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ABSENTEEISM AND TURNOVER AMONGST LOGGING CREWS

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ABSTRACT

In April 1989, LIRA began a year long, nationwide study of absence and turnover in the logging industry. Seventy-eight gangs from the Auckland/Northland, Bay of Plenty, Hawkes Bay, Nelson and Otago/ Southland regions were involved.

Biographical information was collected from each logger involved in the study. Analysis of this information indicated that some aspects of the workforce have changed since the Logging Workforce Survey was completed in 1988. The average number of years in logging and in each gang has increased, while the average age has remained the same. The percentage of loggers holding some form of Logging and Forest Industry Training Board (L&FITB) certificate has shown a marked increase over the year of the study.

The absence rate was around 5.5%, which was comparable to earlier studies. The main reason for absence was work accidents, which accounted for 20% of all absence. An almost equal number of days were lost through forced time off during the port strike, mill shut-downs and over- production when on quota.

The turnover rate was between 30 and 35% which is lower than previous estimates. About two-thirds of those who left their crew, did so voluntarily. More than half of those who left the crew also left the industry.

INTRODUCTION

Absenteeism is an issue which has received little research attention in this country. A pilot study conducted by LIRA in April, 1988 (Wilson, Gaskin & Smith, 1988) suggested that absenteeism could be costing the logging industry about three million dollars each year in lost wages. That study found that the absence rate was about 4.8% and that most of the days lost were through sickness.

The study was limited in that it only included 29 gangs, which were largely from the Bay of Plenty region. Nevertheless, the results indicated that a reduction in absence would be economically beneficial to the industry. The authors noted that further research was required to measure variables affecting absence, before strategies could be developed to combat the problem.

Apart from the LIRA pilot study, there has been only one other major study of absence conducted in New Zealand. The Department of Labour (1976) surveyed 1,000 firms from seven major industry groups and found the average absence rate to be about 5.94%, which equates to 14 days lost for each employee each year.

Turnover has attracted more attention from researchers within the logging industry. Liley (1984) considered the affects of various hypothetical rates of turnover in

his review of manpower requirement predictions. Turnover had not been considered in previous manpower requirement predictions. Gaskin (1987) and Bomford and Gaskin (1988) examined one company's records of turnover and found an annual rate of approximately 50%. This level did not include those loggers who had moved between contractors employed by the company.

In view of the lack of information about absence and turnover, a study was begun in April, 1989 to track a nationwide sample of logging crews for one year measuring their rates of absence, the reason for absence and the rates and reasons for turnover. This Report examines the findings of that study.

ACKNOWLEDGMENTS

LIRA acknowledges the assistance of the contractors and crews who were involved and the support of the company personnel throughout the study.

METHOD

Crew Selection

Logging crews were selected from five regions in New Zealand. The number of crews from each area reflected the level of logging activity in the area. Crew and/or individual participation was voluntary. The crews were selected so that the sample included a variety of methods of extraction, different companies and clearfell and thinning crews.

The first 20 crews in the Bay of Plenty were visited in April, 1989. In May, 21 more crews in the Bay of Plenty were approached as well as crews from the Hawkes Bay and Auckland/Northland regions. Crews from Nelson and the Otago/ Southland regions were visited in June, 1989 which made up a total sample of 78 crews (475 loggers).

During the first visit each member of the crew filled out a form which supplied biographical details such as their age, years of logging experience, the number of years in each gang, logger certificate held, etc. Each person, then completed a job satisfaction questionnaire (The Worker Opinion Survey; Cross, 1973). The Job Satisfaction results will not be reported here.

Table 1 presents the number of gangs in each area, the average age, years in logging and time in each gang, the percentage of loggers with some form of L&FITB certificate at the beginning of the study and one year later at the end, and the percentage of Maoris in the workforce in each area. Since the Logging Workforce Survey was completed (Gaskin, Smith, & Wilson, 1989) the average length of logging experience has increased by two years and the time spent in each gang by one year. The average age of the sample may appear to be high, but 60% of the loggers are between the ages of 20 and 35.

Absence and Turnover Records

The contractor or foreman of the crew was given an attendance sheet for each calendar month. On this form a record was kept for each day of the month of who was present and if someone was absent then the reason for absence was noted. If a person left the crew then a separate form was filled out detailing the date and reason why they left, where they went to and an evaluation of their performance on a five-point scale. The five-point scale yielded little information.

Each crew was visited once every three months. During these visits new employees were asked to participate in the study and if they agreed they filled out the form which supplied their biographical details.

At various stages throughout the year some crews chose to leave the study. There were also some contractors who did not fill out absence records for various months of the year. This was expected, given the intensive nature of the data collection. Overall the level of co-operation was excellent.

