

Evaluation of The Queensland Minimum Passing Distance Rule – Overview of Results

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Abstract

Minimum passing distance laws aim to prevent crashes occurring when motorists overtake cyclists. This study evaluated the 2-year trial in Queensland. Motorists were more aware of cyclists when driving on the road and most motorists and cyclists had observed motorists giving cyclists more space when overtaking than before the rule. Non-compliance rates were 12% at low speed and 21% at high speed sites. Delays in crash and injury data prevented assessment of road safety benefits but the initial findings suggest that the road rule may encourage motorists to provide more space to cyclists and as such, improve cyclist safety.

Background

Cyclists have a higher risk of serious injury and death compared with motor vehicle occupants (e.g., Bíl, Bílová, & Müller, 2010; Scholten, Polinder, Panneman, van Beeck, & Haagsma, 2015), with rear-end crashes and sideswipes being two major crash types that result in serious injury or even death of cyclists (Australian Transport Safety Bureau, 2006). Minimum passing distance (MPD) laws have been enacted in the U.S. and some European counties (e.g., France, Portugal, and Spain), to reduce crash risk and the severity of crashes between motorists and cyclists. In Australia, a 2-year trial of a MPD rule was introduced in Queensland on 7 April, 2014.

The aim of the current research was to evaluate the effectiveness of the trial Queensland MPD road rule in terms of (i) practical implication, (ii) impact on road users' behaviour, knowledge, awareness and perceptions, and (iii) road safety benefits.

Method

The evaluation comprised five components: (i) review of written correspondence received by TMR (ii) interviews and focus groups with Queensland Police Service Officers, (iii) online cyclist and motorist survey (Bicycle Queensland and RACQ members), (iv) observational study, and (v) analysis of crash, injury, and infringement data.

Results

Review of correspondence

Most of the 145 items of correspondence was received from drivers who were unhappy with the MPD rule, with a smaller amount from cyclists who were generally supportive of the rule but were dissatisfied with the severity of the penalty or the extent of enforcement. Most items of correspondence were received in the first 12 months, suggesting that attitudes to the rule stabilised over time. About half of the correspondents appeared to clearly understand the rule.

Interviews with Queensland Police Service officers

Interviews and focus groups about the practicability of enforcement of the MPD road rule were conducted with three QPS officers who had issued MPD Traffic Infringement Notices (TINs) and 18 who had not. Officers commented that drivers may not be aware of the road rule or may have forgotten it, and called for further public education. Despite these concerns and the limited extent of enforcement, most officers believed that drivers were giving riders more space (and perhaps much more than is required by the road rule because it is difficult to judge) and that cyclists may have become less cautious.

Cyclist and motorist survey

Online surveys of 3013 riders and 4332 drivers found that 25.3% of riders and 36.0% of drivers reported that drivers failed to comply with the MPD on roads with a speed limit of 60 km/h or less “most of the time” or “almost always”. Similar levels of noncompliance were reported on roads with speed limits of greater than 60 km/h. Most riders (73.2%) and drivers (59.5%) agreed or strongly agreed that they have observed motorists giving bicycle riders more room when overtaking than they used to. Only 1.5% of cyclists and 5.2% of drivers said they did not know that the MPD road rule had been introduced but there was a lower level of knowledge about the new rule allowing the crossing of a continuous line, when safe to do so, particularly among drivers. Cyclists were more likely than drivers to agree or strongly agree with the MPD road rule (94.7% versus 52.5%). One-third of drivers and two-thirds of cyclists said that the rule has made it safer for cyclists.

Observational study

The actual distance left between cyclists and passing vehicles was estimated from video observations at 15 sites. The overall non-compliance rate across the seven low-speed sites was 12.1%. While the passing distances at the high-speed sites were generally greater than those at the low-speed sites, the overall non-compliance rate across the five high-speed sites was 20.9.

Crash, injury and infringement data

Finalised crash records for non-fatal crashes, hospital admission and emergency department presentation data were not yet available for the period from commencement of the MPD trial. Analyses of the preliminary police crash data suggest that 48.5 fewer serious (fatal and hospitalization) bicycle crashes occurred in the first 18 months after the MPD rule was introduced than would have been expected based on extrapolation from the pre-trial trend. The extent to which this reduction can be attributed to the commencement of the MPD road rule trial is unclear.

There were 60 MPD infringements following the introduction of the road rule until 30 June 2015, comprising 0.7% of all bicycle-related infringements.

Conclusions

The MPD rule has been difficult for police to enforce and drivers have expressed concern about the ease of compliance on narrow and windy roads and where there is adjacent or oncoming traffic. Both the survey and published visual perception research suggest drivers find it hard to accurately estimate lateral distances. Despite the problems of practical implementation, drivers reported being more aware of bicycle riders when driving on the road than 12 months ago. Most riders and drivers surveyed had observed motorists giving bicycle riders more room when overtaking than they used to. The higher level of observed than self-reported compliance may reflect drivers thinking that they haven't left enough space, when they actually have, because they are unable to accurately estimate the lateral distance.

It is premature to draw conclusions regarding the road safety benefits of the road rule until detailed official crash and hospital data become available. In addition, lack of suitable data prevented an analysis of the potential impacts of changes in cycling participation and rider behaviour due to changes to other cycling rules.

References

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