Issue Brief No. 22
September 2019

SURVEY OF IDAHO LOG AND CHIP TRUCK DRIVERS 2019

by

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The Policy Analysis Group was established by the Idaho legislature in 1989 to provide objective analysis of the impacts of natural resource proposals.
Issue Briefs are timely summaries of research relevant to current natural resource topics.

INTRODUCTION

Truck drivers transport timber (logs) and other woody material (chips) from sites where they are harvested in the forest to manufacturing facilities where they are made into lumber, paper, and other useful products. Log and chip truck drivers are a vital part of the supply chain for Idaho's forest products industry. Currently, the forest products industry is facing a shortage of log and chip drivers that is expected to get worse without intervention.

To respond to the shortage of drivers, and other in-woods workers in the forest products industry, several major players in the forest products industry in northern Idaho—including landowners, manufacturers, and logging contractor representatives—formed the Idaho Trucking and Labor Task Force Coalition in late 2018. The Coalition's mission is to identify potential solutions to workforce issues impacting the forest products industry.

In early 2019, the Coalition asked the Policy Analysis Group to help it understand more about the existing log and chip truck driver workforce and how new drivers might be attracted to the workforce by developing and administering a survey. This report documents the results of that survey.

METHODS

Questionnaire Development

In early 2019, the Policy Analysis Group developed a questionnaire that focused on equipment used by log and chip truck drivers, job characteristics, occupational choice, job satisfaction, future occupational plans, and demographics of drivers. (See Appendix A for complete questionnaire.) The questionnaire was reviewed by members of the Coalition as well as an owner of a log trucking company and revised based on their input.

Survey Type

Because of the ease and low cost of administration, the survey was administered online through the internet. Qualtrics (qualtrics.com) survey software licensed through the University of Idaho was used to collect data.

Sampling

Choosing a method for sampling the population of log and chip truck drivers in Idaho was challenging because a database of contact information for all drivers was not available and the total number of truck drivers (population size) was unknown. Despite the questionable nature of inferences that can be made about a population, the Coalition and Policy Analysis Group decided to use convenience, non-probability sampling.[1]

Survey Distribution

The Policy Analysis Group created an anonymous URL and QR code link for the survey. The survey was open to receive responses from April 22 to July 31, 2019.

[1]For more information about issues associated with non-probability sampling, see American Association for Public Opinion Research (2013), *Report of the AAPOR Task Force on Non-Probability Sampling,* https://www.aapor.org/AAPOR_Main/media/MainSiteFiles/NPS_TF_Report_Final_7_revised_FNL_6_22_13.pdf

Invitations to participate in the survey were distributed by a variety of organizations and methods (Appendix B). Forestry-related organizations, including the Associated Logging Contractors (ALC) and the Idaho Forest Products Commission, helped spread word about the availability of the survey during conferences and through newsletters and e-mails targeted at log and chip truck drivers. Forest products industry companies used contractor meetings during spring 2019 to inform truck drivers about survey availability. Some mills distributed post cards with the URL and QR code directly to drivers as they checked in at mill gates.

The survey questionnaire and methods were submitted to the University of Idaho Institutional Review Board (project 19-077) and determined to be "exempt" under category 2 of 45 CRF 46.104(d)(2) regarding protection of human subjects.

RESULTS

Response Statistics

Traditional statistics of refusal and response rates cannot be computed because the total number of log and chip truck drivers (population size) is unknown. Also, it is unknown how many drivers received an invitation or were aware that the survey was available.

A total of 70 people accessed the survey through the anonymous URL or QR code (Table 1). Of those, 9 were not log or chip truck drivers, were filtered out by the first survey question, and prevented from completing the survey. Five (5) other people who accessed the survey did not respond to any questions and were eliminated from the response database. Consequently, 56 valid surveys were included in this results analysis.

Table 1. Survey implementation summary

Survey Implementation Summary	n =
Attempts (accessed survey)	70
No answers (completely blank)	5
Q1 filter (not truck drivers)	9
Valid surveys	56
Incomplete surveys (still included)	6
Complete surveys	50
Median response time	18:59

Responses were received throughout the survey period (Figure 1). One-quarter of respondents accessed the survey using the QR code, indicating they may have been using a mobile device (e.g., cell phone, tablet), while three-quarters of respondents used the anonymous URL (Figure 2). About one-third of respondents found out about the survey from the Associated Logging Contractors, and another third found out at a mill (Figure 3). The median time taken to complete the survey was almost 19 minutes.

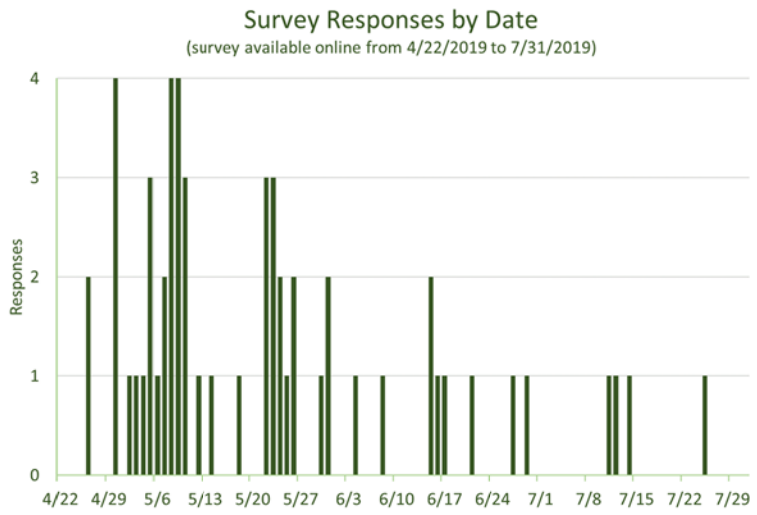


Figure 1. Survey responses by date.

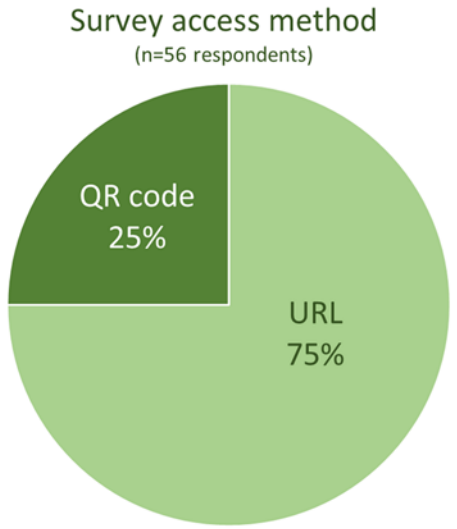


Figure 2. Survey access method

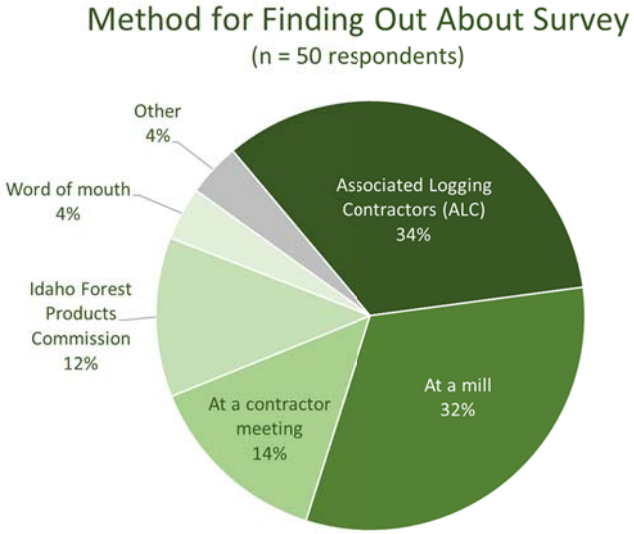


Figure 3. Method for finding out about survey.

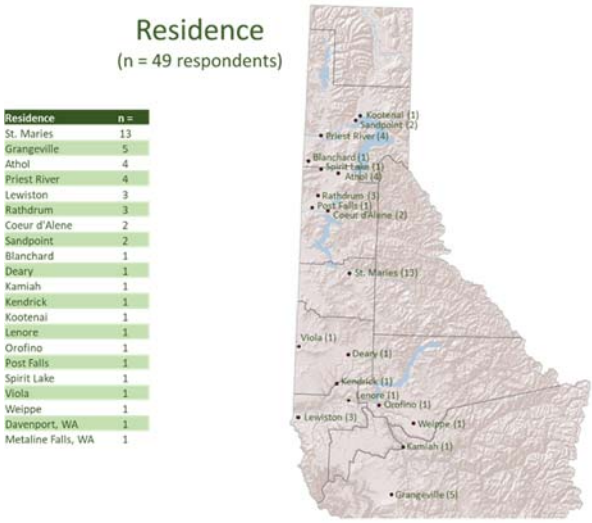


Figure 4. Residence of survey respondents.

