

RAC Road Safety Snapshot

Motorcycling

Motorcycling, whether for commuting or recreational purposes, has many positive benefits. Motorcycle use in Western Australia (WA) is increasing rapidly and we have the highest number of motorcycles per 1,000 people of any state in Australia (50 per 1,000)¹. Understanding the road safety issues associated with riding motorcycles in WA is critical to increasing participation while improving road safety outcomes for motorcyclists and reducing the number of individuals killed or seriously injured on our roads.

Facts about motorcycling in Western Australia

Motorcycling in WA



127,859

motorcycles currently registered in WA²



255m kms

Motorcyclists travelled 255 million kilometres on WA roads in 2016³



35%

of all new motorcycles purchased in Australia were for off-road use⁴

What is?

Lane Splitting

When a rider moves past/between vehicles that are moving faster than 30 km/h.

Lane Filtering

Occurs when a rider moves past/between vehicles that have stopped or are moving slower than 30 km/h.

Are lane filtering and splitting legal?

Lane filtering and splitting are not illegal, but either could contravene the road rules if the rider does not signal before a lane change, rides with the wheels on the lane line, crosses continuous lane lines, overtakes on the left and so on.⁵

Safety Gear

Currently, there is no safety rating system for motorcycles or motorcycle gear. There are three types of protective motorcycling clothing:



Leather:

Motorcycling specific leather has the best fit, protective padding, and holds up the best in a crash.



Textiles:

Safety gear made from textiles, are generally cheaper than leather but can vary significantly in quality and the level of protection.



Kevlar:

Kevlar looks like street clothing, and is padded at certain impact points.

Safety Features



Advanced braking technology such as Anti-lock Braking Systems (ABS), means that drivers can apply the full force of the brake without losing control of their motorcycle. ABS on motorcycles could reduce death and serious injury crashes by 31%⁶.



Motorcycle Stability Control, or Traction Control can prevent a motorcyclist from skidding when braking or cornering.

Helmets

Wearing a helmet is a must in WA and all helmets must comply with either the Australian Safety Standard AS1698 or the European standard UNECE 22.05. The fine for not wearing a helmet is \$550.⁷

The Consumer Rating and Assessment of Safety Helmets⁸ conduct crash and impact testing of motorcycle helmets and provide advice on comfort and level of protection for consumers.



Figure 1: Proportion of fatal motorcycle crashes and helmet usage⁹

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Age and Gender

- » 79% of WA motorcyclists are male. Only 21% are female¹⁰
- » 25% of motorcycling fatalities were riders aged 26 to 35¹¹
- » 90% of motorcyclist fatalities were males

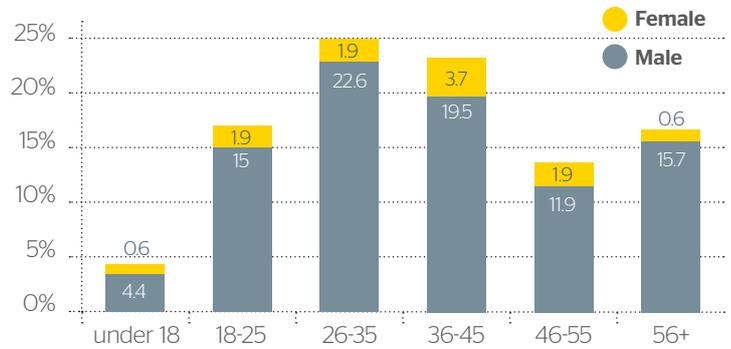


Figure 2: Fatal motorcycle crashes by age and gender¹²

Crash types

Rear-end collisions, where a motorcyclist is hit or hits another vehicle at the rear, are the most common type of crash, accounting for 25.4% of all motorcycle crashes in 2016.

Right angled collisions, where the front of one vehicle squarely strikes the side of another vehicle accounted for 19.6% of crashes¹³, while non-collision crashes, where a motorcyclist loses control of their vehicle or swerves to avoid another vehicle¹¹, accounted for 18.8%.

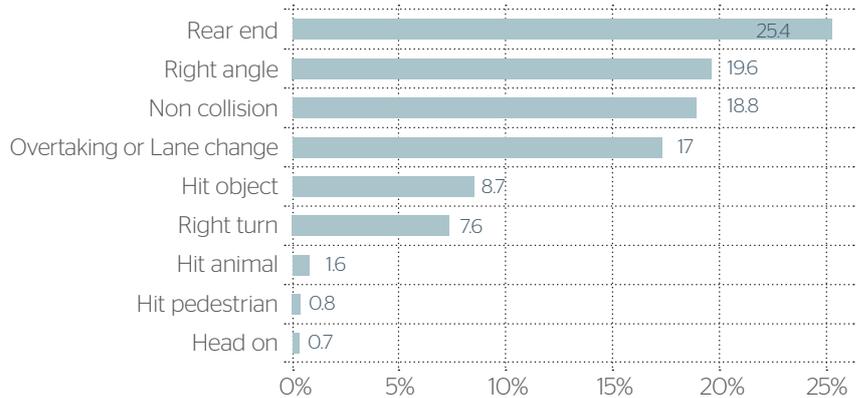


Figure 3: Motorcycle crashes by type of crash

Fatal Crashes:

The number of fatal motorcycling crashes in WA appears to be increasing over time. The highest number of motorcycling deaths over the last ten year period was in 2014 (23.5% of all road fatalities), followed by 2016 (20.2%)¹⁵

More than half of all fatal motorcycle crashes in WA were single vehicle crashes (59%), meaning that there were no other vehicles involved in the crash.

