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Submission to the NTC

Developing a heavy vehicle fatigue data framework

Institute for Safety, Compensation and Recovery Research (ISCRR)

Organisational background:

The Institute for Safety, Compensation and Recovery Research (ISCRR) is a research-policy partnership established in 2009 via an agreement between WorkSafe Victoria, the Transport Accident Commission (TAC) and Monash University. ISCRR and its partners conduct research into safety issues of concern to the Australian working population. Furthermore, we conduct research into the effectiveness of treatment services and injury rehabilitation systems associated with road and workplace injury.

Response for consideration:

ISCRR considers the development of a comprehensive heavy-vehicle fatigue data framework as crucial if progress is to be made in the area of heavy-vehicle safety. Importantly, however, we believe that the dataset and framework for understanding factors contributing to fatigue among heavy-vehicle drivers should not be restricted to factors measurable at the level of the individual driver, alone.

Consistently, system-level factors related to employment conditions and contractual arrangements for heavy-vehicle drivers have been linked to driver behaviour likely to increase levels of fatigue (Belzer, Rodriguez, & Sedo, 2002; Quinlan & Wright, 2008; Thompson & Stevenson, 2014; Williamson, Feyer, Friswell, & Sadural, 2001; Wright & Quinlan, 2008). In particular, these factors relate to 'piece-rate' remuneration methods associated with 'per-trip' or 'per-km' rates.

Piece rates are not limited to the trucking industry, and their design has one purpose; to increase productivity. The effect of piece-rates, however, is to also exacerbate the cost of having trucks 'off the road' whether through loading / unloading delays or engagement in activities that contribute to driver and public safety such as rest, sleep, and maintenance activities. For

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example, in our 2014 study, we found that drivers operating under piece-rates drove longer between rest breaks, drove longer distances per day, worked more hours per week, and were more likely to report consuming amphetamines and caffeine for the express purpose of staying awake while driving a heavy-vehicle than drivers on non-piece rates.

An economic and working environment that encourages driver behaviour directly at odds with safe driver behaviour can only lead in one direction.

Therefore, in any discussion of a data framework to be applied to the heavy-vehicle industry, we believe it is **essential to include accurate assessment of the contractual arrangements within which drivers are operating**. It stands to reason that in a highly competitive industry, incentive payment schemes designed to increase levels of productivity among drivers will do so. It follows that such productivity may come at the expense of activities (sleep, rest, maintenance) that contribute to safe levels of fatigue among drivers.

Lastly, we would emphasise our belief that a data collection framework that is overly reductionist, focusing on multiple individual driver characteristics, conditions, and behaviours at the expense of a broader system level understanding of the drivers' operating environment may not deliver desired benefits.

We thank the NTC for this opportunity to contribute to the discussion paper.

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