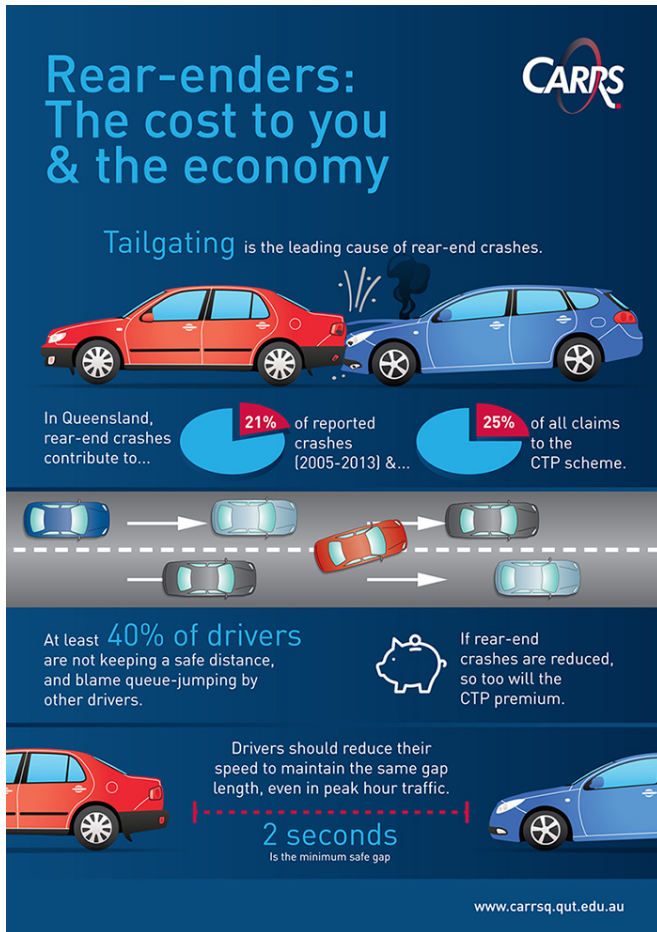


Tailgating blamed for rear-end crashes, queue-jumping blamed for tailgating

6 July 2017



Credit: Queensland University of Technology

Tailgating is the leading cause of rear-end crashes with one-in-two drivers failing to keep a safe following distance, a new QUT report has revealed.

Dr Sebastien Demmel, from QUT's Centre for Accident Research & Road Safety – Queensland (CARRS-Q), co-authored the report Prevalence and perception of following too closely in Queensland which looked at where, how and who is involved in nose-to-tail collisions.

"For the first time tailgating has been conclusively linked with rear-end crashes but we also identified queue jumping as the main reason for not keeping a safe distance," Dr Demmel said.

"Drivers blamed queue-jumpers for tailgating, they wanted to avoid another driver cutting in front of them."

As part of the study, Queensland state road [crash](#) data was used to pinpoint rear-end crash blackspots, and on-road monitoring was used to determine driving conditions, speed and tailgating. More than 500 drivers were also surveyed on their perceptions of driving behaviour and their knowledge of safe following distances.

"We found rear-end crashes are more likely to occur in urban areas with speed limits of 60-70km/h," he said.

"Despite drivers perceiving they are following at a safe distance, our on-road data showed that in reality most don't leave the recommended two to three second gap.

"Fifty-five per cent of drivers were found to leave less than a two second gap between them and the [vehicle](#) in front, and 44 per cent less than a one second."

Dr Demmel said the research identified a number of predictors of tailgating including higher levels of traffic volume or peak conditions, higher traffic speeds and age and gender of driver.

"There was a higher rate of males and young drivers involved in rear-end crashes, which can be explained by the fact that these inexperienced drivers have been shown to be more likely to adopt risky driving and aggressive behaviours," he said.

"However, the relative speed difference of vehicles, meaning a slower vehicle followed by a line of

faster vehicles, is also a significant predictor of tailgating.

"When a location has a greater proportion of following vehicles travelling at a faster speed, the more likely it is to be a rear-end crash blackspot and the more tailgating occurs."

Dr Demmel said another reason drivers may not be leaving a safe following distance was because 60 per cent of drivers were using metres rather than the recommended seconds to assess a safe following distance.

"When using metres compared to seconds, the gap between vehicles changes however most drivers said they kept the same gap length regardless of traffic flow or of travelling speed.

"Rear-end collisions account for around one in five crashes on Queensland roads and represent approximately a quarter of all claims to the Queensland compulsory third party (CTP) scheme. If we can reduce rear-end crashes, we will see a reduction in crashes and the number of people being injured which will lead to a corresponding reduction in CTP premiums."

Dr Demmel said the report had made a number of recommendations, with education and consistent messaging about the importance of a safe following distance likely to be most effective.

"For example, as many as two-thirds of drivers are not keeping a safe distance, despite the belief that they are," he said.

"Risk taking and perception of risk are also important, as drivers were found to leave a smaller distance during heavy peak hours which leads to more rear-end crashes.

"Campaigns targeting tailgating linked to drivers preventing queue-jumping may also have a significant impact."

Dr Demmel said technology was another option that could be used to change driving behaviour, such as variable messaging signs telling drivers they are following too close, or in-vehicle devices in

the form of tailgating alert systems or electronic brake lights to warn [drivers](#) they are following at an unsafe [distance](#).

"Eventually, automated vehicles have the potential to revolutionise our roads and reduce rear-end crashes."

More information: Prevalence and perception of following too closely in Queensland: research.qut.edu.au/carrsq/pro...osely-in-queensland/

Provided by Queensland University of Technology

APA citation: Tailgating blamed for rear-end crashes, queue-jumping blamed for tailgating (2017, July 6) retrieved 18 June 2019 from <https://phys.org/news/2017-07-tailgating-blamed-rear-end-queue-jumping.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.