Cautions!

Statistically valid inferences about the population of Idaho log and chip truck drivers cannot be made based on the results of this survey. Because the number (size of the population) of Idaho log and chip truck drivers is unknown, non-probability sampling was used, and respondents were self-selected, inferences about the entire population of log and chip truck drivers in Idaho are dubious.

In addition, the low number of responses makes results suspect for representing drivers beyond those who responded. Anecdotally, Idaho Forest Group has indicated there are about 2,000 log truck drivers delivering to its Idaho mills (Tom Schultz, personal communications). If 2,000 is considered to be a ballpark estimate of the truck driver population, the 56 drivers that responded to the survey are only 2.5% of all drivers. To meet traditional survey method standards (i.e., confidence interval of 95% and margin of error of 5%), a sample size of 323 would be required.

Analysis of sub-groups of respondents (e.g., owner-operators vs. company employees) is also suspect because of the low number of respondents. Statistics based on sub-group of less than 30 respondents may not exhibit large sample properties.

Despite these cautions, the results below provide valid information about the log and chip truck drivers who participated in the survey. It is just unknown how representative they are of Idaho log and chip truck drivers as a whole.

Demographics

All respondents lived in northern Idaho (Figure 4), as one would expect because that is where most of the forests and forest products industry of the state is located. Many respondents (13) lived in or around St. Maries.

Respondents ranged in age from 31 to 95 years old, with an average age of 53 years (Figure 5). Almost one third (30%) of respondents were over 60 years old. Similarly, respondents had many years of experience driving log or chip trucks, with an average experience of 22.9 years and 50% of respondents having more than 20 years experience (Figure 6).

Almost all respondents (98%) reported driving log or chip trucks in Idaho, with nearly as many (94%) reporting driving in Washington (Figure 7).

Employment type

Sixty-one percent (61%) of respondents were owners of the trucks they drove (i.e., owner-operators), 36% were company employees, and 3% drove trucks owned by a family member (Figure 8). Most (80%) respondents only drove log trucks, 13% only drove chip trucks, and 7% drove both log and chip trucks (Figure 9).

Of those respondents who were employees of a company, 70% drove for a trucking company while 30% drove for a logging company (Figure 10). Half (50%) of respondents worked for a company with 15 or more employees (Figure 11).

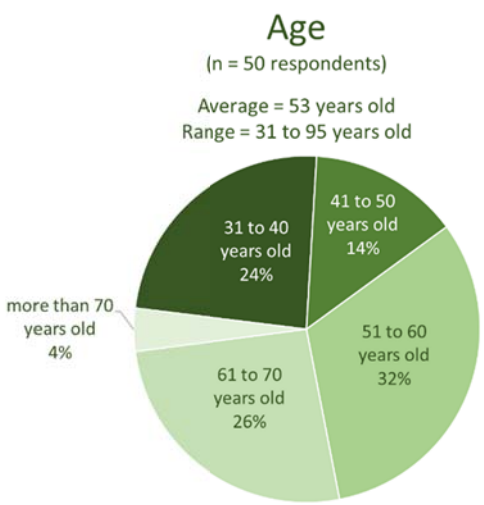


Figure 5. Age of survey respondents.

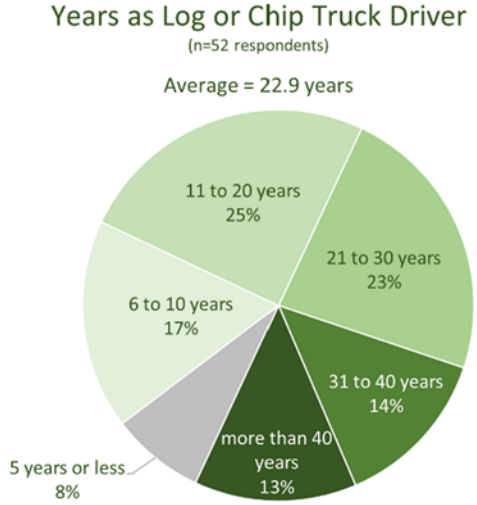


Figure 6. Log and chip truck driving experience.

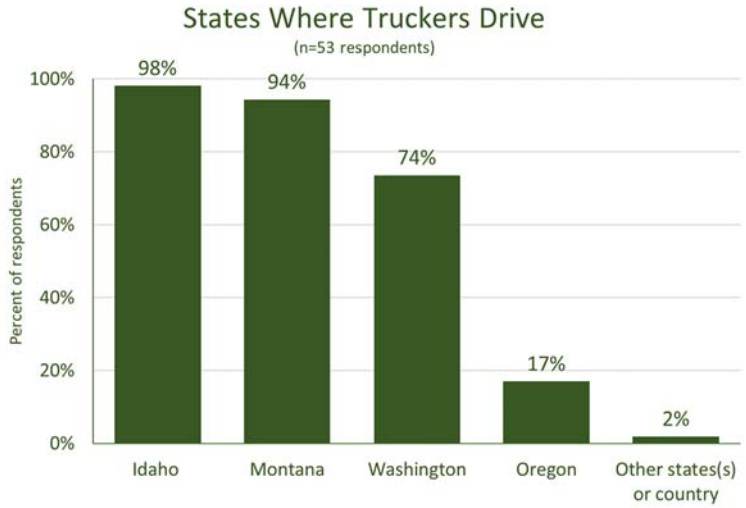


Figure 7. States where log and chip truck drivers worked.

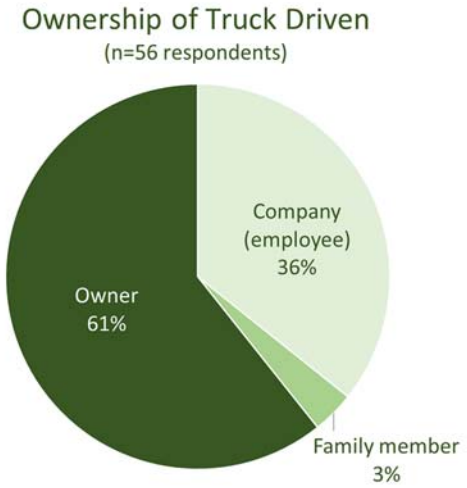


Figure 8. Ownership of trucks driven.

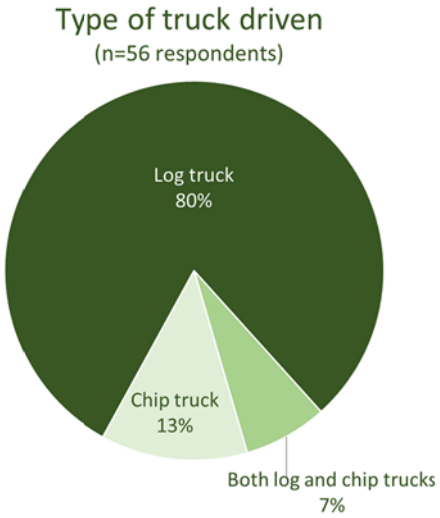


Figure 9. Types of trucks driven.

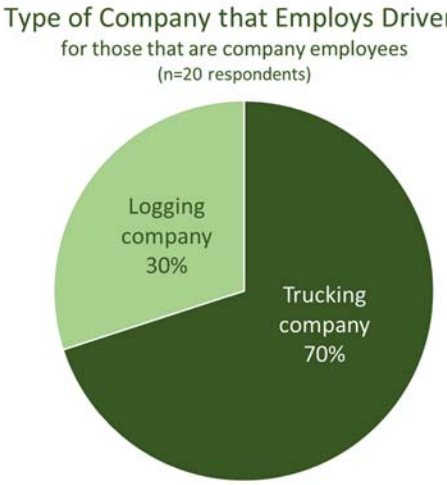


Figure 10. Type of company that employees drivers.

