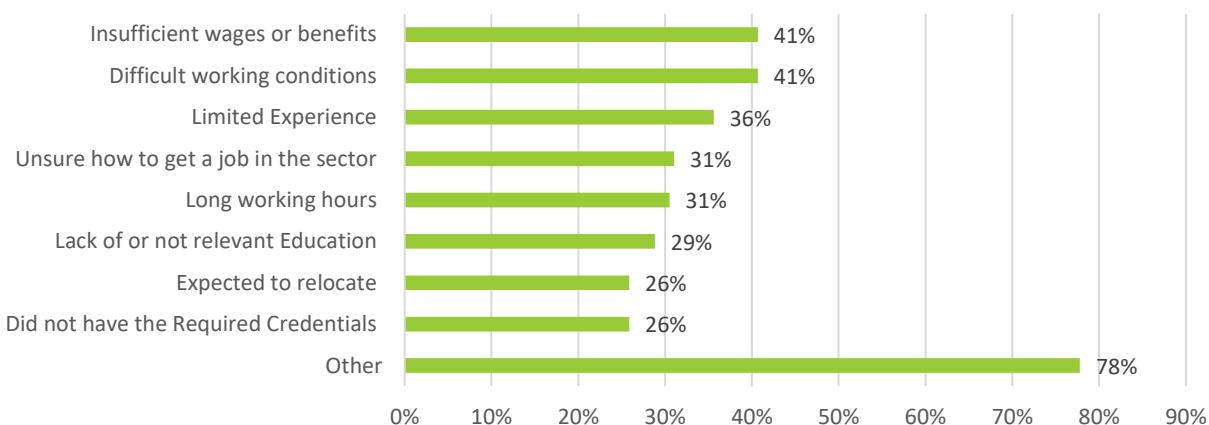
Source: Employee/Apprentice Survey (Question: B01); n=59

4.2 Barriers to the Forestry Industry

While many workers are drawn to New Brunswick's forestry industry, several barriers can hinder entry into the industry. Insufficient wages or benefits (41%), difficult working conditions (41%), and limited work experience (36%) were the most commonly reported challenges. Other notable barriers included uncertainty about how to secure a job in the industry (31%), concerns over long working hours (31%), and a lack of relevant education (29%). Additionally, 26% of respondents cited challenges related to not having the required credentials or the expectation of needing to relocate for work.

Beyond these structured barriers, 78% of respondents identified additional challenges, including gender inequality, nepotistic advancement, and limited job opportunities in the Maritimes in comparison to Central/Western Canada. Some also noted that forestry remains a niche community, making it difficult for newcomers to gain entry into key roles.

Figure 4.2: Moderate and Significant Barriers Reported by Employees/Apprentices (%)



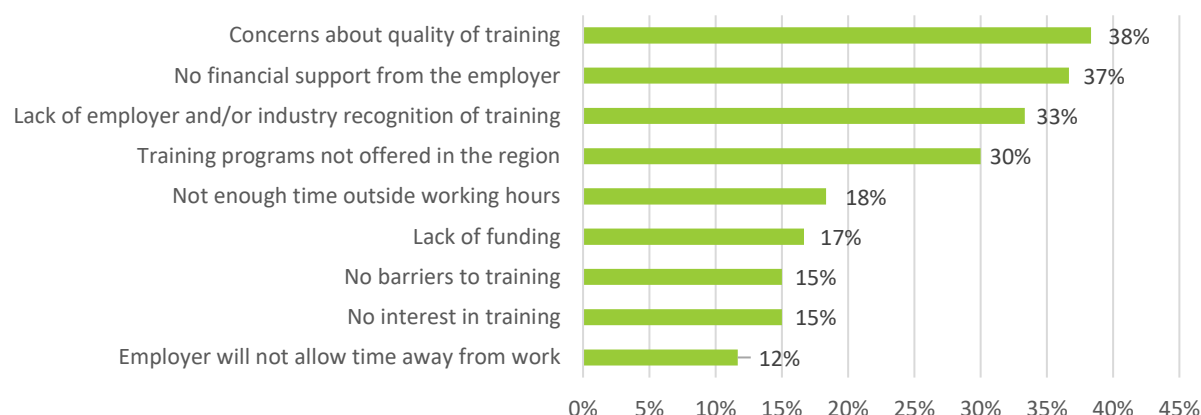
Source: Employee/Apprentice Survey (Question: B02); n=59

4.3 Training & Education

Training and education are critical components of workforce development in the New Brunswick forestry industry, yet many workers face significant barriers to completing training programs. The most commonly cited challenges were concerns about training quality (38%), a lack of financial support from employers (37%), and limited employer or industry recognition of training (33%). Additionally, 30% of respondents reported that training programs were not offered in their region, while 18% struggled to find time outside of working hours to complete training. Lack of funding (17%), no interest in training (15%), and employers not allowing time away from work (12%) were also noted as barriers.

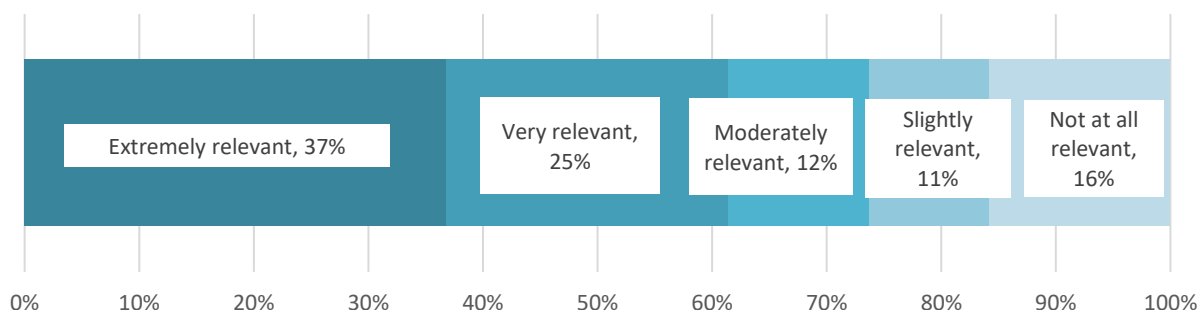
Despite these challenges, 74% of respondents considered their education to be relevant to their work in the forestry industry. However, improving accessibility, quality, and employer support for training programs could help address workforce skill gaps and enhance career advancement opportunities.

Figure 4.3: Barriers to Complete Training



Source: Employee/Apprentice Survey (Question: A06); n=59

Figure 4.4: Relevance of Education Received



Source: Employee/Apprentice Survey (Question: B04); n=59

4.4 Professional Development

Professional development opportunities in the New Brunswick forestry industry are available to most workers, with 70% of respondents reporting some level of access. However, a sizable minority (30%) indicated little or no support, highlighting gaps in career advancement and specialized training

opportunities. Employers, training providers, and industry professionals recognize the growing importance of continuing education, particularly as the industry evolves.

*"I believe there's **tremendous opportunity in continuing education**. Right now, it's only a small part of what we do, but in the next 10 years, micro-credentials—whether for specific skills or areas—are **likely to see substantial growth in demand**."*

Additionally, the highly specialized nature of the forestry industry presents challenges in developing targeted training programs.

*"It's a **highly specialized field**—our log scanning, controls, and saws are unique to the wood industry, and even filing the saws involves specialized terminology."*

*A **dedicated training program would be incredibly beneficial**, teaching everything from optimization and scanning to alignment and drying lumber. Ideally, **this would be a professional development or continuing education course**, something people pursue after earning their degree or license. That way, employers could send their teams to learn the specific mechanics, leads, and alignments essential to the forestry and sawmill industry."*

These insights suggest that while some professional development opportunities exist, there is a clear need for expanded and industry-specific training programs that provide practical, job-relevant skills to support both career progression and workforce sustainability.

4.5 Preferred Human Resources Strategies

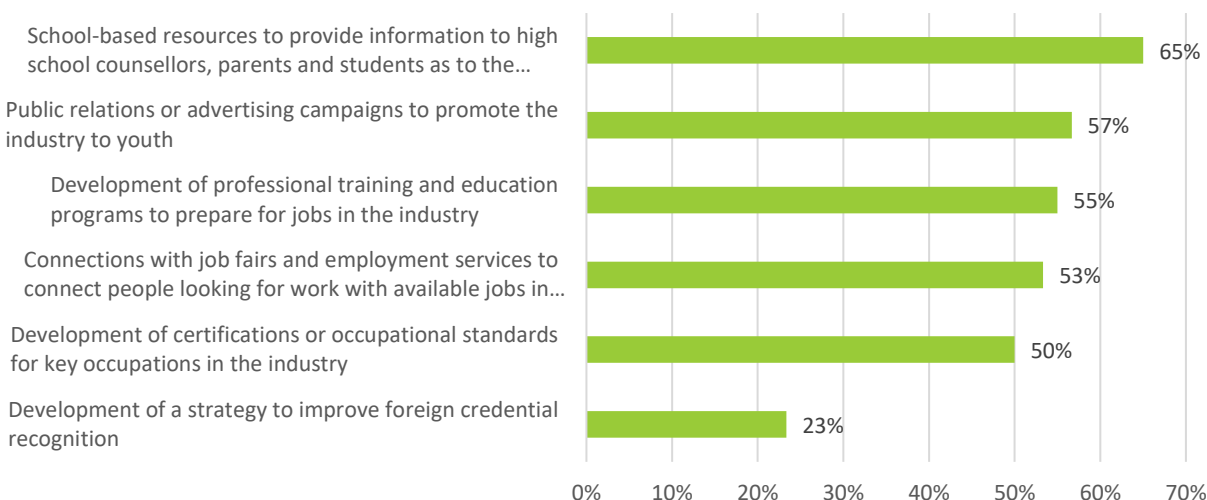
Employees and apprentices in the New Brunswick forestry industry identified several key strategies to enhance workforce recruitment and retention (**Figure 4.5**). A strong emphasis was placed on building awareness among young people, with 65% of respondents supporting the development of school-based resources to inform high school counsellors, parents, and students about career opportunities in forestry. Additionally, 57% supported public relations and advertising campaigns to promote the industry to youth. While some outreach and school-based efforts are already underway, it appears that improved communication and broader exposure are needed for these initiatives to reach their full potential and meaningfully impact youth awareness and engagement.

Another major priority was developing professional training and education programs, with 55% of respondents emphasizing the need for structured pathways to prepare individuals for forestry careers. Similarly, 50% of workers supported the creation of certifications and occupational standards to further professionalize the industry and establish clear skill benchmarks. Other stakeholders also noted the need for training programs to better prepare mid-level managers to take on more senior roles.

Efforts to strengthen connections between job seekers and employers were also highlighted, with 53% supporting job fairs and employment services as a means to link individuals to available opportunities in the industry. Additionally, 23% of respondents emphasized the need to improve foreign credential

recognition, ensuring that internationally trained workers can more easily integrate into the forestry workforce.

Figure 4.5: Human Resources Strategies with the Highest Priority Reported by Employees/Apprentices (%)



Source: Employee/Apprentice Survey (Question: C01); n=59

4.6 Challenges & Opportunities

Employees and apprentices in New Brunswick's forestry industry identified a range of challenges and opportunities related to industry entry, training, recruitment, and retention. While the industry offers appealing outdoor and hands-on work, structural issues such as wage competition, training gaps, and work-life balance concerns continue to impact workforce sustainability.

4.6.1 Entry to the Industry & Motivation

Many workers are drawn to forestry for its hands-on nature and outdoor work, providing an attractive alternative to desk-bound jobs. However, increased awareness and outreach could further promote careers in forestry as a viable employment path.

4.6.2 Training & Education

Stakeholders expressed interest in developing a post-secondary "foundation year" in forestry, intended to provide young adults and mid-career learners with exposure to core industry concepts, instill work-readiness, and guide them toward specialized training in forest technology, machine operation, or business management. This program could be structured as a bridging or certificate year at institutions like the Maritime College Of Forest Technology (MCFT) or New Brunswick Community College (NBCC), with potential linkages to degree programs at University of New Brunswick (UNB) or Université de Moncton. Flexibility in delivery (e.g., modular micro-credentials) would be essential to reach working adults or those with caregiving responsibilities. Stakeholders noted existing programs (e.g., NBCC's Forestry Equipment Operator program) could form the base for further expansion.

Additionally, a recently introduced high-school forestry course was viewed positively, though it currently reaches only a limited number of students. Expanding such programs could help introduce young workers to the industry earlier and strengthen long-term workforce development.

4.6.3 Recruitment Barriers

Recruitment remains a challenge, particularly due to competition from other sectors such as construction and trucking, which often offer higher or more stable wages. Additionally, comparatively low nominal forestry wages in New Brunswick contribute to the perception that wages in the sector are low, which likely plays a role in the outmigration of skilled workers (**Appendix C**). A lack of public awareness regarding career pathways and misconceptions about earning potential in forestry further limits new talent entering the industry.

4.6.4 Retention Challenges

Employees and apprentices cited long hours, remote worksites, and shift schedules as major factors complicating work-life balance, making retention more difficult. Additionally, some managers lack strong leadership and people-management skills, contributing to high turnover when supervision is ineffective. Lastly, family commitments and rural location preferences often influence workers' decisions to leave the industry.

These findings highlight both challenges and opportunities for workforce sustainability, emphasizing the need for stronger training initiatives, improved recruitment strategies, and enhanced retention efforts to build a resilient forestry labour market in New Brunswick.



5 CHALLENGES, STRATEGIES, AND RECOMMENDATIONS

The New Brunswick forestry industry is facing significant workforce challenges, ranging from labour shortages and skill gaps to wage competition and recruitment difficulties. As the industry grapples with an aging workforce and increasing outmigration, ensuring a steady supply of skilled workers is emerging as a key issue.

