



Image source: Safe System Solutions Pty Ltd

FACTSHEET 13

FATIGUE

Fatigue is widely acknowledged as a significant source of driver impairment. Fatigue has been viewed as a more significant problem on regional and remote roads. The issue of driver fatigue has led to the development of a range of countermeasures, incorporating road infrastructure (ATLM, centre and side barriers, sealed shoulders, wide centrelines with ATLM, clear zones, rest areas), vehicle technology (fatigue monitoring systems), education campaigns, and workplace fatigue management policies.

Implementation considerations

Workplace Safety

Studies have shown that fatigue management and an active safety culture are the best measures to address professional driver fatigue¹. Fatigue management is an integral part of workplace safety within the heavy vehicle sector and is a legislated component of the Heavy Vehicle National Law (HVNL).

Awareness-raising campaigns on fatigued driving should provide information on the risks, clear instructions on how to prevent the problem and how to react to the indicators of fatigue in a real situation. Austroads Vehicles as a Workplace report² and Road Safety and Your Work by Transport for NSW³ are two examples of resources that address workplace vehicle safety and fatigue.

Road Infrastructure

Audio-tactile line-markings (ATLMs) has been shown to have a BCR of 2 or more. Identifying locations to fit ATLMs can be difficult given the extent of the road network. Also consider side barriers, centre barriers, shoulder sealing, rest stops, and edge line markings.

Vehicle Technology

Lane Departure Warning (LDW) and Lane Keeping Assist (LKA) assist with keeping the vehicle in the correct travel lane and on the road. Fatigue warning systems may alert drivers (and fleet managers) to fatigue. However, these systems rely on the driver recognising and addressing fatigue.

Target road user groups

Vehicle Drivers and Motorcyclists

Target behaviour

Fatigue

Effectiveness

Workplace Safety

While the provision of education and information appears to be a logical countermeasure to driver fatigue, there are rarely evaluations of education programs or campaigns.

Vehicle Technology

Since the roll out of the Driver State Sensor technology, Toll claims that fatigue incidents have been reduced by as much as 80%⁴. However, it is noted that as of the time of writing of this report there are no independent scientific evaluations of manufacturer developed systems for detecting fatigue.

Inter-pillar link

Safe Roads - Audio Tactile Line Markings, side barriers, centre barriers, and shoulder sealing.

¹Goldenbeld, C. and Nikolaou, D., 2019, Driver fatigue. ESRA2 Thematic report Nr. 4. ESRA project (e-survey of road users' attitudes). The Hague, Netherlands: Institute for road safety research SWOV.

²Austroads, 2018d, Vehicles as workplace (AP-R561-18). Sydney,

³Transport for NSW, 2019c, Road safety and your work: A guide for employers, Accessed on 4 July 2022 <https://towardszero.nsw.gov.au/sites/default/files/2021-04/road-safety-and-your-work.pdf> NSW: Austroads.

⁴Toll Group, n.d., Innovative vehicle design revolutionises dangerous goods transport. Retrieved from <https://www.tollgroup.com/news-and-media/case-studies/innovative-vehicle-design-revolutionises-dangerous-goods-transport>



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