Fractured Lives:

Results of the 2003 Survey of Youbou Sawmill Workers

Youbou TimberLess Society

IPIRG

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Introduction

In early 2003, one hundred of the former employees of the Youbou sawmill participated in a telephone survey conducted by the Vancouver Island Public Interest Research Group (VIPIRG).[1,2] The overall results of the survey strongly indicate that the closure of the TimberWest sawmill at Youbou, B.C. had a highly disruptive and largely negative effect on the lives of the people who worked at the mill. This should come as no surprise. However, this conclusion is strongly indicated by results from a range of different questions. This includes, for example, a large proportion of survey respondents who reported having retired unwillingly (meaning they retired earlier than they desired and/or earlier than they anticipated); the relatively high proportion of respondents not retired, but who remained unemployed or employed only on a part time basis fully two years after the mill closed; and the large proportion of those employed respondents who reported negative changes in wages and working conditions (including benefits and job security) associated with a transition to new employment arrangements subsequent to the mill closure. The survey also indicates that job training and placement programs in place to assist workers in adjusting to the mill closure and to finding new work were largely ineffectual and inadequate. This is true of the program offered by the company as well as other programs. The failure of these programs is evidenced most clearly by the fact that fully two thirds of those surveyed made no use of such programs whatsoever.

The survey did not directly address the effects of the mill closure on the families and households of relevant workers, including those with dependents. Thus, for example, we do not have direct information regarding any significant changes in the household structures of former mill employees (e.g., separations and divorces) subsequent to the mill closure. Nevertheless, the survey does strongly suggest (if indirectly) that the mill's closure had disruptive effects not only on workers themselves, but on worker families and households. Specifically, one half (49 of 99) of those surveyed reported being the sole income earner in their households 2 years after the mill closed (see Table 10). Of these, 12 (or one quarter) reported being both a sole income earner in their household and were also unemployed; a further 17 respondents (of these 49) reported being both the sole income earner in their household and being unwillingly retired. Moreover, of the 49 sole income earners, 17 were members of households with dependents, yet only seven (slightly more than one third of this group) reported being employed in any capacity at the time of the survey.

The overall implication of these results—that is, the mill closure was difficult and disruptive for the workers and their families, with lasting effects on life histories of those involved—is consistent with the literature on deindustrialization and restructuring in general (see, for example, Bluestone and Harrison 1982), and with studies of industrial restructuring and deindustrialization in specifically resource-based and forest-based sectors.[3] It is also consistent with other research of a more qualitative character documenting the impacts of the Youbou sawmill closure on the workers and the communities of the Cowichan Lake region (see Whitehead 2003).

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[2] The Vancovuer Island Public Interest Group (VIPIRG) was initially approached by the Youbou TimberLess Society (YTS) about the survey, which was developed collaboratively by VIPIRG and the YTS. All interviews were conducted by VIPIRG student interns. The following individuals from VIPIRG were instrumental: Bruce Wallace, VIPIRG Research Coordinator; Tim Richards, Research Internship Program Supervisor; Heather Taylor, Lead Intern; Kelly Annable, Anna Beresford, and Heather Watkins, Student Interns; Tuval Dinner, Research Assistant.

[3] See for example (Barnes and Hayter 1992; Hayter and Barnes 1997; Prudham 1998; Barnes *et al.* 1999; Halseth 1999, 1999; Ostry 1999; Reed 1999; Kusel *et al.* 2000; Barnes *et al.* 2001).

Methods

The purpose of the survey was to gather basic information concerning the impacts of the mill closure 2 years after it occurred. More specifically, the survey was intended to gauge the employment and economic status of the workers who lost their jobs, how they were getting by, and what strategies and programs they had used to adjust in the wake of the mill closure. Approximately one half of all the people who were employed at the Youbou mill when it closed participated in the survey. The survey participants were asked a series of 13 substantive questions, and their answers were coded according to specific, possible responses. These data were recorded in a Microsoft Access® database, with each respondent's record in the database assigned a unique numeric identification. Respondents were also asked more general, open-ended questions, with notes recorded in individual Microsoft Word® files. Each of these files was numerically coded to match the database record for each respondent. (We will not be reporting individual names of respondents for any of the results, and have thus assigned each respondent a unique numeric identification.) Quantitative results were analyzed in SPSS for Windows®, a common software package used for statistical analysis.

This report provides an overall interpretation of the results of the survey, and along with brief interpretations of the results of each question. Summary statistics were generated from analyses of the responses for each question (as opposed to answers from any particular individual). These summary statistics are reported in tables listing the various possible responses to the question, and corresponding response rates. In addition, these tables include confidence intervals (low and high values), which represent inferences we can make about the entire population of people who worked at the mill when it closed based on responses to the survey from the sample of respondents. That is, since the survey drew on only a sample (albeit representing a large proportion) of the former employees, the data from the sample can be used to make estimates about what the results would have been had everyone who worked at the mill when it closed participated in the survey. These are established statistical conventions (see explanation below).