This section outlines the key challenges affecting the industry, including workforce demographics, competition from other industries, and training limitations. It also presents strategies and recommendations aimed at enhancing workforce recruitment, improving training pathways, and increasing industry competitiveness. By implementing mentorship programs, targeted education initiatives, and structured professional development, the forestry industry can build a more resilient and sustainable workforce for the future.

5.1 Challenges

The New Brunswick forestry industry faces several workforce challenges, particularly in labour supply, competition, and training opportunities. These issues impact both recruitment and retention, creating ongoing difficulties in maintaining a skilled and sustainable workforce.

5.1.1 Workforce Supply & Demographics

An aging workforce is nearing retirement, with limited younger replacements showing interest in forestry careers. Additionally, the rural nature of many worksites and non-traditional work hours make it harder to attract newcomers, particularly youth and immigrants, who may seek employment in more

accessible or urban-based industries. Further impacting the supply of labour, gender underrepresentation in the forest industry is stark, with men constituting approximately 88% of occupations.

Rural Infrastructure

In addition to data collected, literature highlights rural living as a major barrier to recruiting skilled professionals into the forestry workforce. Forestry operations are often located in rural regions, which are integral to New Brunswick's economy—especially as roughly 50% of Atlantic Canadians live in rural communities⁵. Yet, these communities struggle to retain youth and attract skilled workers.

Limitations in rural infrastructure make it difficult to retain current residents and appeal to new talent. Challenges include unreliable or unaffordable high-speed internet and mobile service—critical infrastructure for modern business operations, training, public safety, and accessing essential services⁵. These barriers not only restrict recruitment and retention but also slow technological and skills development in local industries.

Rural communities also report aging or inadequate infrastructure, including health care, childcare, housing, and education services. Limited public infrastructure deters seasonal workers and newcomers, while the lack of safe transportation and accessible medical services particularly affects seniors. Youth are often compelled to leave rural areas in pursuit of education and work opportunities.

Aging Demographics

The aging forestry workforce poses a major threat. As outlined in **Section 2.4**, between one-quarter and one-third of employees are aged 55 or older, with over half expected to retire within two decades. This mass retirement risks substantial knowledge loss and places mounting pressure on employers to fill these roles with skilled successors.

Roles critical to the forestry supply chain are already facing significant shortages, with projections indicating these gaps will widen. Competition for skilled youth is fierce across sectors, and forestry struggles to compete—particularly given its image issues and limited outreach⁶. Negative perceptions and lack of awareness about forestry careers make youth recruitment especially difficult.

Lack of Female Representation

The gender gap in forestry is significant, with men comprising approximately 88% of the workforce. Surveys in various industry subsectors reveal that 60% of women experienced unequal treatment based on gender, while 74% reported encounters with sexist behavior or harassment⁷. A striking 84% of respondents cited gender-based barriers—most notably discrimination, but also biases in promotion, unequal pay, and challenges balancing work and family.

⁵ Canadian Forest Service. (2024). Diversity in the Canadian forest sector: Trends, actions, and results.

⁶ Forests Ontario & Ontario Forest Industries Association. (2022). Youth's career journey and industry perceptions. Retrieved from:

https://downloads.ctfassets.net/e09p19lzfrfe/2Mvr9XFCX0vqjmPG4c2dxT/f9c118649e713c9424cae831fdcc6bac/Bridging_the_Gap_Youth_Report.pdf

⁷ Bardekjian, A. C., Nesbitt, L., Konijnendijk, C. C., & Lötter, B. T. Women in urban forestry and arboriculture: Experiences, barriers and strategies for leadership. *Urban Forestry & Urban Greening*.

These systemic barriers not only hinder efforts to achieve gender equity but also undermine the sector's ability to attract and retain diverse and capable talent.

5.1.2 Competition & Compensation

Forestry occupations compete directly with other sectors, such as construction and trucking, which often offer higher or more stable wages. This wage gap has contributed to outmigration, with many workers leaving for Western provinces where earnings and perceived opportunities are greater.

Lower Wages

When unadjusted for purchasing power and cost of living across Canadian provinces, New Brunswick offers substantially lower wages for forestry-related occupations—on average, about 12% below the Canadian average (**Appendix C**). This likely contributes to the strong perceptions captured during data collection, where compensation was frequently cited as a key barrier to recruitment, retention, and entry into the industry. However, these figures should be considered in the context of regional purchasing power—an area where New Brunswick performs exceptionally well due to its lower overall cost of living. When wages are adjusted accordingly, New Brunswick appears more competitive, offering wage advantages of 15% over Alberta, 37% over British Columbia, and 33% over Ontario. Wages are also roughly equivalent to those in Nova Scotia, while Quebec remains the only province where adjusted wages are higher than in New Brunswick, by approximately 8%.

All the percentages mentioned above are weighted based on the relative size of each occupation within Canada to allow for easier comparison across provinces; however, wage differences still vary significantly by individual occupation (see **Appendix C** and **Appendix D**). It should also be noted that constructing a generalized cost of living index is inherently challenging due to its multidimensional nature and the variation in costs experienced by different households.

Outmigration

While data on outmigration specific to forestry careers is unavailable, broader workforce trends offer useful context⁸. Between 2018/2019 and 2023/2024, New Brunswick experienced a 14% decline in total outmigration. This suggests that outmigration, though raised frequently by participants, may be lessening in severity. Outmigration over 2024 alone was recorded to be approximately 1% of the province's population.

Ontario (34%), Alberta (33%), and Nova Scotia (17%) were the top destinations for those leaving the province. Although British Columbia was often mentioned in interviews as a top draw for forestry workers, it accounted for only 8% of total outmigration.

5.1.3 Training & Skills Development

The limited availability of structured training programs, including micro-credentials, has restricted the number of qualified operators, technicians, and supervisors entering the industry. While many employers rely on on-the-job learning, they often struggle to invest in or standardize training, particularly as technology and industry demands evolve. Expanding education and training pathways could help address these gaps and strengthen workforce development.

⁸ Statistics Canada. Table 17-10-0022-01: Estimates of interprovincial migrants by province or territory of origin and destination, annual.

Literature from other Canadian jurisdictions supports these findings, indicating that access to high-quality training remains limited⁶. Common challenges include a lack of training institutions in rural areas, high program costs, logistical barriers, and low awareness among youth about forestry career pathways and available training opportunities.

5.2 Strategies & Recommendations

Addressing the unique workforce challenges in New Brunswick's forestry industry requires targeted strategies to improve labour supply, training opportunities, and industry competitiveness. The following recommendations focus on mentorship, education, industry branding, wage structures, and professional development to create a more sustainable and attractive workforce. It should be noted that responsibility for implementation of these recommendations has not been explicitly assigned as it is expected that a coordinated strategy will need to be developed.

5.2.1 Workforce Supply & Demographics

1. Mentorship programs to develop the next generation of managers, ensuring knowledge transfer and leadership succession.

An example of an effective mentorship initiative can be found in British Columbia's construction industry through the *Building Builders* program. Launched in 2022 and led by the BC Construction Association (BCCA), this province-wide program connects under- and unemployed individuals with experienced mentors across various construction disciplines. It addresses a longstanding challenge in the skilled trades—limited access to industry networks and personalized guidance—by pairing mentees with mentors who have at least a decade of experience. The program also integrates training on safety and workplace culture.

Key players include the BCCA (industry association and program lead), the Ministry of Employment and Social Development Canada (program funder), and early employer partners like Ellis Don and Penfolds Roofing. Training providers deliver Site Ready safety and Builders Code cultural competency training to support participants.

This model holds clear potential for application in the forestry industry, where similar challenges exist: an aging workforce, gaps in succession planning, and difficulty attracting young workers. By leveraging experienced professionals to mentor new entrants, the forestry sector could strengthen leadership development, accelerate career pathways, and ensure the continuity of industry knowledge. A branch of these mentorship initiatives could also be tailored to be inclusive and culturally responsive, with specific efforts to support underrepresented groups such as women, Indigenous Peoples, newcomers, and persons with disabilities.

2. Increased forestry education in high schools, integrating industry-relevant content to introduce students to career opportunities early.

New Brunswick has already taken important steps to introduce students to the forestry sector through the launch of Forestry 110, a high school course that provides a foundational understanding of the societal values placed on forested ecosystems, how forests are managed to reflect those values, and the

interactions between humans and forests⁹. Developed in partnership with industry and government, this course equips students with a well-rounded view of the sector and highlights the wide range of career opportunities it offers.

Feedback from stakeholders has been very positive, with the course seen as a valuable tool for early engagement. The main challenge identified has been its limited scale in terms of the number of students it can reach. Continued support for Forestry 110, along with an expansion of industry participation in schools, would help strengthen the program's impact and raise awareness among a broader audience.

Other research has noted that early exposure to forestry in the education system is critical—not only to help youth make informed career choices but also to shift outdated or negative perceptions of the industry⁶. Educating teachers alongside students ensures that information about forestry is accurate, up to date, and reflects the sector's commitment to sustainability. This is especially important in regions where concerns about deforestation and climate change have shaped public perception.

Building on the success of Forestry 110 and increasing the involvement of industry representatives in classrooms across the province will be key to supporting future workforce development and strengthening public understanding of modern forestry practices. Key players in executing this include industry associations, training institutions, government partners, and local school districts, who can collaborate to expand access, provide guest speakers, and align curriculum with real-world forestry opportunities.

3. Promotion of diverse forestry careers through open houses and job fairs, showcasing the wide range of opportunities beyond fieldwork.

Virtual and in-person open houses are powerful tools to highlight the broad range of career opportunities in forestry, extending far beyond traditional fieldwork roles. As an example in other Canadian jurisdictions, the University of British Columbia's Faculty of Forestry hosts a Virtual Open House that connects prospective students with faculty, current students, and advisors to explore different program options, campus life, and the diverse career paths in sustainability, conservation, and forestry¹⁰. This kind of initiative helps students visualize their future in the sector and understand how their skills and interests can align with various roles. Certain events could be designed to be accessible and inclusive, with targeted outreach to underrepresented communities and materials that reflect a diverse range of role models in the industry.

Here in New Brunswick, some training providers have already adopted similar approaches, hosting open houses that engage young people through interactive activities like forestry-related simulations. These events have been highly successful in sparking interest and showcasing the modern and technical sides of forestry careers. Feedback from survey participants indicates these experiences help make the industry more relatable and exciting for youth. Expanding these efforts across more forestry training providers in the province would help standardize this effective practice. Encouraging more institutions

⁹ New Brunswick Education. Forestry 110 curriculum. Retrieved from <https://curriculum.nbed.ca/learning-areas/high-school-block/science/forestry-110/>

¹⁰ University of British Columbia, Faculty of Forestry. UBC Forestry undergraduate virtual open house. Retrieved from <https://forestry.ubc.ca/future-students/undergraduate/virtual-open-house/>

to regularly host engaging, youth-focused events—whether virtual or in-person—can play a key role in improving recruitment, building industry awareness, and ultimately, strengthening the future workforce.

Key players in delivering these events include training institutions, industry associations, local schools, and government departments responsible for education and economic development, all of whom can collaborate to ensure consistent outreach, resource sharing, and broader provincial impact.

4. Industry-wide branding and promotion, emphasizing lower living costs and quality-of-life benefits to counteract wage competition from other regions and appeal to a larger labour pool.

Interview participants noted the success of industry-wide promotion efforts in other jurisdictions—particularly in Scandinavia—where forestry is advertised through public campaigns, such as posters, billboards, and transit ads. These highly visible initiatives help build a positive image of the sector, normalize forestry as a respected career path, and broaden its appeal among young people and underrepresented populations. The consistent messaging across public spaces contributes to public recognition and helps attract talent into the industry.

It is important to acknowledge that significant promotional efforts are already underway within New Brunswick's forestry sector. These include online career profiles hosted on government and industry websites, outreach by training institutions, and information sessions at schools. These existing initiatives lay a strong foundation for further action and demonstrate the sector's ongoing commitment to awareness and recruitment.

Nonetheless, outmigration remains a significant concern in New Brunswick, often driven by the pursuit of higher nominal wages in provinces like British Columbia and Ontario. To counteract this, interviewees suggested a more coordinated and visible branding and promotion strategy that not only builds on current efforts but also elevates them through consistent, province-wide messaging. A campaign that highlights New Brunswick's low cost of living, access to nature, community-oriented lifestyle, and growing career pathways in forestry could play a critical role in talent retention and attraction. This messaging should not only be deployed locally, but actively promoted nationwide to reach individuals and families seeking affordable alternatives to high-cost urban centers.

Key players in such a campaign would include Forest NB and industry associations and stakeholders, who can lead in shaping a unified message; training institutions and post-secondary partners like NBCC, MCFT, and UNB, who can support outreach and connect with student audiences; and provincial economic development agencies, who can provide funding and help align the campaign with broader population growth strategies. Collaboration with immigration services and regional marketing teams could also support targeting individuals looking to relocate from high-cost regions within Canada.

By positioning forestry careers within the broader narrative of lifestyle affordability, community, and career stability—and building on the efforts already in place—New Brunswick has an opportunity to improve sector visibility, challenge outdated perceptions, and reframe forestry as a career of choice in a province that offers a high quality of life. Incorporating messaging that highlights the industry's commitment to inclusive workplaces can also help broaden its appeal among underrepresented populations, reinforcing forestry as a welcoming and forward-looking sector.

5.2.2 Competition & Compensation

5. Competitive wage structures, including productivity-based incentives to reward high-performing workers with above-market pay, improving retention and attraction.

Across all methods of data collection, participants consistently identified perceptions of low wages as a major barrier to entering and remaining within the forestry industry. This aligns with wage data discussed in **Section 5.1.2**, which shows that although average compensation rates are highly competitive when adjusted for cost of living, they still fall behind the nominal wages offered in competing jurisdictions.

