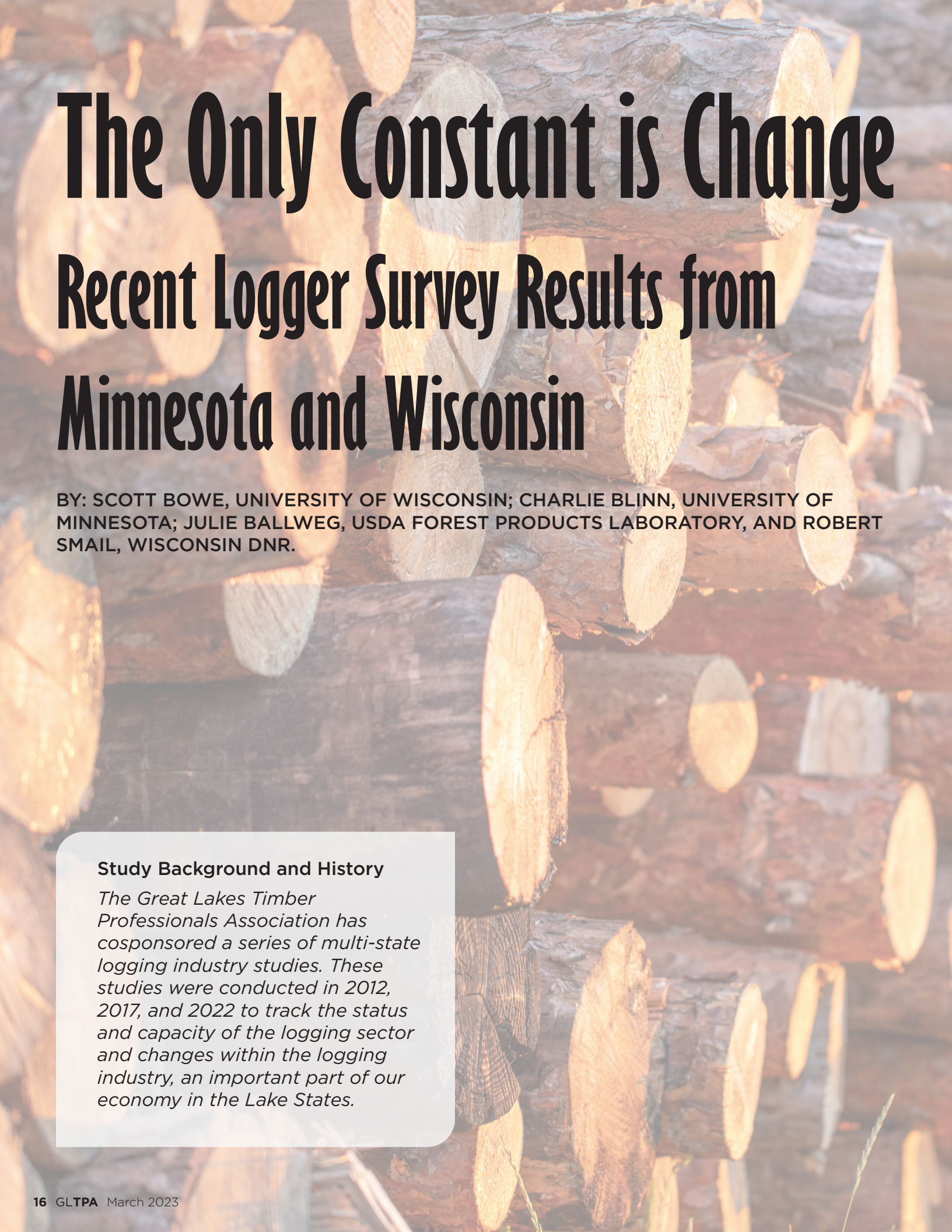




# The Only Constant is Change

## Recent Logger Survey Results from Minnesota and Wisconsin

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### Study Background and History

*The Great Lakes Timber Professionals Association has cosponsored a series of multi-state logging industry studies. These studies were conducted in 2012, 2017, and 2022 to track the status and capacity of the logging sector and changes within the logging industry, an important part of our economy in the Lake States.*

Is our logger population aging? What trends are we seeing in logging equipment? What business environment are loggers experiencing? What impact did the pandemic have on loggers? These are some of the questions we asked in the 2022 Loggers Survey. The results that we discuss come from loggers in Minnesota and Wisconsin. We asked our questions based on what they experienced during the previous year – 2021.

