

Cyclists

CRASH STATISTICS FOR THE YEAR ENDED 31 DECEMBER 2012

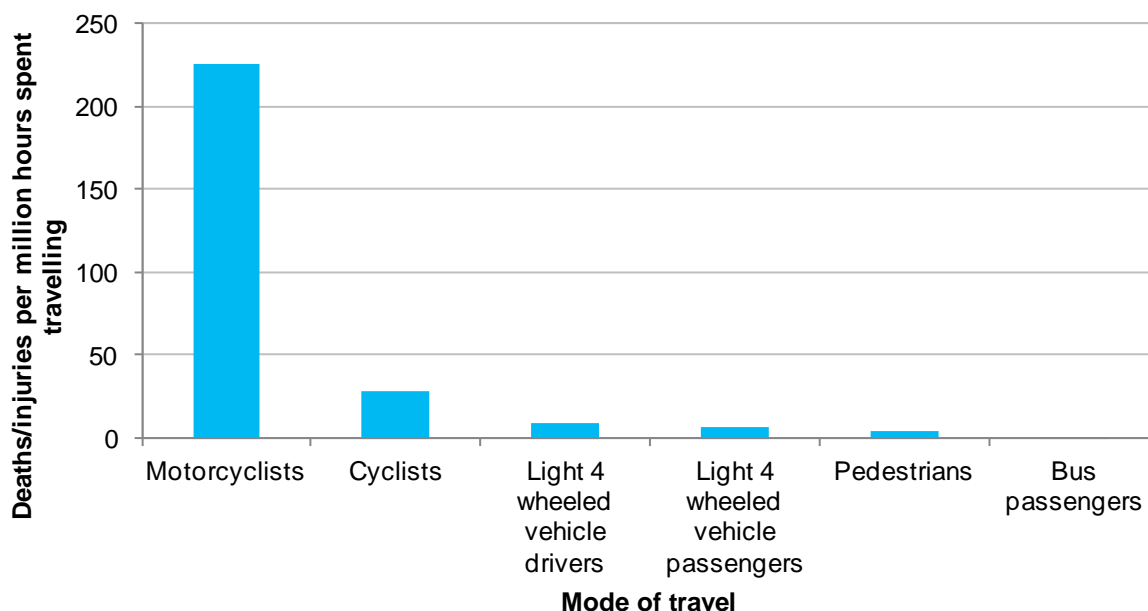
Prepared by the Ministry of Transport

CRASH FACTSHEET

November 2013

Cyclists have a number of risk factors that do not affect car drivers. The main risk factors are decreased stability and a much lower level of protection than that provided by a car. In addition, a cyclist is less visible to other road users than a car or truck. These factors combined, give cyclists a high level of risk per time unit travelled, although this risk is significantly lower than the risk carried by motorcyclists.

Deaths/injuries in motor vehicle crashes per million hours spent travelling, July 2008–June 2012 (All ages)



New Zealand research¹ suggests that if the number of individuals in New Zealand who cycle increases, the risk profile of cyclists may improve due to a 'safety in numbers' effect. It is also likely that, if cycling numbers increase, this will increase demand for cycle-friendly road infrastructure.

In 2012, 8 cyclists died, 161 were seriously injured and 637 suffered minor injuries in police-reported crashes on New Zealand roads. This is about 6 percent of the total number of casualties from police-reported crashes involving motor vehicles in 2012².

¹ NZ Transport Agency Research Report 289 (2006)

² Definitions for fatal, serious and minor injuries and social cost are in [Terminology](#) at the end of the fact sheet.

Hospitalisations

Not all cyclist injuries are reported to police, and hospitalisation data from the Ministry of Health can provide a more complete picture of the number of cyclists injured in crashes involving motor vehicles.

Between 2008 and 2012, over 1,500 cyclists required hospitalisation due to injuries received from crashes involving motor vehicles on public roads in New Zealand. An average of over 300 cyclists per year required hospitalisation. In the same 2008-2012 period, 45 cyclists died in crashes involving motor vehicles on public roads. On average, nine cyclists die each year. An additional 893 cyclists were hospitalised in 2012 for traffic incidents not involving a motor vehicle.