To enhance workforce attraction and retention, adopting a skill-based pay structure (also referred to as pay-for-knowledge or competency-based pay) would be highly beneficial. Skill-based pay ties employee compensation directly to the acquisition and mastery of relevant skills or certifications, rather than solely to tenure or job title. For example, a logging worker certified to operate multiple types of machinery would earn more than a colleague with fewer certifications. Such an approach encourages continuous learning and provides clear pathways for career progression, directly benefiting frontline workers.

Industries such as manufacturing and skilled trades have effectively implemented skill-based pay systems, creating a more adaptable and productive workforce with improved retention rates. Organizations that adopt these programs consistently report lower turnover and higher employee satisfaction, largely due to the clear opportunities they provide for staff to increase earnings through skill enhancement. For instance, the North Carolina US State Department of Transportation implemented skill-based pay for highway maintenance crews, resulting in significantly higher morale, reduced absenteeism, and lower turnover, as employees clearly recognized opportunities for wage advancement without needing to seek employment elsewhere¹¹.

Successfully establishing competitive, productivity-based wage structures within New Brunswick's forestry sector would require collaboration among key stakeholders, including industry associations, government bodies responsible for labor and economic development, forestry companies, and entities representing forestry workers.

6. Improve work-life balance through flexible scheduling options where feasible.

Improving work-life balance has become a critical factor in attracting and retaining workers, particularly among younger generations who increasingly value flexibility, personal well-being, and opportunities for professional growth. As noted in stakeholder feedback through interviews, there is growing recognition of the need to transition away from traditional business-as-usual practices—such as rigid schedules, limited flexibility, and minimal professional development—toward a more progressive approach that aligns with the expectations of today's workforce.

Flexible scheduling, where operationally feasible, can help forestry employers meet these expectations by allowing workers to better balance personal and professional responsibilities. Whether through

¹¹ Domico, D. (2000). Skill-based pay program for mechanics (No. E-C013).

adjusted start times, compressed workweeks, or rotational shifts, providing more autonomy over scheduling can significantly improve job satisfaction, reduce burnout, and enhance retention.

Incorporating these practices is not about compromising productivity; rather, it's about creating a more resilient, future-ready workforce. Aligning employment models with the values of younger workers—such as work-life balance, professional development, and opportunities for lateral movement—will be essential in modernizing the forestry sector and maintaining its long-term competitiveness.

Implementing flexible work arrangements will require buy-in and coordination among employers, and industry associations, with support from government to pilot and evaluate innovative workforce models that support both operational efficiency and worker well-being.

5.2.3 Training & Skills Development

7. Expanded educational pathways, in collaboration with post-secondary institutions, to introduce a “foundation year” in forestry, followed by specialized training streams.

Stakeholders in New Brunswick expressed strong interest in developing a structured “foundation year” in forestry—an educational pathway designed to give young adults and mid-career learners early exposure to core industry concepts, build essential workplace readiness, and help guide them into specialized training streams such as forest technology, machine operation, or business management.

This foundational year could be offered as a bridging or certificate program through institutions like the Maritime College of Forest Technology (MCFT) or New Brunswick Community College (NBCC), with possible academic linkages to degree pathways at the University of New Brunswick (UNB) or Université de Moncton. Building on existing programs—such as NBCC’s Forestry Equipment Operator program—would allow for continuity and a practical starting point for expansion.

Flexibility in program delivery will be essential. Offering modular formats or stackable micro-credentials would make the program more accessible to working adults, those with caregiving responsibilities, or learners seeking part-time options. In particular, developing accessible entry points that address barriers faced by equity-deserving groups—such as financial support, childcare access, and flexible delivery models—will be key to promoting broader participation and inclusive workforce development. This would not only broaden participation but also meet the evolving needs of today’s learners and employers.

Bringing this vision to life will require collaboration between post-secondary institutions, industry partners, and government, with shared input into curriculum development, funding models, and delivery approaches. A structured foundation year would help create clearer entry points into the sector, support lifelong learning, and ensure that the workforce is equipped with both technical skills and a strong understanding of the industry's environmental and economic context.

8. Industry-led certifications, establishing clear skill benchmarks for operators, technicians, and supervisors.

The Master Logger Certification (MLC) serves as a strong example of how industry-led certification systems can elevate professional standards in forestry¹². Originating in the U.S. Northeast and now adopted in multiple states, the MLC provides a third-party verified, measurable benchmark for logging contractors and crew leaders. The certification assesses logging businesses on a comprehensive set of criteria including worker safety, sustainable harvesting, forest stewardship, environmental protection, and sound business practices. The MLC is recognized internationally through its alignment with SmartLogging standards, helping certified companies stand out in the marketplace as leaders in responsible forestry. Purchasers and forest owners often prefer or require contractors with this certification, viewing it as a signal of professionalism and reduced operational risk.

This type of model could be highly beneficial for New Brunswick. While existing training and safety standards are in place, a province-wide, industry-led certification system would provide clearer benchmarks for the competencies expected of operators, technicians, and supervisors—while also promoting continuous improvement. It would support workforce development, improve employer confidence, and enhance the reputation of forestry operations in both domestic and international markets.

It is important to recognize similar efforts that are already being carried out in New Brunswick. One such initiative is the Forest Equipment Operator (FEO) certification program, introduced in October 2022 as a newly designated trade under the province's *Apprenticeship and Occupational Certification Act*. This certification pathway for mechanized forestry equipment operators requires a minimum of 4,000 hours of work experience and the successful completion of a practical assessment covering mechanical skills, safety, environmental awareness, tree species and product knowledge, and applied operating competencies¹³. Although the program was temporarily paused in 2023 to incorporate stakeholder feedback, work has continued throughout 2023–2024 to refine the certification structure and align it with broader training initiatives. Certification testing is being finalized, with plans to resume in 2025, delivered through the *New Brunswick Department of Post-Secondary Education, Training and Labour*. The program is a collaborative effort between government, Forest NB, and major industry partners such as J.D. Irving, Ltd., who championed its development. Its overarching goal is to professionalize the role of forest equipment operators and help address skilled labour shortages by recognizing these positions as formal, rewarding career paths.

Developing such a certification in New Brunswick, whether by building on the FEO model or expanding certification to other roles, would require collaboration between industry associations, major forestry employers, and training providers, with support from government to ensure alignment with broader workforce development strategies. By taking the lead in defining excellence, the sector can ensure that its workforce is not only job-ready but also recognized for meeting the highest standards of safety, sustainability, and professionalism.

¹² Professional Logging Contractors of the Northeast. (2025). Master Logger Certification. Retrieved from <https://masterloggercertification.com/>

¹³ Irving Woodlands. (2023). State of the Working Forest. Retrieved from https://www.irvingwoodlands.com/uploadedFiles/Healthy_Forests_Testing/Report_Cards/WDLS%20-%202023%20State%20of%20the%20Forest%20-%20Web%202024.pdf

9. Integrated professional development, offering technical training in harvesting and machinery operations alongside soft skills training in leadership and team management for contractors.

New Brunswick can look to Australia's *ForestFit* program as a strong model for developing an integrated professional development and certification framework for forestry contractors¹⁴. Launched in partnership between the Australian Forest Contractors Association (AFCA) and the New South Wales government, ForestFit offers a blended training curriculum that combines technical instruction with soft skills development—supporting contractors not just as operators, but as business leaders and managers.

The program is designed specifically for owners, managers, and emerging leaders of forestry contracting businesses. It covers essential operational competencies—such as harvesting techniques, regulatory compliance, and risk management—alongside leadership and people management skills, including communication, safety culture, and team coordination. This dual focus ensures contractors are equipped to lead efficient, safe, and sustainable operations.

This model offers valuable lessons for New Brunswick. While technical training exists, there is a clear opportunity to embed business and leadership training into the development pipeline for forestry contractors. A New Brunswick-based version could be developed collaboratively by industry associations, training institutions (such as MCFT or NBCC), and provincial government partners, with certification standards co-developed by major forestry employers to meet real-world expectations.

Expanding professional development in this integrated way would uplift the overall capability of contracting crews, ensure stronger alignment with environmental and safety goals, and build a resilient, future-ready forestry workforce.

5.3 More Initiatives Being Carried Out By Other Jurisdictions

5.3.1 Nova Scotia

Also in Atlantic Canada, Nova Scotia is a key player in the forestry industry at both the regional and federal levels. Similar to other provinces, it offers training programs through post-secondary institutions specializing in forestry and forestry-related disciplines. Notably, there has been a partnership between the province and training institutions, such as Dalhousie University, to explore new forestry models¹⁵. This research focuses on three key areas: roads and biodiversity, carbon, and knowledge sharing. For instance, research teams are investigating the impact of forestry roads, aiming not only to assess their effects on current and future biodiversity but also to collaborate with the community to explore their potential for recreational opportunities. Additionally, there are partnerships with Indigenous communities, such as the Mi'kmaq Forestry Initiative (MFI), which serves Mi'kmaw communities by supporting sustainable economic opportunities and promoting community prosperity through ecological practices and traditional Mi'kmaq knowledge¹⁶. Another remarkable effort is the Timber Queen conferences led by the Forestry Sector Council of the province¹⁷. These conferences aim to share stories of extraordinary women, provide practical workshops, foster networking opportunities, and empower women within the forestry industry.

¹⁴ Australian Forest Contractors Association. (2025). ForestFit. Retrieved from <https://www.afca.asn.au/forestfit>

¹⁵ Dal News. (2023, May 17). Retrieved from <https://www.dal.ca/news/2023/05/17/forestry-nova-scotia-ecology.html>

¹⁶ Kwilmu'kw Maw-klusuaqn. Retrieved from: <https://mikmaqrights.com/>

¹⁷ Forestry Sector Council. Event calendar. Retrieved from <https://secure.forestrysectorcouncil.ca/events/event-calendar.html/event-info/details/id/21>

5.3.2 British Columbia

Proactive measures are being taken in British Columbia to address the challenges faced by the forestry sector through educational innovation and infrastructure development. The province is creating a publicly accessible database of forest education programs to enhance awareness of the educational opportunities available across the province, encouraging more individuals to consider careers in forestry¹⁸. Information about education programs and financial support is crucial for career planning activities, providing an up-to-date reference for use by career counsellors and youth making education decisions. Also in British Columbia, Canfor in Prince George is repurposing an unused sawmill into a training facility for skilled workers, illustrating a strategic approach to leveraging existing resources and infrastructure to bolster local workforce skills and readiness¹⁹. Meanwhile, Vancouver Island University (VIU) offers a comprehensive suite of forestry programs tailored to diverse student needs, significantly contributing to workforce development²⁰. The two-year Forest Resources Technology Diploma, accredited by the Association of BC Forest Professionals, lays a foundation for further education in various related fields. Graduates may pursue a Bachelor of Science in Forestry at the University of British Columbia (UBC), a Bachelor of Natural Resource Protection, or a Bachelor of Arts in Geography at VIU, or an advanced diploma in Geographic Information Systems (GIS) from VIU. Additionally, VIU provides a one-year bridging program allowing diploma holders to enter directly into the third year of UBC's forestry program, as well as specific upgrading programs for students aiming to enroll in the Forest Resources Technology Diploma program.

5.3.3 Ontario

Ontario has seen success in strengthening the forestry sector by forming partnerships and enhancing connections with young people, immigrants, and Indigenous communities²¹. This approach is grounded in the recognition that a diverse and well-informed workforce is crucial for the sector's sustainability and growth.

Research conducted in the province also underscores the importance of early engagement in the forestry industry²². Introducing youth to the sector—particularly in high school—helps students become aware of the job options available in forestry and the corresponding educational pathways required, allowing them to make informed decisions about their future careers. Additionally, educating teachers about the sector is crucial in combating prevalent negative views that portray forestry merely in terms of tree cutting, deforestation, and its impact on climate change. These perceptions are notably strong in Northern and Central Ontario, where there is significant concern about whether forests are being managed sustainably.

¹⁸ Zielke Consulting Ltd. Retrieved from: <https://cofi.org/wp-content/uploads/Forestry-Council-of-Forest-Industries-Strategic-Plan-Jan-2017.pdf>

¹⁹ Columbia Basin RDI. Forestry workforce knowledge brief. Retrieved from <http://datacat.cbrdi.ca/sites/default/files/attachments/Forestry%20Workforce%20Knowledge%20Brief-FINAL.pdf>

²⁰ Outland Youth Employment Program (OYEP). Retrieved from: <https://www.oyep.ca/>

²¹ Northern Ontario Business. (2023). Forestry is going gangbusters in Northwestern Ontario. Retrieved from <https://www.northernontariobusiness.com/jobs-of-the-future/jobs-of-the-future-forestry-is-going-gangbusters-in-northwestern-ontario-6775518>

²² Forests Ontario. Bridging the gap: Labour shortage report. Retrieved from https://assets.ctfassets.net/e09p19lzfrfe/32WNgbzqDYsDHLc8YOyHJQ/425483751d6419af77caad6fdb39e051/Bridging_the_Gap_Labour_Shortage_Report.pdf

Despite the availability of on-the-job training, only 34% of graduates in Ontario feel adequately prepared when entering the forestry industry²². This highlights a gap in educational outcomes and workplace expectations, suggesting a need for more comprehensive training programs. Employers acknowledge this gap, with many offering initial training, yet employees express a need for ongoing professional development. Work-integrated learning (i.e., apprenticeship or co-operative education) has become a highly preferred method among forestry workers.

