LOGGING INDUSTRY RESEARCH ORGANISATION
NEW ZEALAND

ISSN 1171-6932

REPORT

Vol. 21 No. 28 1996

TURNOVER, ACCIDENTS AND TRAINING - A Southland Case Study

Janelle Byers

SUMMARY

Twelve Southland logging contractors were surveyed for information on labour turnover, lost-time accidents, Forest Industry Record of Skills (FIRS) attainment and hours worked per week.

These logging crews experienced a higher proportion of severe injuries than reported nationally (LIRO Accident Reporting Scheme Data). However, most injuries resulted in one to five days lost time, consistent with national trends.

Labour turnover was high (48%), although consistent with turnover levels reported for logging crews in the Bay of Plenty. Forty-four percent of those who left a logging crew also left the industry.

A further 23% of turnover was workers considered unsuitable by the contractor for a logging job. This highlights a potential problem for Southland logging contractors in employing and retaining competent staff.

Both contractors and workers were frustrated with lack of access to training and assessing systems for FIRS modules.

This report highlights the need for a more comprehensive study of the relationships between turnover, training and accident propensity. If the reasons for turnover are to be fully understood, it may be necessary to determine the impact of external factors on the turnover of logging crews.

INTRODUCTION

Bomford and Gaskin in their 1988 study of turnover within New Zealand Forest Products (NZFP) (Kinleith) stated that *"An understanding of the levels, types and reasons for turnover is important to the industry for estimating future recruitment and training needs. Furthermore, turnover is an expensive aspect of manpower..."*. Bomford and Gaskin also reported that the external turnover of new recruits was particularly high within the first six months of beginning work.

LIRO has been studying turnover in the logging industry since Liley (1984) reported on the lack of knowledge about turnover in the logging industry. A 1983 study by Smith and Wilson provided the only forestry turnover information at that time (Table 1).

Table 1 - Turnover studies

Year	Author	Region	% Annual Turnover
1983	Smith & Wilson	Bay of Plenty	25.6%
1987	Gaskin	Kinleith	43%
1988	Bomford & Gaskin	Kinleith	48%
1990	Tapp & Gaskin	National	30-35%
1993	Adams	Kinleith	58%

Since then, there have been a number of other studies which have highlighted the turnover problem (Table 1).

Gaskin (1987) reported on the labour turnover in logging crews for NZFP (Kinleith), and categorised turnover into four main types: those who left the industry, those whose whereabouts were unknown, those who stayed in logging, but not with NZFP and finally, those who moved within NZFP crews.

A study undertaken by Tapp and Gaskin (1990) found that more than half of those who left individual logging crews, also left the forest industry. The most recent LIRO turnover study (Adams, 1993) found that 40% of turnover comprised people who left NZFP; a further 18% moved from one NZFP crew to another.

Early logging workforce turnover studies (Gaskin 1987; Wilson, Gaskin and Smith, 1988) did not examine the effect of training on turnover. Bomford and Gaskin (1988) observed that a larger proportion of non-certified loggers (untrained) left the NZFP logging workforce than certified (trained) loggers. Adams (1993) found that throughout the seven years of data analysed in his study that the greater proportion of turnover involved non-certified loggers.

ACKNOWLEDGMENTS

LIRO acknowledges the assistance of Rayonier New Zealand Limited (Invercargill), and the logging contractors and their partners who provided the information for this report.

METHODOLOGY

The information was gathered from personal interviews with 11 logging contractors and/or their partners using a standardised questionnaire. The logging foreman supplied the information for one crew. One contractor had two crews. These crews were all working for Rayonier New Zealand Limited in Southland at the time of the survey.

Information was collected on labour turnover, the number of hours worked, and the length of time that the crew had been contracted to this forest company. Accident data was collated from contractor records, Occupational Safety and Health (OSH) reports and company accident data. These sources were cross-

referenced to ensure that accidents were not recorded twice, and to gain as much information as possible. Accident data covered the entire length of time that these contractors and their crews had been contracted to this forest company.

Information about training, and specifically FIRS attainment reflected the training status of these logging crews at the time of the survey.

Whilst acknowledging that these contractors were not directly employed by Rayonier New Zealand Limited, for simplicity of reporting these crews will be referred to as Rayonier crews within this report.

