

## Identifying the organisational determinants of work-related road traffic injury

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### Abstract

Road traffic injury is the leading cause of work-related death in Australia. Despite this, many organisations are unaware of the factors within their organisations that influence potential reductions in injury and deaths. This study aims to explore the relationship between management practices and driver behaviour and the role of safety climate in moderating these relationships. Surveys were completed by 911 drivers, 161 supervisors and 83 senior level managers. The findings of this study both refute and extend past research. The results of this study offer practical guidance for organisations in designing and implementing management practices to support safe driver behaviour.

### Background

Road traffic injury is the leading cause of work-related death in Australia. It has been estimated that one-third of all work-related deaths occur while driving for work-related purposes (Driscoll et al., 2005). This emerging public health issue is not unique to Australia, with work-related road traffic deaths estimated to account for 22% of work fatalities in the United States and 16% in New Zealand. Despite this, many organisations are unaware of the management practices within their organisations that may act to reduce work-related road traffic injury and deaths. This study aims to address this issue by identifying the management practices that improve driver behaviour. This study will also explore how drivers' perception of the value and priority given to safety plays a role in creating safe driving practices.

### Method

A total of  $n = 83$  organisations were recruited through the Victorian Work Authority (VWA) for this research study. Senior managers, fleet vehicle drivers and supervisors of fleet vehicle drivers participated in one-on-one interviews, telephone surveys, and on-line surveys, respectively. All data was matched in a multilevel structure, where possible.

Drivers were asked questions relating to their perceptions of safety at the organisational level, as well as kilometres driven and demographic information (age and gender). Senior managers and supervisors were asked questions relating to their knowledge of nine practices that support operational activities within their organisation, including remuneration, job and work design, staff development, selection, communication, promotion, job security and retention. An organisation's safety culture. Surveys were completed by 911 drivers, 161 supervisors and 83 interviews were conducted with senior level managers.

### Findings

Multi-level modelling was applied to identify the significant organisational determinants associated with work-related road traffic injury in organisations. This study found no direct relationship between remuneration practices and driver behaviour. However, this study found that safety climate moderated this relationship. Under conditions of high investment in remuneration, drivers reported safer behaviour when they perceived their managers valued and prioritised safety, as opposed to conditions where they perceived that safety was not valued or prioritised by management. Thus,

contrary to past research, the results of this study suggest that remuneration encourages safe driver behaviour, but only under conditions of high commitment to safety.

The results also found significant relationships between driver behaviour and several management practices, including job and work design, selection and communication. These results indicated that higher investment in these practices was associated with poorer driver behaviour. These results appear somewhat surprising; however, when interpreted within the context of the current state of workplace road safety in Australia (and internationally), the findings offer clear guidance on directions forward in the safety management of work-related drivers.

## Conclusion

This is the first study to consider the organisational context in relation to workplace road safety and take account of the complex system when identifying the management practices associated with work-related driving behaviour. A further strength of this study was that almost all research related to organisations and workplace road safety to date has been undertaken within single organisations. A limitation of these studies is that it is unknown if the key safety factors identified within each organisation generalise to other organisations with differing business activities. The results of this study both refute and extend past research, but most importantly, offer practical guidance for organisations in designing and implementing management systems designed to support safe driving behaviour and reduce death and injury.

## References

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