5.3.4 Outside of Canada

Globally, technological advancements have led to significant mechanization and automation of logging operations, demanding new skills and training for operating sophisticated machinery²³. In 2015, Finland adopted the National Forest Strategy, which outlines objectives for forestry and related industries until the year 2050. The National Forest Strategy is periodically updated to reflect current objectives and their related strategic actions²⁴. The Finnish National Forestry Strategy relies on cross-sectorial collaboration between government ministries, education and training providers, businesses in related sectors, and environmental organizations to ensure the successful achievement of shared goals for the development and sustainability of the forestry industry. Furthermore, the Finnish National Forestry Strategy prioritizes collaboration with educational and training providers in order to support the availability of a skilled workforce²⁴.

Several countries are reporting increased interest in forestry education at a post-secondary level following their investment in educational infrastructure. For example, Brazil offers 74 forest engineering undergraduate programs available across 64 institutions, which ensures that at least one institution in each state offers an undergraduate forest engineering program²³. In China, there has been an increase in workers graduating with certifications from the 23 forest-related programs offered at 9 academic institutions, indicating a concerted effort to scale up the educational framework in response to industry demands²³. Additionally, Germany reports that enrollment numbers in forest science and forestry programs, which are available at 4 universities and 5 universities of applied sciences, have been steadily increasing since early 2010²³. Similarly, the US has experienced an increase in undergraduate program enrollments, although there has been a decrease in graduate program enrollments. The trend in the US leans towards environmental and conservation-related programs, a pattern which was also observed in Germany.

The UK has responded to the evolving needs of the forestry sector by recommending the development of a new Forestry Training Hub to foster connections between higher education, employers, and the industry²⁵. This initiative aims to integrate best practices, online learning resources, and create a platform for business engagement with apprentices. The UK has recorded many similar training hubs, including the Forestry Learning Network, which allows for cross-sector information sharing and networking opportunities between academic institutions and businesses²³.

²³ The European Forest Institute. (2021). Trends in forest-related employment and tertiary education. Retrieved from https://efi.int/sites/default/files/files/publication-bank/2021/Trends%20in%20forest-related%20employment%20and%20tertiary%20education_final.pdf

²⁴ Ministry of Agriculture and Forestry in Finland (2019). The National Forest Strategy 2025. <http://urn.fi/URN:ISBN:978-952-366-006-9>

²⁵ Chartered Foresters. Forestry skills crisis puts climate targets at risk. Retrieved from <https://www.charteredforesters.org/forestry-skills-crisis-puts-climate-targets-at-risk>

In Australia, the Forestry Workforce Training Program (FWTP) is under development, with a pilot testing having begun in March 2025²⁶. The program focuses on skills recognition, trainer and assessor capacity development, micro-credentials for skill development, workforce diversity and inclusion, and the development of training materials and systems. This initiative represents Australia's strategic approach to creating a flexible, skilled, and diverse forestry workforce ready to meet the challenges of modern forestry operations.

5.4 Coordination of Key Strategies

Implementation of the various strategies outlined in this project will require coordination of efforts across industry (employers and labour), as well as education and training providers and various government agencies (federal and provincial governments). Forest NB is well-positioned to manage this activity although there may be an opportunity to establish a more formal relationship with various partners to advance the findings and recommendations detailed in this report.

5.5 Further Research Recommendations

To better understand and respond to ongoing workforce challenges in the forestry sector, a comprehensive supply and demand analysis is needed. This research should assess the availability of newly trained individuals entering the industry, both from forestry-specific and related training programs, and examine how this supply aligns with current and future occupational demands. Special attention should be given to roles shared across multiple sectors—such as construction, oil and gas, and mining—where competition for talent may be particularly strong.

The analysis should also explore the extent to which changes in Canada's immigration policies could affect workforce availability, particularly in regions that rely on international talent. Additionally, understanding current outmigration trends—especially among younger workers or those pursuing higher wages in other provinces—will help quantify the talent drain from the forestry industry.

²⁶ Department of Agriculture, Water and the Environment (Australia). Forestry workforce training program: Scoping study. Retrieved from <https://www.agriculture.gov.au/sites/default/files/documents/forestry-workforce-training-program-scoping-study.pdf>

APPENDIX A: DESCRIPTION OF OCCUPATIONS OF INTEREST

Occupation	Job Description	Education Requirements	Skills Associated with Occupation
Forestry professionals (NOC 21111)	Forestry professionals conduct research, develop plans and administer and direct programs related to the management and harvesting of forest resources. They are employed by the forest industry, provincial and federal governments, consulting companies, educational institutions and other industries, or they may be self-employed.	University	<ul style="list-style-type: none"> - Monitoring - Evaluation - Coordinating - Time Management - Management of Personnel Resources
Forestry technologists and technicians (NOC 22112)	Forestry technologists and technicians may work independently or perform technical and supervisory functions in support of forestry research, forest management, forest harvesting, forest resource conservation and environmental protection. They are employed by the forest industry sector, provincial and federal governments, consulting firms, and other industries and institutions, or they may be self-employed.	College or apprenticeship	<ul style="list-style-type: none"> - Coordinating - Instructing - Monitoring - Time Management - Management of Personnel Resources
Construction millwrights and industrial mechanics (NOC 72400)	Construction millwrights and industrial mechanics install, maintain, troubleshoot, overhaul and repair stationary industrial machinery and mechanical equipment. This unit group includes industrial textile machinery mechanics and repairers. Construction millwrights are employed by millwrighting contractors. Industrial mechanics are employed in manufacturing plants, utilities and other industrial establishments. Apprentices are also included in this unit group.	College or apprenticeship	<ul style="list-style-type: none"> - Operation Monitoring of Machinery and Equipment - Troubleshooting - Preventative Maintenance - Setting Up - Repairing
Supervisors, logging and forestry (NOC 82010)	Supervisors in logging and forestry supervise and coordinate the activities of workers engaged in logging operations and silvicultural operations. They are employed by logging companies, contractors and government agencies.	College or apprenticeship	<ul style="list-style-type: none"> - Monitoring Time Management - Management of Personnel Resources - Management of Material Resources - Operation and Control
Silviculture and forestry workers (NOC 84111)	Silviculture and forestry workers perform a variety of duties related to reforestation and to the management, improvement and conservation of forest lands. They are employed by logging companies, contractors and government services.	High school or specific training	<ul style="list-style-type: none"> - Management of Material Resources - Quality Control Testing - Operation Monitoring of Machinery and Equipment - Troubleshooting - Operation and Control
Logging and forestry labourers (NOC 85120)	Logging and forestry labourers perform a variety of manual tasks such as attaching choker cables to logs, planting trees, clearing brush, spraying chemicals, cleaning up landing areas and assisting other workers in	On-the-job training	<ul style="list-style-type: none"> - Quality Control Testing - Preventative Maintenance - Repairing

Occupation	Job Description	Education Requirements	Skills Associated with Occupation
	woodlands operations. They are employed by logging companies and contractors.		<ul style="list-style-type: none"> - Equipment and Tool Selection - Monitoring
Labourers in wood, pulp and paper processing (NOC 95103)	Labourers in wood, pulp and paper processing carry out a variety of general labouring and routine wood processing activities and assist pulp mill and papermaking machine operators. They are employed by pulp and paper, and paper converting companies, sawmills, planing mills, wood treatment plants, waferboard plants and other wood processing companies.	On-the-job training	<ul style="list-style-type: none"> - Quality Control Testing - Operation Monitoring of Machinery and Equipment - Preventative Maintenance - Operation and Control - Equipment and Tool Selection
Logging machinery operators (NOC 83110)	Logging machinery operators operate cable yarding systems, mechanical harvesters and forwarders and mechanical tree processors and loaders to fell, yard and process trees at logging sites. They are employed by logging companies and contractors.	Post-secondary or apprenticeship	<ul style="list-style-type: none"> - Operation and Control - Operation Monitoring of Machinery and Equipment - Troubleshooting - Quality Control Testing - Preventative Maintenance
Silviculture and forestry workers (NOC 84111)	Silviculture and forestry workers perform a variety of duties related to reforestation and to the management, improvement and conservation of forest lands. They are employed by logging companies, contractors and government services.	High school or specific training	<ul style="list-style-type: none"> - Management of Material Resources - Quality Control Testing - Operation Monitoring of Machinery and Equipment - Troubleshooting - Operation and Control
Supervisors, forest products processing (NOC 92014)	Supervisors in forest products processing supervise and coordinate the activities of workers engaged in pulp and paper production and wood processing and manufacturing. They are employed by pulp and paper companies, paper converting companies, sawmills, planing mills, wood treatment plants, waferboard plants and other wood processing companies.	College or apprenticeship	<ul style="list-style-type: none"> - Monitoring - Time Management - Management of Personnel Resources - Management of Material Resources - Coordinating
Pulping, papermaking and coating control operators (NOC 93102)	Pulping, papermaking and coating control operators operate and monitor multi-function process control machinery and equipment to control the processing of wood, scrap pulp, recyclable paper, cellulose materials, paper pulp and paperboard. They are employed by pulp and paper companies.	Post-secondary or apprenticeship	<ul style="list-style-type: none"> - Monitoring - Management of Material Resources - Quality Control Testing - Operation Monitoring of Machinery and Equipment - Troubleshooting
Sawmill machine operators (NOC 94120)	Sawmill machine operators operate, monitor and control automated lumbermill equipment to saw timber logs into rough lumber; saw, trim and plane	High school or specific training	<ul style="list-style-type: none"> - Operation Monitoring of Machinery and Equipment

Occupation	Job Description	Education Requirements	Skills Associated with Occupation
	rough lumber into dressed lumber of various sizes; and saw or split shingles and shakes. They are employed in sawmills and planing mills.		<ul style="list-style-type: none"> - Troubleshooting - Preventative Maintenance - Operation and Control Monitoring
Pulp mill, papermaking and finishing machine operators (NOC 94121)	Pulp mill and papermaking and finishing machine operators operate and monitor various types of processing machinery and equipment to produce pulp and assist papermaking and coating control operators to produce, coat and finish paper. They are employed by pulp and paper companies.	High school or specific training	<ul style="list-style-type: none"> - Operation and Control - Quality Control Testing - Operation Monitoring of Machinery and Equipment - Troubleshooting - Monitoring
Lumber graders and other wood processing inspectors and graders (NOC 94123)	Lumber graders and other wood processing inspectors and graders inspect and grade lumber, shingles, veneer, waferboard and similar wood products to identify defects, ensure conformance to company specifications and classify products according to industry standards. They are employed by sawmills, planing mills, wood treatment plants, waferboard plants and other wood processing companies.	High school or specific training	<ul style="list-style-type: none"> - Quality Control Testing - Coordinating - Monitoring - Management of Material Resources - Operation and Control
Other wood processing machine operators (NOC 94129)	Other wood processing machine operators operate and tend wood processing equipment and machines to remove bark from logs, produce wood chips, preserve and treat wood, and produce waferboards, particleboards, hardboards, insulation boards, plywood, veneers and similar wood products. They are employed in sawmills, woodrooms of pulp mills, planing mills, wood treatment plants, waferboard plants and other wood processing plants.	High school or specific training	<ul style="list-style-type: none"> - Operation and Control - Quality Control Testing - Operation Monitoring of Machinery and Equipment - Troubleshooting - Preventative Maintenance

APPENDIX B: WORKFORCE DEMAND PROJECTIONS

The following labour demand projections for the next five to ten years are based on a combination of multiple data sources and assumptions. Vacancy rates were derived from the data collected through the Employer Survey, shown in **Section 3.1**. Growth-related needs reflect the sectoral expansion estimates developed in this study, presented in **Section 3.2**. Anticipated retirements account for the expected departure of workers aged 55 and older, who represent a significant portion of the current workforce (**Section 2.4**). These projections are further contextualized and expanded using demographic and labour force information drawn from the 2021 Census and the Labour Force Survey (**Section 2.1**), enabling a broader estimate of the available labour pool and future hiring needs across key forestry occupations in New Brunswick. In total, projected workforce demand is estimated to be 3,214 positions—representing approximately 39% of the current forestry labour force.

It is important to interpret these projections within the context of the study's limitations, which are outlined in **Section 1.8**.

Occupation	Number of Employees (Reported by Employers)	Vacancy Rate	Estimated Available Labour Pool	Estimated Number of Vacancies in Labour Pool	Need from Growth (4.2%)	Retirement Needs	Projected Number of Employees Needed
Forestry professionals, technologists and technicians	343	1%	645	5	45	186	236
Logging and forestry labourers	624	1%	345	4	14	27	46
Logging machinery operators	333	14%	605	84	25	168	277
Millwright	325	11%	1930	208	81	564	853
Nursery and greenhouse labourers	19	0%	770	0	32	230	262
Sawmill machine operators	426	4%	495	20	21	126	167
Silviculture workers	162	7%	645	44	27	200	271
Supervisors forest products processing	179	7%	410	27	17	141	186
Supervisors logging and forestry	129	1%	440	3	18	164	186
Wood processing and lumber graders and inspectors	31	13%	180	23	8	90	121
Wood pulp and paper processing workers	559	4%	1795	77	75	457	610
Total	3,130	6%	8,260	496	365	2,354	3,214

Note: For the purposes of estimating the number of vacancies, forestry professionals were grouped with forest technologists and technicians. While the table presents the entire row as a combined category, this grouping affects only the estimated number of vacancies. The figures for projected growth and retirement needs were calculated independently for each occupation and aggregated at the end for reporting purposes. A similar approach is used in **Section 3.4** to project anticipated training demand; however, in that analysis, these two occupations are not grouped together and are treated separately to better reflect distinct training pathways.

APPENDIX C: MEDIAN HOURLY WAGES FOR FORESTRY RELATED OCCUPATIONS

The following table presents median hourly wage data for key forestry-related occupations across Canadian provinces, as reported by the Canada Job Bank². These figures reflect the most recent available data and offer a comparative snapshot of compensation levels by region. Where data is not available, "N/A" is shown. Note that Yukon Territory, Prince Edward Island, Nunavut, Northwest Territories, and Newfoundland and Labrador are not included in this table due to limited or unavailable data.

