



## ABSENTEEISM IN THE LOGGING INDUSTRY (A Pilot Study)

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### ABSTRACT

*A pilot study of absenteeism in the logging industry undertaken during March 1988 revealed an absence rate of 4.8%. This finding was based on a survey of 29 gangs, mainly from the Bay of Plenty area. The wages cost of this rate of absence has been calculated to be in the vicinity of \$3 million per year. The day of week on which most absences occurred was Friday and the main reason for being absent was sickness (22.0%).*

*Other research suggests that this rate of absence considerably understates the problem, given that the survey was conducted during a summer month.*

*This pilot study suggests that more detailed research into absenteeism will have definite economic benefits. Such research would need to identify and measure the employee and gang related variables that affect absenteeism.*

### INTRODUCTION

Employee absenteeism, while often acknowledged as a problem by managers, is seldom given enough attention. Very few organisations maintain adequate data on the extent of absenteeism, and rarely is any attempt made to establish the reasons for its occurrence. One possible explanation for this lack of concern is that the financial costs associated with

absenteeism, like those of labour turnover and work accidents, are not highlighted by traditional accounting practices and therefore are not drawn to the attention of decision-makers.

Overseas research suggests that the cost of employee absenteeism can be considerable. For example, Steers and Rhodes (1978) estimate the annual cost of absenteeism in the United States to be as high as \$26.4 billion, while Canadian estimates range from \$2.7 to \$7.7 billion (Gandz and Mikalachki, 1979). In Britain, it has been estimated that over 300 million working days are lost each year due to absenteeism and it has become so serious in some areas that it is cited as having contributed to industrial slumps (Roe, 1979). In Italy, a country considered to have one of the highest absence rates in the world, the problem of high absenteeism has become so firmly entrenched that many Italian firms need to hire 8-14% more staff to cope with the workload. Ironically, the problem now faced by these firms is not so much the absenteeism, but what they call "presentismo"; those rare days - usually pay days - when everyone shows up and there is not sufficient work to go around! (Mowday, et al 1982).

While research into absenteeism in countries like the United States and Britain has been abundant,

relatively little research has been carried out locally. The only major study of absenteeism in New Zealand was conducted by the Department of Labour in 1975, when a nationally representative sample of 1000 firms across 7 major industry groups were surveyed. The average absence rate found in this study was 5.94% and amounted to an annual loss of about 14 working days per employee. If applied to the New Zealand workforce as a whole this would represent a loss of over 14 million working days each year.

The Department of Labour's survey, unfortunately, did not include data on the forestry sector. To estimate absenteeism in the logging industry, LIRA and the Social Science Research Group at the Forest Research Institute, Rotorua, conducted a pilot survey of 29 logging gangs during March of this year. It is anticipated that if absenteeism is found to be a serious problem in the logging industry, a major study will follow during 1989.

### STUDY DETAILS

Information was collected on a record sheet designed by the authors and administered by Company supervisors. As well as recording the logger's attendance over the month of the survey and the reason given for any absence, information was also collected on the logger's: age, marital status, number of dependent children, time worked in the industry and present gang, number of gangs worked in, normal job performed, the method of getting to work, and level of L&FITB Logger Certification. Gang-related information recorded included: the Company contracted to, the forest location, whether thinning or clearfelling, and the method of log extraction.

On a separate form, loggers were asked to indicate their level of satisfaction with eleven aspects of their job - pay, opportunities for promotion, co-workers, on-site supervision, physical working

conditions, job security, repetitiveness of job, recognition for job well done, work achieved during normal day, hours of work, and the work overall. Each aspect was measured on a 7-point Likert Scale, ranging from a situation of extreme dissatisfaction (a score of one) to a situation of extreme satisfaction (a score of seven).

### MEASUREMENT

Absence is defined in this study as the non-working of rostered days by full-time employees, for any reason other than annual holidays taken with the approval of the employer.

The method used to measure absenteeism is the "absence rate", and is defined as:

$$\text{Absence Rate (\%)} = \frac{\text{The total number of employee days lost}}{\text{The total number of employee days rostered}} * 100$$

While it is appreciated that such a broad measure does not allow for a distinction to be made between genuine and non-genuine absences, the small sample size and the uncertain reliability of the 'reason for absence' as given by the absent worker, makes such distinctions questionable. From a cost point of view, of course, an absence is an absence for whatever reason.

### FINDINGS

Out of a total of 3726 days that were rostered to be worked by the 162 loggers employed in the 29 gangs surveyed, 178 days were lost due to absenteeism. This represents an absence rate of 4.8%, and amounts to an annual loss of 13.2 working days per logger. Absence rates in the individual gangs ranged from 0% to 16.5% and, as Table 1 shows, over half the gangs had an absence rate of less than 4%, with three-quarters having an absence rate of

**Table 1 - Distribution of Gangs by Rate of Absence**

Absence Rate (%)	No of Gangs	Percentage
0 - 1.9	6	20.7
2 - 3.9	10	34.4
4 - 5.9	6	20.7
6 - 7.9	1	3.5
8 - 9.9	1	3.5
10 +	5	17.2
	29	100.0

less than 6%. Five of the 29 gangs exhibited an absence rate of 10% or more.

