

LOGGING'S LABOUR FORCE

A PILOT STUDY

INTRODUCTION

The human element plays a major role in the productivity and efficiency of logging operations. Knowledge of New Zealand's current logging labour force is minimal. LIRA has initiated a project in this area to analyse labour requirements, training, motivation, and retention.

As a first step LIRA assisted Mark Fielder, a final year Forestry School student at Canterbury University, to conduct a survey of the Bay of Plenty logging labour force. The survey was aimed at identifying characteristics of the current work force which might help the development of recruitment and training programmes.



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Figure 1. Felling: The Most Popular and Most Dangerous Logging Task

and the high cost of logging accidents.

Improvement in these deficiencies should improve the effectiveness of the labour force. The problem may become even greater with the expansion in logging which will take place in the future. However it is difficult to either improve the existing situation or plan for the future with the limited knowledge available at present. Therefore, the objectives of this study were to determine for the existing work force:

ACKNOWLEDGEMENTS

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BACKGROUND

There is a widely held view that logging labour is characterised by high turnover and high accident rates. There is limited knowledge of attitudes to the job and motivation for entering or remaining in the industry. At a management level there is concern over apparent defects of lack of skills, (especially mechanical skills) low levels of training, (except among larger employers)

1. Social structure: marital status, age, etc.
2. Education and training relevant to present job.
3. Skills relevant to present job.
4. Accident experience and nature of work associated with accidents.
5. The factors which motivate people to work in logging.

THE STUDY

The study took the form of person-to-person interviews structured on a planned questionnaire. Interviews took place at the work site during smokos and other breaks, and covered the entire crew.

Some 125 men were interviewed, representing approximately 10% of the logging labour force in the Bay of Plenty. The men were from 26 gangs covering all types of operation and included Company gangs, N.Z. Forest Service gangs, and contract gangs.

THE RESULTS

The results presented here are only a small part of those obtained during the survey. More detailed results according to work type and gang type will be presented in a later Project Report.

1. SOCIAL STRUCTURE:

The age structure revealed by this survey shows a range of ages evenly distributed between 17 and 58 years, the average being 31 years. Most of the men were married with one or more children and lived in a small town.

2. EDUCATION AND TRAINING:

The majority of the loggers questioned had received between 1 and 3 years secondary schooling. However, less than one quarter had received any formal training related to logging since they left school. Training in this sense includes Forest Ranger or Woodsman

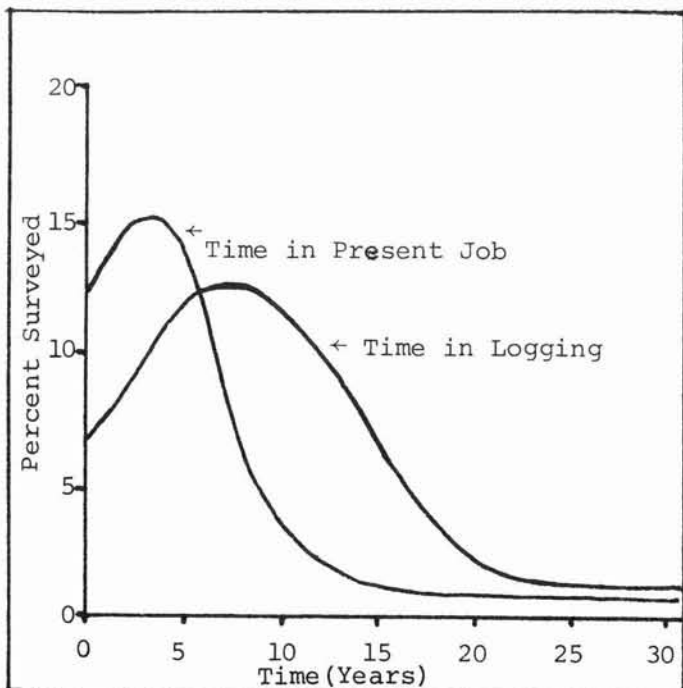


Figure 2. Distribution of Loggers' Experience

courses, chainsaw courses, Company training courses, first aid courses, and so on. A further group, less than 10%, had received training partly related to logging, such as the motor trades.

Some 70% of the loggers felt that further training would improve their work. Of the 30% who were not in favour of further training, the main reasons were that either they were too old to learn new techniques or that they had been in that work for long enough to have learnt all there was to know. Those in favour of further training mentioned a diverse range of forms which this further training should take. The most popular was learning from a more experienced logger in a field

situation. This was followed by demonstrations of new tools and techniques in the field. Only 38% were in favour of formal courses.

Although the total length of experience of loggers sampled varied from a few days to more than 30 years, with an average of 8 years, the most common length of experience was between 3 and 5 years. The average length of time worked in the present gang was less than 3 years (See Figure 2). Some 45% of the loggers came to their present job from another logging job. The other major sources of recruits were forestry and other rural occupations. These figures indicate a high level of labour turnover within the logging industry.