Overview of the Results

Tables summarize results for each question based on responses from those surveyed (the *sample*). The tables also provide some indication of the responses we could expect if all workers who worked at the mill had been surveyed. Specifically, the *lower* and *upper* numbers estimate the lowest and highest percentage of responses we would expect in each category of response if all workers had been included in the survey, rather than just the sample (in this case 100). For example, referring to Table 2, 33% of the survey respondents reported that they were employed when surveyed. Based on this response rate and the sample size, we can say with 95% confidence that if all the former mill workers had been asked this question, somewhere between 25% and 43% would have responded that they were employed. We can't say that if all the workers had been surveyed, then exactly 33% would have reported they were employed because there is a small amount of uncertainty about how well the views of those who participated in the survey represent all the workers who worked at the mill (i.e., whether those who were not surveyed would have different answers than those who were surveyed). The range between the upper and lower number is meant to capture this uncertainty, reflecting the inherent imprecision of making inferences about a population from a sample. In this case, we made a relatively standard set of assumptions in the analysis; that is, determining the ranges between upper and lower numbers using what are called 95% confidence intervals, or probability standards. What this means is that we are 95% certain that if all the workers who worked at the mill when it closed had been surveyed, the results on any given question would fall between the lower and upper percentages. These are standard procedures for surveys using samples. Most surveys use sampling because it is typically too time consuming and expensive—and it is often also logistically impossible—to obtain the views of an entire population. In this case, although the population is somewhat small (220), some people were not available, or could not be located. There is some chance that this introduces a bias into the survey (see below), but since the survey did reach almost one half of the former workers, it is a strong sample to make inferences from. One qualifier, however, is that many of the questions only applied to a subset of the sample, and in some instances, this makes the sample smaller and the potential biases and errors larger. These are reflected in wider confidence intervals (i.e., greater gaps between the lower and upper bound). Any additional questions or uncertainties concerning the methods of analysis used here, and the interpretation, should be directed to Scott Prudham (see contact information in footnote 1).

Results

A total of 100 people participated in the survey out of the approximately 220 people who worked at the mill when it closed 2 years prior. Of these 100 people, 94 provided their ages. A breakdown of the survey participants by age group is listed in Table 1. The distribution of survey participants by age group is presented alongside the age distribution of all mill employees at the time the mill closed.[4]

[4] Data on the age distribution of the workers at the mill when it closed was obtained from a former mill employee. These data are somewhat compromised by the fact that the age breakdowns for survey participants was recorded as noted, but the age distribution data for the workers in the mill was only available in the following categories: 40 and under; 41–50; 51–60; 61and over. As a result, some differences in the classification of workers at ages 40, 50, and 60 results. However, the data in this survey are the best data available.

TABLE 1. Age distribution data for survey and mill workers

Age	Survey	Proportion of sample	Mill employees	Proportion of total
20–39	5	0.053	28	0.147
40–49	17	0.181	47	0.247
50–59	49	0.521	96	0.505
60–69	23	0.245	19	0.10
TOTAL	***94***		***190***	

TABLE 2. Employment situation

	Frequency	Proportion of sample	Lower	Upper
Employed	33	0.33	0.246	0.427
Unemployed	29	0.29	0.210	0.385
Retired	29	0.29	0.210	0.385
Self employed	6	0.06	0.028	0.125
Other–LTD	3	0.03	0.010	0.085

This comparison indicates that the survey sample to some extent under-represented younger workers, and over-represented older workers. Some of this is explained by the aging of the workforce, as we would expect, for example, that some of the workers who were in their 50s at the time of the mill closure would have been in their 60s at the time of the survey. However, this difference may also point to a potential bias in the survey sample. It may be the case, for example, that more younger workers relocated after the mill closed for reasons such as finding a new job. Although this introduces a possible bias to most answers, the size of the survey sample in relation to the population is quite high, and this makes the survey a fairly strong indicator of trends in the employee population. Moreover, in as much as one purpose of the survey was to contribute to an understanding of how the mill closure affected the Youbou and Cowichan Lake area, this selection "bias" is actually a good thing, since it provides information only about what is happening in Youbou rather than about the population of former mill workers more generally.

Detailed Results by Question

Q1. Are you in fact a past employee of the Youbou mill?

Everyone participating in the survey did answer in the affirmative to this question. No summary is relevant or provided here.

Q2. What is your work situation?

Table 2 shows the number and percentage of workers in each employment category. There were 100 responses. One third (33%) of the respondents reported being employed at the time of the survey (2 years after the mill closed), while six people (6%) reported being self-employed. This is a somewhat low proportion of employed respondents, suggesting that former mill workers have had difficulty finding work. This inference is strengthened when we factor in that a further 29% of the former employees of the Youbou sawmill who were sampled reported being unemployed, while the same percentage of respondents reported being retired. Even if we assume that all of those who reported being retired had retired voluntarily (which is a poor inference; see below), it is still the case that about as many of the former Youbou workers surveyed were unemployed as were employed. The Lower and Upper bounds on the confidence intervals here mean that we can infer with 95% accuracy that somewhere between 66 (30%) and 107 (49%) of the 220 former workers of the Youbou sawmill were either employed or self-employed in early 2003,[5] while the rest were primarily split between those who remained unemployed, and those who had retired.

Q3. If not employed, what would you say best describes your situation?