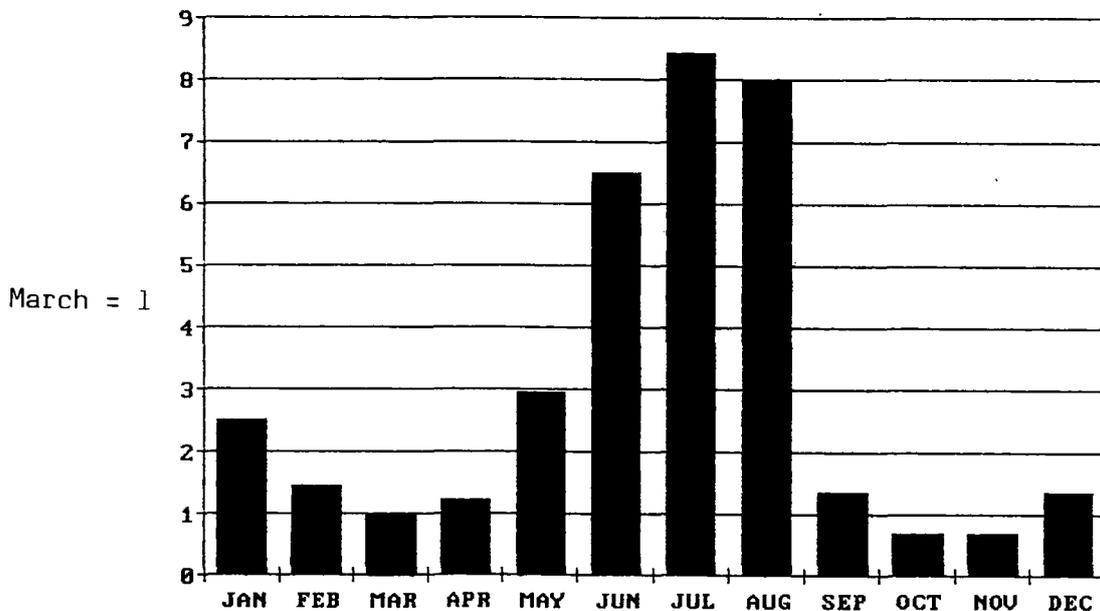
While the absence rate found in the present study is about one percent lower than that reported by the Department of Labour (1976), it should be emphasised that their survey was carried out during winter (July), which research has shown to be a season with high absenteeism (see e.g. Chadwick-Jones et al 1982). In fact, as Figure 1 shows, it was the opinion of the business managers surveyed by the Department of Labour, that absenteeism during July is more than eight times higher than March (the month of the present survey). If this pattern of monthly absence is valid with respect to the

logging industry, absence rates during the winter months could be approaching 40%, giving an annual absence rate of about three times that of our March figure of 4.8%; that is, an annual absence rate of around 14%.

**Reason Given for Being Absent**

The reasons given by the loggers for being absent, along with their respective frequency are shown in Table 2. As stated earlier, a degree of caution must be attached to any interpretation of this information.

Of the 82 separate cases of absenteeism recorded over the month of the survey, 33 (40%) of the reasons given related to the health of the logger (ie sickness



**Figure 1 - Business Managers Opinions of Monthly Absence Patterns**  
(Source : Department of Labour (1976), p. 10)

**Table 2 - Reasons Given for Logger Being Absent**

Reason Given	Frequency	Percentage
Sickness	18	22.0
Business	10	12.2
Union Meeting	8	9.8
Funeral	7	8.5
Doctors Appointment	6	7.3
Non-work Accident	6	7.3
Sports Activities	4	4.9
Work Accident	3	3.7
Domestic Duties	3	3.7
Other Reasons	14	17.0
No Reason Given	3	3.6
<b>Total</b>	<b>82</b>	<b>100.0</b>

(22.0%), doctors appointment (7.3%), non-work accident (7.3%), and work accident (3.7%). Other prominent reasons given for being absent were for business purposes (12.2%), attend union meetings (9.8%), and to go to funerals (8.5%).

