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Who Will Log?



Deryth Taggart

Occupational Choice and Prestige in New England's North Woods

Andrew Egan and Deryth Taggart

ABSTRACT

To explain the declining recruitment of workers in the logging industry in northern New England, we conducted a multiple-methods study of the logging workforce in the region. Our study found that, despite considerable familial attachment to logging, most loggers in the region would not encourage their sons or daughters to be loggers, and only half the loggers surveyed expected to be employed in logging five years hence. Although most loggers identified positive attributes of their work—such as being outdoors and having a sense of accomplishment—as reasons for becoming loggers, some said they logged because there were few alternatives or because they lacked the education for other employment. In addition, most loggers in the region felt that the general public held logging in low esteem. Results have implications for logging labor supply and labor recruitment efforts in a region heavily dependent on the forest products industry.

Keywords: economics; education; employment; industry

MAINE is the most forested state in the country (90 percent), followed by New Hampshire (84 percent), and forests cover over three-quarters of Vermont. The forest products industry is a major contributor to the economy of northern New England; Maine, for example, ranks first in the country in the percentage of its economy that is forest-dependent (LaBonta 1998). Yet logging contractors in the region confront an aging workforce and have difficulty

attracting new workers to the woods.

A recent analysis concluded that a domestic logging labor shortage existed in northern Maine and that, despite increasing mechanization, the demands of industry could not be adequately supplied by Maine loggers alone (Pan Atlantic Consultants/The Irland Group 1999). In addition, over the past quarter-century several studies have suggested that the logging industry has suffered from a poor image, which has likely challenged traditional

labor recruitment efforts (Bond 1977; Donovan and Swain 1986; Vail 1993; Pan Atlantic Consultants/The Irland Group 1999; Taggart and Egan 2002).

Analyzing information from a study that combined logger focus groups and a comprehensive mail survey, this article describes loggers in northern New England and explores both the retention of current loggers and the recruitment of new workers.

Background

Recent, systematic inquiries of the region's loggers are few, despite persistent concerns about logging labor supply and the economic health of logging businesses. The Public Affairs Research Center (PARC 1968) conducted one of the earliest studies of Maine loggers and sought to develop a sense of occupational choice among loggers in several remote camps. Among the study

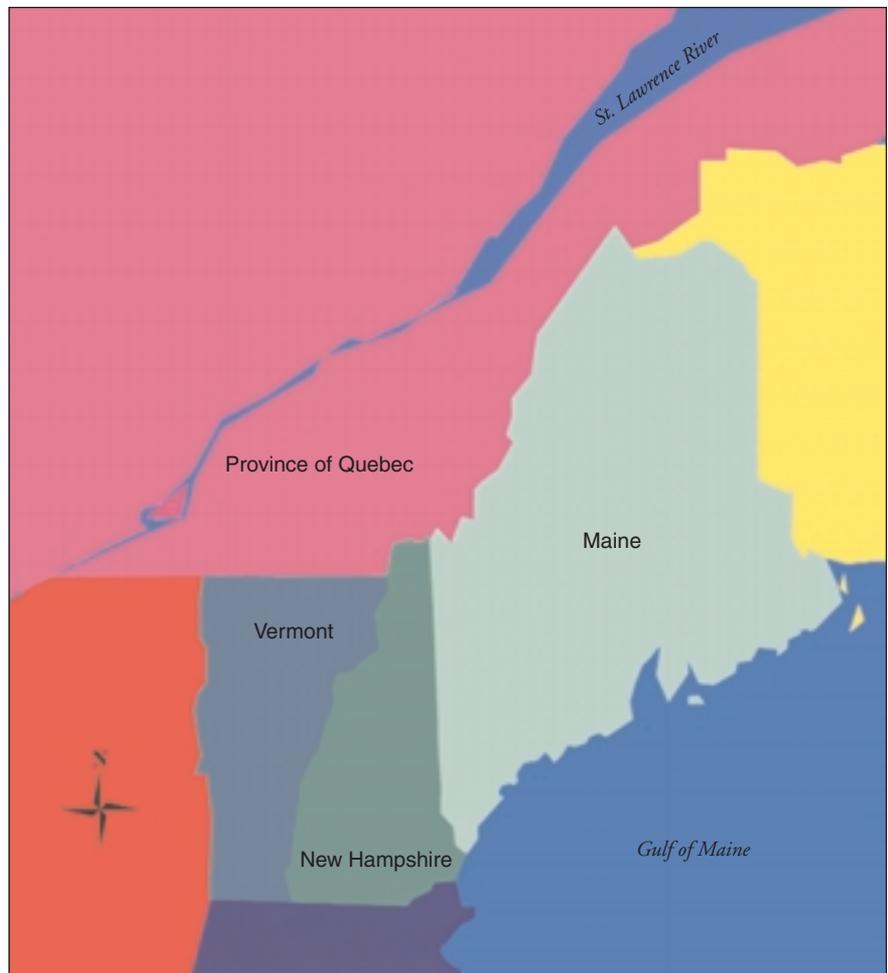
Above: Despite increases in mechanization, more labor-intensive logging methods still dominate in northern New England.