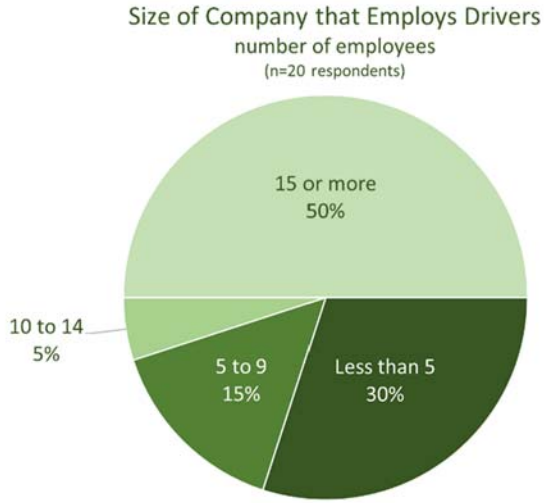


Figure 11. Size of company that employs drivers.

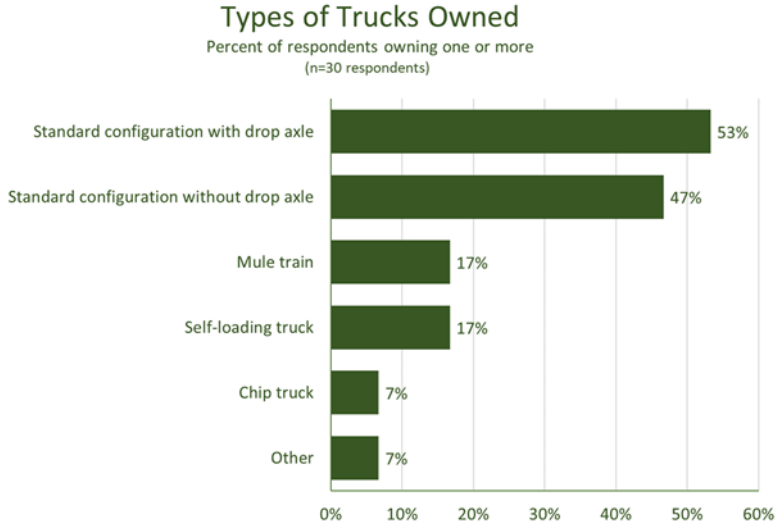


Figure 12. Types of trucks owned.

Equipment characteristics

Of those respondents who owned the truck they drove, most owned standard configuration log trucks (Figure 12), either with (53%) or without (47%) a drop axle. Almost half (47%) of truck owners owned only one truck (Figure 13).

Among all respondents, the average age of truck tractors was 15.4 years and the average age of truck trailers was 20.3 years (Figure 14). Few respondents reported using technologies in their cabs such as electronic log books (E-log) or a global positioning system (GPS; Figure 15).

Job characteristics

Almost half (49%) of respondents reported that their typical workday began between midnight and 1:30 AM (Figure 16). Fifty-four percent (54%) of respondents reported their typical workday ended between 4:00 PM and 5:00 PM (Figure 17). The average workday for respondents was 14.3 hours (Figure 18). Respondents reported hauling logs or chips for an average of 9.6 months per year (Figure 19).

Most (58%) of respondents reported an annual income from log or chip truck driving of between $40,000 and $60,000 (Figure 20). The most frequently cited methods of payment for driving were by loaded miles (80%) and by the ton (64%; Figure 21). Among respondents who were company employees or drove a family member's truck, benefits such as health insurance, retirement plans, and paid vacation were uncommon (Figure 22).

Job satisfaction

Less than half (40%) of respondents were satisfied or very satisfied with their job overall (Figure 23), and over one-third (35%) were indifferent (i.e., neither satisfied nor dissatisfied). The characteristics of the job that received higher satisfaction ratings were the driving part, the amount of work, and challenge of the job. The characteristics of the job that received the lowest ratings were work hours, benefits, and wages.

In response to an open-ended question about things they liked best about their job, respondents mentioned self-employment, working in the outdoors, independence, and freedom most often (Figure 24). When asked what they liked least about their jobs, respondents mentioned low pay, long hours, poor benefits, seasonality, and wait times at mills most often (Figure 25).

Productivity

When asked about factors that might improve their productivity, respondents indicated improved state, county, and logging road infrastructure would be most effective (Figure 26). Respondents indicated that centralized truck dispatching and GPS tracking coordination would be ineffective.

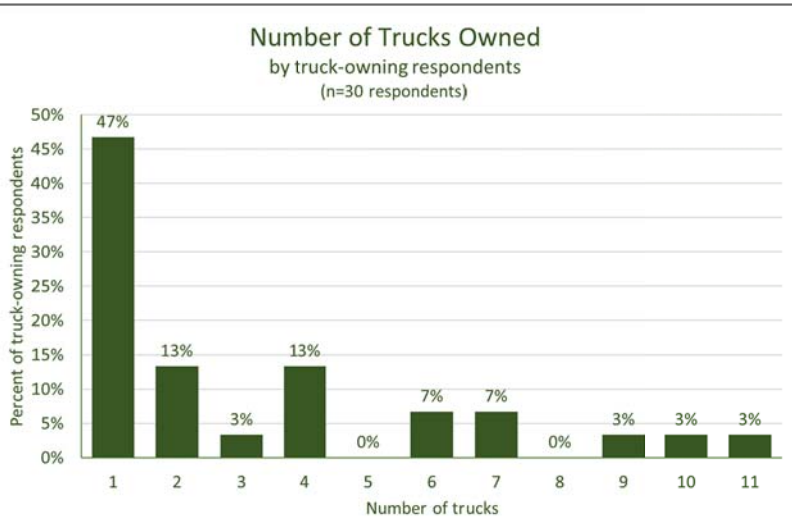


Figure 13. Number of trucks owned.

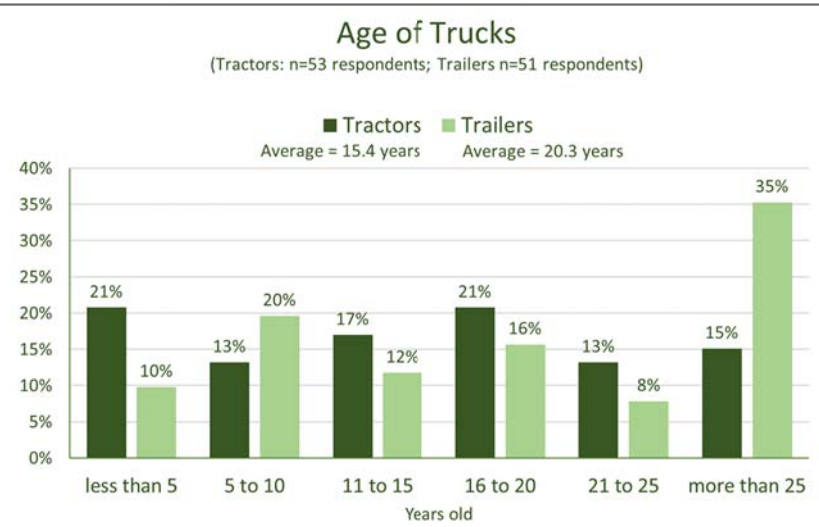


Figure 14. Age of trucks.

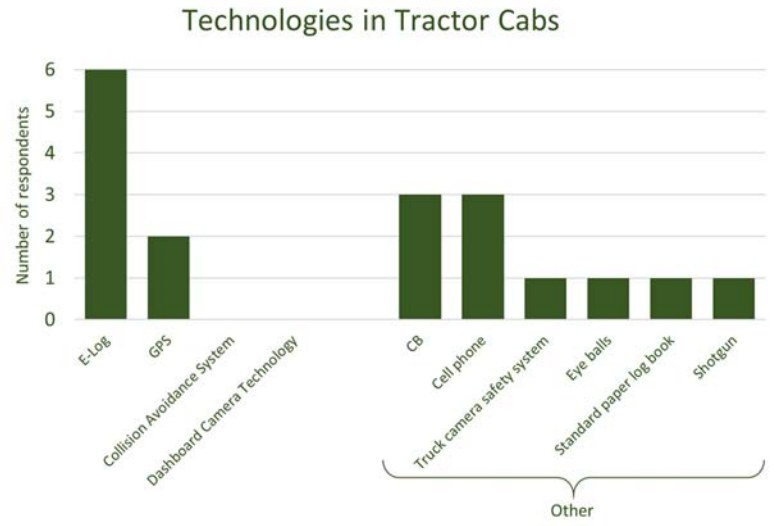


Figure 15. Technologies in tractor cabs.