**Absence Rates by Day of Week**

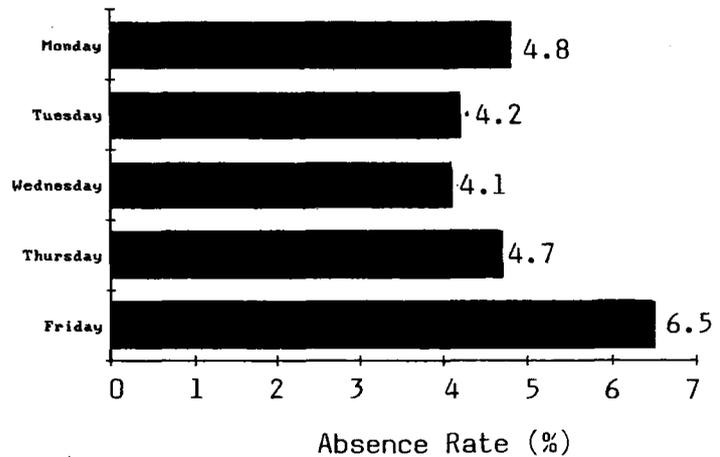
Figure 2 presents the absence rates by the day of the week. As this figure shows, absenteeism is clearly at its highest on Friday, with an absence rate of 6.5%, followed by Monday (4.8%), then Thursday (4.7%). The lowest levels of absenteeism were recorded on Tuesday and Wednesday, with absence rates of 4.2% and 4.1%, respectively.

These findings are largely in agreement with those reported by the Department of Labour (1976), who also found absence rates to be highest on Friday and Monday. However, the lowest level of absenteeism was recorded on Thursday.

**Factors Associated with Absenteeism**

While the main purpose of the present study was to establish the extent of the absenteeism problem, we took the opportunity to test run a questionnaire which would be used should a fuller study be considered worthwhile.

**Figure 2 - Absence Rates by Day of Week**



This questionnaire collected data on a range of employee-related characteristics (eg age, marital status, number of dependent children, job satisfaction) and gang-related variables (eg: Company contracted to, whether clear-felling or thinning). Such information would be essential in determining the underlying causes of absenteeism.

Unfortunately, due to a combination of a small sample size and missing data on a number of the respondents exhibiting high absenteeism, it was not possible to carry out even a cursory exploration of the relationships between absenteeism and the employee-related information collected. With respect to the gang-related information, it would

appear though that absence rates do vary by forest, regional location and type of operation performed.

Previous research has shown that workers who are dissatisfied with their job are more likely to be absent than workers who are satisfied. In the present study, however, no such relationship was found on any of the eleven job aspects measured. In fact with regard to a number of these job aspects, absent workers tended to be more satisfied. However, this link will require further investigation.

### COST OF ABSENTEEISM

To measure the total cost of absenteeism, account must be taken of factors such as : the wages paid to absent employees, disrupted production processes, reduced productivity, increased stress on supervisors, increased accident rates, increased overtime costs and, if absenteeism is anticipated by means of retaining an extra pool of workers, the costs associated with this strategy. It is beyond the scope of the present study though to measure all of these costs and so the estimate given here is limited to the wages paid to absent employees.

With an average "gross" pay of \$100 per day, derived from recent surveys of the logging workforce (Gaskin et al 1988), logging workers in New Zealand are on average getting paid \$1,320 each year while absent from work. Based on a nationwide logging workforce of 2500, this represents an annual wages cost of absenteeism in excess of \$3 million. These figures, however, must obviously be regarded as a very conservative estimate of the total cost of absenteeism as they take into account only one factor associated with absenteeism and furthermore are based on a month when absenteeism is traditionally low. Given that Mirvis and Lawler (1977) found the non-wages cost of

absenteeism to be about three times that of the wages cost, the total annual cost of absenteeism to the logging industry could realistically run into the tens of millions of dollars.

### CONCLUSIONS

The primary goal of the present study was to determine the extent to which employee absenteeism poses a problem for the New Zealand logging industry.

- Based on an analysis of absence data from 29 logging gangs for March 1988, the absence rate was calculated to be 4.8%. This amounts to an annual loss of 13.2 working days per logger, and if applied to the New Zealand logging industry as a whole suggests that 33,000 working days are lost each year due to absenteeism.
- Research carried out both overseas and locally, however, would suggest that this rate of absence is likely to be conservative, based as it is on a summer month (March) when absenteeism is traditionally low. Given that a study by the Department of Labour (1976) suggests that the average absence rate for the year might be as much as three times higher than that for March, it could be that absenteeism in the logging industry may be running as high as 14% per annum. This represents a loss of about 40 working days per logger and around 100,000 working days for the industry as a whole.
- Our estimate of the cost of absenteeism solely in terms of the wages paid to the absent workers amounted to \$1,320 per worker per year, and represents a total wages cost in excess of \$3 million per annum.
- However, the true cost of absenteeism, is likely to be

much greater as not all of the many costs associated with absenteeism are considered. This underestimation is compounded by the fact that our absence rate is based on a month when absenteeism is typically low. Even taking account of the month of the survey alone would increase the estimated wages cost to around \$10 million.

This preliminary survey of employee absenteeism in the logging industry would suggest that research aimed at reducing absenteeism will have definite economic benefits. Research is needed to identify and measure the employee and gang related variables that affect absenteeism. The provision of this type of information is required before strategies can be developed to reduce the level of absenteeism in the logging industry.

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