population, 20 percent indicated that they liked the work; however, “insufficient education” (31 percent) and the inability to find “any other job (nearby)” (21 percent) were cited more often. These results suggested a sense of resignation to logging.

A more recent study asked both loggers and nonloggers in Maine to rank the status of 10 occupations: logger, administrative assistant, construction worker, doctor, factory worker, lawyer, sales clerk, schoolteacher, real estate agent, and waitress. Nonloggers ranked logging seventh; loggers ranked their own profession third (Pan Atlantic Consultants/The Irland Group 1999). The nonloggers indicated that logging was unattractive because it involved long commuting distances, physically demanding work, and challenging and dangerous working conditions.

But what has motivated individuals to become loggers in the past? According to Cottell’s (1974) study of occupational choice among loggers in British Columbia, logging’s social prestige (or lack of it) often drove decisions to work (or not to work) in the woods, a notion supported by Bond (1977) in his work on bonded Canadian labor in New England. McNutt (1978, p. 7) described the Canadian logger of the 1920s and 1930s as occupying “a rung quite close to the bottom of the social and economic ladder . . . he was considered to be a lumberjack for the simple reason that it was the only job he could get.” Vaill (1993, p. 156) described loggers in Maine as upwardly mobile petty capitalists and “rural sub-proletarians, academic failures, and social misfits.” He maintained that both Maine loggers and nonloggers alike held timber harvesting in low esteem. The stigmatization of logging has also been described more recently by Satterfield (1996) in her study of loggers in the Pacific Northwest.

However, Taggart and Egan (2002) reported that Maine loggers harvested timber because they enjoyed working outdoors and the sense of independence, accomplishment, and challenge that they associated with logging. Few Maine loggers expressed feelings of being stuck with their jobs for lack of either education or other employment



Northern New England and eastern Quebec.

opportunities. However, these Maine loggers surveyed felt that the general public did not have a good understanding of logging, did not make the connection between logging and the forest products they consumed, and held logging and loggers in low esteem.

Methods

To develop a survey instrument and better understand the issues confronting loggers, during summer 2000 we conducted one focus group in Maine, two in Vermont, and one in New Hampshire. In addition to aiding survey development, focus groups allowed for a more in-depth exploration of issues and the emergence of unanticipated issues.

Mailing lists of loggers in Maine were compiled from two sources: lists of loggers who had been trained by the Certified Logging Professional (CLP) Program and all loggers who had filed with Maine in 2000. A French version

of the survey was mailed to French-speaking loggers from eastern Quebec who worked in Maine. CLP certification is required of all loggers who sell wood to Maine mills participating in the Sustainable Forestry Initiative (SFI).

Vermont loggers were mailed the survey through the Vermont Loggers Association; New Hampshire loggers were contacted through the New Hampshire Timberland Owners Association. To protect confidentiality, these associations did not release their lists; rather, surveys were mailed from the association offices.