Industry and Owner Demographics

Results from the 2022 survey continue to track changes to logger demographics in Minnesota and Wisconsin. The average logging company in Minnesota has been in operation for 30.5 years with Wisconsin logging companies average 28.7 years in operation. The average logger age (primary logging company owner) is 54.7 in Minnesota and 55.3 in Wisconsin (Figure 1). There has been concern that the logging population is aging. There was little or no change from the previous logger survey, which showed an average age of 54 in both states. We can't explain why owners did not age from 2017 to 2021. Maybe it is clean living and all the fresh air! Or, perhaps retirements were balanced by transitions to younger owners in the same business and an influx of some younger ownerships.

On average, each logger brings more than 33 years of experience to the profession (Figure 1). One positive note is the average age of the second or third logging company owner (for example the business partners or family members) does trend downward showing younger loggers in the company and workforce. This suggests that those companies with multiple owners will continue the business beyond when the primary owner retires.

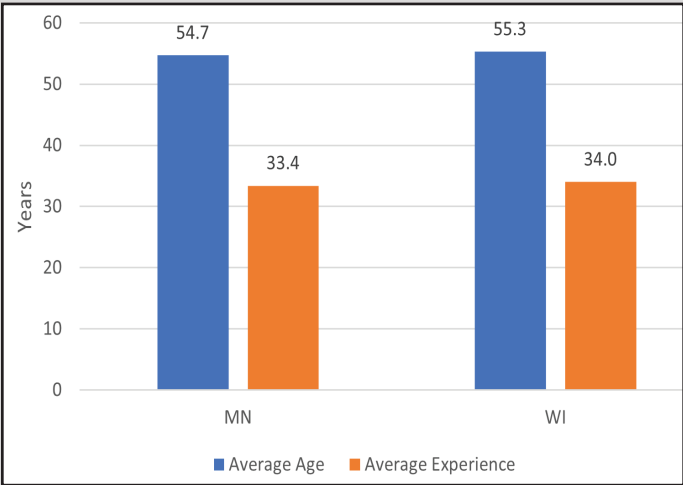


Figure 1: Logger Age and Experience

Logging Equipment Trends

Fifteen different equipment categories common to the forest industry in the Lake States were listed in the survey.

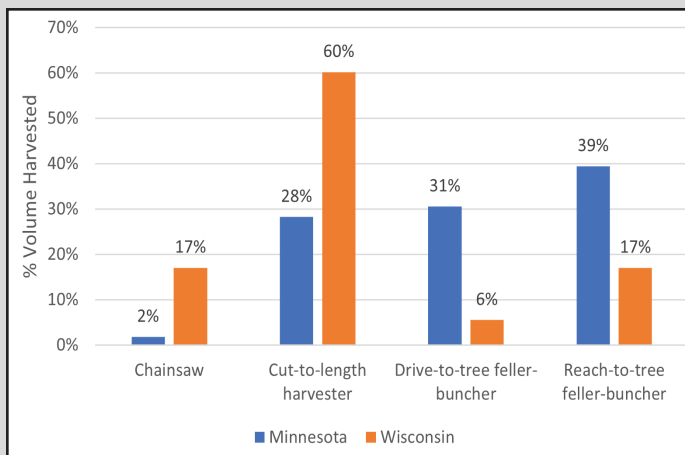
Loggers were asked to identify the number of pieces of equipment and the age of the newest piece of equipment. The first two columns of Table 1 show the average number of pieces of equipment reported by the survey respondents. For example, the average Minnesota logger who reported that they had chainsaws has 3.6 saws. Overall, there were very similar equipment holdings between states. Wisconsin loggers employ about twice as many feller-bunchers per respondent who reported that they had feller-bunchers, while Minnesota loggers use about twice as many chippers per company with chippers.