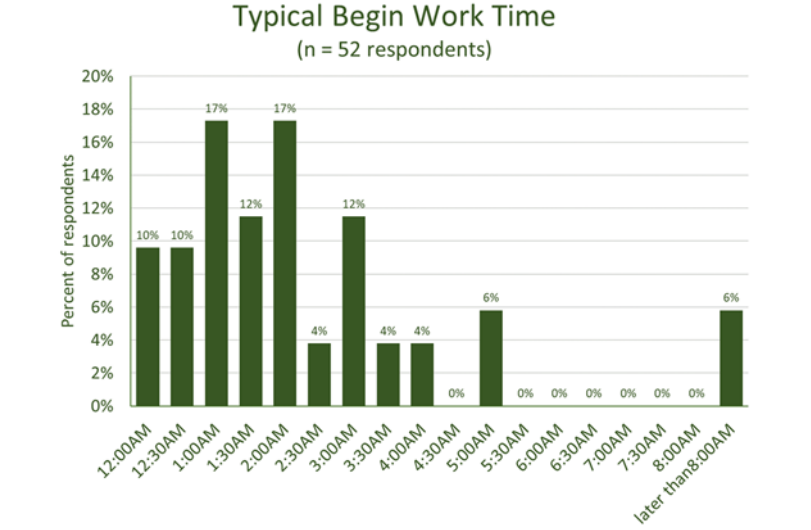


Figure 16. Time drivers begin work on typical day.

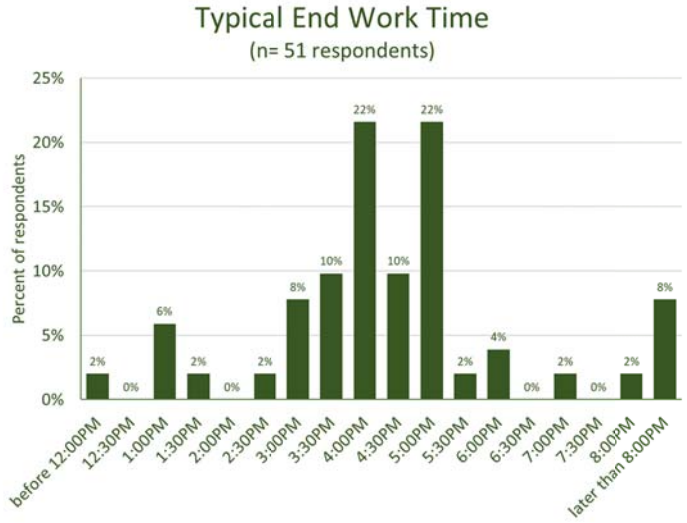


Figure 17. Time drivers end work on typical day.

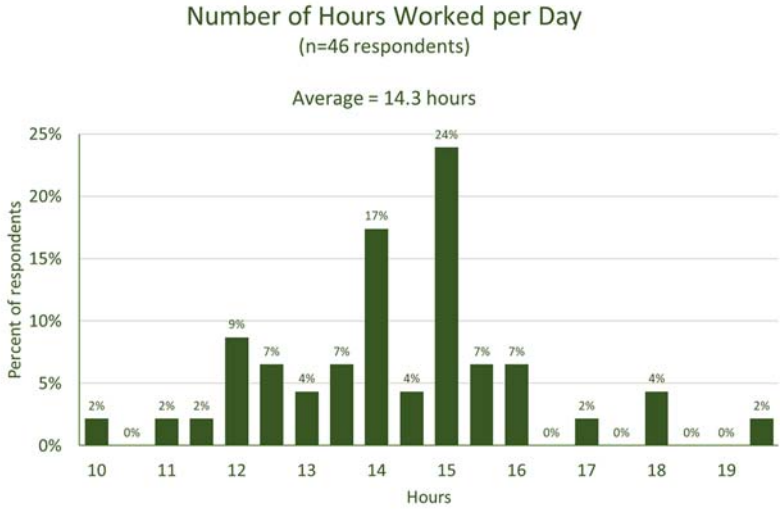


Figure 18. Length of typical workday.

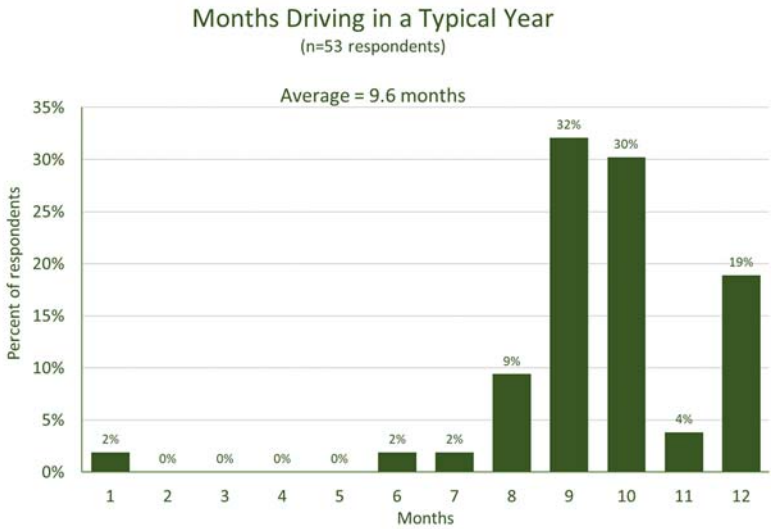


Figure 19. Number of months per year driving in a typical year.

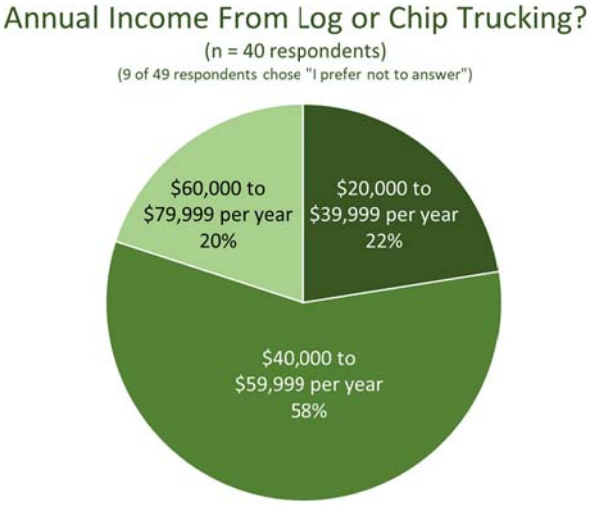


Figure 20. Annual income from log or chip truck driving.

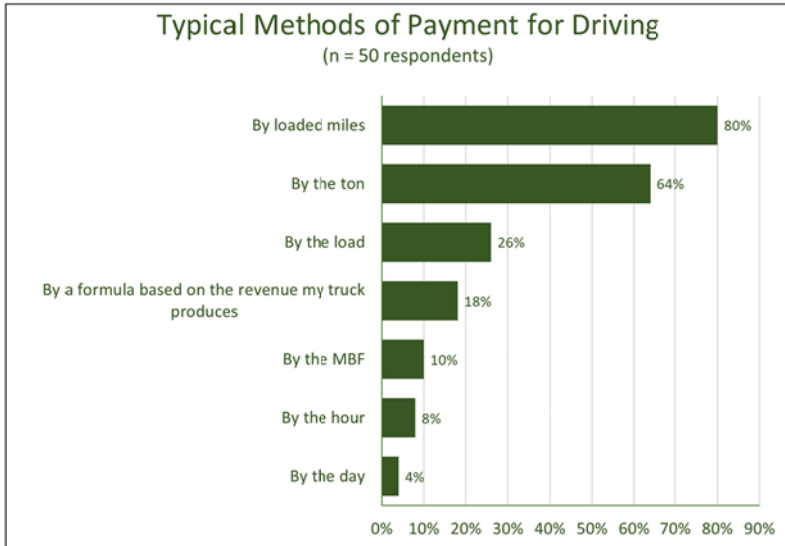


Figure 21. Method of payment for driving.

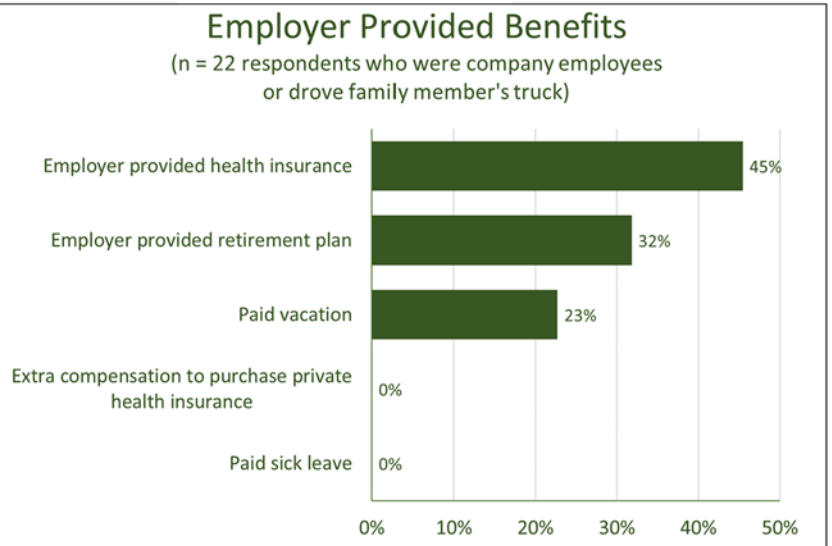


Figure 22. Employer provided benefits.