The survey instrument was developed through a review of the literature on loggers’ occupational choice (e.g., PARC 1968), as well as the focus groups. In addition to questions that solicited information on sociodemographic attributes, the survey asked respondents’ reasons for becoming loggers, perceptions of how the public viewed their profession, and familial

Table 1. Attributes of loggers and logging businesses in northern New England.

	ME	NH	VT	Q*	Overall
Average age (years)	44.4	45.6	45.0	49.5	45.5
Standard deviation	10.7	10.5	9.5	9.5	10.5
Mean education (years)	12.3	13.0	12.8	8.7	11.8
Standard deviation	2.0	2.3	2.5	2.3	2.6
Average logging experience (years)	22.3	20.3	20.2	29.8	23.3
Standard deviation	10.8	10.8	10.8	10.3	11.2
Time spent logging per year (weeks)	39.0	35.9	39.1	37.3	38.8
Standard deviation	16.6	11.3	10.5	7.4	14.3
Distance traveled to work (miles)	35.8	26.6	26.6	81.5	42.2
Standard deviation	35.8	18.4	22.5	92.7	52.3
Personal profit from logging (\$US per year)	21,732	26,974	28,449	15,615	21,823
Standard deviation	41,018	22,269	28,449	11,842	34,336
Do you expect to be in the logging business in five years? (percent)					
(chi-square = 32.1; $p < 0.001$)					
Yes	52	60	64	36	51
No	25	18	10	30	24
Not sure	23	23	26	33	25

*Loggers from Quebec who work in Maine.

attachment to logging. Before being mailed, a draft survey was tested on representatives of logger associations in the region; the test prompted several minor changes.

Multiple survey mailings—a cover letter and survey, followed by a reminder postcard, and finally a second cover letter and survey—were sent to all loggers on the lists, including 2,870 Maine resident loggers and 609 Québécois loggers who worked in Maine (the latter in French). In addition, phone interviews of a random sample of 100 Maine nonrespondents were conducted after the third mailing. Because the survey was administered by loggers' associations in Vermont and New Hampshire, the number of loggers contacted in these states is uncertain.

Bias due to nonresponse was mitigated through the use of multiple mailings and was estimated for Vermont and New Hampshire loggers by segregation and analysis of early and late survey participants' responses (Armstrong and Overton 1977). Because 100 nonrespondents from Maine were surveyed by phone, nonresponse bias for that survey was tested directly.

Results and Discussion

Focus groups. Discussions probed several issues related to logging in northern New England, including labor retention and recruitment and occupational choice and prestige. Attracting new workers to logging appeared to be a major concern. For example, a group of 10 loggers in central Maine, none of whom had employees, agreed that finding any help, "let alone good help," as well as the high cost of employee benefits, forced them to work alone. None of these loggers would recommend logging to their children. A group of 10 loggers in northern Vermont, most of whom were also self-employed, one-man operations, agreed. This group said it was difficult to attract workers to logging "at wages and benefits that workers expect elsewhere for unskilled labor." Their concern about the next generation of loggers—"there are very few young people who want to work" in the woods—was echoed by a group of seven loggers in central New Hampshire.

Loggers in these focus groups appeared concerned about their image. The central Vermont loggers suggested

that the survey pose questions that "get at the public image" of loggers. Similarly, the New Hampshire focus group perceived a disconnect between the public's negative perceptions of logging and the forest products that they consumed. A logger in the northern Vermont focus group expressed frustration that "Vermont is supposed to be a picture-taking state: They still want some of us [loggers] around standing by the highway wearing plaid shirts." The New Hampshire group also expressed dismay about what they felt was a lack of respect toward loggers being conveyed by teachers to schoolchildren. In addition, there appeared to be agreement that "the public is against logging."

However, positive attributes of logging also emerged from the group discussions. Loggers in the central Vermont focus group, for example, agreed that logging was "good exercise and a healthy way of making a living" and that "it's like trying to solve a huge puzzle" that offers a "feeling of accomplishment... using skill to do something." In addition, being one's own boss was important.

Mail survey. There were 1,103 responses to the eight-page survey: 694 from Maine (response rate = 24 percent), 198 from loggers from Quebec who work in Maine (response rate = 33 percent), 119 from New Hampshire, and 92 from Vermont.