Response rates for this question were lower, much as we would expect since we know from the previous question that only 39 respondents reported being employed or self-employed (and would not be expected to answer this question) (Table 3). Yet, at the same time, there were some inconsistencies in the data here between questions two and three. Specifically, only 54 people answered this question directly, rather than the 61 respondents we would expect

TABLE 3. Unemployment situation

	Frequency	Proportion of sample	Lower	Upper
Retired[a]	**33**	**0.56**	**0.433**	**0.678**
Looking for work	14	0.24	0.147	0.360
Long-term disability	8	0.14	0.070	0.245
Other[b]	4	0.07	0.027	0.162
TOTAL RESPONSES	***59***			

[a] Four people who reported being retired also reported being unemployed when asked about their employment situation.

[b] This includes one person who was volunteering, one person who reported being semi-retired, one person on Workers' Compensation, and one person who reported being engaged in the running of a household.

[5] These numbers are derived from combining the results of those who reported being employed with those who reported being self-employed ($n = 39$), and then using a single confidence interval for this combined category.

who responded to the previous question that they were either unemployed, retired, or on long-term disability. Five people who reported being retired in question two did not answer this question directly; they were nevertheless coded as retired, and added to the respondents of question three. An additional two people reported being unemployed in question two, yet did not answer this question. This discrepancy was not resolved, leaving the total respondents included in the analysis of question three at 59. At the same time, while 29 people reported being retired in question two, 33 reported being retired here. This stems from the fact that four people who described themselves as unemployed in question two subsequently described themselves as retired in response to question three. While these inconsistencies are unfortunate, they do not seriously compromise the results, and in this particular case, they likely stem from the fact that many of those respondents who considered themselves retired also viewed their retirement as having been to some degree involuntary (see the answers to the next question). Indeed, this is true of three of the four people who responded previously that they were unemployed, and then responded that they were retired here (i.e., three of these people reported being unwillingly retired in question four). Of the 59 total respondents considered here, 33 (56%) reported being retired, and 14 (24%) described themselves as looking for work. A further eight (14%) reported being on long-term disability, and four people chose "other."[6] This result does not seem on its face extraordinary except if we consider that more than one half of the former mill workers who were not working 2 years after the mill closed were actually retired and, more generally and in turn, that retirees account for an estimated 30% of the former mill workforce (representing approximately 65 people). We know from the age distribution of the workers at the time of the mill closure that only about 10% of the workers (19 people) were between ages 61–65, so this number of "retirements" is very high and must include many people age 50–59. Confirmation of this impression comes from the next question, in which a significant number of respondents reported being involuntarily retired.

Q4. If retired, did you retire willingly or unwillingly?

There were 31 responses to this question (Table 4); two of the 33 respondents considered retired in question three did not answer this question. Of the 31 people who did answer this question, an extraordinary 28 (90% of the question sample) reported that they retired "unwillingly". In addition, all three of the workers who reported that they retired willingly were in their 60s. Thus, there is a very strong indication that the mill closure induced a large number of workers (most likely on the order of 46–85 people; see Tables 2, 3 and 4 combined)[7] to retire, and that many of these retired earlier than they would have otherwise, and earlier than they were willing or prepared to do. This unwillingness in all probability relates to the workers being emotionally, psychologically, and financially unprepared for retirement because it came sooner than they expected. Retirement and the permanent or long-term loss of employment are difficult for most people because individuals often derive much of their sense of identity from work, and work is also the source of strong personal networks of friends and community. This is particularly true in small, resource-dependent communities, and specifically among forest workers in forest-based communities who often strongly identify with their work (Hibbard and Elias 1993; Brown 1995; Satterfield 2002). To be cut off from these sources of identity and community is traumatic, particularly when it comes suddenly and unexpectedly. In many instances, this is associated with effects such as depression and loss of self-esteem (Carroll *et al.* 2000a; Carroll *et al.* 2000b; Daniels *et al.* 2000; Ostry *et al.* 2000). At the same time, unwillingness to retire may point to financial hardship, since many people need to work to a particular age in order to achieve sufficient financial security to sustain them through retirement. For those forced to retire early, significant decreases in income may result (Kusel *et al.* 2000). This would be particularly the case for workers who were prevented from achieving important pension milestones by the mill's closure.

More generally, such a high incidence of individuals who state that they retired "unwillingly" reinforces the basic point that the mill's closure came suddenly and largely unexpectedly, undermining the capacity of employees to plan and prepare, and compromising their adjustments into other, comparable employment. It is plain that many workers would have preferred to stay on working at the mill, or would have preferred to find additional work after the mill closed. Many were unable to do so.

TABLE 4. Retired

	Frequency	Proportion of sample	Lower	Upper
Unwillingly	28	0.90	0.751	0.967
Willingly	3	0.10	0.033	0.249
TOTAL RESPONSES	*31*			

[6] Specified as heading a household, volunteering, WCB, semi-retired.

[7] If we use the results of question two, 29 people in the sample were retired, and the 95% confidence interval would give us an estimate of between 46 and 85 people retired in the total population of former mill workers.

TABLE 5. Full-time or part-time employment

	Frequency	Proportion of sample	Lower	Upper
Full time	23	0.55	0.399	0.688
Part time	10	0.24	0.135	0.385
Other	9	0.21	0.117	0.359
TOTAL RESPONSES	*42*			

TABLE 6. Employment type

	Frequency	Proportion of sample	Lower	Upper
Forest products industry	15	0.405	0.263	0.565
Other industry	13	0.351	0.218	0.512
Services	9	0.243	0.134	0.401
TOTAL RESPONSES	*37*			

Q5. If employed, are you working part time or full time?