	Auckland/ Northland	Bay of Plenty	Hawkes Bay	Nelson	Otago/ Southland
Average Age	32	31	30	35	31
Years in Logging	7	10	6	15	9
Years in Gang	3	3	2	4	4
L&FITB Certificate (%)					
- When the Study Began	11	57	26	51	18
- At Completion	11	71	74	61	33
Number of Crews	9	41	7	11	10
Ethnic Composition:					
Maoris	22	48	20	4	3
European	75	51	80	93	93
Other	2	1	-	3	3

Table 1 - Biographical Details of the Workforce

Definition of Terms

(1) Mandays - This is calculated by adding the number of days available each month, Monday to Friday, excluding public holidays and multiplying this by the number of people employed for the full calendar month. The total number of mandays of data collected was 82,131.

(2) Absence - When an employee is away from the logging site on any rostered day of work during the month. Due to the way the "Mandays" were calculated, only the absences of those people employed for a full calendar month were included in the calculation. The total number of absences recorded was 5,812.

(3) Turnover - When an employee left the crew to take up a job elsewhere. Data from 138 loggers who left their crews was recorded.

RESULTS

Figure 1 shows the percent absence rate at each month of the study and the number of crews on which these percentages are based. The crosses (X), show the total percentage of absence in months when gangs were forced to take time off because of port strikes, over-production (when on quota) or for mill shutdowns. The triangles show the percentage of absence if the number of forced days off is not included in the calculation which provides a more accurate representation of the actual absence rate in the workforce.

From this graph, it is evident that the percentage of absence is similar to that predicted by the Department of Labour in 1976 and Wilson et al (1988). The rate of absence also remains relatively unaffected by changes in season and in sample size. Figure 1 also provides an indication of the amount of lost production during the port strike, with the rate of time off being increase by as much as 3% in September, 1989. The average rate of absence, free of forced lay off was 5.6%. If the forced time off is included in the calculation, the percentage of absence increases to 6.8%.

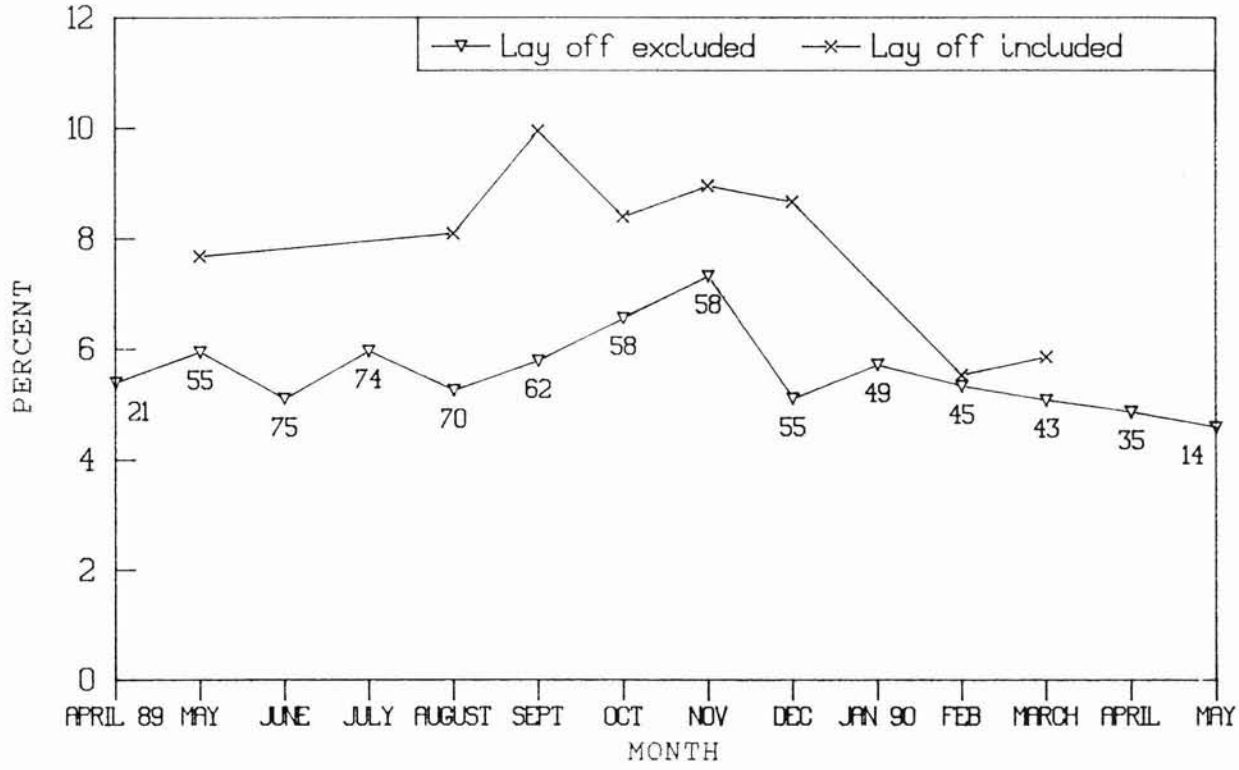

Figure 1 Absence Rate at Each Month

There was very little difference in the rate of absence between the geographical regions or companies. There was less than 1% difference between the absence rates for the five areas in the study and only a 1.3% difference in the rates of absence between companies. There were also no differences in the rates of absence between thinning and clearfell crews.