Nonresponse bias was estimated by using chi-square analysis to test whether survey respondents' reactions to statements about occupational choice and prestige were dependent on whether a respondent was an early or late survey respondent. We found no significant differences, suggesting that survey respondents and nonrespondents were from the same population (Armstrong and Overton 1977). Direct tests of nonresponse bias were conducted for Maine loggers; results suggested that survey respondents and nonrespondents were from the same population.

Sociodemographic and logging business attributes. The average survey respondent was 45.5 years old, had 11.8 years of schooling, and had been logging for 23.3 years (table 1). Analysis of

variance found statistically significant differences among the states and the province studied in average age ($F = 12.83$; $p < 0.001$), education ($F = 173.15$; $p < 0.001$), and years logging ($F = 32.05$; $p < 0.001$). Québécois loggers who worked in Maine were the oldest, least educated, and had the most logging experience. Analysis of variance also found significant differences in mean education levels among logging contractors, independent loggers, and logging employees ($F = 49.8$; $p < 0.001$). Logging contractors and independent loggers had mean education levels of 12.6 and 12.5 years, respectively; logging employees had mean education levels of 10.5 years.

The average distance traveled to work by loggers in the region was approximately 42 miles. Loggers from Quebec who worked in Maine traveled farther and had smaller incomes from logging than their New England counterparts (*table 1*). The average personal profit from logging for Québécois loggers was \$15,615—more than \$6,000 less than the average for the region. Loggers from Vermont reported the highest personal profits in the region (\$28,449), followed by New Hampshire (\$26,974) and Maine (\$21,732).

Just over half the survey respondents indicated that they expected to be in the logging business in five years; 24 percent said they did not expect to remain in logging, and 25 percent were unsure (*table 1*). Responses were again dependent on the respondent's place of residence. Loggers from Vermont more often indicated that they would remain in logging, and loggers from Quebec were least likely to say they would remain in logging. Among those survey respondents indicating that they either intended to leave logging within the next five years or were not sure, reasons included "no money in it," "not profitable anymore," "market gets worse each year," "price of wood never goes up," "wood and wood prices not keeping up with costs," "stumpage harder to find," "lack of benefits, insurance, and money," and "[logging is] getting too competitive and too mechanized."

When asked about benefits (whether received from employers or given to employees), 79 percent reported that

Table 2. Northern New England loggers' responses regarding job benefits ("If you employ workers, what benefits do you provide them? If you are a logging employee, what benefits do you receive?").

Benefit	ME	NH	VT	Q*	Overall
Vacation (percent)					
(chi-square = 8.25; $p = 0.041$)					
Yes	22	19	10	19	21
No	78	81	90	81	79
Health insurance (percent)					
(chi-square = 15.37; $p = 0.002$)					
Yes	18	14	3	14	16
No	82	86	97	86	84

*Loggers from Quebec who work in Maine.

vacation was not provided, and 84 percent reported that health insurance was not provided (*table 2*). In both cases, responses were dependent on place of residence. Loggers from Vermont were least likely to report employment benefits, and loggers from Maine were most likely to report them.

Familial attachment. Almost two thirds of respondents indicated that they had relatives in the logging industry (*table 3*, *p. 24*). Responses were again dependent on place of residence. More than three-quarters of the loggers from Quebec reported having relatives in logging, compared with 47 percent of New Hampshire loggers. The average number of generations of loggers preceding the respondent in logging was 1.7, ranging from 1.2 generations for New Hampshire loggers to 2.1 generations for loggers from Quebec who worked in Maine. Most loggers would not encourage their sons or daughters to be loggers: 53 percent of Vermont loggers and 72 percent of Quebec loggers would not encourage their children to log (*table 3*).

We found a significant association between both mean income ($F = 7.51$; $p < 0.001$) and education level ($F = 10.48$; $p < 0.001$) and whether respondents would recommend logging to their offspring. Those who would recommend logging to their children reported a mean income from logging of \$34,712 and a mean education level of 12.4 years; those who would not had a mean income of \$19,461 and a mean education level of 11.5 years. However, participants' job status (i.e., employee or employer) was not associated

with this response.