There were 42 responses to this question (Table 5) with 23, or just over one half, reporting full-time employment and ten (25%) reporting part-time employment. Another nine people (21%) of those employed were working on some other terms (e.g., contract). Keep in mind here that the percentages in Table 5 refer to the proportion of the respondents who were working in some fashion, thereby excluding all those retired or unemployed. Thus, the results indicate that less than one quarter of the total sample of 100 reported being employed full time. The survey therefore indicates that of the 220 people who were employed full time at the mill when it closed, we would expect that only on the order of 50 were working full time 2 years later at the time of the survey. We would further expect with 95% confidence that somewhere between 13 and 36 workers would have seen their full-time mill jobs replaced by part-time work.[8] This is a significant result since it reinforces the finding that full-time employment at the mill was replaced by other forms of employment or retirement subsequent to the mill's closure, willingly or otherwise. This is true for more than three quarters of the former mill workers. Generally speaking, these sorts of changes would require difficult adjustments on the part of workers now faced with less or no work, reduced incomes, and decreased job security (or none for those retired or without work entirely). These findings are reinforced in subsequent sections of the report dealing with the responses to questions about wages and working conditions.

Q6. If employed, what is your current job description(s) or job title?

Many different jobs and job titles were reported in answer to this question. Thus, Table 6 shows a summary of the 37 responses aggregated by type of activity (Forest products industry, Other industry, and Services). Only 15 (40%) of the respondents to this question reported working in the forest products industry at the time of the survey, while 13 (35%) worked in another industry, and nine (25%) worked in the services sector. Thus, we may infer from this question that many of the mill's former employees who have continued to work in the wake of the mill's closure have also made significant changes in the type of industry in which they work and, in all probability, in the type of work that they perform. In fact, based on the results of this question and using the confidence intervals here, we would expect that somewhere between 39 and 63 of the 220 former Youbou mill workers were working outside the forest sector 2 years after its closure.[9]

This change may have been positive for some of the workers, and it may have been negative for others. Although the participants were not asked about their views on these changes, we would expect that shifts in industry would be attended by changes in working conditions, and also, by what sorts of feelings (positive or negative) people have about the forest industry itself and their affiliation with it. Perhaps somewhat surprisingly, however, cross-tabulation did not reveal strong associations between sector of employment and changes in working conditions (see below).

Q7. What is your main source of income?

A total of 96 people responded to this question (Table 7), with 40 (42%) reporting that their main source of income was from employment. This is consistent with the results of Question 2, where 40 people (representing 40% of the sample) reported some form of employment (see Table 2). The next largest proportion of respondents (26 people representing 27% of the responses to this question) cited pensions as their main source of income. This figure is significant given the number of people who retired unwillingly subsequent to the mill closure, and given that only a handful of workers were actually in their 60s and thus

[8] This number is based on using the upper and lower confidence bounds for answers to this question regarding part-time work (between 14 and 39%), and applying these to the population of former mill workers estimated to have been working in some capacity at the time of the survey, which according to this question is estimated to be (220/100) × 42 = 92 people. This estimated number of employed or self-employed workers is consistent with the range of 66–107 former mill workers estimated to have been either employed or self-employed 2 years after the mill closed based on the responses to question two.

[9] This number is based on aggregating the responses of those who reported working outside the forest industry ($n = 24$), calculating the new confidence interval (0.488, 0.782), and extrapolating this to the estimated total number of former mill workers employed at the time of the survey, or (220/100) × 42 = 81. Note that the total number of people estimated to have been working here is less than in the previous question because of the lower response rate to the question.

TABLE 7. Main source of income

	Frequency	Proportion of sample	Lower	Upper
Employment	40	0.42	0.323	0.517
Pension[a]	26	0.27	0.192	0.367
Other	18	0.19	0.122	0.277
Family	5	0.05	0.022	0.116
Employment insurance	3	0.03	0.011	0.088
Savings	3	0.03	0.011	0.088
Welfare	1	0.01	0.002	0.057
TOTAL RESPONSES	***96***			

[a] One person reported being retired, but also reported that his/her main source of income is from part-time employment.

approaching what is generally considered to be retirement age when the mill closed. We would expect, because of the early onset of retirement for many of these people, that their pensions are paying them less than the workers would have anticipated earning from pensions at retirement in cases where workers failed to qualify for significant pension milestones because of the mill closure.

The category "other" was chosen by 19% of the sample, which is surprisingly high. What this represents is not clear, although respondents may have been reluctant to disclose the precise nature of their main income source.[10] Family was as the main source of income for five people (representing 6% of the responses), while three people reported getting most of their income from unemployment insurance.

Based on this question, and assuming the sample is representative, we would expect with 95% confidence that 2 years after the mill closure, only 71–114 of the 220 former mill workers were drawing most of their income from employment at the time of the survey, and we would expect that 42–81 of the former workers would have been drawing their primary income from pensions.