Occupation	Canada	Alberta	British Columbia	Manitoba	New Brunswick	Nova Scotia	Ontario	Quebec	Saskatchewan
Forestry professionals	\$ 40.00	\$ 43.13	\$ 40.00	N/A	\$ 40.00	\$ 43.75	\$ 37.52	\$ 49.00	N/A
Forestry technologists and technicians	\$ 30.00	\$ 40.85	\$ 32.00	N/A	\$ 30.80	N/A	\$ 29.81	\$ 30.00	\$ 29.50
Construction millwrights and industrial mechanics	\$ 35.0	\$ 39.2	\$ 40.0	\$ 32.9	\$ 30.0	\$ 32.0	\$ 35.0	\$ 32.0	\$ 41.0
Supervisors, logging and forestry	\$ 33.6	\$ 33.6	\$ 41.9	N/A	\$ 26.9	\$ 26.2	\$ 40.0	\$ 29.8	N/A
Logging machinery operators	\$ 32.0	\$ 34.0	\$ 34.3	\$ 28.2	\$ 23.0	\$ 24.0	\$ 30.0	\$ 28.0	\$ 28.6
Silviculture and forestry workers	\$ 24.0	\$ 22.0	\$ 26.0	\$ 19.2	\$ 23.7	\$ 22.1	\$ 24.4	\$ 25.0	\$ 20.0
Nursery and greenhouse labourers	\$ 19.0	\$ 19.0	\$ 17.9	\$ 17.2	\$ 18.0	\$ 16.8	\$ 19.5	\$ 18.5	\$ 15.5
Logging and forestry labourers	\$ 27.0	\$ 24.0	\$ 32.1	\$ 25.0	\$ 21.0	\$ 20.0	\$ 27.0	\$ 29.8	\$ 23.0
Supervisors, forest products processing	\$ 34.6	\$ 38.0	\$ 39.5	\$ 27.4	\$ 34.0	\$ 34.0	\$ 33.7	\$ 31.3	\$ 34.3
Pulping, papermaking and coating control operators	\$ 36.5	N/A	N/A	N/A	N/A	N/A	\$ 34.8	\$ 35.0	N/A
Sawmill machine operators	\$ 26.0	\$ 35.0	\$ 32.0	N/A	\$ 20.2	\$ 20.0	\$ 21.0	\$ 25.0	\$ 31.3
Pulp mill, papermaking and finishing machine operators	\$ 31.0	\$ 45.5	\$ 37.0	\$ 28.0	\$ 36.5	\$ 31.2	\$ 24.0	\$ 30.0	N/A
Lumber graders and other wood processing inspectors and graders	\$ 25.8	\$ 38.2	\$ 30.0	N/A	\$ 23.0	N/A	\$ 23.3	\$ 25.0	N/A
Other wood processing machine operators	\$ 21.5	\$ 21.0	\$ 25.0	\$ 18.8	\$ 20.0	N/A	\$ 20.8	\$ 21.5	N/A
Labourers in wood, pulp and paper processing	\$ 23.0	\$ 23.0	\$ 31.5	\$ 18.0	\$ 21.7	\$ 20.6	\$ 21.0	\$ 22.7	\$ 20.0

APPENDIX D: MEDIAN HOURLY WAGES FOR FORESTRY RELATED OCCUPATIONS (ADJ. BY COST OF LIVING)

Acknowledging that wages are influenced by a range of factors, the table below offers an alternate perspective by adjusting median wages using the cost of living index reported by Westland Insurance²⁷. To enable comparison across provinces, each region's cost of living index is normalized against New Brunswick's, which is set as the baseline (1.0). The adjustment factor is calculated by dividing New Brunswick's index by the index of each province. This provides a relative measure of purchasing power that helps contextualize how far wages may go in each jurisdiction, when accounting for regional differences in cost of living.

Costs of Living Across Canadian Provinces

	Alberta	British Columbia	Manitoba	New Brunswick	Nova Scotia	Ontario	Quebec	Saskatchewan
Cost of Living	67.0	79.0	61.0	55.4	56.0	71.0	55.2	60.0
Adjustment Factor; New Brunswick Index	0.8	0.7	0.9	1.0	1.0	0.8	1.0	0.9

The following table presents the median hourly wages for a range of forestry-related occupations across select Canadian provinces (shown in **Appendix C**), alongside their associated national labour force sizes. The figures are intended to offer insight into regional compensation trends based on the most recently available data. To provide a more meaningful overall comparison, a weighted average wage is calculated for each province using national labour force sizes²⁸ as weights, ensuring that more prevalent occupations have a proportionally greater influence on the average. These wages have also been adjusted using the cost of living adjustment factors shown in the previous table, which normalize regional earnings based on the cost of living index relative to New Brunswick. Where data was not available, "N/A" is shown.

Median Hourly Wages for Forestry Occupations by Province, Adjusted for Cost of Living

Occupation	LF Size	Canada (unadjusted)	Alberta	British Columbia	Manitoba	New Brunswick	Nova Scotia	Ontario	Quebec	Saskatchewan
Construction millwrights and industrial mechanics	64690	\$ 35.0	\$ 26.8	\$ 19.7	\$ 27.1	\$ 30.0	\$ 31.3	\$ 21.3	\$ 32.2	\$ 35.0
Supervisors, logging and forestry	6320	\$ 33.6	\$ 23.0	\$ 20.6	N/A	\$ 26.9	\$ 25.6	\$ 24.4	\$ 30.0	N/A
Logging machinery operators	6625	\$ 32.0	\$ 23.2	\$ 16.9	\$ 23.3	\$ 23.0	\$ 23.5	\$ 18.3	\$ 28.2	\$ 24.4

²⁷ Insurance Business Canada. (2023, October 16). Canada's most expensive provinces to live in revealed. Retrieved from <https://www.insurancebusinessmag.com/ca/news/breaking-news/canadas-most-expensive-provinces-to-live-in-revealed-462252.aspx>

²⁸ Statistics Canada. Table 98-10-0449-01 Occupation unit group by labour force status, highest level of education, age and gender: Canada, provinces and territories, census metropolitan areas and census agglomerations with parts

Occupation	LF Size	Canada (unadjusted)	Alberta	British Columbia	Manitoba	New Brunswick	Nova Scotia	Ontario	Quebec	Saskatche- wan
Silviculture and forestry workers	7355	\$ 24.0	\$ 15.0	\$ 12.8	\$ 15.8	\$ 23.7	\$ 21.6	\$ 14.9	\$ 25.2	\$ 17.1
Nursery and greenhouse labourers	17535	\$ 19.0	\$ 13.0	\$ 8.8	\$ 14.1	\$ 18.0	\$ 16.4	\$ 11.9	\$ 18.6	\$ 13.2
Logging and forestry labourers	5240	\$ 27.0	\$ 16.4	\$ 15.8	\$ 20.6	\$ 21.0	\$ 19.6	\$ 16.4	\$ 30.0	\$ 19.6
Supervisors, forest products processing	5500	\$ 34.6	\$ 26.0	\$ 19.4	\$ 22.6	\$ 34.0	\$ 33.3	\$ 20.5	\$ 31.5	\$ 29.2
Pulping, papermaking and coating control operators	710	\$ 36.5	N/A	N/A	N/A	N/A	N/A	\$ 21.2	\$ 35.3	N/A
Sawmill machine operators	6165	\$ 26.0	\$ 23.9	\$ 15.7	N/A	\$ 20.2	\$ 19.6	\$ 12.8	\$ 25.2	\$ 26.6
Pulp mill, papermaking and finishing machine operators	4870	\$ 31.0	\$ 31.1	\$ 18.2	\$ 23.1	\$ 36.5	\$ 30.6	\$ 14.6	\$ 30.2	N/A
Lumber graders and other wood processing inspectors and graders	2480	\$ 25.8	\$ 26.1	\$ 14.8	N/A	\$ 23.0	N/A	\$ 14.2	\$ 25.2	N/A
Other wood processing machine operators	2115	\$ 21.5	\$ 14.4	\$ 12.3	\$ 15.5	\$ 20.0	N/A	\$ 12.7	\$ 21.7	N/A
Labourers in wood, pulp and paper processing	17830	\$ 23.0	\$ 15.7	\$ 15.5	\$ 14.8	\$ 21.7	\$ 20.2	\$ 12.8	\$ 22.9	\$ 17.1
Average (weighted by national labour force size)		\$ 29.8	\$ 22.8	\$ 16.9	\$ 22.1	\$ 26.8	\$ 26.7	\$ 18.0	\$ 28.9	\$ 26.7

APPENDIX E: EMPLOYER SURVEY

Introduction

Forest NB, with funding from the Department of Post-Secondary Education, Training, and Labour, have commissioned a province-wide Labour Market Study to examine the current state of the forestry sector, and related sector workforces. The goal of this research is to better understand current trends, emerging issues, and best practices in the training, recruitment, and retention of the forestry sector workforce.

This survey asks questions about your businesses' current labour force, what your current training and skills needs are, and how these needs could be met in the future. The survey should take about 20 minutes to complete. We recommend the survey be completed by someone at your business who is knowledgeable about hiring and training needs, such as a human resources manager or a general manager.

R.A. Malatest and Associates Ltd. (Malatest) is administering this survey. All information collected will be maintained in strict accordance with applicable provincial privacy legislation. Survey results will be reported in aggregate, so that no individual or business will be identifiable. Click here to view our [Privacy Statement](#).

Your assistance with this research is greatly appreciated! As a thank you for taking the time to contribute to this important research, we will send you a copy of the final report at the conclusion of this study in March 2025.

<Start Survey>

Section A: Business Information

This first set of questions is related to the structure of your business.

A0. [For open link only] What is the name of your business? _____ [limit to 300 characters]

A1. What is the title of your position? Please select one.

- ☐ Owner / President / CEO / CFO
- ☐ Vice President or Director
- ☐ Senior Manager or Administrator
- ☐ Human Resource Manager or Specialist
- ☐ Other, please specify: **[Text Field 250 characters]**
- ☐ Don't know / Prefer not to answer

A2. In what regions of New Brunswick does your business have worksites? Please select all that apply.
[multiple selection]

- ☐ Northeast (Northumberland, Restigouche, and Gloucester counties)
- ☐ Southeast (Albert, Westmorland, and Kent counties)
- ☐ Southwest (Saint John, Kings and Charlotte counties)
- ☐ Central (York, Sunbury, and Queens counties)
- ☐ Northwest (Carleton, Victoria, and Madawaska counties)
- ☐ None of the above, my business does not have worksites in New Brunswick → **Exit survey**

A3. In what sub-sector of the Forestry Industry does your business operate? Please select the one sub-sector that reflects your primary focus.

- ☐ Timber tract operations
- ☐ Logging
- ☐ Specialized freight trucking
- ☐ Forest nurseries and greenhouses
- ☐ Silviculture
- ☐ Sawmill or other wood manufacturing
- ☐ Lumber grading or other wood processing inspecting
- ☐ Pulp, paper, and paperboard manufacturing
- ☐ Other, please specify: [Text Field 250 characters]
- ☐ Don't know / Prefer not to answer
- ☐ None of the above → **Exit survey**

Termination Text:

Screen out Text [Present only if answered "None of the above" to A2 and A3]

Thank you for your interest in this survey. This study is focusing on labour market issues for Forestry Industry employers in New Brunswick only. You have indicated that **you have no operations in N.B. OR that your business does not provide services related to the Forestry industry**. Out of respect for your time, we will end the survey here.

Annette Nicoletti-Carriere
Research Assistant, R.A. Malatest & Associates
a.nicoletti-carriere@malatest.com
1-800-665-5848 ext. 503

Section B: Current Workforce Information

This next section is about the size and composition of your workforce.

B1. Please specify the number of full-time and part-time and/or seasonal employees at this business.

Full-Time Employees	[Numerical field 0 - 10,000]
Part-Time Employees	[Numerical field 0 - 10,000]
Seasonal Employees	[Numerical field 0 - 10,000]

B2. Does this business employ staff from the following groups or “pools” of labour? Please select all that apply. [multiple selection]

- ☐ New Canadians (i.e., people who immigrated to Canada within the last 10 years)
- ☐ Youth graduating high school or college (i.e., youth under 25 years of age)
- ☐ Indigenous persons
- ☐ Persons with a disability
- ☐ Women
- ☐ Foreign workers
- ☐ Racialized persons
- ☐ None of the above [exclusive answer]
- ☐ Don't know / Prefer not to answer [exclusive answer]

B2a. [if B2 ≠ “None of the above” OR “DK/PNA”] Please provide your best estimate of the proportion of employees at this business that fall into the following groups.

Staff demographics	Percentage	Don't Know
[populate from B2 responses]	[Numerical field 0 - 100]	<input type="checkbox"/>

B3i. In which of the following positions do you employ staff? Please select all that apply, even if the position is currently vacant.