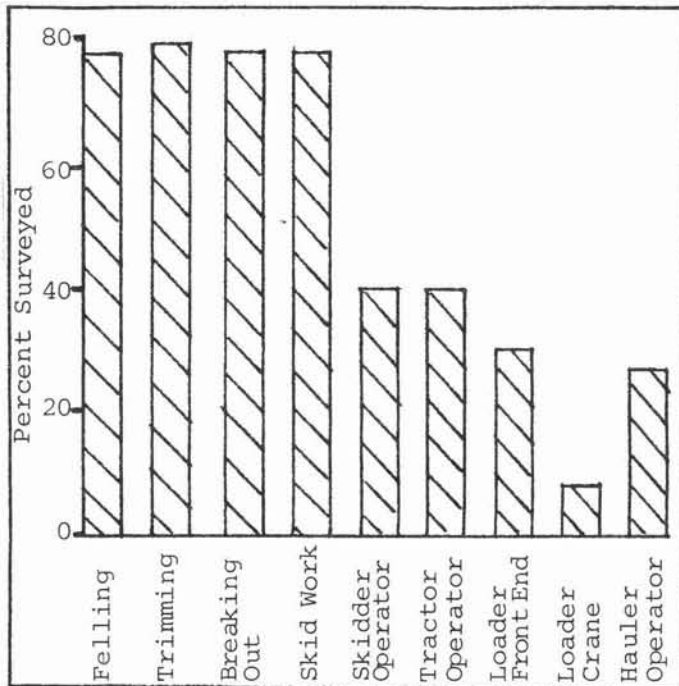


Figure 3. Skills Acquired by Loggers

The workers' opinions were sought on the time required to learn the various skills. About 6 months was considered necessary to learn tree felling, skidder, tractor, and loader operation. Breaking-out and skid work were thought to take about 3 months, and trimming about 1 month (See Figure 4). These are on-the-job times, without the benefit of training programmes.

3. SKILLS:

More than 75% of the loggers sampled had experience at felling, trimming, breaking-out, and skid work and 40% had experience at operating skidders, tractors, or loaders (See Figure 3). The number of skills acquired is partly a function of length of experience and in this case indicates that most of the logging labour force is multi-skilled, especially at the manual tasks. When asked how they had learnt their work the majority of the men interviewed replied that it had come either from self-experience or from a more experienced logger. Formal training played only a small part.

About 1 Month :	Trimming
About 3 Months:	Breaking-out, skid work, hauler operator
About 6 Months:	Felling, driving skidder, tractor, front-end loader
About 1 Year :	Crane operator

Figure 4. Estimates of Time to Learn Skills

4. ACCIDENTS:

Of the loggers interviewed, 38% had experienced one or more accidents in the past five years which required time off work. 45% of these accidents occurred during felling and 28% in each of trimming and skid work. Thus most logging accidents are associated with chainsaw work, with tree felling being the most dangerous operation.

5. MOTIVATION:

The loggers were asked why they first entered the logging industry. Many gave several reasons but by far the most common was because,

they liked working outdoors in the forest. Following this was the work activity (especially tree felling), and the wages. More than 90% of the loggers enjoyed their work.

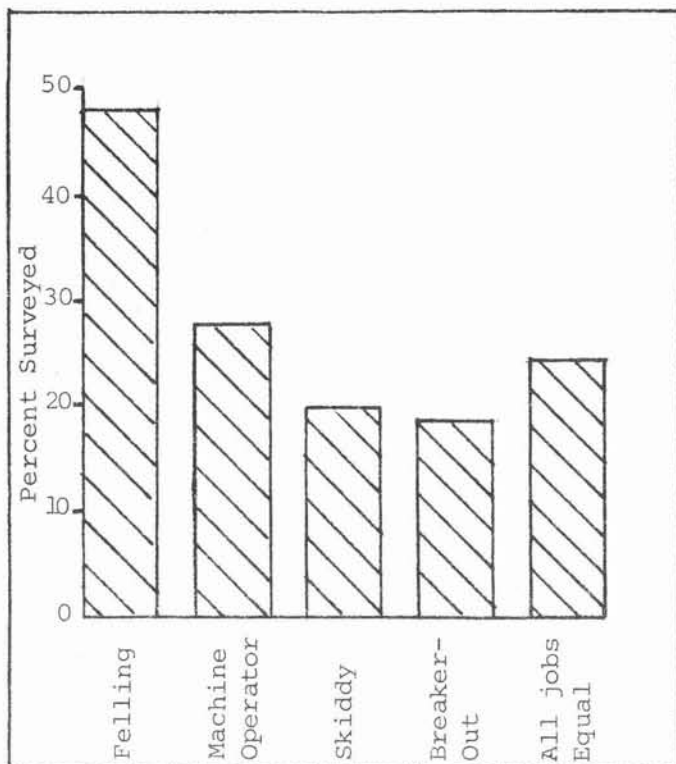


Figure 5. Job Preferences

In terms of job preference, felling stood out as being by far the most popular, being preferred by some 50% of the workers sampled. Machine operating (taking all machine types together) was the next most popular. This was followed by breaking-out and skid work, which were preferred jobs for about 20% of the loggers surveyed (See Figure 5).

The response to the question - "What makes you work so hard?" - was varied. However, the most common answer was that the work pace was set by the logger himself. A small number worked hard because they enjoyed hard work or worked hard to meet the day's tally. Better pay was only a minor reason for working hard. Among other

responses was to stop boredom, to help out the rest of the crew, or to keep up with the gang.

CONCLUSIONS

Although from a pilot survey, these results provide some valuable information for those engaged in recruiting, training, or employing logging labour. Recruitment has been most successful among those with existing job experience in rural or forestry backgrounds.

Although the majority of loggers have had several years experience and have acquired a number of skills, the accident rate is high. The most dangerous task (felling) was considered the most popular. It was also considered to be one of the tasks which takes longest to learn. Training of existing workers should therefore concentrate on this operation. Given the lack of popularity of formal courses, on-the-job training should achieve the best results.

Factors motivating loggers are; interest in the nature of the work, the forest environment, and the ability to set their own working pace. This is consistent with their rural background and the popularity of the most dangerous task. Wages and incentives play a part in motivating loggers, but other factors may be more important.

FUTURE WORK

The results of this survey have provided leads for further work. The next phase will aim to analyse more specific factors determining productivity in the logging labour force.

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