Q8. How does your current job compare to your job at the Youbou mill in regards to:

WAGES

There were 40 respondents here, corresponding to the approximately 40 people who previously reported being employed in some fashion (Table 8A). Of the respondents, 33 (83%) reported a decline in their wages in comparison with their mill job. This is highly significant but, again, not unexpected given that the mill was unionized and provided a source of relatively high-paying jobs, particularly for the Cowichan Lake area.[11] Such jobs are not abundant in the area, which has become increasingly characterized by service sector employment, and where many other wood products facilities have either closed or seen their employment levels reduced in recent years coinciding with broad industry restructuring and decline.[12] With the loss of the mill, the survey indicates that many workers who stayed in the area have found permanent, full-time work difficult to find. Workers also had great difficulty finding work that paid on a par with what they earned at the mill. Only five (13%) of the 40 respondents reported their wages had stayed the same, and two people (5%) reported an increase. The findings in this question could hardly be more telling. We would expect, extrapolating from these results, that of the 66–107 people who were likely working in some capacity at the time of the survey (see results from question 2), somewhere between 60 and 80 of these people would have seen their wages decline since the mill closure.[13]

TABLE 8A. Wages

	Frequency	Proportion of sample	Lower	Upper
Decreased	33	0.83	0.681	0.913
Stayed the same	5	0.13	0.055	0.261
Increased	2	0.05	0.014	0.165
TOTAL RESPONSES	***40***			

It is somewhat surprising here that cross-tabulation with sectoral employment breakdowns reported in Table 6 do not indicate significant differences between those workers who were able to find other employment in the forest industry versus those who found work in other sectors (although the number of relevant observations from which to make inferences is low). However, of the 15 former mill workers who found subsequent employment in the forest industry, fully 10 of them reported a decrease in wages. Of the 13 who found work in other industries, 10 reported a drop in wages (77%),

[10] Reasons for this could be reluctance to report income from less formal work and/or activities generating cash income, including lawn cutting, gardening, mushroom picking, collection of floral greens, farm labour, etc.

[11] The Youbou sawmill was covered by the Master Agreement 1997–2000 Forest Products Industries Coast Region British Columbia signed by the International Woodworkers Association of Canada and Forest Industrial Relations Limited. According to the master agreement covering the period from 1997–2000, the wage scale for the vast majority of hourly wage jobs at the mill ranged from $20–25 per hour. These figures translate into annual incomes on the order of $40 000–50 000 based on a 40-hour work week and year-round employment. By way of comparison, the median annual per capita income for people with income over 15 years of age in the Cowichan Valley Regional District Electoral Area was just under $21 000. For Duncan, this figure was $19 800, while for British Columbia as a whole it was about $22 000. Data from Statistics Canada (2001) Census of Canada. Available online at: ***www12.statcan.ca/english/census01/home/index.cfm***

[12] See (Barnes and Hayter 1992; Hayter and Barnes 1997; Burda and Gale 1998; Barnes *et al.* 1999; Hayter 2000; Barnes *et al.* 2001).

[13] This figure is derived from applying the upper and lower confidence intervals to the estimated (220/100) × 40 = 88 people who worked at the mill and who were likely working at the time of the survey based on the response rate for this question.

while eight of nine people who found work in the service sector reported a drop in wages (89%). This reinforces not only the growing scarcity of high-paying jobs in the region and shrinking opportunities in the forest industry, but also points to the erosion of working conditions within the forest industry consistent with a shift toward flexible production methods and casualization (Hibbard and Elias 1993; Hayter and Barnes 1997; Halseth 1999; Hayter 2000).

Number of Hours

Of the 40 people who gave information regarding their current jobs, 22 (55%) of them reported a decrease in the number of hours worked in comparison with the hours they worked at the time of the mill closure (Table 8B). This is what we would expect given that most of those working reported earning less (see Table 8A), and also that a significant proportion of those who continued to work reported that they were working part time (see Table 5). In fact, of the nine people who reported working part time who also provided information on their hours worked, all reported that their hours had decreased since the mill's closure.

This reinforces the significance of a shift from full-time work to part-time work. It is possible, for instance, that such a shift could be accomplished with no decrease in total hours worked if single full-time jobs were replaced with multiple part-time jobs. Yet, this is clearly not the case for workers who were employed at the Youbou sawmill. In fact, only five out of the 40 respondents (8%) reported an increase in hours worked, while 13 (or one third) of the respondents reported no change in their hours worked. With more than one half of those working at the time of the survey reporting a decrease in hours worked, responses to this question provide another concrete measure of changes in worker activity patterns precipitated by the mill closure. Moreover, given the central role of time spent at work in the daily routine of most full-time employees, it is reasonable to interpret that such changes in hours worked have carried some significance. Resulting disruptions in daily routines may be experienced as positive changes by some and negative changes by others, and perhaps a mix of both by many. For instance, additional time to spend on hobbies or with family might be a positive aspect of working less. However, earning less (as fewer hours would tend to imply) or finding it difficult to obtain full-time work and the security of employment (as working less would also generally indicate) could be negative implications of working less. The salient point to keep in mind here, however, is that these changes were not ones chosen by the workers, but rather were forced on them by the mill's sudden closure. In this context, it is pertinent to note that most people experience change more positively when they feel some control over it.