The second two columns on the right in Table 1 show the average age of the newest piece of equipment. In Wisconsin, the average age of the newest piece of most logging equipment is more than 10 years old for all categories except for chainsaws. Minnesota loggers have similar aged equipment with only chainsaws, cut-to-length harvesters, and flail debarkers averaging less than 10 years old for the newest piece. Heavy equipment is generally expected to have a lifespan of 10,000 hours so much of the equipment is well beyond that recommendation. Rising equipment costs of owning and operating continues to be a real problem for logging companies. Keeping logging equipment in service longer may increase maintenance costs and downtime which can reduce productivity.

| Type of equipment             | MN<br>(Average # of<br>pieces per<br>respondent with<br>that equipment) | WI<br>(Average # of<br>pieces per<br>respondent with<br>that equipment) | MN (average<br>age) | WI (average<br>age) |
|-------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------|---------------------|
| Chainsaw                      | 3.6                                                                     | 3.7                                                                     | 3.8                 | 4.0                 |
| Cut-to-length harvesters      | 1.6                                                                     | 1.6                                                                     | 8.5                 | 10.8                |
| Feller-bunchers               | 1.5                                                                     | 2.9                                                                     | 17.6                | 16.4                |
| Cable skidders                | 1.4                                                                     | 2.1                                                                     | 39.4                | 37.4                |
| Grapple skidder               | 2.0                                                                     | 1.6                                                                     | 17.9                | 20.9                |
| Forwarders                    | 2.7                                                                     | 1.5                                                                     | 13.0                | 17.1                |
| Mechanical<br>Limbers         | 1.8                                                                     | 1.5                                                                     | 15.3                | 20.0                |
| Chippers                      | 4.1                                                                     | 1.7                                                                     | 12.7                | 14.1                |
| Grinders                      | 2.0                                                                     | 1.0                                                                     | 7.5                 | 16.0                |
| Slashers                      | 1.7                                                                     | 1.3                                                                     | 18.4                | 27.4                |
| Flail debarkers               | 5.3                                                                     | 1.0                                                                     | 7.7                 | 11.0                |
| Loaders                       | 2.3                                                                     | 1.5                                                                     | 20.5                | 19.8                |
| Bulldozers                    | 1.5                                                                     | 1.4                                                                     | 23.3                | 21.9                |
| Other Road<br>Building Equip. | 2.3                                                                     | 3.6                                                                     | 33.6                | 21.5                |

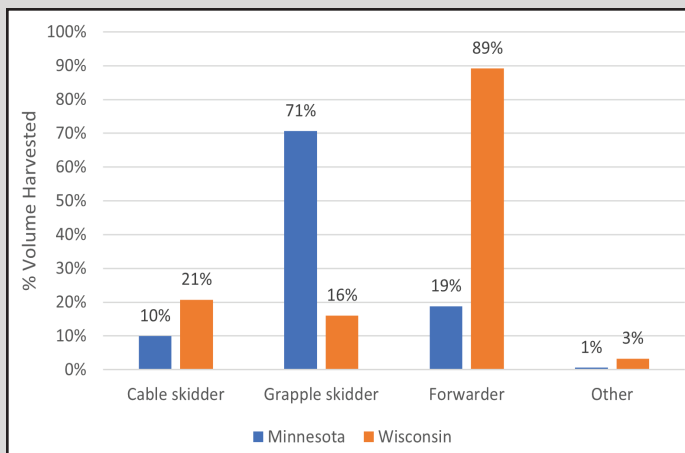
Table 1: Number of Equipment and Average Age of Newest Piece.

Regarding in-woods equipment, Minnesota has more uniformity across harvesting equipment type with cut-to-length harvester, drive-to-tree buncher, and reach-to-tree buncher representing 28%, 31%, and 39% of volume harvested, respectively. Wisconsin is heavy to cut-to-length systems representing 60% of volume harvested. Differences in soils, forest type and how they are managed (clearcut vs. selective thinning), wood quality, and markets are some of the main reasons for those differences (Figure 2).