- ☐ Forestry professionals
- ☐ Forestry technologists and technicians
- ☐ Supervisors, logging and forestry
- ☐ Logging and forestry labourers
- ☐ Silviculture workers
- ☐ Logging machinery operators
- ☐ Supervisors, forest products processing
- ☐ Wood, pulp, and paper processing workers
- ☐ Wood processing and lumber graders and inspectors
- ☐ Nursery and greenhouse labourers
- ☐ Sawmill machine operators
- ☐ Millwright
- ☐ Other Red Seal Trade, please specify: [Text Field 500 characters]
- ☐ Other, please specify: [Text Field 500 characters]
- ☐ Don't know/ prefer not to answer

PROGRAMMING: The following definitions are to display when respondents hover over the text:

- Forestry professionals: e.g., Forester, Regional inventory officer – forestry, Registered professional forester (RPF), Forest engineer
- Forestry technologists and technicians: e.g., Scaler, Conservation technician, Enforcement Officer, Forest Ranger, Forest fire technician, Forestry Technologist, Resource/Field technician, Timber Cruiser
- Supervisors, logging and forestry: e.g., Logging/Silviculture Contractor, Operations/ Forestry Supervisor, Planting Crew/Logging Foreman/woman, Forest Fire Crew Lead
- Logging and forestry labourers: e.g., Tree Planter, Herbicide Sprayer, Boom Worker
- Silviculture workers: e.g., Spacing/Thinning Saw Operator, Tree Pruner, Seed Cone Collector, Scarifier Operator, Site Prep Surveyor

- Logging machinery operators: e.g., Forest Equipment Operator, Harvester Operator, Forwarder/Porter Operator, Feller Operator, Grapple Operator
- Supervisors, Forest product processing: e.g., Sawmill/Single mill/Pulp Mill Supervisor, Yard Foreman/women, Shift Operating Supervisor
- Wood, Pulp and paper processing: e.g., Labourers in wood, pulp and paper processing & Pulp mill, papermaking and finishing machine operators & Pulping, papermaking and coating control operators
- Wood processing and Lumber graders: e.g., Wood Product (lumber, plywood, OBS, panel, veneer) Inspector
- Nursery and greenhouse labourers: e.g., Tree Propagation worker, Seedling Care Technician, Forest Nursery Assistant
- Sawmill machine operators: e.g., Planer Operator, Control room Operator, Shake splitter, Shingle cutter, Block Splitter, Saw Filer
- Millwright (includes Journeyperson and Apprentice): e.g., Mill/Plant Maintenance Mechanic, Industrial Mechanic, Repair person, Boiler
- Other Red Seal trade (includes Journeyperson and Apprentice): e.g., Industrial electrician, Steamfitter/Pipefitter, Heavy Equipment Mechanic, Service Mechanic/Technician, Mill Maintenance Carpenter, Boiler Operator, Industrial Plumber/Boiler Technician

B3. We are interested in the number of staff you employ in key positions listed below. Please indicate the number of employees for each role and the number of current vacancies. If you do not employ any workers in a given role listed below, please select “Not applicable”.

[Display response options selected in B3i.]

Position Type	Number of staff	Number of vacancies	Not applicable
Forestry professionals	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Forestry technologists and technicians	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Supervisors, logging and forestry	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Logging and forestry labourers	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Silviculture workers	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Logging machinery operators	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Supervisors, forest products processing	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Wood, pulp, and paper processing workers	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Wood processing and lumber graders and inspectors	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Nursery and greenhouse labourers	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>

Position Type	Number of staff	Number of vacancies	Not applicable
Sawmill machine operators	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Millwright	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Other Red Seal trade, please specify: [Text Field 500 characters]	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
Other, please specify: [Text Field 500 characters]	[Numerical field 0 - 10,000]	[Numerical field 0 - 10,000]	<input type="checkbox"/>
TOTAL (total number of current employees)	<auto sum based on inputs above>		

PROGRAMMING: The following definitions are to display when respondents hover over the text:

- Forestry professionals: e.g., Forester, Regional inventory officer – forestry, Registered professional forester (RPF), Forest engineer
- Forestry technologists and technicians: e.g., Scaler, Conservation technician, Enforcement Officer, Forest Ranger, Forest fire technician, Forestry Technologist, Resource/Field technician, Timber Cruiser
- Supervisors, logging and forestry: e.g., Logging/Silviculture Contractor, Operations/ Forestry Supervisor, Planting Crew/Logging Foreman/woman, Forest Fire Crew Lead
- Logging and forestry labourers: e.g., Tree Planter, Herbicide Sprayer, Boom Worker
- Silviculture workers: e.g., Spacing/Thinning Saw Operator, Tree Pruner, Seed Cone Collector, Scarifier Operator, Site Prep Surveyor
- Logging machinery operators: e.g., Forest Equipment Operator, Harvester Operator, Forwarder/Porter Operator, Feller Operator, Grapple Operator
- Supervisors, Forest product processing: e.g., Sawmill/Single mill/Pulp Mill Supervisor, Yard Foreman/women, Shift Operating Supervisor
- Wood, Pulp and paper processing: e.g., Labourers in wood, pulp and paper processing & Pulp mill, papermaking and finishing machine operators & Pulping, papermaking and coating control operators
- Wood processing and Lumber graders: e.g., Wood Product (lumber, plywood, OBS, panel, veneer) Inspector
- Nursery and greenhouse labourers: e.g., Tree Propagation worker, Seedling Care Technician, Forest Nursery Assistant
- Sawmill machine operators: e.g., Planer Operator, Control room Operator, Shake splitter, Shingle cutter, Block Splitter, Saw Filer
- Millwright (includes Journeyperson and Apprentice): e.g., Mill/Plant Maintenance Mechanic, Industrial Mechanic, Repair person, Boiler
- Other Red Seal trade (includes Journeyperson and Apprentice): e.g., Industrial electrician, Steamfitter/Pipefitter, Heavy Equipment Mechanic, Service Mechanic/Technician, Mill Maintenance Carpenter, Boiler Operator, Industrial Plumber/Boiler Technician

B4. In the last five years, to what degree have job vacancies negatively impacted your business operations?

- ☐ No impact
- ☐ Mild impact
- ☐ Moderate impact
- ☐ High impact
- ☐ Major impact
- ☐ Don't know / Prefer not to answer

B5. [if B4 = "Moderate impact", "mild impact", or "high impact"] Can you provide some insights as to how job vacancies have affected your operations?

- ☐ [Text Field 1,000 characters]
- ☐ Don't know / Prefer not to answer

Section C: Future Workforce Expectations

This next section of questions is about your expectations for your workforce over the next 5 to 10 years. Please provide your best estimates for the future labour force of your business.

C1. Do you expect that your workforce will increase, decrease, or stay the same over the next 5 – 10 years?

- ☐ Increase
- ☐ Stay the same [proceed to C4]
- ☐ Decrease

C2. [If C1=Increase] Over the next five years, how much do you expect your workforce to grow by, in terms of percentage growth?

- ☐ [numeric field, constrain to be 0+>%]
- ☐ Not sure / Prefer not to answer

C3. [If C1=Decrease] By what percentage do you anticipate your workforce will decrease over the next five years?

- ☐ [numeric field, constrain to be 0+>%]
- ☐ Not sure / Prefer not to answer

C4. Is there anything else you would like to tell us about the future labour needs of your business or the sector in general?

- ☐ [Text Field 1,000 characters]
- ☐ Don't know / Prefer not to answer

Section D: Training and Education Requirements

This next section is about the education and training needed for the various positions you employ in your workforce.

D1. Please provide some information about the education, relevant experience, and/or credentials required for the role.

D1A. Please indicate the *highest minimum* level of education you expect a qualified candidate to have.

Position Type	Education [select one]
[populate from B3 responses]	<input type="radio"/> Less than secondary/ high school <input type="radio"/> Secondary/high school <input type="radio"/> Technical or community college <input type="radio"/> Bachelor's degree <input type="radio"/> Master's degree <input type="radio"/> Professional degree or doctorate

D1B. Please indicate the *highest minimum* level of experience you expect a qualified candidate to have.

Position Type	Experience [select one]
[populate from B3 responses]	<input type="radio"/> No experience required / less than one year <input type="radio"/> 1 to 3 years' relevant experience <input type="radio"/> 4 to 10 years' relevant experience <input type="radio"/> More than 10 years of relevant experience

D1C. Please indicate the minimum credential(s) you expect a qualified candidate to have.

Position Type	Credentials [select all that apply]
[populate from B3 responses]	<input type="radio"/> Apprenticeship certificate <input type="radio"/> Red Seal ticket <input type="radio"/> Non-Red Seal ticket <input type="radio"/> N.B. driver's license <input type="radio"/> Other. Please specify: [Text Field 500 characters]

D2. In the past 5 years, to what extent have each of the following elements been a barrier in the recruitment of staff. Please select all that apply. [Single selection within rows]

Factors	No Barrier	Minor Barrier	Moderate Barrier	Significant Barrier	Don't Know
Lack of relevant education					
Limited or no experience					
Do not have the required credentials					
Limited interest at current pay rates					
Language barriers					
Other Barriers (please specify) [Text Field 500 characters]					

☐ Don't know/ Prefer not to answer

D3. In the past 5 years, to what extent have each of the following elements been a barrier in the retention of staff. Please select all that apply. [Single selection within rows]

Factors	No Barrier	Minor Barrier	Moderate Barrier	Significant Barrier	Don't Know
Competition from other industries					
Competition from other companies within the industry					
Decrease in available work within the industry					
Nature of the job/working conditions					
Limited opportunities for promotion/advancement					
Insufficient wages or benefits					
Retirement					
Other Barriers (please specify) [Text Field 500 characters]					

D4. To what extent do you believe skill requirements for the forestry industry will change over the next 5 years?

- ☐ Significant change
- ☐ Moderate change
- ☐ Minor change
- ☐ No change
- ☐ Don't know/ prefer not to answer

D4.a [if D4 ≠ "No change" OR "PNA"] What do you anticipate will change about skill requirements for the forestry industry over the next 5 years?

- ☐ Please describe [Text Field 1,000 characters]
- ☐ Don't know / Prefer not to answer

D5. Is there any training or education, not currently offered by training institutions or professional associations, that you would like to see available for the Forestry industry in N.B.? If yes, please describe.

- ☐ Yes (please describe): [Text Field 1,000 characters]
- ☐ No suggestions for training or education programs
- ☐ Don't know / prefer not to answer

D6. Does your company have a human resource strategy to address your workforce requirements over the next 5 years (2030) and beyond?

- ☐ Yes
- ☐ No
- ☐ Don't know / Prefer not to answer

D7. [if D6 = "Yes"] Does the strategy include recruitment initiatives targeting the following groups of workers?

Group	Yes	No	Don't Know
<input type="checkbox"/> Youth			
<input type="checkbox"/> Indigenous persons			
<input type="checkbox"/> Women			
<input type="checkbox"/> Permanent Immigrants to Canada			
<input type="checkbox"/> Temporary Foreign Workers			
<input type="checkbox"/> Racialized group			

D8. What are the main challenges or barriers for your business when it comes to succession planning?

- ☐ Please describe: [Text Field 1,000 characters]
- ☐ None
- ☐ Don't know / Prefer not to answer

D9. Please describe any steps being taken by your company to address challenges or barriers when it comes to succession planning.

- ☐ Please describe [Text Field 1,000 characters]
- ☐ None
- ☐ Don't know / Prefer not to answer

Section E: Addressing the Labour Shortage

This next section is about strategies for addressing the labour shortage.

E1. Below are some strategies that could be developed to address some of the human resources challenges in the forestry sector. Please indicate how you would prioritize each strategy, on a scale of one to five (one being lowest priority, five being highest priority).

Strategy	1 – Lowest priority	2	3	4	5 – Highest priority
Supports to assist employers in hiring recent immigrants to jobs in the forestry sector					
Support for upskilling existing employees or retraining individuals from related fields					
Public relations or advertising campaigns to promote the sector to youth					
School-based resources to provide information to high school counsellors, parents and students as to the opportunities available in the sector					
Development of professional training and education programs to prepare for jobs in the sector					

Strategy	1 – Lowest priority	2	3	4	5 – Highest priority
Development of certifications or occupational standards for key occupations in the sector					
Development of HR toolkits for employers to assist in hiring, retention, and/or succession planning					
Connections with job fairs and employment services to connect people looking for work with available jobs in the forestry sector					
Development of a strategy to improve foreign credential recognition					

E2. Are you aware of any other strategies, technological changes, or innovations in the sector (whether used by your company or not) that can be used to address labour shortages?

- ☐ Yes, (please describe) [Text Field 1,000 characters]
- ☐ No
- ☐ Don't know / Prefer not to answer

Section F: Summary Questions

This next section asks about strategies for addressing the labour shortage.

F1. In your opinion, what are the key human resources challenges for the forestry industry?

- ☐ [Text Field 1,000 characters]
- ☐ Don't know / Prefer not to answer

F2. Do you have any other comments that could help us to better understand the forestry sector's needs in terms of training, recruitment, and retention, now and in the next 5 years?

- ☐ Yes, (please describe) [Text Field 1,000 characters]
- ☐ No
- ☐ Don't know / Prefer not to answer

Section G: Future Participation

That brings us to the end of our questions; thank you for your participation.

G1. Would you be interested in participating in an interview to further describe the needs and recommendations for the sector? Interviews will be held in February and March 2025.

- ☐ Yes
- ☐ No

G2. Would you like to have a copy of the final report emailed to you?

- ☐ Yes
- ☐ No

G3. [if G1 OR G2 = "Yes"] Please provide an email address and phone number you can be reached at. You must provide at least an email address to receive a copy of the final report, or to be contacted to participate in an interview. Only you, not your business, will be contacted.

- ☐ Name: _____ [required]
- ☐ Name of business: _____ [optional]
- ☐ Email: _____ [required]
- ☐ Phone number: _____ [optional]

G4. Would you be willing to invite your employees to complete a survey about their experience working in the forestry sector?

- ☐ Yes
☐ No

G5. Please provide or confirm your email address: _____
[copy email address provided in G3, if one was provided]

[If G4=Yes] Send email

Subject: Forest NB Labour Market Study

Hello,

We appreciate you taking the time to share these surveys with employers and employees or apprentices in your network. You can forward the link below or simply share this entire email.

The surveys are accessible online at <https://www.forestnb.malatest.com/>

Forest NB is conducting a province-wide Labour Market Study to examine the current state of the forestry industry, and related sector workforces. The goal of this research is to better understand current trends, emerging issues, and best practices in the training, recruitment, and retention of the forestry industry workforce.