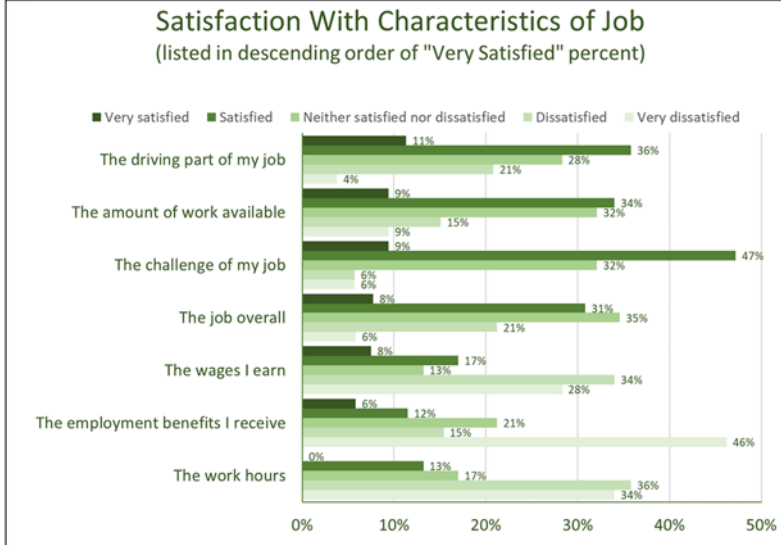


Figure 23. Job satisfaction.

Figure 24. Things liked best about job.

Figure 25. Things liked least about job.

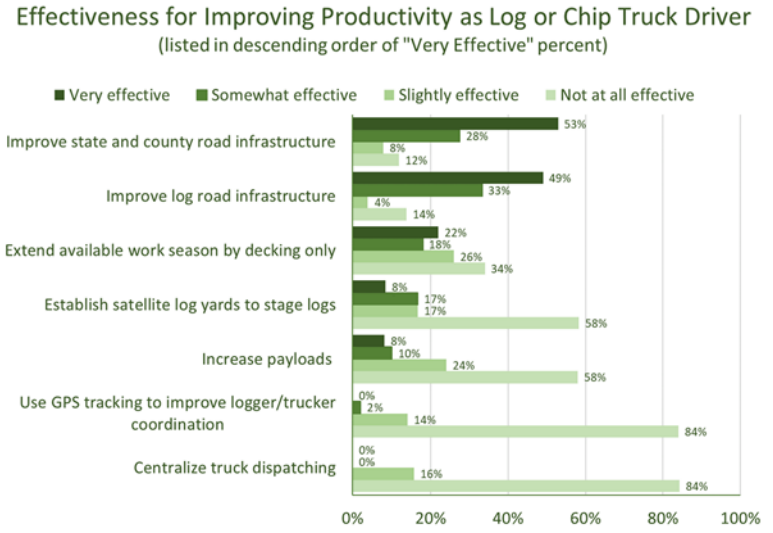


Figure 26. Effectiveness of factors for improving productivity.

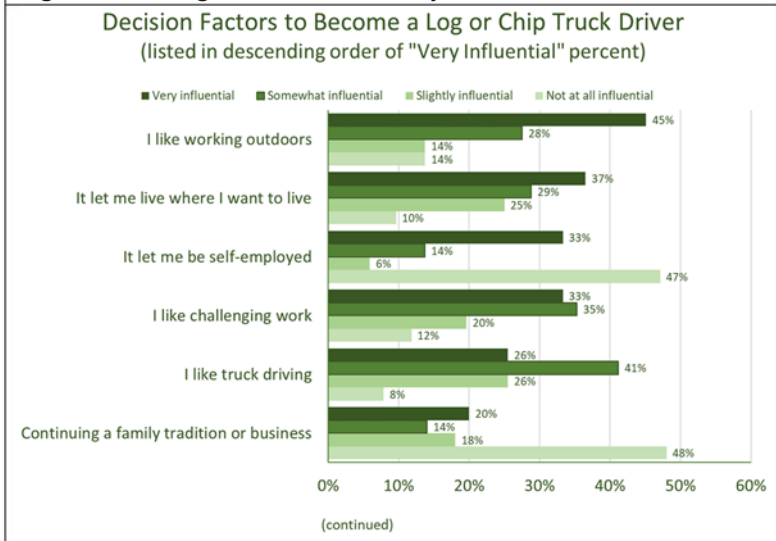


Figure 27. Decision factors to become driver.

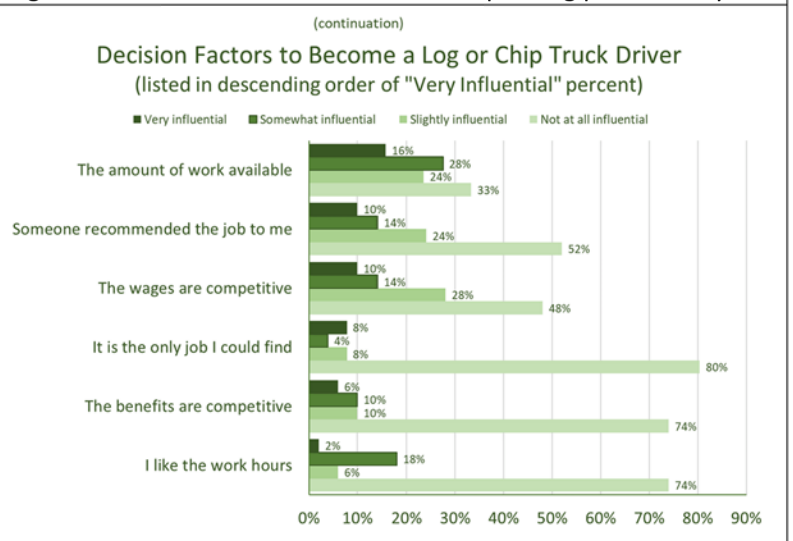


Figure 27. (continued)

Occupational choice

Reasons that respondents chose log or chip truck driving as an occupation were similar to job satisfaction characteristics (Figure 27). Working outdoors, truck driving, and challenging work were all highly influential in choosing the occupation, as well as being able to live where the respondent wanted to live. (In addition, self-employment was very influential among owner-operators.) The least influential occupational choice factors were work hours and benefits. Thirty percent (30%) of respondents became log or chip truck drivers after working in another forestry-related profession, mostly logging, while 28% were truck drivers in another industry (Figure 28).

Respondents felt that the most influential factors for attracting more people to become log or chip truck drivers were higher wages and better benefits (Figure 29). They felt a mentoring or coaching program or improved job safety would be less influential.

Future plans

Over half (56%) of respondents indicated that it is extremely likely or somewhat likely they will leave the log or chip truck driving occupation in the next three years (Figure 30). Among those who are extremely or somewhat likely to leave, 39% plan to retire while 39% plan to enter another occupation. Among those same respondents, low wages, poor working hours, and the need for better benefits were the most influential factors for leaving the occupation (Figure 31).

DISCUSSION

As stated previously, the results of this survey cannot be extrapolated to the population of Idaho log and chip truck drivers as a whole. However, the results can provide some insight into the characteristics and opinions of those drivers who chose to respond.

In general, the results reflect much of the conventional wisdom about the log and chip truck driving workforce. For example, respondents worked long hours, tended to be older, and many were planning to leave the occupation either to retire or enter another field.

The aging of the log and chip truck driver workforce and lack of new drivers coming into the occupation are concerns of the forest products industry, and the results of this survey show evidence supporting those concerns. Almost one-third of respondents were older than 60 years, and only one-quarter were younger than 40 years. Although the number of respondents was low, it is surprising that the youngest respondent was 31 years old.

The tractors and trailers used by respondents also tended to be old. The age of the truck fleet and barriers to replacement may be something that the forest products industry wants to monitor.