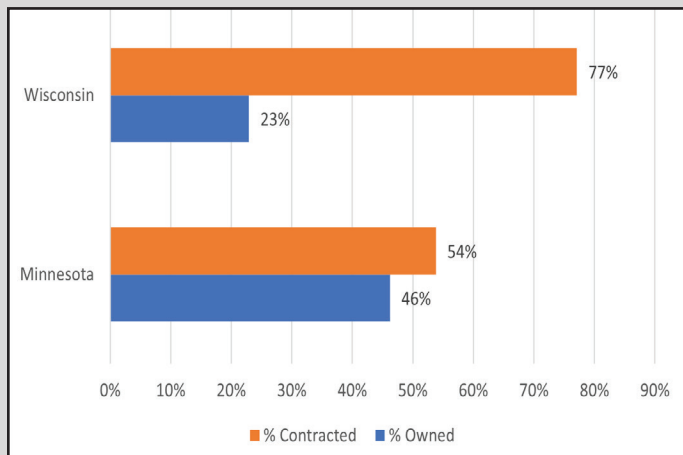
**Figure 2: Harvesting Systems Comparison for Minnesota and Wisconsin.**

In-woods transportation of harvests also differs by state. Wisconsin clearly favors the forwarder in moving materials to the landing (Figure 3). The grapple skidder preference in Minnesota matches the practice of processing at the landing where a slasher is commonly used.



**Figure 3: Equipment Preference to Move Harvest Materials to the Landing by State.**

Over the road trucking plays an important role in all forest operations. We asked what percentage of harvest volume was transported to mills by trucks loggers own versus trucks contracted (Figure 4). Wisconsin shows a clear preference for contracted trucks. Minnesota is more balanced with a majority of loggers transporting with trucks contracted.



**Figure 4: Percent of Harvest Volume Transported by Logger Owned vs. Contracted Trucking.**

A nationwide trucking shortage continues to plague most industries. 52% of Wisconsin respondents and 48% of Minnesota respondents said that a shortage of truck drivers negatively impacted their businesses in 2021. Reasons for the shortage were identified as retirements, no younger people filling the gaps, better paying jobs with benefits elsewhere, COVID-19 with free money, and a change in work ethic. General labor comments from responding loggers in Wisconsin and Minnesota fall into four major categories including 1) free government money, 2) rising costs/not profitable, 3) low pay/benefits compared to other options, and 4) lack of drivers/laziness.

## Business Environment

Business environment was also examined in the study. Respondents were asked how they would rate the profitability of their business in 2021. Nearly 50% of Wisconsin respondents stated it was a “profitable” financial year (Figure 5) with an additional 28% stating they “broke even.” Minnesota loggers reported similar results with 41% of respondents stated it was a “profitable” financial year with an additional 39% stating they “broke even” (Figure 5).

Another measure of the business environment is the amount of capital invested into logging businesses. Investments from Wisconsin companies ranged from \$0 to \$5 million (Figure 6). About half of Wisconsin companies invested



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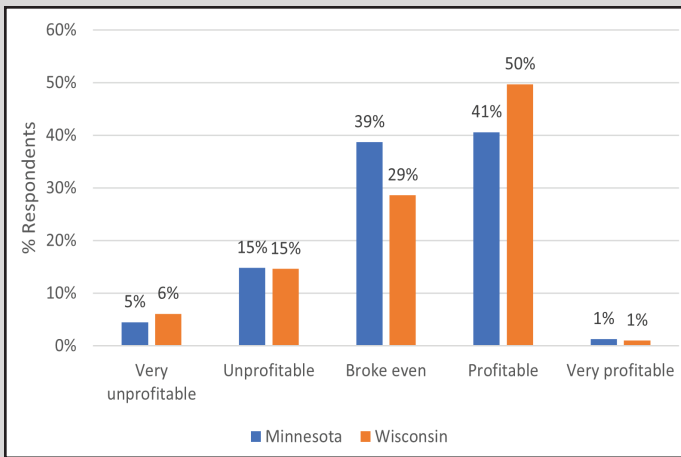


Figure 5: Profitability by State.

less than \$25,000 into their businesses. Viewed from an optimistic perspective, the other half invested more than \$25,000, with some companies investing millions of dollars. Minnesota showed a similar trend but had more mid-range investments - \$100,000 to \$500,000. Access to capital can be a business hurdle, but most Wisconsin and Minnesota respondents said that access to loans or letters of credit was relatively easy.