Thank you and have a good day.

Final Thank-you Message

Thank you again for your participation in this study.

APPENDIX F: EMPLOYEE & APPRENTICE SURVEY

Introduction

Thank you for taking the time to complete this survey about your experience working in the Forestry Sector.

This survey is being conducted by R.A. Malatest & Associates Ltd. (Malatest), on behalf of Forest NB. Forest NB, with funding from the Department of Post-Secondary Education, Training, and Labour have commissioned a province-wide Labour Market Study to examine the current state of the forestry industry, and related workforces.

By taking this survey, you will help us to better understand the current needs and issues related to training and working in the forestry sector. The goal of this research is to find ways to better support the forestry sector workforce. Your answers are very important for this research, but you do not have to answer any questions you do not want to. The survey will only take about 15 minutes to complete.

Malatest is administering this survey. All information collected will be maintained in strict accordance with applicable provincial privacy legislation. Survey results will be reported in aggregate, so that no individual will be identifiable. Click here to view our [Privacy Statement](#).

<Start Survey>

Q2. Are you currently an employee, apprentice, or pursuing education and/ or training in the New Brunswick forestry industry?

- ☐ Yes, employee
- ☐ Yes, apprentice
- ☐ Yes, pursuing education and/or training
- ☐ None of the above

☐ **[if I = "None of the above"] You answered "None of the above" for the last question. Were you previously an employee, apprentice, or pursuing education and/ or training in the New Brunswick forestry industry?**

- ☐ Yes, previous employee
- ☐ Yes, previous apprentice
- ☐ Yes, previously pursuing education and/or training
- ☐ None of the above

☐ **[if I.a = answered] You answered [display I.a response] to the last question. Please select the answer that applies most to you.**

- ☐ No longer a resident of New Brunswick
- ☐ Currently working outside of the N.B. forestry industry
- ☐ Currently looking for work in the N.B. forestry industry
- ☐ Currently looking for work outside of the N.B. forestry industry
- ☐ Currently unable to work in the N.B. forestry industry
- ☐ Other, please specify: **[Text Field 500 characters]**
- ☐ Don't know/ prefer not to answer → **Exit Survey**

if (I = None of the above) and if (I.a = answered) and (I.b = answered) then Exit survey.

Termination Text:

Screen out Text [if I=None of the above"]

Thank you for your interest in this survey. This study is focusing on labour market issues for current Forestry Industry employees and apprentices in New Brunswick only. Out of respect for your time, we will end the survey here.

If you have any questions or concerns about the study, you can reach out to the Malatest research contact for this project, Annette Nicoletti-Carriere:

Annette Nicoletti-Carriere

Research Assistant, R.A. Malatest & Associates

a.nicoletti-carriere@malatest.com

1-800-665-5848 ext. 503

Q3. What is your current employment status?

- ☐ Permanent **[Display as infotip: A permanent job is one that is expected to last as long as the employee wants it, given that business conditions permit. That is, there is no pre-determined termination date.]**
- ☐ Temporary **[Display as infotip: A temporary job has a predetermined end date, or will end as soon as a specified project is completed.]**
- ☐ Casual **[Display as infotip: A casual job is when work hours change from one week to the next, if the employee is called to work based on need and not on a pre-arranged schedule.]**
- ☐ Seasonal **[Display as infotip: A seasonal job is when employment rises and falls at certain times of the year.]**
- ☐ Don't know/ prefer not to answer

Q4. How many hours do you work in this job?

- ☐ Full time (30 hours or more per week)
- ☐ Part time (less than 30 hours per week)
- ☐ Don't know/ prefer not to answer

Section A: Training Information

This first set of questions is related to your training for your occupation.

A1. What is your occupation or trade? If pursuing education and/ or training, what is your anticipated occupation or trade?

- ☐ Forestry professional
- ☐ Forestry technologist and technician
- ☐ Supervisor, logging and forestry
- ☐ Logging and forestry labourer
- ☐ Silviculture worker
- ☐ Logging machinery operator
- ☐ Supervisor, forest products processing
- ☐ Wood, pulp, and paper processing worker
- ☐ Wood processing and lumber grader and inspector
- ☐ Nursery and greenhouse labourer
- ☐ Sawmill machine operator
- ☐ Millwright
- ☐ Other Red Seal Trade, please specify: **[Text Field 500 characters]**
- ☐ Other, please specify: **[Text Field 500 characters]**
- ☐ Don't know/ prefer not to answer

PROGRAMMING: The following definitions are to display when respondents hover over the text:

- Forestry professionals: e.g., Forester, Regional inventory officer – forestry, Registered professional forester (RPF), Forest engineer
- Forestry technologists and technicians: e.g., Scaler, Conservation technician, Enforcement Officer, Forest Ranger, Forest fire technician, Forestry Technologist, Resource/Field technician, Timber Cruiser
- Supervisors, logging and forestry: e.g., Logging/Silviculture Contractor, Operations/ Forestry Supervisor, Planting Crew/Logging Foreman/woman, Forest Fire Crew Lead
- Logging and forestry labourers: e.g., Tree Planter, Herbicide Sprayer, Boom Worker
- Silviculture workers: e.g., Spacing/Thinning Saw Operator, Tree Pruner, Seed Cone Collector, Scarifier Operator, Site Prep Surveyor
- Logging machinery operators: e.g., Forest Equipment Operator, Harvester Operator, Forwarder/Porter Operator, Feller Operator, Grapple Operator
- Supervisors, Forest product processing: e.g., Sawmill/Single mill/Pulp Mill Supervisor, Yard Foreman/women, Shift Operating Supervisor
- Wood, Pulp and paper processing: e.g., Labourers in wood, pulp and paper processing & Pulp mill, papermaking and finishing machine operators & Pulping, papermaking and coating control operators
- Wood processing and Lumber graders: e.g., Wood Product (lumber, plywood, OBS, panel, veneer) Inspector
- Nursery and greenhouse labourers: e.g., Tree Propagation worker, Seedling Care Technician, Forest Nursery Assistant
- Sawmill machine operators: e.g., Planer Operator, Control room Operator, Shake splitter, Shingle cutter, Block Splitter, Saw Filer
- Millwright (includes Journeyperson and Apprentice): e.g., Mill/Plant Maintenance Mechanic, Industrial Mechanic, Repair person, Boiler
- Other Red Seal trade (includes Journeyperson and Apprentice): e.g., Industrial electrician, Steamfitter/Pipefitter, Heavy Equipment Mechanic, Service Mechanic/Technician, Mill Maintenance Carpenter, Boiler Operator, Industrial Plumber/Boiler Technician

- A2. What year did you begin working in the forestry sector?**
- ☐ [numerical field]
 - ☐ Don't know/prefer not to answer
- A3. In the past 5 years, how many different companies within the forestry sector have you worked for, including your current job?**
- ☐ [numerical field]
 - ☐ Don't know/prefer not to answer
- A4. Please select your current level of Education.**
- ☐ Less than secondary/ high school
 - ☐ Secondary/high school
 - ☐ Technical or community college
 - ☐ CEGEP, Collège Classique
 - ☐ Bachelor's degree
 - ☐ Master's degree
 - ☐ Professional degree or doctorate
 - ☐ Don't know/ prefer not to answer
- A5. Please select the credentials you possess that are related to your current job or apprenticeship. Please select all that apply. [multi-select]**
- ☐ Red Seal ticket
 - ☐ Non-Red Seal ticket
 - ☐ N.B. driver's license
 - ☐ Other, please specify: [Text Field 500 characters]
 - ☐ Don't know/prefer not to answer
- A6. Thinking about any education or training that you completed, how relevant is it to your current occupation?**
- ☐ Extremely relevant
 - ☐ Very relevant
 - ☐ Moderately relevant
 - ☐ Slightly relevant
 - ☐ Not at all relevant
 - ☐ Don't know/ prefer not to answer
- A7. [if A6 = "moderately relevant" OR "slightly relevant" OR "not at all relevant"] What information could have been included in your education or training to make it more relevant to your occupation?**
- ☐ Please specify: [Text field character limit 1,000]
 - ☐ Nothing
 - ☐ Don't know/prefer not to answer
- A8. Do you have access to on-the-job training, upgrading and career development opportunities through your current job?**
- ☐ Yes
 - ☐ No
 - ☐ Don't know/prefer not to answer

Section B: Introduction to the Industry

This next set of questions is related to what attracted you to this industry and the supports you had access to when you started working in the industry.

B1. What made you want to work in the forestry industry? Please rate each option on a scale from Strongly disagree to Strongly agree.

Factors	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't know/ Prefer not to answer
Compensation (i.e., pay and benefits)						
Career opportunity						
Travel opportunity						
Job security						
Family/Friends in the industry						
Aligns with my values						
Ability to stay in New Brunswick						
Work hours						
Laid off from former job						
Needed job of any kind						
Other, please describe: [text field 500 characters]						

B2. What barriers did you face when starting to work in the industry? Please provide an answer ranging from "Not a Barrier" to "Significant Barrier" for all that apply. [single select within rows]

Factors	Not a Barrier	Minor Barrier	Moderate Barrier	Significant Barrier	Don't know/Prefer not to answer
Lack of or not relevant Education					
Limited Experience					
Did not have the Required Credentials					

Factors	Not a Barrier	Minor Barrier	Moderate Barrier	Significant Barrier	Don't know/Prefer not to answer
Expected to relocate					
Long working hours					
Insufficient wages or benefits					
Difficult working conditions					
Unsure how to get a job in the sector					
Other Barriers, please specify: [Text Field 500 characters]					

B3. What, if any, supports could have been helpful to you when you were starting to work in the industry?

- Please describe: [Text field 500 characters]
- Don't know/ prefer not to answer

B4. What do you see as the major barriers to completing training for jobs in the forestry industry? Please select all that apply.

- ☐ No barriers to training [Exclusive response]
- ☐ Lack of funding
- ☐ Training programs not offered in the region
- ☐ Concerns about quality of training
- ☐ Lack of employer and/or industry recognition of training
- ☐ No interest in training
- ☐ No financial support from the employer
- ☐ Employer will not allow time away from work
- ☐ Not enough time outside working hours
- ☐ Other (please describe): [Text field 500 characters]

Section C: Addressing the Labour Shortage

This next section is about strategies for addressing the labour shortage.

E3. Below are some strategies that could be developed to address some of the human resources challenges in the forestry sector. Please indicate how you would prioritize each strategy, on a scale of one to five (one being lowest priority, five being highest priority).

Strategy	1 – Lowest priority	2	3	4	5 – Highest priority
Public relations or advertising campaigns to promote the industry to youth					
School-based resources to provide information to high school counsellors, parents and students as to the opportunities available in the industry					
Development of professional training and education programs to prepare for jobs in the industry					
Development of certifications or occupational standards for key occupations in the industry					

Strategy	1 – Lowest priority	2	3	4	5 – Highest priority
Connections with job fairs and employment services to connect people looking for work with available jobs in the forestry industry					
Development of a strategy to improve foreign credential recognition					

E4. Are you aware of any strategies, technological changes, or innovations in the sector can be used to address labour shortages?

- ☐ Yes, (please describe) [Text Field 1,000 characters]
- ☐ No
- ☐ Don't know / Prefer not to answer

Section D: Summary Questions

This next section asks about strategies for addressing the labour shortage.

F3. In your opinion, what are the key challenges with recruiting and retaining workers for the forestry industry?

- ☐ Please describe [Text Field 1,000 characters]
- ☐ Don't know / Prefer not to answer

F4. Do you have any other comments that could help us to better understand the forestry sector's needs in terms of training, recruitment, and retention, now and in the next 5 years?

- ☐ Yes, (please describe) [Text Field 1,000 characters]
- ☐ No
- ☐ Don't know / Prefer not to answer

Section E: Demographic information

This next section is to collect demographic information. You do not need to answer any question that you do not want to.

E1. How old are you? (Select one only)

- ☐ Under 25
- ☐ 25 to 34
- ☐ 35 to 44
- ☐ 45 to 54
- ☐ 55 to 64
- ☐ 65 and over
- ☐ Prefer not to answer

E2. What language is most commonly spoken in your household? (Select one only).

- ☐ English
- ☐ French
- ☐ Other (please specify): [text field 250 characters]
- ☐ Prefer not to answer

E3. Do you belong to any of the following groups? (Check all that apply) [Multi-select; non-mandatory]

- ☐ Women
- ☐ Gender-diverse
- ☐ 2SLGBTQI+
- ☐ Indigenous peoples (First Nations, Inuit, or Métis.)

- ☐ Persons with a disability
- ☐ Racialized group / Visible minority
- ☐ Prefer not to answer

Section F: Future Participation

That brings us to the end of our questions; thank you for your participation.

G4. Would you be interested in participating in a focus group? Focus Groups will be held in February 2025, and you would be paid \$75.00 for your participation.

- ☐ Yes
- ☐ No

G5. [if F1 = "Yes"] Please provide an email address and phone number you can be reached at. You must provide at least an email address to be contacted to participate in a focus group and we will only use this email address to contact you about the focus group.

- ☐ Name: _____ [optional]
- ☐ Email: _____ [required]
- ☐ Phone number: _____ [optional]

Final Thank-you Message

Thank you again for your participation in this study.

APPENDIX G: KEY INFORMANT INTERVIEW GUIDE – FOR EMPLOYERS & OTHER STAKEHOLDERS

Thank you for agreeing to participate in this interview today. Forest NB, with funding from the Department of Post-Secondary Education, Training, and Labour have commissioned a province-wide Labour Market Study to examine the current state of the forestry sector, and related sector workforces.