Reasons for Absence

Figure 2 is a percentage breakdown of the reasons for absence. Work accidents were found to be the main reason and accounted for 20% of all absence which is a total of 1,157 days. A similar number of days (1,133) were lost as a result of forced time off, and these two reasons combined accounted for 40% of all absence.

Sick leave and Doctors, Dentists and Physiotherapist appointments caused slightly under 15% of all absence. Wilson et al (1988) found that sick leave was the main reason for time off in their pilot study in April 1988 and this result was replicated in this study for the month of April, 1989. Sick leave was also the main reason for absence in July, 1989, but work accidents dominated as the number one cause for 10 of the 14 months under study and were only overtaken in February and April, 1990 by the "other reason" category, which was largely made up of annual leave.

There were no discernible trends as a function of season in the data. The peak month for absence was November, 1989 with a rate of 7.32%, when work and non-work accidents, sick leave and absence for business reasons were high. The lowest rate of absence was 4.59%, recorded in May, 1990, followed by April, 1990 with a rate of 4.86%.

Turnover

Bomford and Gaskin (1988) found high rates of turnover which have not been replicated by this study. It is difficult to calculate an exact rate of turnover because the sample size at any one time could not be known. However, a total of 138 records

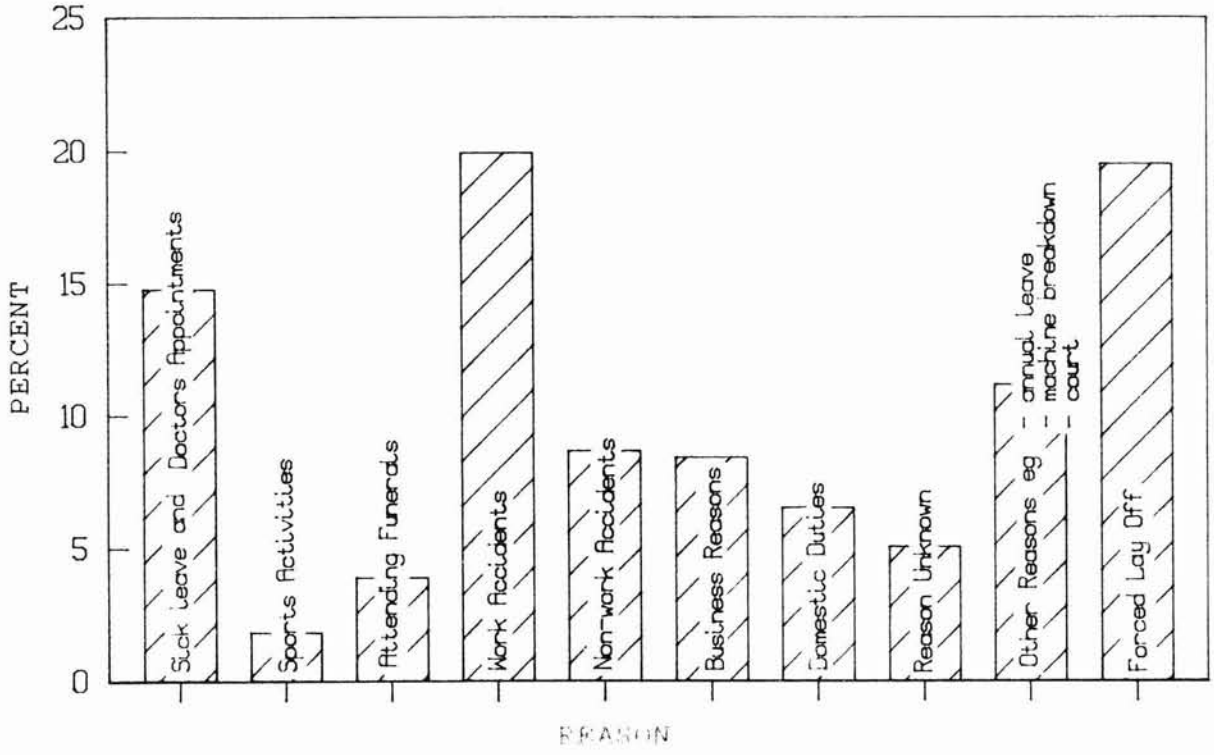

Figure 2 - Reasons for Absence

were collected over the year which suggests a turnover rate of between 30 and 35%. This has been calculated by dividing the number of people who left by the number of people in the sample, multiplied by 100.