Exceeding the speed limit (50%) and alcohol (30%) were factors in a significant proportion of fatal motorcyclist crashes in 2016.¹⁶

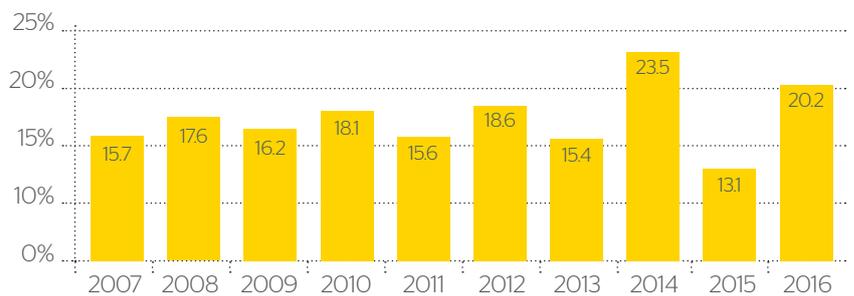


Figure 4: Motorcyclists as proportion of total road fatalities

Crash location

Between 2006 and 2016, nearly two-thirds, or 62.6% of all motorcycle crashes occurred on metropolitan roads with speed limits less than 80km/h.

Between 2012 and 2016, 52.8% of fatal motorcycle crashes in WA occurred on roads with speed limits less than 80km/h, and 20.1% of fatal crashes occurred on roads with speed limits of 110km/h.¹⁷

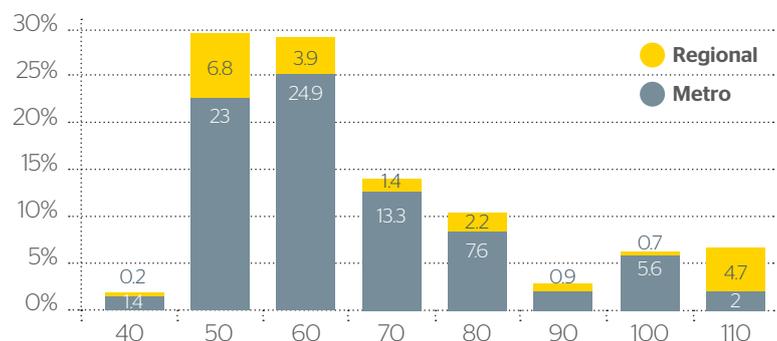


Figure 5: Motorcycle crashes by road speed limit

About RAC

RAC works collaboratively with Government and other organisations to ensure our members and the community can move around our State safely, easily and in a more sustainable way.

Data sources:

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2. Ibid
3. ABS, (2017), "Survey of Motor Vehicle Use, Australia, 12 Months Ended 30 June 2016", CAT No. 9208.0
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5. Motorcycle Safety Review Group (2015), "Western Australian strategic direction for improving the safety of motorcyclists and moped riders 2016 - 2020", <https://www.rsc.wa.gov.au/Your-Safety/Safety-Topics/Motorcyclists/Motorcycle-Safety-Review>
6. Monash University Accident Research Centre, (2015), "Evaluation of the effectiveness of antilock braking systems on motorcycle safety in Australia", https://www.monash.edu/_data/assets/pdf_file/0011/376742/muarc327.pdf
7. Road Safety Commission (2017), "Helmet standards", <https://www.rsc.wa.gov.au/Your-Safety/Safety-Topics/Motorcyclists/Helmet-Standards>
8. Consumer Rating and Assessment of Safety Helmets, (year) "Rating System", <https://www.crash.org.au/ratingsystem.html>
9. Road Safety Commission, (2012-2015), "Reported Road Crashes in Western Australia". Figures may not add to 100 as instances where helmet use was not recorded were excluded
10. RAC (2017), "Motorcycling survey 2017".
11. BITRE, (2017), "Australian Road Deaths Database: Fatalities", https://bitre.gov.au/statistics/safety/fatal_road_crash_database.aspx. Figures may not add to 100 due to rounding.
12. Ibid
13. MRWA, (2016), "Crash Analysis Reporting System (CARS)"
14. Road Safety Commission, (2016), "Preliminary Fatal and Critical Injuries on Western Australian Roads 2016", <https://www.rsc.wa.gov.au/RSC/media/Documents/Road%20Data/Statistics/Annual%20Crash%20Statistics/annual-prelim-crash-statistics-2016.pdf>
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16. Road Safety Commission, (2016), "Preliminary Fatal and Critical Injuries on Western Australian Roads 2016", <https://www.rsc.wa.gov.au/RSC/media/Documents/Road%20Data/Statistics/Annual%20Crash%20Statistics/annual-prelim-crash-statistics-2016.pdf>
17. MRWA, (2016), "Crash Analysis Reporting System (CARS)"