RESULTS and DISCUSSION

Training

Table 2 shows the number of FIRS modules held by these logging crews. Sixty-three percent held at least two FIRS modules, and 3% held National Certificates in Forest Harvesting.

The contractors were asked how often they would like to have a trainer work with their crew. Eight contractors (61%) said that they would like to see the trainer at least fortnightly, and four contractors (30%) said they would like to see the trainer at least monthly.

The lack of availability of assessors was mentioned as a problem by eight contractors. This was seen as a significant problem by the contractors when their workers were keen to get FIRS modules, and then had to wait a considerable length of time for an assessor.

Table 2 - Attainment of FIRS modules by crew members

Number of Modules	Workers with this number of modules	
	number	%
0	16	18
1	14	16
2	13	15
3	12	14
4	6	7
5	13	15
6	4	4
7	5	6
8	1	1
9	0	0
10	1	1
11	0	0
National Certificate	3	3
Total	88	100

Accidents

Accident data refers only to work accidents. Only lost time accidents, where the injured workers could not work the next day because of their injuries, were included in the analysis. Non-work, minor and near miss accidents were excluded from the analysis for reasons of clarity.

Most accidents reported by these crews resulted in one to five days lost time (Table 3). This is lower than the 1995 LIRO Accident Reporting Scheme (ARS) data where 50% of accidents resulted in one to five days lost time (Parker, 1996). Of the injuries reported, 26% resulted in greater than 20 days lost time, indicating a severe injury. In comparison, 15% of injuries reported to the LIRO ARS required more than 20 days off work. This indicates that these logging crews experienced a higher proportion of severe injuries than the national logging workforce.

Table 3 - Injury severity

Severity (Days Lost)	Number	Percentage
1-5 days	14	40%
6-10 days	6	17%
11-15 days	4	11%
16-20 days	0	0
21 + days	9	26%
Unknown	2	6%

Table 4 - Injury site

Injury Site	Number	Percentage
Foot	3	9%
Ankle	4	10%
Knee	5	14%
Leg	2	6%
Hand	3	9%
Shoulder	1	3%
Face	2	6%
Torso (Front)	2	6%
Torso (Back)	5	14%
Eye	2	6%
Multiple	1	3%
Unknown	5	14%

Injuries to the leg, knee, ankle and foot accounted for the biggest proportion (40%) of all recorded injuries for Rayonier crews (Table 4). Thirty-four percent of all injuries were sprains, 20% were lacerations. Fourteen percent of all recorded injuries for Rayonier crews were back injuries, which is significant given the often recurring nature and high costs associated with back injuries. These results were similar to those reported in the LIRO ARS (Parker, 1996).

Turnover

Figure 1 shows the proportions of the various types of turnover (using the categories designed by Gaskin, 1987) which occurred in these logging crews from January, 1993 to June, 1995.

The time contracted to the forest company varied from six weeks to 3½ years.

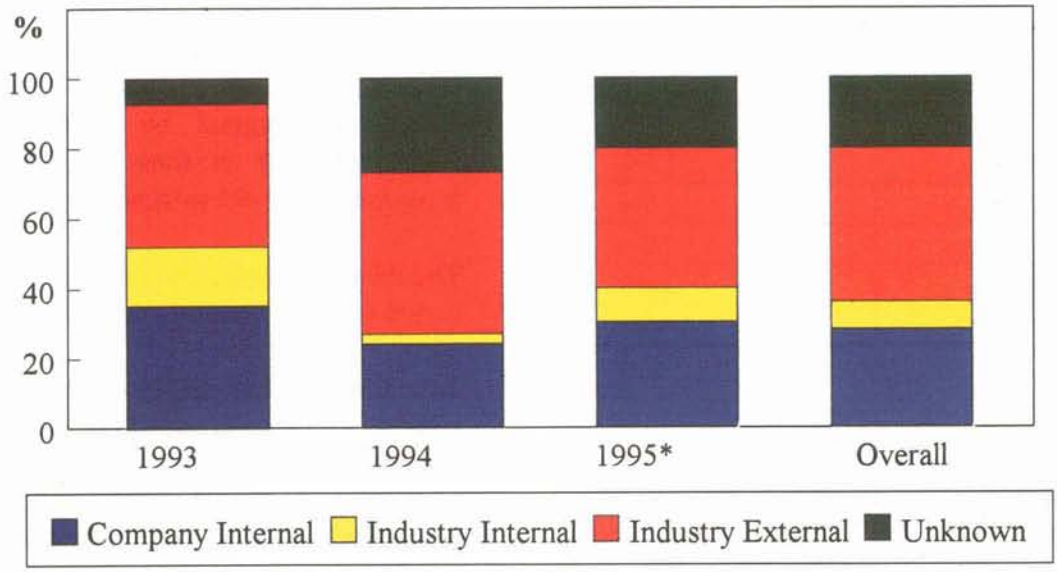
This shows that 28% of all turnover among logging crews was internal to Rayonier. A further 8% left Rayonier logging crews for jobs with logging crews contracted to other forest companies.