This project is currently in its second phase. At this stage, we are interested in hearing from key stakeholders representing the forestry sector to obtain perspectives on potential solutions to key issues related to training, recruitment, and retention of the forestry sector workforce.

Your participation in this interview is entirely voluntary. You may end the interview at any time or skip any questions you wish. In any reporting we do about this project, we will keep your identity confidential. Anything you share with us will be reported in aggregate, and/or with any identifying details removed; nobody outside of Malatest will be able to link your answers to your identity.

This interview should take up to 60 minutes to complete.

Is it all right with you if I record this interview for note-taking purposes?

Do you have any questions before we begin?

Questions for TRAINING PROVIDERS

1. What programs does [your institution] offer to students who are interested in working in the New Brunswick Forestry Industry? Please describe programs in terms of skills that are learned/areas of study. What kind of certification/credential do these programs lead to?
[PROBE] Has enrolment been consistent over the past five years? How was it changes? (e.g., increased enrollment from women/under-represented groups, changes to programing to meet industry needs)
2. What do you see as the major trends that will impact occupations in the forestry industry labour market over the next 5-10 years? For example, are there technological advances, environmental considerations, or policy changes that will impact training needs to the forestry labour force?
 - i. Which skill types do you expect to increase in importance?
 - ii. Which skill types do you expect to decrease in importance?
 - iii. How will this impact the programs that [your institution] offers?
3. a) What types of skills would you say are most crucial for new members of the forestry industry? Please explain.
 - Technical Skills
 - Physical Ability
 - Communication Skills
 - Problem-Solving Skills
 - Interpersonal Skills

- Other?

b) Which of these skills would you say are not taught through traditional education and training streams and how does/ will this impact the Forestry Industry now and into the future?

- Technical Skills
- Physical Ability
- Communication Skills
- Problem-Solving Skills
- Interpersonal Skills
- Other?

4. Are there any barriers to providing training and education programs? Please explain
5. Are there any barriers to accessing training and education programs (for students)? Please explain.
6. Are there any gaps in current training and education programs? Please explain.
7. Are there any opportunities for greater collaboration between training providers or between the New Brunswick Forestry industry and education/training institutions in terms of the following:
 - a. Curriculum development (e.g., required skills development)
 - b. Work experience placements (e.g., co-operative education, apprenticeship)
 - c. Networking opportunities
 - d. Other?
8. Are there any opportunities for greater collaboration between the New Brunswick Forestry Industry and other related industries in terms of the following:
 - a. Development of certifications/standards that could be recognized across multiple sectors?
 - b. Better workforce planning around labour requirements, workforce attraction/retention strategies?
 - c. Opportunities to establish mechanisms that might lead to industries possibly “sharing” workers from sectors experiencing downturn/temporary loss of work?

That brings me to the end of my questions today. Before we wrap up, **is there anything else you’d like to comment on, or any final thoughts you have about the research that we haven’t talked about today?**

Thank you again for your time today, your input is greatly appreciated. Please don’t hesitate to get in contact if you have anything else to ask, or to add.

Questions for other Stakeholders (e.g., employers, contractors, industry associations, unions)

About you:

1. Can you tell me a bit about yourself, about your current role, and your background in the Forestry industry? How long have you been in the industry, and in what roles? Where in New Brunswick, and outside of New Brunswick, have you worked?

Recruitment and Retention:

2. What are the key recruitment issues currently challenging the forestry industry? How have you mitigated or navigated these challenges?
3. What are the key retention issues currently challenging the forestry industry? How have you mitigated or navigated these challenges?
4. Have you/your business experienced any regional differences in the difficulties in retaining staff? Please describe.
[PROBE] What issues in retaining staff vary by region (e.g., remote locations, language barriers)? Please describe.
5. What strategies or actions have been taken to recruit and retain employees?
[PROBE] Were they successful? Why or why not?
[PROBE] What additional strategies or actions do you think would be MORE successful than those undertaken in the past?
6. What kind of supports would help improve recruitment and retention?

Training:

7. What types of skills would you say are most crucial for new members of the forestry industry?
 - Technical Skills
 - Physical Ability
 - Communication Skills
 - Problem-Solving Skills
 - Interpersonal Skills
 - Other?
8. Which of these skills are not taught through traditional education and training streams?
9. Are there any barriers to providing training and education programs?
10. Are there any barriers to accessing training and education programs (for students, new workers in the sector)? Please explain.
11. Are there any gaps in current training and education programs? Please explain.
9. Are there any opportunities for greater collaboration between the New Brunswick Forestry Industry and education/training institutions in terms of the following:
 - e. Curriculum development (e.g., required skills development)

- f. Work experience placements (e.g., co-operative education, apprenticeship)
 - g. Networking opportunities
 - h. Other?
10. Are there any opportunities for greater collaboration between the New Brunswick Forestry Industry and other related industries in terms of the following:
- d. Development of certifications/standards that could be recognized across multiple sectors?
 - e. Better workforce planning around labour requirements, workforce attraction/retention strategies?
 - f. Opportunities to establish mechanisms that might lead to industries possibly “sharing” workers from sectors experiencing downturn/temporary loss of work?

That brings me to the end of my questions today. Before we wrap up, **is there anything else you'd like to comment on, or any final thoughts you have about the research that we haven't talked about today?**

Thank you again for your time today, your input is greatly appreciated. Please don't hesitate to get in contact if you have anything else to ask, or to add.

APPENDIX H: FOCUS GROUPS/INTERVIEW GUIDE – EMPLOYEES & APPRENTICES

Thank you for agreeing to participate in this discussion today. Forest NB, with funding from the Department of Post-Secondary Education, Training, and Labour have commissioned a province-wide Labour Market Study to examine the current state of the forestry sector, and related sector workforces.

This project is currently in its second phase. At this stage, we are interested in hearing from employees in the forestry sector to obtain perspectives on potential solutions to key issues related to training, recruitment, and retention of the forestry sector workforce.

This group will take about 90 minutes. Throughout that time, I will introduce questions for you all to discuss as a group. There are no wrong answers, and I encourage everyone to share their perspectives. If your opinion differs from others in the group, please share your view.

Please be aware that this focus group will be audio recorded / transcribed for our note-taking and analysis purposes.

Do you have any questions before we begin?

Introductions and Experiences Entering the Sector

1. To start, let's introduce ourselves: your first name, what part of New Brunswick you live in, what kind of work you do, and how long you've been working in the sector.
2. We're interested in understanding what prompted you to work in the forestry industry. Can you please describe the reasons why you chose to take a job in this sector?
Probes: They could be things like the travel opportunities, working outside, job security, pay and benefits, other perks.
Can you tell me why these reasons were so motivating?
3. a) What do you think the industry could do to attract more people to join the forestry industry?
Probes: Apprenticeship/hands-on learning opportunities? Promote sustainability? Offer competitive compensation and benefits?
b) Would you say that there are groups of people that you don't see working in the industry?
Probes: Why do you feel they aren't working in forestry? Do you find many women working in the industry? Why not? What are the barriers? Are there other groups of people that should be encouraged to work in the industry? What could be done to encourage them?
4. a) Think back to when you joined the forestry industry. In your experience, did you face any challenges when entering the sector?
Probes: Obtaining required education or training? Unsure how to get a job in the sector? Discrimination in a male-dominated industry?
b) What supports would help eliminate these challenges?
5. What skills do you need to work in the industry and be successful?
 - Technical Skills

- Physical Ability
- Communication Skills
- Problem-Solving Skills
- Interpersonal Skills
- Other?

Retention

1. I'd like to better understand the longevity of a career in the New Brunswick forestry sector. What are barriers to remaining in the forestry sector?
Probes: Perceptions of the industry as "tough", "isolating"? Low wages?
Probes: To what extent are these barriers to remaining in the sector?
Probes: Are there any other barriers that were not already mentioned?
2. Can you please describe what factors play a role in you continuing to work in this sector (in New Brunswick). What motivates you to continue working in the forestry sector?
3. What else could the industry offer to motivate you to stay in the forestry sector (in New Brunswick)?
Probes: Opportunities for career advancement? Employment stability? Competitive wages and benefits?
4. What training do you think would be helpful for people who are just starting out in the sector?
Probes: Secondary or post-secondary school programs? Peer-to-peer learning?
Also consider training support (e.g., students funding, accessibility of training).
5. Where do you see yourself in five years? Still working in the New Brunswick forest sector, in the same or a different position? Working in another sector?

This brings us to the end of my questions for today. Thank you all again for participating. We will send you an e-gift card for \$75 to your email address within the next two business days.

REFERENCES

1. Natural Resources Canada. (2023). *The state of Canada's forests: Annual report 2023*. Government of Canada.
2. Job Bank. *Home*. Retrieved from <https://www.jobbank.gc.ca/home>
3. Statistics Canada. *Labour Force Survey (LFS)*. Retrieved from <https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3701>
4. Employment and Social Development Canada. (2024, August 26). *Minister Boissonnault reducing the number of temporary foreign workers in Canada*. Government of Canada. Retrieved from <https://www.canada.ca/en/employment-social-development/news/2024/08/minister-boissonnault-reducing-the-number-of-temporary-foreign-workers-in-canada.html>
5. Canadian Forest Service. (2024). *Diversity in the Canadian forest sector: Trends, actions, and results*.
6. Forests Ontario & Ontario Forest Industries Association. (2022). *Youth's career journey and industry perceptions*. Retrieved from https://downloads.ctfassets.net/e09p19lzfefe/2Mvr9XFCX0vqimPG4c2dxT/f9c118649e713c9424cae831fdcc6bac/Bridging_the_Gap_Youth_Report.pdf
7. Bardekjian, A. C., Nesbitt, L., Konijnendijk, C. C., & Lötter, B. T. Women in urban forestry and arboriculture: Experiences, barriers and strategies for leadership. *Urban Forestry & Urban Greening*.
8. Statistics Canada. *Table 17-10-0022-01: Estimates of interprovincial migrants by province or territory of origin and destination, annual*.
9. New Brunswick Education. *Forestry 110 curriculum*. Retrieved from <https://curriculum.nbed.ca/learning-areas/high-school-block/science/forestry-110/>
10. University of British Columbia, Faculty of Forestry. *UBC Forestry undergraduate virtual open house*. Retrieved from <https://forestry.ubc.ca/future-students/undergraduate/virtual-open-house/>
11. Domico, D. (2000). *Skill-based pay program for mechanics* (No. E-C013).
12. Professional Logging Contractors of the Northeast. (2025). *Master Logger Certification*. Retrieved from <https://masterloggercertification.com/>
13. Irving Woodlands. (2023). *State of the Working Forest*. Retrieved from https://www.irvingwoodlands.com/uploadedFiles/Healthy_Forests_Testing/Report_Cards/WDLS%20-%202023%20State%20of%20the%20Forest%20-%20Web%202024.pdf
14. Australian Forest Contractors Association. (2025). *ForestFit*. Retrieved from <https://www.afca.asn.au/forestfit>
15. Dal News. (2023, May 17). Retrieved from <https://www.dal.ca/news/2023/05/17/forestry-nova-scotia-ecology.html>
16. Kwilmu'kw Maw-klusuaqn. Retrieved from <https://mikmaqrights.com/?p=3734>
17. Forestry Sector Council. *Event calendar*. Retrieved from <https://secure.forestrysectorcouncil.ca/events/event-calendar.html/event-info/details/id/21>
18. Zielke Consulting Ltd. (2017). *Strategic plan*. Retrieved from <https://cofi.org/wp-content/uploads/Forestry-Council-of-Forest-Industries-Strategic-Plan-Jan-2017.pdf>
19. Columbia Basin RDI. *Forestry workforce knowledge brief*. Retrieved from <http://datacat.cbrdi.ca/sites/default/files/attachments/Forestry%20Workforce%20Knowledge%20Brief-FINAL.pdf>
20. Outland Youth Employment Program (OYEP). Retrieved from <https://www.oyep.ca/>

21. Northern Ontario Business. (2023). *Forestry is going gangbusters in Northwestern Ontario*. Retrieved from <https://www.northernontariobusiness.com/jobs-of-the-future/jobs-of-the-future-forestry-is-going-gangbusters-in-northwestern-ontario-6775518>
22. Forests Ontario. *Bridging the gap: Labour shortage report*. Retrieved from https://assets.ctfassets.net/e09p19lzfefe/32WNgbzqDYsDHLC8YOyHJQ/425483751d6419af77caad6fdb39e051/Bridging_the_Gap_Labour_Shortage_Report.pdf
23. The European Forest Institute. (2021). *Trends in forest-related employment and tertiary education*. Retrieved from https://efi.int/sites/default/files/files/publication-bank/2021/Trends%20in%20forest-related%20employment%20and%20tertiary%20education_final.pdf
24. Ministry of Agriculture and Forestry in Finland. (2019). *The National Forest Strategy 2025*. Retrieved from <http://urn.fi/URN:ISBN:978-952-366-006-9>
25. Chartered Foresters. *Forestry skills crisis puts climate targets at risk*. Retrieved from <https://www.charteredforesters.org/forestry-skills-crisis-puts-climate-targets-at-risk>
26. Department of Agriculture, Water and the Environment (Australia). *Forestry workforce training program: Scoping study*. Retrieved from <https://www.agriculture.gov.au/sites/default/files/documents/forestry-workforce-training-program-scoping-study.pdf>
27. Insurance Business Canada. (2023, October 16). *Canada's most expensive provinces to live in revealed*. Retrieved from <https://www.insurancebusinessmag.com/ca/news/breaking-news/canadas-most-expensive-provinces-to-live-in-revealed-462252.aspx>
28. Statistics Canada. *Table 98-10-0449-01: Occupation unit group by labour force status, highest level of education, age and gender: Canada, provinces and territories, census metropolitan areas and census agglomerations with parts*.