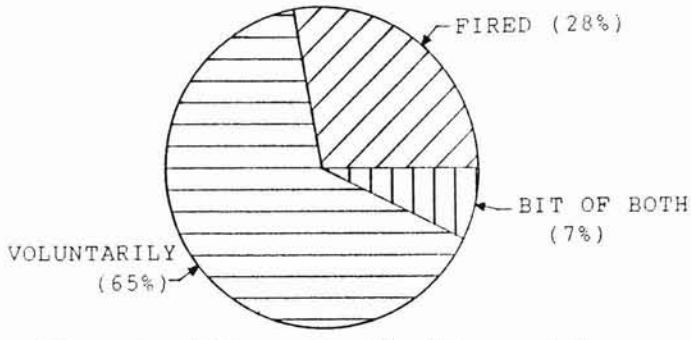

Figure 3 - A Percentage Breakdown of those who left voluntarily versus those who were fired

Figure 3 shows that about two-thirds of those who left their employers, did so voluntarily. One-third of those who left voluntarily stated that it was because they had found alternative employment. The reason they sought alternative employment was not assessed. Family reasons and travel overseas, being unhappy with conditions or money, or wanting a change of scenery each accounted for 11% of those who left. Leaving for health reasons and not getting along with the gang accounting for about 8% each.

Poor attendance and unproductive work-rates were the main reasons for firing, with the remaining 23% being made redundant.

Figure 4 shows that more than half of those who left or were fired also left the industry, with only 27% being retained in other logging gangs.

There were no significant differences in the rates of loss from the industry between loggers with certificates versus those without.

There was some variation in the rate of turnover between areas. The highest rate of turnover was found in Hawkes Bay where 3.4 loggers leave annually per crew. This was followed by the Auckland/ Northland region with a rate of 3.2, then the Bay of Plenty at 1.5, Otago/Southland at 1.4 and the lowest rate was in Nelson with 0.7. The difference between the Nelson and Hawkes Bay regions and between the Nelson and Auckland/Northland regions were statistically significant.

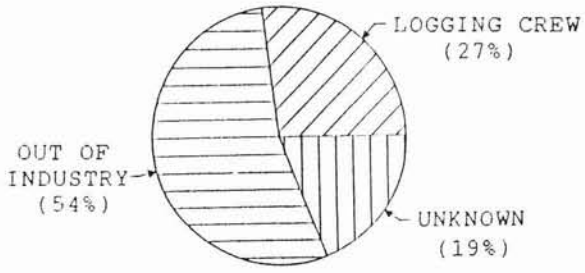

Figure 4 - A Percentage Breakdown of the employee's location after turnover

There were no statistically significant differences found in the rates of turnover between Maoris and Europeans, those loggers with certificates versus those without and between married and single men. There were also no significant differences in the turnover rate as a function of the number of other jobs outside logging or in the number of previous logging gangs in which they had worked. The loggers who left their contractor, during the study, had the same average age as those who remained but had significantly less logging experience and, less time in the gang. This suggests that, if a person has been logging for a long time then they are less likely to leave the industry. From this study, it would appear that holding a logger certificate does not reduce the likelihood of turnover, nor does it increase the likelihood of retaining the logger in the industry in another crew. This finding is contrary to that of Gaskin and Bomford (1988).

CONCLUSION

The rate of absence, free of forced time off is comparable to earlier studies. The rate of 5.6% equates to about 14 days off, annually, per employee.

Two main areas can be highlighted for improvement. Firstly, finding that work accidents caused the highest number of days off is of concern. If the workforce is assumed to number 2,500, then about 6,540 days (or 27 man-years) are lost annually from work accidents. Aside from the human cost of accidents there is, obviously, a tremendous monetary cost involved.

The second area of concern is that a similar amount of time is lost through forced layoff and this figure does not included the time lost through bad weather.

It is encouraging that the rate of turnover appears to have decreased since the studies conducted in 1987 and 1988. The reason for this drop cannot be assessed from this data. It was interesting to note that the levels of certification of those people who left their employing contractor were not significantly different from those who remained. Likewise, loggers who hold certificates are no less likely to leave the industry than those without certificates.

LIRA NOTE

This Report summarises the main findings of the Absenteeism and Turnover Study. A full explanation of these findings and others not reported here will be published in a LIRA Project Report.

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