Recent mill closures had a tremendous impact on logging businesses across the Lake States. For example, the Verso

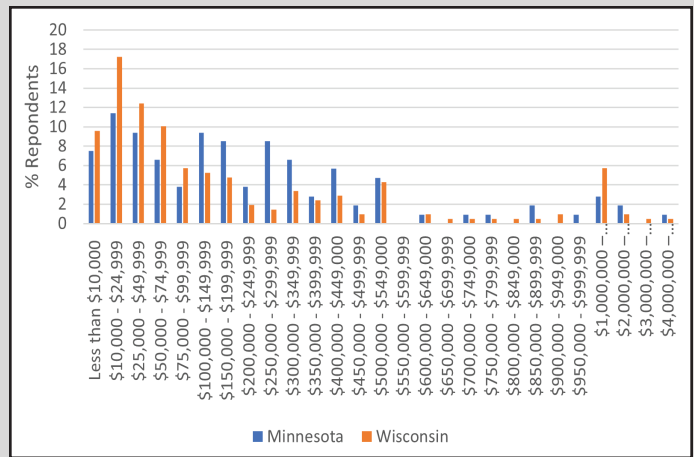


Figure 6: Dollar Investment into Logging Business by State.

mill in Wisconsin Rapids consumed approximately 25% of the pulpwood produced in Wisconsin. Its closure disrupted pulpwood markets in Wisconsin and across the Lake States. Figure 7 shows how the closures of the pulp and paper mills in Duluth, Park Falls, and Wisconsin Rapids impacted loggers in Minnesota and Wisconsin. Clearly, the mill closures impacted Wisconsin loggers more than Minnesota loggers. This is likely due to the volume consumed by the Wisconsin Rapids mill. Smaller regional effects were likely felt by the mill closures in Duluth and Park Falls.

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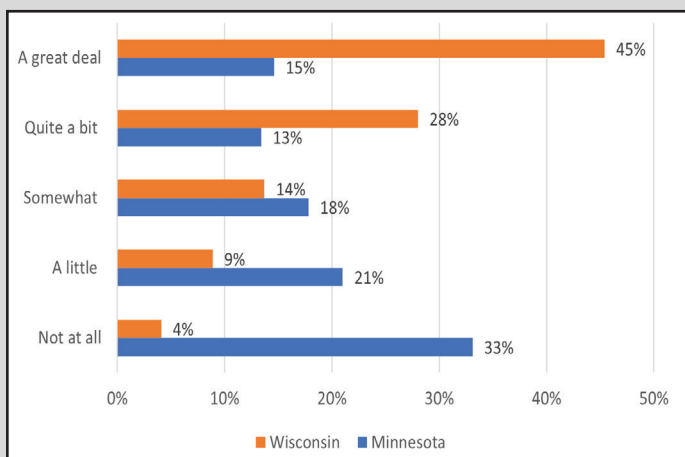
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**Figure 7: Negative Impact of Pulp and Paper Mill Closures in Duluth, Park Falls, and Wisconsin Rapids.**

Whether a logging company plans to grow or expand its business is another predictor of the business climate. 75% of Wisconsin respondents and 77% of Minnesota respondents said they are not planning to expand their businesses in the next five years. A key obstacle, difficulty hiring a quality workforce, was cited by 74% of Wisconsin and 92% of Minnesota respondents. Other barriers included high fuel cost, high insurance costs, high trucking costs, increased regulations, and high inflation.

Overall, Minnesota and Wisconsin companies answered the same with 70% expecting to be in business five years

from now which is similar to the agriculture industry in general. For the 30% expecting to be out of business, retirement was the key reason. A number of respondents stated, “retiring with no one interested in taking it over.” Other reasons for not being in business in five years are noted below. There is no guarantee, though, that the loggers who do not expect to be in business in five years will actually leave the industry.