Where might the forest products industry recruit log and chip truck drivers? Most respondents came to log and chip truck driving from other forestry-related occupations or from other types of truck driving. Advertising or networking within logging, milling, or other truck-driving professional or social circles may prove fruitful.

Only about 1-in-10 respondents were students before entering the occupation. This finding, along with the age of the youngest respondents, suggests that efforts to attract new workforce members directly out of high school or from younger age cohorts may face challenges.

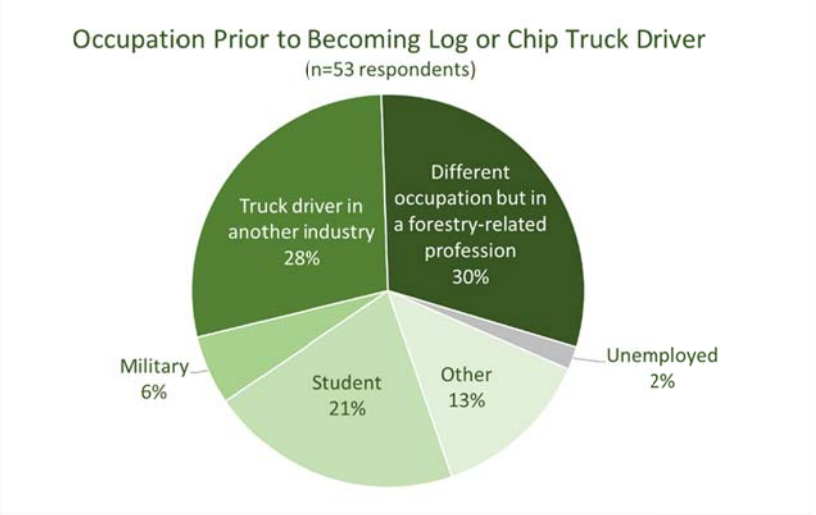


Figure 28. Occupation before log or chip truck driver.

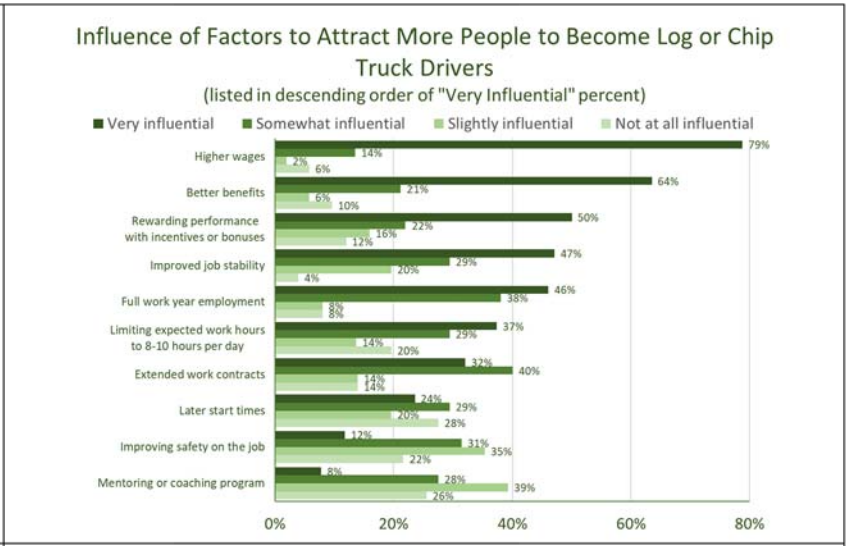


Figure 29. Factors to attract more drivers.

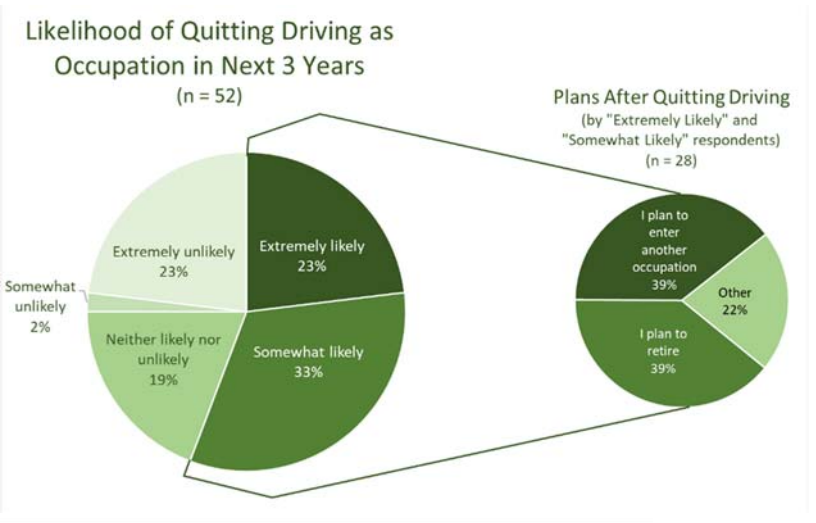


Figure 30. Likelihood of quitting log or chip truck driving.

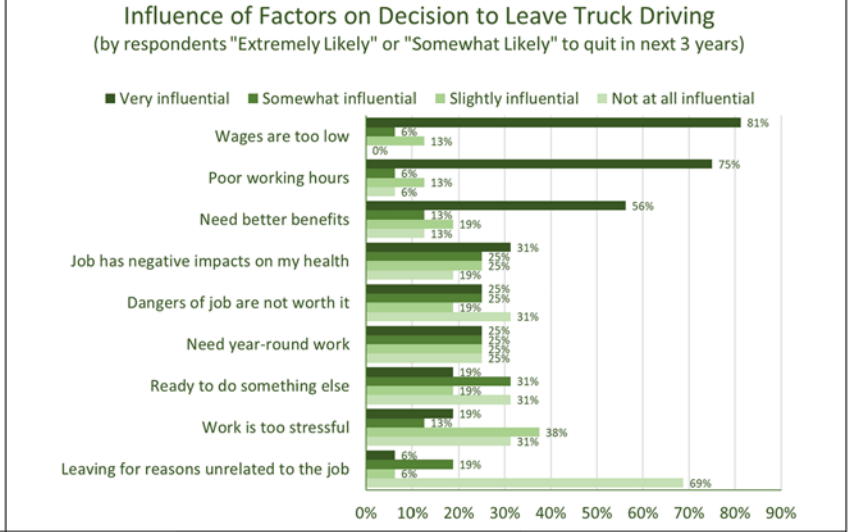


Figure 31. Influence of factors on decision to leave truck driving.

What attracts people to the log or chip truck driving occupation? Answers to several questions suggest respondents found the driving part of the job and the challenge of the job to be attractive. The ability to work outdoors or in the woods, live in desired locations, and a sense of independence also were attractive attributes. For respondents who were owner-operators, self-employment was also an attractive feature of the occupation. Recruitment materials may want to feature these attractive attributes.

What might make the log or chip truck driving occupation more attractive? Two factors stood out both in respondent's answers about their own job satisfaction and what they believed would attract more people to the occupation: higher wages and better benefits. Such answers are typical in many surveys and for many occupations.[2]

One way to achieve higher wages for log and chip truck drivers is to increase productivity. When presented with several options that might increase productivity, the only ones that most respondents felt would be effective were to improve logging roads and state and county roads. The actual conditions of roads and the effects of those conditions on productivity may be something the forest products industry wants to explore. If they are limiting factors, options for improving road conditions could be pursued.

Centralized dispatching and GPS tracking were not viewed by respondents as effective options for increasing productivity, perhaps because they could be viewed by respondents as decreasing independence and freedom, which are attractive features of the occupation. The lack of electronic technologies in respondent's tractor cabs may also indicate some resistance to technologies that can be used for monitoring purposes.

Although log and chip truck driver's wages also could be increased by working more, this does not appear to be a viable option because drivers already work very long days. Truck driver safety is already a concern within the forest products industry,[3] and longer work hours would only exacerbate those concerns.

CONCLUSIONS

The forest products industry in Idaho and elsewhere faces challenges recruiting and retaining new workers, including log and chip truck drivers. The work is challenging, requires long hours, and can be dangerous. However, the rewards of being independent, working in the woods, and living in desirable places can make the occupation attractive to some.