Benefits

Of the 40 respondents here, 25 (63%) reported a decrease in benefits, while one third reported no change, and only two (5%) of the respondents reported an increase in benefits (Table 8C). This is also a significant result, and indicates quite strongly that the mill closure led to a decline in the quality of life for workers and their families, particularly for those who were largely or solely dependent on the mill job for providing benefits. The reported decline in benefits is no small matter considering that the workers at the Youbou sawmill were covered under the terms of the Master Agreement reached between the Industrial Woodworkers Association (IWA Canada) and Forest Industrial Relations Ltd. (representing mills in the BC Coast Region). This agreement provides a relatively generous benefits package, and reflects that organizing and bargaining by the IWA has helped many workers in British Columbia's forest industry achieve a comfortable middle-class lifestyle (Hayter 2000; Barnes *et al.* 2001).[14] The survey unfortunately did not ask for specific information regarding the types of benefits lost, but with almost two thirds reporting a decline in benefits since the mill closure, the results are strongly indicative of a major and lasting impact on the lives of workers and their families in addition to reduced employment levels, income, and hours worked.

Job Security

Here again, almost two thirds of those who responded to questions regarding their current conditions of employment reported a perceived decrease in job security (Table 8D).

TABLE 8B. Number of hours

	Frequency	Proportion of sample	Lower	Upper
Decreased	22	0.55	0.398	0.693
Stayed the same	13	0.33	0.201	0.480
Increased	5	0.13	0.055	0.261
TOTAL RESPONSES	*40*			

TABLE 8C. Changes in benefits

	Frequency	Proportion of sample	Lower	Upper
Decreased	25	0.63	0.470	0.758
Stayed the same	13	0.33	0.201	0.480
Increased	2	0.05	0.014	0.165
TOTAL RESPONSES	*40*			

[14] See Master Agreement 1997–2000 Forest Products Industries Coast Region British Columbia, issued jointly by the IWA-Canada (Vancouver) and Forest Industrial Relations Limited, 1997.

TABLE 8D. Changes in job security

	Frequency	Proportion of sample	Lower	Upper
Decreased	25	0.64	0.484	0.773
Stayed the same	12	0.31	0.186	0.464
Increased	2	0.05	0.014	0.169
TOTAL RESPONSES	***39***			

TABLE 8E. Job satisfaction

	Frequency	Proportion of sample	Lower	Upper
Decreased	17	0.52	0.352	0.675
Stayed the same	12	0.36	0.222	0.534
Increased	4	0.12	0.048	0.273
TOTAL RESPONSES	***33***			

Slightly less than one third reported no change, and two people (5% of the sample) reported an increase in job security. This presents an additional indication that the mill's closure carried significant impacts for the workers, since job security is a key influence on stress levels and thus quality of life. We would expect decreased job security (reported by 64% of employed respondents) to be accompanied by a number of negative impacts on workers (including many health-related impacts) associated with rising levels of anxiety regarding future income and employment.

RELOCATION

Only seven people reported that they had moved. This is a potential problem with the survey. It seems likely that more than seven people left the area between the time of the mill's closure and the survey, particularly given the limited opportunities for employment in the immediate and surrounding area. It also seems likely that any people who have relocated would be the least likely to participate in the survey because they would be harder to track down 2 years after the fact. As a result, there is a bias in the survey sample, one that qualifies the certainty with which we can make inferences about the entire population of people who worked at the mill from the sample of people who participated in the survey. Nevertheless, the sample (about 100) is fairly large for the population in question (about 220), and we are primarily interested in how the community was affected (i.e., those workers who remained in the Youbou and Cowichan Lake area).

JOB SATISFACTION

A smaller sample of the employed former mill workers responded when asked to compare the jobs they held at the time of the survey with the jobs they had at the mill in terms of job satisfaction. Only 33 survey participants answered this question, with 17 (52%) reporting a negative change in job satisfaction since the mill closed (Table 8E). While it is significant that more than one half of the respondents reported a negative change, this number is lower than what we might expect based on the results from questions pertaining to changes in wages, benefits, and job security. Why this discrepancy would exist is not evident, although the proportion reporting a negative change in job satisfaction corresponds most closely to the proportion reporting a drop in the number of hours worked (see Table 8B). Slightly more than one third of the respondents to this question reported no change in job satisfaction, while four (12%) of the respondents reported an increase in job satisfaction when comparing their current job to the mill job.

Q9. What has been your work history since the closure of the mill?

Answers to this question were recorded as Microsoft Word text files, and were not analyzed in the same manner as the others.

Q10. Since the mill closure, have you received assistance in job retraining or job finding?

A total of 94 people responded to this question, with 63 (two thirds) of the respondents reporting that they had received no assistance in job retraining or job placement (Table 9A). Another 29 (30%) of the respondents reported in the affirmative, and two respondents reported that they did not know whether they had received assistance or not. This question indicates that participation rates in available job training and placement programs were quite low.