- *poor and unreliable markets, no workforce, too large of investment on newer equipment to be profitable.*
- *too many mill closures -need more pulp markets*
- *the cost of equipment insurance and fuel have far outpaced the price paid to logger*
- *cannot find employees with skills to run modern equipment*
- *as a small logging business we are being squeezed out by the larger producers*

### The Pandemics Impact on the Logging Industry

Loggers responded about the impact of the COVID-19 pandemic and the loss of markets on their businesses in calendar year 2021. They were asked to evaluate COVID’s impact on profits. Figure 8 shows that very few logging companies increased profitability in 2021. In Wisconsin, roughly 25% saw no change in profits; however, 63% of responding logging companies saw profits decrease during

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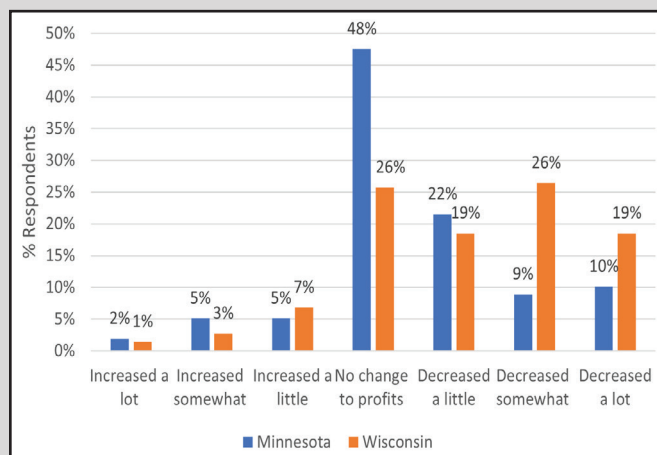
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that period. Of interest is Minnesota's response with 47% responding no change to profits. Given the overlap of the pandemic and the mill closure in Wisconsin Rapids, Wisconsin's data could be skewed negative for both pandemic and mill closure reasons.



**Figure 8: COVID's Impact on Logging Profitability in Minnesota and Wisconsin.**

Several COVID Business relief programs were implemented soon after the pandemic began. We inquired about which programs were used by logging companies in Minnesota and Wisconsin. The data showed that of the companies that applied, most were awarded funding (Table 2). For example, 53% of respondents in Minnesota applied for the Paycheck Protection Program. Of those that applied, 95% received payments. A similar response was found for Wisconsin companies with 52% of respondents applying and 93% of those application approved. Wisconsin companies had a higher rate of application and awards in the Pandemic Assistance for Timber Harvesters and Haulers program. It is safe to speculate that these relief funds may have helped some business stay afloat and other businesses be profitable in 2021. The Great Lakes Timber Professionals Association was an important source of information during the pandemic helping loggers become aware of and to apply for these funds where appropriate

**Table 2: COVID Business Support Programs**

| COVID Business Support Programs                               | MN Applied | MN Received | WI Applied | WI Received |
|---------------------------------------------------------------|------------|-------------|------------|-------------|
| Paycheck Protection Program (PPP)                             | 53%        | 95%         | 52%        | 93%         |
| Pandemic Assistance for Timber Harvesters and Haulers (PATHH) | 21%        | 80%         | 33%        | 84%         |
| Economic Injury Disaster Loan                                 | 7%         | 67%         | 10%        | 89%         |
| SBA Express Loan Bridge                                       | 2%         | 50%         | 4%         | 63%         |
| SBA Debt Relief                                               | 5%         | 75%         | 5%         | 70%         |
| Coronavirus Food Assistance Program                           | 1%         | 100%        | 1%         | 100%        |

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## Concluding Remarks

We saw from the results that the average age of the logger has not changed from our last survey in 2017, but we did see that loggers are having trouble hiring qualified people. This lack of labor trend is happening across all industries. Lack of labor, lack of markets for smaller wood, rising equipment costs, and aging existing equipment will be some of the challenges moving forward. Minnesota and Wisconsin have a lot of similarities in their logging industries. We hope that the industry is able to recover from the pandemic, with labor availability, diverse markets for harvested products and supply chain issues for equipment and spare parts returning to a more normal time. The logging sector is essential for sustainable forest management and the smooth functioning of wood and fiber markets that account for a sizable portion of Wisconsin and Minnesota's economies.

Keeping these businesses healthy will be important for the wood supply chain and the many rural economies it helps support in both states. 



*The authors would like to thank the loggers in Minnesota and Wisconsin for responding to this study. Your time and efforts are appreciated!*

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