Although this study is unable to reach conclusions about the population of Idaho log and chip truck drivers as a whole, the respondents to this survey indicated low pay and lack of benefits were major drawbacks to choosing and staying in the occupation. Given the structure and competitive nature of the

[2] For example, Rynes, S.L., B. Gerhart, and K.A. Minette (2004), The importance of pay in employee motivation: discrepancies between what people say and what they do, *Human Resource Management* 43(4):381-394.
[3] For example, Bolding, M.C., T.N. Dowling, and S.M. Barrett (2009), Safe and efficient practices for trucking unmanufactured forest products, Virginia Cooperative Extension publication 420-310, http://pubs.ext.vt.edu/420-310.

forest products industry within Idaho, regionally, and nationally, addressing this issue may be challenging.

Finally, although surveys are a relatively inexpensive and efficient method of gathering reliable information about a population, log and chip truck drivers in Idaho were not very responsive to this survey. This lack of responsiveness to surveys is typical for workers in the forest products industry where reported response rates have been low.[4] Surveys may not be the best way to gather information about forest products industry workers. Personal interviews or focus groups may provide better and more in-depth information that would be useful for identifying potential solutions to workforce issues.

[4] For example, Cushing, T.L., F. Belart, and S. Bowers (2018), A survey of logger concerns when working with small woodland owners, *Small-scale Forestry* 17:523-534, reported a response rate of 28%.

Log and Chip Truck Driver Survey

Start of Block: Introduction

Intro **Welcome to the 2019 Idaho Log and Chip Truck Driver Survey!**

This survey is being conducted to understand more about log and chip truck drivers in Idaho, the rewards of your job and the challenges you face. All partners in the forest products industry--landowners, loggers, trucking companies, and mills--are concerned about the future of the log and chip truck driver workforce, and your voice is valuable for determining what the future will be.

Thank you for taking the time to complete the survey. Your participation is voluntary and your responses will be kept confidential. No personally identifiable information will be associated with your responses in any reports of the data. If you have questions or comments about the survey please feel free to contact Phil Cook, the survey manager, by e-mail at pcook@uidaho.edu or by phone at (208) 885-5980.

Phil Cook
2019 Idaho Log and Chip Truck Driver Survey Manager

End of Block: Introduction

Start of Block: Default Question Block

Q1 Do you drive a log or chip truck as part of your job?

- ○ NO
- ○ YES

Display This Question:
If Q1 = NO

Q1a Thank you for your willingness to complete this survey, BUT it is only for drivers of log or chip trucks, including single owner operators. Please do not fill out the survey if you don't drive a log or chip truck for work. Thank you for your time.

Skip To: End of Survey If Q1a() Is Displayed

End of Block: Default Question Block

Start of Block: Truckers

Q2 Which of the following do you drive?

- Log truck
- Chip truck
- Both log and chip trucks

Display This Question:
If Q2 = Both log and chip trucks

Q2a How is your work time split between hauling logs and chips?
_____ Logs
_____ Chips

Q3 Do you own the log or chip truck you drive?

- Yes, I own the log or chip truck that I drive
- No, I drive a truck that belongs to a family member
- No, I am an employee of a company that owns the truck I drive
- Other

Display This Question:
If Q3 = Other

Q3.1 Please describe the other ownership status of the log or chip truck(s) you drive.

_____

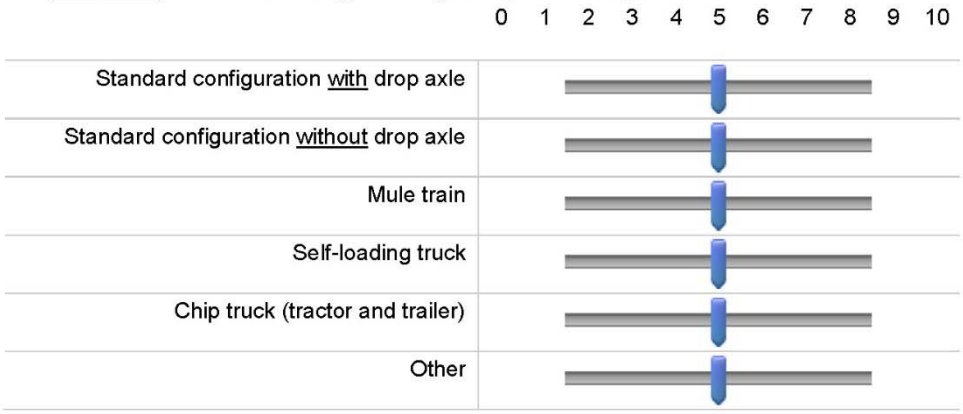
End of Block: Truckers

Start of Block: Owners' equipment

Display This Question:

If Q3 = Yes, I <u>own</u> the log or chip truck that I drive

Q3a How many of each of these types of log or chip trucks do you own?



Display This Question:

If Q3a [Other] > 0

Q3aa What other type of log or chip truck do you own?

_____

End of Block: Owners' equipment

Start of Block: Employees

Display This Question:

If Q3 = No, I am an <u>employee</u> of a company that owns the truck I drive

Q3b Which of the following best describes the company you work for?

- ○ Trucking company
- ○ Logging company
- ○ Other

Display This Question:
If Q3b = Other

Q3ba What other type company do you drive a log or chip truck for?

_____

Display This Question:
If Q3 = No, I am an <u>employee</u> of a company that owns the truck I drive

Q3c How many log or chip truck drivers are employed by the company you work for?

- ○ Less than 5
- ○ 5-9
- ○ 10-14
- ○ 15 or more

End of Block: Employees

Start of Block: Everyone

*

Q4 What percent of your work time do you drive the following types of log or chip trucks?

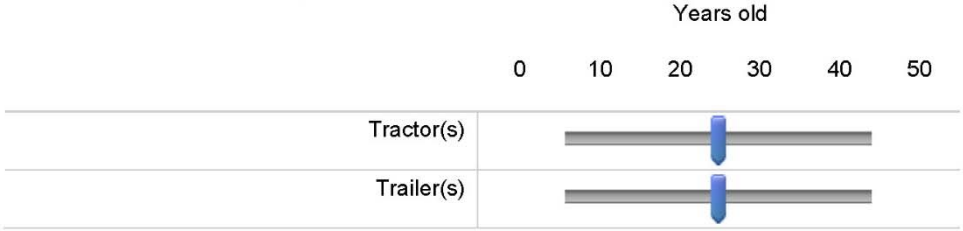
_____ Standard configuration with drop axle
_____ Standard configuration without drop axle
_____ Mule train
_____ Self-loading truck
_____ Chip truck (tractor and trailer)
_____ Other

Display This Question:
If Q4 [Other] > 0

Q4a What is this other type of log or chip truck do you drive?

_____

Q5 What are the ages of the tractor and trailer that you drive? If you drive more than one tractor or trailer, please estimate the average age of all the tractors or trailers you regularly operate.



Q6 Which of the following technologies do you use in your tractor cab?

- [ ] GPS (Global Positioning System)
- [ ] E-Log (Electronic Logging Technology)
- [ ] Collision Avoidance Technology
- [ ] Dashboard Camera Technology
- [ ] Other

Display This Question:
If Q6 = Other

Q6a What other technologies do you use in your tractor cab?

_____

Q7 In which states do you drive a log or chip truck?

- [ ] Idaho
- [ ] Montana
- [ ] Washington
- [ ] Oregon
- [ ] Other state(s) or country

Display This Question:
If Q7 = Other state(s) or country

Q7b In what other state(s) or country do you drive a log or chip truck?

_____

Q8 On a typical day of hauling logs or chips, what time do you begin work?

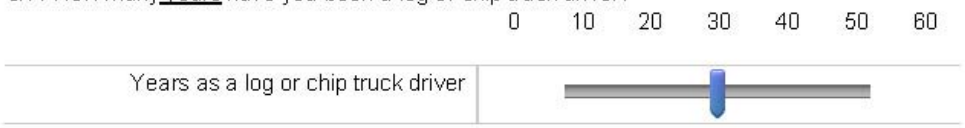
▼ 12:00AM (midnight)
[half-hour increments until]
later than 8:00AM

Q9 On a typical day of hauling logs or chips, what time do you end work?

▼ before 12:00PM (noon)
[half-hour increments until]
later than 8:00PM

Q10 During a typical year, how many months do you spend at least some of your work time driving a log or chip truck?

Q11 How many years have you been a log or chip truck driver?



Q12 Which of the following best describes your occupation immediately before becoming a log or chip truck driver?

- ○ Student
- ○ Military
- ○ Truck driver in another industry
- ○ Different occupation but in a forestry-related profession (for example: different part of the forest products industry, land management agency, firefighting)
- ○ Unemployed
- ○ Other

Display This Question:

If Q12 = Truck driver in another industry

Q12a What industry were you a truck driver in immediately before becoming a log or chip truck driver?