Moreover, 61 percent of loggers said they logged because they came from a logging family (*table 3*). This result was highly correlated with place of residence. For example, although three-quarters of Québécois loggers indicated that they became loggers because they were from a logging family, only 45 and 47 percent of New Hampshire and Vermont loggers, respectively, said this was among their reasons for becoming loggers.

Occupational choice and prestige. To better understand the factors motivating loggers to work in logging, survey participants were asked further about why they became loggers (*table 4*, *p. 24*). Although most respondents did not appear resigned to logging because of a lack of education or employment alternatives, their reactions to three statements reflecting some sense of resignation—I became a logger because: "I could not find another job nearby," "It was the best paying job available," and "I don't have the education for a different job"—were associated with several variables. Logistic regression analysis indicated that level of education, place of residence, and job status as an employer or employee were correlated with not having sufficient education for other jobs ($p < 0.001$). Regression coefficients indicated that survey participants who were employees and had less education felt more limited by their education.

Moreover, in general, loggers from Quebec and Maine evidenced a greater sense of resignation to logging than those from New Hampshire and Ver-

Table 3. Northern New England loggers' familial attachment to logging.

Question/statement	ME	NH	VT	Q*	Overall
Do you have relatives in the logging industry? (percent) (chi-square = 28.1; $p < 0.001$)					
Yes	64	47	62	77	64
No	36	53	38	23	36
How many generations of your family preceded you in the logging profession?	1.7	1.2	1.3	2.1	1.7
Would you encourage your son or daughter to be a logger? (percent) (chi-square = 16.4; $p = 0.012$)					
Yes	14	19	20	10	14
No	69	58	53	72	69
Not sure	17	23	26	18	17
I became a logger because I come from a logging family. (percent) (chi-square = 47.5; $p < 0.001$)	62	45	47	76	61

*Loggers from Quebec who work in Maine.

Table 4. Northern New England loggers' reasons for becoming loggers.

Statement	ME	NH	VT	Q*	Overall
Percentage who agree with the statement					
I became a logger because					
I could not find another job nearby. (chi-square = 60.9; $p < 0.001$)	19	9	6	34	19
It was the best paying job available. (chi-square = 50.9; $p < 0.001$)	42	21	31	48	40
I don't have the education for a different job. (chi-square = 93.4; $p < 0.001$)	27	11	12	52	28
I have always done this work. (chi-square = 46.5; $p < 0.001$)	71	56	59	80	69
I enjoy the sense of independence.	93	97	94	94	94
I like the work.	98	99	99	95	98
I enjoy using skills to accomplish a task.	93	91	91	89	93
It's a healthy lifestyle.	73	82	88	77	76
It's challenging.	92	99	94	82	92
I enjoy working outdoors.	99	99	100	91	98
It pays well. (chi-square = 25.0; $p = 0.003$)	41	42	61	37	42
It gives me a feeling of accomplishment. (chi-square = 47.9; $p < 0.001$)	90	93	95	76	88
It is a respected profession in my community. (chi-square = 28.3; $p < 0.001$)	62	44	57	68	60

*Loggers from Quebec who work in Maine.

mont. For example, a Quebec logger who works in northern Maine wrote on his survey: "Je n'ai pas de diplôme, j'ai seulement des cours pour travailler dans le bois" ("I don't have a diploma, I only have some classes for working in

the woods"); another Québécois wrote, "Pas le choix, seul métier connu" ("It's not a choice, it's the only job I know").

More than two-thirds of Québécois loggers who worked in Maine indicated that they logged, in part, because log-

ging was a respected profession in their community, and 80 percent of these Québécois said they logged because they "have always done this work" (table 4). In contrast, only 44 percent of New Hampshire loggers said they logged because it was a respected profession in their community, and 56 percent indicated that they logged because they "have always done this work." Moreover, more Vermont loggers said they logged because it paid well than loggers from Maine, New Hampshire, and eastern Quebec (table 4).