It is tempting to dismiss the results of this question as the product of the fact that such a high number of survey participants (about 30%) reported being retired, and we would not expect retirees to seek assistance in job training and assistance. But to disregard the results of this question for such a reason would be a mistake because we also know that a large proportion of those who retired also reported being retired unwillingly (see Table 4). Thus, low participation rates in available placement and job training programs cannot be attributed to voluntary withdrawal of former mill

TABLE 9A. Training or employment search assistance

	Frequency	Proportion of sample	Lower	Upper
No	63	0.670	0.570	0.757
Yes	29	0.309	0.224	0.408
Don't know	2	0.021	0.006	0.074
TOTAL RESPONSES	***94***			

workers from the labour force. Instead, the results of this question strongly suggest that services to assist in job retraining and job finding were available, and yet a large majority (between 125 and 167) of the 220 former Youbou mill workers did not use and thus did not benefit from these programs.[15]

The overall result of this question was augmented by cross-tabulating the responses with those to question two regarding employment status. This analysis reveals that of the 33 people who reported being employed at the time of the survey (in response to question two; see Table 2), 32 answered question 10 as well. Of these, ten (less than one third) reported having made use of available assistance programs while 22 (over two thirds) of the employed respondents to question 2 reported in response to question 10 that they received no assistance. Moreover, of the 29 people who reported being unemployed in response to question two, 27 also answered question 10. Of these, 19 (70%) reported having received no assistance, while 6 (representing almost one quarter) reported that they had received assistance and yet remained unemployed 2 years after the mill closure.[16] It is difficult to state which finding is more disturbing: that 70% of unemployed respondents reported having received no assistance with job training or placement; or that almost one quarter of the unemployed respondents did receive assistance and yet remained unemployed. Further, it is also relevant to note that four of the six people who reported being self-employed in response to question two also reported having received no assistance; the other two reported that they did receive assistance.

The overall implication is that available job training and placement programs were simply not adequate, or were not viewed as adequate by the workers. This conclusion is inescapable by virtue of the simple fact that, for whatever reason, the programs were not used by their target populations. It seems relevant to point out in this respect that the TimberWest assistance program was staffed by the company using individuals who had formerly worked in the Youbou mill's management. Anecdotal information offered by some of the former mill workers indicates that many of the workers avoided using the program specifically because it was run by the company. Some felt that they could not trust the company after it had suddenly closed the mill, and that the training programs were a somewhat empty and cynical attempt by TimberWest to improve its public image in the wake of the closure by appearing to do something for the workers. In addition, many of the former Youbou workers may also have avoided the TimberWest assistance program because it was perceived to have been staffed by individuals with little or no experience in job training and job placement. Additional research regarding these programs, how they were used, and why they were not used, would be appropriate here. However, whether the perceptions of former mill employees are in any way accurate, they serve to underscore the questionable efficacy of relying on assistance programs that are privately staffed and privately funded, particularly in instances where they are operated by the company whose actions in closing the mill gave rise to the need for such programs in the first instance. If workers do not trust the intentions and the conduct of their former employer(s), they are unlikely to make adequate use of any substantive assistance that is available from this source.

Q11. If yes, what was the program?

Of the 29 people who reported having received training or assistance finding a job, 13 (45%) received assistance through the TimberWest program, while 12 (41%) found assistance elsewhere, and the remaining four (14%) reported EI as the source of assistance. While the 13 people who reported making use of the TimberWest industrial adjustment program represent fewer than one half of all the workers who received some assistance, they also represent only 14% of the 94 people who responded to question ten.

This corresponds to an estimated 30 people of the 220 who worked at the mill when it closed who would have made use of the program. Yet, TimberWest's industrial adjustment program represented the company's principal effort to provide some form of assistance to workers when the mill closed. Any claim by the company that this program offset the effects of the mill closure in any meaningful way is clearly not supported by the survey results. The results also indicate, however, that the performance of other programs in place was equally poor, if not worse.

TABLE 9B. Type of assistance program

	Frequency	Proportion of sample	Lower	Upper
TimberWest industrial adjustment office	13	0.4480	0.284	0.625
Other	12	0.4140	0.255	0.593
Employment insurance	4	0.1378	0.055	0.306
TOTAL RESPONSES	*29*			

[15] This range corresponds to the 95% confidence interval regarding help with training and is derived by applying the lower and upper bound percentages to the entire population of 220 former mill employees.

[16] Two other respondents to both questions two and ten reported that they were unemployed and that they did not know if they had received assistance in training or placement.

Q12. The mill closure has affected people in many different ways. How has the closure of the mill affected you and your household?

Answers to this question were recorded as Microsoft Word text files, and were not analyzed in the same manner as the others.

Q13. Are there other income earners in your household?

Of the 99 respondents, 49 reported that there were no other income earners in their households, while the other 50 reported multiple income earners (Table 10). Of these 50, one respondent reported two additional income earners in the household, and the rest reported one. This is significant, since the results indicate it is highly likely that somewhere between 88 and 130 of the 220 workers displaced from the mill continued to be the sole income earners in their respective households 2 years after the mill closure.[17] This high proportion of single-earner families and households strongly indicates that it is not only individual workers who have been adversely affected by the mill closure, but rather the members of their households as well. This inference is reinforced by cross-tabulation analysis indicating that of the 49 people who reported being sole income earners in their respective households, only 17 (35%) reported being either employed or self-employed, while 19 (39%) reported being retired and 12 (34%) reported being unemployed (one additional person reported being on long-term disability). Moreover, of the 19 retirees who reported being sole income earners in their households, 17 (89%) were among those who reported having retired unwillingly. Thus, there is good reason to infer (albeit indirectly) from this question and from cross-tabulation that the mill closure was highly disruptive not only to the lives of the workers laid off, but also to the lives of others in their households.[18] We would expect the most difficult adjustments in cases involving workers who reported being sole income earners and who reported having dependents (see below).

Q14. Do you have dependents?