_____

Display This Question:

If Q12 = Different occupation but in a forestry-related profession (for example: different part of the forest products industry, land management agency, firefighting)

Q12b What forestry-related occupation were you in immediately before becoming a log or chip truck driver?

_____

Display This Question:

If Q12 = Other

Q12c What other occupation were you in immediately before becoming a log or chip truck driver?

_____

Q13 How influential were each of the following factors in your decision to become a log or chip truck driver?

	Not at all influential	Slightly influential	Somewhat influential	Very influential
I like working outdoors	○	○	○	○
I like challenging work	○	○	○	○
It is the only job I could find	○	○	○	○
I like truck driving	○	○	○	○
It let me live where I want to live	○	○	○	○
It let me be self-employed	○	○	○	○
I like the work hours	○	○	○	○
The amount of work available	○	○	○	○
The wages are competitive	○	○	○	○
The benefits are competitive	○	○	○	○
Continuing a family tradition or business	○	○	○	○
Someone recommended the job to me	○	○	○	○
Other	○	○	○	○

Display This Question:

If Q13 = Someone recommended the job to me [Slightly influential]

Or Q13 = Someone recommended the job to me [Somewhat influential]

Or Q13 = Someone recommended the job to me [Very influential]

Q13a Who recommended the job as a log or chip truck driver to you?

- ☐ Friend
- ☐ Family member who drives a log or chip truck
- ☐ Family member who does not drive a log or chip truck
- ☐ Another log or chip truck driver
- ☐ School counselor
- ☐ Other

Display This Question:

If Q13a = Other

Q13aa What other person recommended the job as a log or chip truck driver to you?

_____

Display This Question:

If Q13 = Other [Slightly influential]

Or Q13 = Other [Somewhat influential]

Or Q13 = Other [Very influential]

Q13b What other factor(s) was influential in your decision to become a log or chip truck driver?

_____

Q14 How satisfied are you with the following characteristics of your job as a log or chip truck driver?

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
The challenge of my job	○	○	○	○	○
The driving part of my job	○	○	○	○	○
The work hours	○	○	○	○	○
The amount of work available	○	○	○	○	○
The wages I earn	○	○	○	○	○
The employment benefits I receive	○	○	○	○	○
The job overall	○	○	○	○	○

Q14a What do you like best about your job as a log or chip truck driver?

_____

_____

_____

_____

_____

Q14b What do you <u>like least</u> about your job as a log or chip truck driver?

_____

_____

_____

_____

_____

Q15 How influential do you think each of the following factors would be in attracting more people to become log or chip truck driver?

	Not at all influential	Slightly influential	Somewhat influential	Very influential
Limiting expected work hours to 8-10 hours per day	○	○	○	○
Later start times	○	○	○	○
Higher wages	○	○	○	○
Better benefits (for example, health insurance, retirement plans, paid vacation)	○	○	○	○
Improved job stability	○	○	○	○
Full work year employment	○	○	○	○
Extended work contracts (multi-year vs. spot or annual)	○	○	○	○
Rewarding performance with incentives or bonuses	○	○	○	○
Improving safety on the job	○	○	○	○
Mentoring or coaching program	○	○	○	○
Other	○	○	○	○

Display This Question:

If Q15 = Other [Slightly influential]

Or Q15 = Other [Somewhat influential]

Or Q15 = Other [Very influential]

Q15b What other factor(s) do you think would be influential in attracting more people to become log or chop truck drivers?

_____

Q16 How effective would each of the following activities be in improving your productivity as a log or chip truck driver?

	Not at all effective	Slightly effective	Somewhat effective	Very effective
Centralize truck dispatching	○	○	○	○
Increase payloads (for example, lighter truck materials, or added axles)	○	○	○	○
Use GPS tracking to improve logger/trucker coordination	○	○	○	○
Establish satellite log yards to stage logs	○	○	○	○
Improve log road infrastructure	○	○	○	○
Improve state and county road infrastructure	○	○	○	○
Extend available work season by decking only	○	○	○	○
Other	○	○	○	○

Display This Question:

If Q16 = Other [Slightly effective]

Or Q16 = Other [Somewhat effective]

Or Q16 = Other [Very effective]

Q16a What other activity would be effective at improving your productivity as a log or chip truck driver?

_____

Q17 How likely is it that you will quit driving a log or chip truck as an occupation within the next 3 years?

- Extremely likely
- Somewhat likely
- Neither likely nor unlikely
- Somewhat unlikely
- Extremely unlikely

Display This Question:
If Q17 = Extremely likely
Or Q17 = Somewhat likely

Q17a Why do you plan to quit driving a log or chip truck?

- I plan to retire
- I plan to enter another occupation
- Other

Display This Question:
If Q17a = I plan to enter another occupation

Q17aa What occupation do you plan to enter?

_____

Display This Question:

If Q17a = Other

Q17ab For what other reason do you plan to quit driving a log or chip truck?

_____

Display This Question:

If Q17a = I plan to enter another occupation

Or Q17a = Other

Q17ac How influential are the following factors in your decision to leave log or chip truck driving?

	Not at all influential	Slightly influential	Somewhat influential	Very influential
Work is too stressful	○	○	○	○
Poor working hours	○	○	○	○
Need year-round work	○	○	○	○
Wages are too low	○	○	○	○
Need better benefits	○	○	○	○
Dangers of job are not worth it	○	○	○	○
Job has negative impacts on my health	○	○	○	○
Ready to do something else	○	○	○	○
Leaving for reasons unrelated to the job	○	○	○	○
Other	○	○	○	○

Display This Question:

If Q17ac = Other [Slightly influential]

Or Q17ac = Other [Somewhat influential]

Or Q17ac = Other [Very influential]

17aca What other factor(s) is influential in your decision to leave log or chip truck driving?

_____

Display This Question:
If Q17a = I plan to enter another occupation

Q17ad Would you consider not leaving the log or chip trucking occupation if wages were higher?

- ○ NO
- ○ YES

Display This Question:
If Q17a = I plan to enter another occupation

Q17ada How much higher would your wages need to be for you to not quit driving a log or chip truck?

	0 20 40 60 80 100
Percent more than your current wage	

Q18 How old are you?

	15 25 35 45 55 65 75 85 95
Years old	

Q19 What is the Zip Code of where you live?

- ○ 5-digit ZIP Code _____

Q20 How are you typically paid for your log or chip truck driving?

- ☐ By the load
- ☐ By the ton
- ☐ By the MBF
- ☐ By the hour
- ☐ By the day
- ☐ By a formula based on the revenue my truck produces
- ☐ By loaded miles

Q21 What is your annual income (before taxes) from log or chip trucking?

- ○ Less than $20,000 per year
- ○ $20,000-$39,999 per year
- ○ $40,000-$59,999 per year
- ○ $60,000-$79,999 per year
- ○ $80,000 or more per year
- ○ I prefer not to answer

Display This Question:

If Q3 = No, I am an <u>employee</u> of a company that owns the truck I drive

Q22 What type of benefits do you receive from your employer?

- [ ] Paid vacation
- [ ] Paid sick leave
- [ ] Employer provided retirement plan
- [ ] Employer provided health insurance
- [ ] Extra compensation to purchase private health insurance
- [ ] Other

Display This Question:

If Q22 = Other

Q22a What other benefit(s) do you receive from your employer?

_____

Q23 How did you find out about this survey?

- ○ Word of mouth (for example: another driver, friend, family member, etc.)
- ○ Associated Logging Contractors (ALC)
- ○ Idaho Forest Products Commission
- ○ At a logging, equipment, or continuing education conference
- ○ At a contractor meeting
- ○ At a mill
- ○ Other

Display This Question:
If Q23 = Other

Q23a What was the other way you learned about this survey?

_____

Q24 Is there anything else you would like to tell us about your job as a log or chip truck driver?

_____

_____

_____

_____

_____

End of Block: Everyone

APPENDIX B. SAMPLE SURVEY INVITATION

2019 IDAHO LOG AND CHIP TRUCK DRIVER SURVEY

The Idaho Trucking and Labor Task Force Coalition wants to learn more about you—log and chip truck drivers—the rewards of your job and the challenges you face. The Coalition has teamed up with the University of Idaho to conduct a survey.

Survey will be open for your answers April 22 – June 30, 2019

Copy this link into your web browser or scan the QR code to complete the survey

www.uidaho.edu/2019truckersurvey

Your voice is valuable for determining the future of the log and chip truck driver workforce. Please complete a survey! Thank you.