Most respondents indicated that logging was not well respected by the general public (table 5). Again there were differences related to place of residence. Most Québécois loggers working in Maine said the public did not view loggers as unskilled (57 percent) and respected loggers and the work they do (78 percent). In contrast, only 19 percent of New Hampshire loggers indicated that the public respected loggers and logging, and 71 percent thought the public viewed loggers as unskilled. New Hampshire loggers also reported the highest incidence of being taunted by people opposed to logging (45 percent), and loggers from Quebec the lowest (28 percent). In addition, only 44 percent of New Hampshire loggers said they logged, in part, because logging was a respected profession in their communities, versus 68 and 62 percent of loggers from Quebec and Maine, respectively. Moreover, there was no relationship between whether survey respondents would remain in logging or would recommend logging to their children and their responses to questions about occupational prestige.

Conclusions

Results of our study suggest that loggers from the three northern New England states differ in their familial attachment to logging, their reasons for logging, and their sense of logging's prestige—all with implications for logging labor recruitment in the region. Most of the region's loggers perceived positive attributes in their profession: They logged because they liked the work and enjoyed working outdoors. Most also liked the sense of indepen-

dence that their occupation provided, the use of skills to accomplish a task, and the challenging nature of the work.

However, although most loggers did not appear resigned to logging because of a lack of other employment opportunities or inadequate education, our analysis found a greater sense of resignation to logging among Maine loggers and Quebecois loggers working in Maine than among their counterparts in New Hampshire and Vermont, as well as among logging employees compared with logging employers. In addition, 27 percent of survey respondents overall said they had insufficient education for other work. Interestingly, Quebecois loggers who work in Maine reported the highest levels of familial attachment to logging and of occupational prestige but were least likely to recommend logging to their children. These loggers, however, were also the lowest paid and least educated of the loggers studied.

Our study also found that loggers in northern New England sensed a lack of prestige associated with their occupation among the general public. This likely derives from several factors, including the geographical separation of other citizens from loggers and their relatively isolated workplaces, as well as the low esteem associated with manual labor (Pineo and Porter 1967) and logging in particular (Vail 1993; Krantz 2000).

Our results imply that success in retaining current loggers and recruiting future loggers will have less to do with perceptions of logging's occupational prestige (although these perceptions are not unimportant) and more to do with better wages, prices for wood, and employment benefits. However, the lack of social prestige associated with logging may affect occupational choice among nonloggers and continue to challenge efforts to recruit new loggers into the workforce in the future.

Implications include a continued decline in the availability of individuals willing to participate in a skilled domestic logging workforce in New England's north woods. This may be exacerbated by our finding that 69 percent of loggers would not encourage a son or daughter to pursue logging, even

Table 5. Northern New England loggers' perceptions of public attitudes toward logging.

Statement	ME	NH	VT	Q*	Overall
<i>Percentage who agree with the statement</i>					
The public views loggers as unskilled. (chi-square = 55.8; $p < 0.001$)	62	71	61	43	60
The public respects loggers and the work they do. (chi-square = 119.5; $p < 0.001$)	42	19	43	78	46
I have personally been taunted by people who do not like logging. (chi-square = 16.5; $p < 0.009$)	30	45	44	28	33

* Loggers from Quebec who work in Maine.

though most of them became loggers because they came from logging families. In addition, only 10 percent of loggers from eastern Quebec who work in Maine—the group with the most familial attachment to logging—would recommend logging to their children, perhaps predicting at least localized diminutions of the logging workforce in the region.

The degree to which the impending shortage of loggers can be mitigated by higher wages for loggers, immigrant labor, or increases in mechanization is unknown. However, a recent study has concluded that, despite mechanization, such shortages will continue in northern Maine (Pan Atlantic Consultants/The Irland Group 1999), an area with a high rate of logging mechanization due to the dominance of industrial forestry.

Finally, the survey has provided baseline information and both set the stage and provided a rationale for further study that will detect trends among the region's loggers and among logging businesses over time. Future studies that investigate the role of as-yet-unmeasured factors—place attachment, culture, and ethnicity—may help us better understand who will log in New England's north woods.

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