Of the 100 respondents to this question, 60 reported having no dependents, and the other 40 responded in the affirmative (Table 11). This is a somewhat low number of people with dependents, although less so when one considers the demographic profile of the workforce at the mill, with one half of the workforce over age 50 at the time of the mill closure (see Table 1). Of those with dependents, 31 (78%) had either one or two dependents (see Table 11). Cross-tabulation indicates that 17 of the survey respondents with dependents were also the sole income earners in their households. Of these 17, only five people (less than one third of this group) were employed at the time of the survey.

TABLE 10. Other income earners

	Frequency	Proportion of sample	Lower	Upper
No	49	0.49	0.399	0.592
Yes	50	0.50	0.408	0.601
TOTAL RESPONSES	***99***			

TABLE 11. Number of dependents

	Frequency	Proportion of sample	Lower	Upper
0	60	0.60	0.502	0.691
1	14	0.14	0.085	0.221
2	17	0.17	0.109	0.255
3	6	0.06	0.028	0.125
4	3	0.03	0.010	0.085
TOTAL RESPONSES	***100***			

[17] This range corresponds to the 95% confidence interval, and is derived by applying the lower and upper bound percentages from the sample of respondents in this question to the entire population of former mill employees.

[18] It bears noting that question thirteen reports only on the degree to which those who were employed in the Youbou mill remained the sole income earners in their respective households 2 years after the mill closure, and is thus a rather indirect and poor indicator of the effects of the mill closure and loss of employment on the households of the individuals involved. Research conducted on employment loss more generally (including in the Pacific Northwest's forest industry) however, indicates that the effects on households and families are myriad and significant (e.g., strained or broken marriages, etc.) (Hibbard and Elias 1993; Kusel *et al.* 2000).

Conclusions and Recommendations

The results of this survey indicate that the closure of the Youbou sawmill in January 2001 had significant and persistent negative impacts on the lives of the workers who were employed at the mill when it closed. The survey also suggests, albeit less directly, that families and households of laid-off workers were also negatively affected. Particularly significant findings along these lines include that:

- many workers (25% of those surveyed) reported having retired unwillingly;
- almost one third of those surveyed remained unemployed 2 years after the mill closure;
- of the approximately 40% of the former workers estimated to have been employed or self-employed at the time of the survey, most have experienced decreases in wages, benefits, and in levels of job security and job satisfaction; and
- job training and placement programs were not effective in this case since most of the workers simply did not use them.

These findings are consistent with research that has been conducted on the effects of mill closures and industrial restructuring on workers and associated communities throughout the forest products manufacturing region of western North America over the last 20 years, and also broadly reinforces specific, qualitative research conducted in the Cowichan Lake region subsequent to the Youbou sawmill closure (Whitehead 2003).

The results of the survey and analysis underscore the following concerns:

- Any provincial forest policy that places the flexibility and freedom of forest companies over the security of workers will continue to undermine the economic viability of forest-based communities. Through appurtenancy clauses in Tree Farm Licences (TFLs), the Government previously had the means to protect jobs by making local milling operations a condition of licence retention. An appurtenancy clause was previously in place making operation of the Youbou sawmill a condition for TimberWest's retention of Tree Farm License (TFL) #46. Although the 1997 removal of this clause is the subject of an ongoing legal dispute, the clause was clearly intended to ensure operation of a sawmill in Youbou for the purposes of processing fibre from this TFL. Had the clause still been in place and enforced in 2001, the mill might still be in operation. The Government has now phased out appurtenancy clauses altogether. This is a mistake. Such clauses, when in place, should be enforced, and the province should continue to make accountability to communities and specific sustainable employment commitments conditions of access to public lands and harvest rights.
- More generally, the Government should take steps to develop and implement forest policy that aims to achieve the highest possible level of sustainable employment and income for communities while ensuring no long-term degradation of provincial forest resources or of the environment. This should include more alternatives to business-as-usual forest tenures, including stronger and more ambitious support of community forestry and co-operative forestry. It should also include emphasis on value-added, diverse forest products manufacture. There is a long-term trend toward decreased employment and income from forest-related activities in many communities in British Columbia, and there is ample evidence of environmental decline associated with industrial forestry. In this context, a model of forest regulation that increasingly favours footloose multinational firms, which manufacture low value added, generic commodities largely for export markets, is not in the best interests of the people of British Columbia.[19] This is particularly the case in the coastal region of the province where the Youbou mill was situated, a region which in recent years has seen roughly 11% of total harvested wood volume exported in an unprocessed or raw log form (Marshall 2002).
- The ownership of TFL 46 has now changed. However, the Province should have revoked or bought back from TimberWest that portion of the fibre supply necessary to operate the Youbou sawmill when the company chose to close the mill, and should have used this as the basis for establishing a community forest licence in the Cowichan Lake area. The Government should still honour its commitment to the community by providing an adequate land base for community forestry in the Cowichan Lake area and should seek thereby to support community-run forestry and alternative, sustainable forest practices.
- The Government should improve the quality of worker re-training and placement programs. Specifically, these programs should not be operated by companies ostensibly in the service of their own former employees. While companies that close mills can and should be expected to contribute to funding these programs, the programs should be operated by government or independent agencies, and should be staffed by individuals trained and experienced in worker placement and re-training.

[19] Burda and Gale 1998; Ostry 1999; Green 2000; Barnes *et al.* 2001

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