Figure 1 shows that overall the biggest proportion of turnover was external (44%), that is those people who left the forest industry. Most of these workers chose to leave logging for jobs in sawmills, on farms or in freezing works. Several contractors commented that it was difficult to retain staff when other jobs offered comparable pay with better working conditions.

The level of external turnover reported for these logging crews was similar to that found in other studies of turnover within logging crews (Table 1). The level of external turnover experienced by the Rayonier logging crews is similar to that reported for logging crews in the Bay of Plenty region.

In both 1994 and 1995, 23% of those who left their job were considered by the contractor to be unsuitable for the job. The high proportion of turnover which was due to employee unsuitability compounded the turnover problem, and highlights a potential shortage of skilled labour in the Southland region.

Figure 1 - Logging crew turnover



1995* not a full year January 1, 1995 - June 1, 1995

Training, Accidents and Turnover

It was not possible to establish statistically significant relationships between accident occurrence, FIRS attainment and labour turnover for these crews. This may be due in part to the small sample size and the varying lengths of time which the contractors had been contracted to the forest company.

A high number of employees were participating in the FIRS system at the time of the survey (82%). However, the accessibility of assessors remains a problem for these contractors, and a considerable barrier for workers wanting to attain FIRS modules.

Labour turnover is an important issue for this region, as illustrated by the high level of external turnover. This high proportion of external turnover, and the proportion of workers who left after a short time because of their unsuitability is of concern especially if the forest industry is to expand in this region.

If the reasons for turnover are to be understood, it may be necessary to determine the impact of external factors (such as company-level decisions and global wood prices) on the turnover of logging crews.

It may also be necessary to talk to those workers who left logging crews to gain an accurate understanding of the factors, other than those mentioned here, which influenced their decision to leave.

REFERENCES

Adams, D. (1993) : "Labour Movement in the Logging Industry - One Region's Experience", LIRO Report Vol 18, No. 4.

Bomford, D. and Gaskin, J. (1988) : "Turnover in Logging", LIRA Report Vol. 13, No. 9.

Gaskin, J. (1987) : "Labour Turnover in Logging - One Company's Experience" LIRA Report Vol. 12, No. 5.

Liley, W. B. (1984) : "The Importance of Labour Turnover in the Logging Industry". Proceedings of a LIRA Seminar Human Resources in Logging; June 1984.

Parker, R. (1996) : "Analysis of Lost Time Accidents - 1995 Logging (Accident Reporting Scheme Statistics)". LIRO Report Vol. 21, No. 21.

Smith, B. and Wilson, P. (1983) : "Labour Turnover in a Large Integrated Forestry Complex". FRI Bulletin No. 120

Tapp, L. and Gaskin, J. (1990) : "Absenteeism and Turnover Amongst Logging Crews". LIRA Report Vol. 15, No. 11.

Wilson, P., Gaskin, J., and Smith, B. (1988) : "Absenteeism in the Logging Industry (A Pilot Study)" LIRA Report Vol. 13, No. 24

For further information, contact:

LOGGING INDUSTRY RESEARCH ORGANISATION
P.O. Box 2244,
ROTORUA, NEW ZEALAND.

Fax: 0 7 346-2886 *Telephone: 0 7 348-7168*