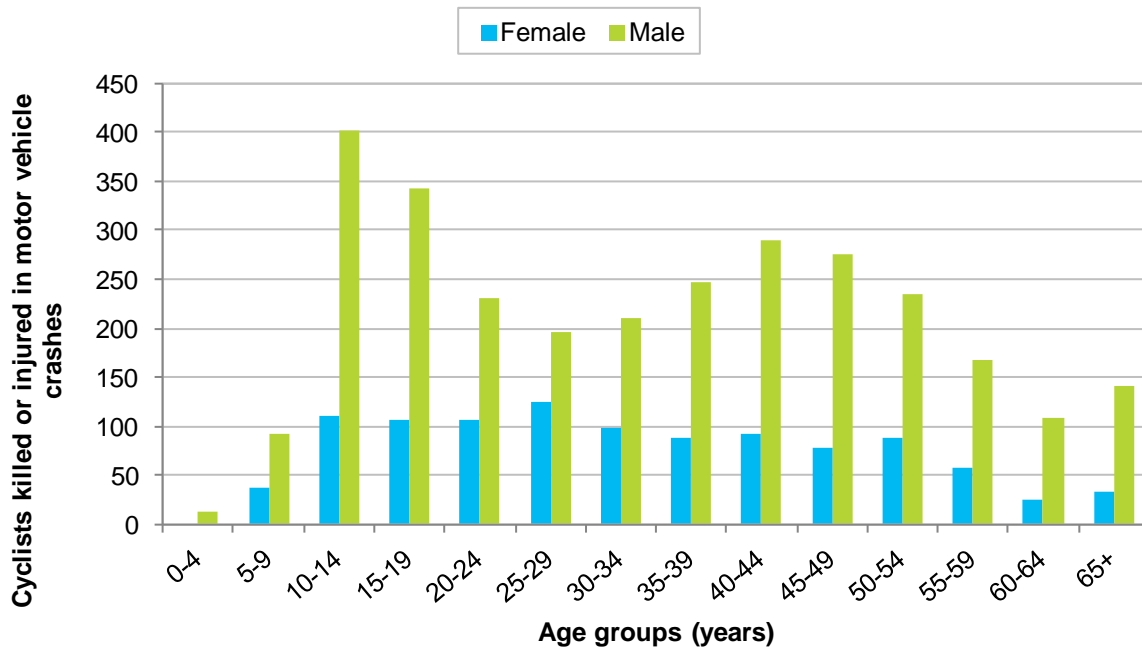
In the remainder of this fact sheet cyclist deaths and injuries are those reported to police and recorded in the NZ Transport Agency's Crash Analysis System.

Time series

Cyclists deaths and injuries, 1990–2012 (Police-reported crashes)				
Year	Fatal		Injury	
	Number	% of all fatalities	Number	% of all injuries
1990	27	3.7%	1054	6.0%
1991	22	3.4%	1000	6.0%
1992	17	2.6%	941	5.8%
1993	17	2.8%	910	6.0%
1994	15	2.6%	882	5.3%
1995	15	2.6%	813	4.8%
1996	13	2.5%	754	5.1%
1997	12	2.2%	724	5.4%
1998	16	3.2%	626	5.0%
1999	8	1.6%	619	5.2%
2000	19	4.1%	559	5.1%
2001	10	2.2%	696	5.6%
2002	14	3.5%	771	5.6%
2003	6	1.3%	722	5.0%
2004	7	1.6%	716	5.1%
2005	12	3.0%	751	5.2%
2006	9	2.3%	833	5.5%
2007	12	2.9%	880	5.5%
2008	10	2.7%	895	5.9%
2009	8	2.1%	825	5.7%
2010	10	2.7%	844	6.0%
2011	9	3.2%	783	6.2%
2012	8	2.6%	798	6.6%

Who gets injured?

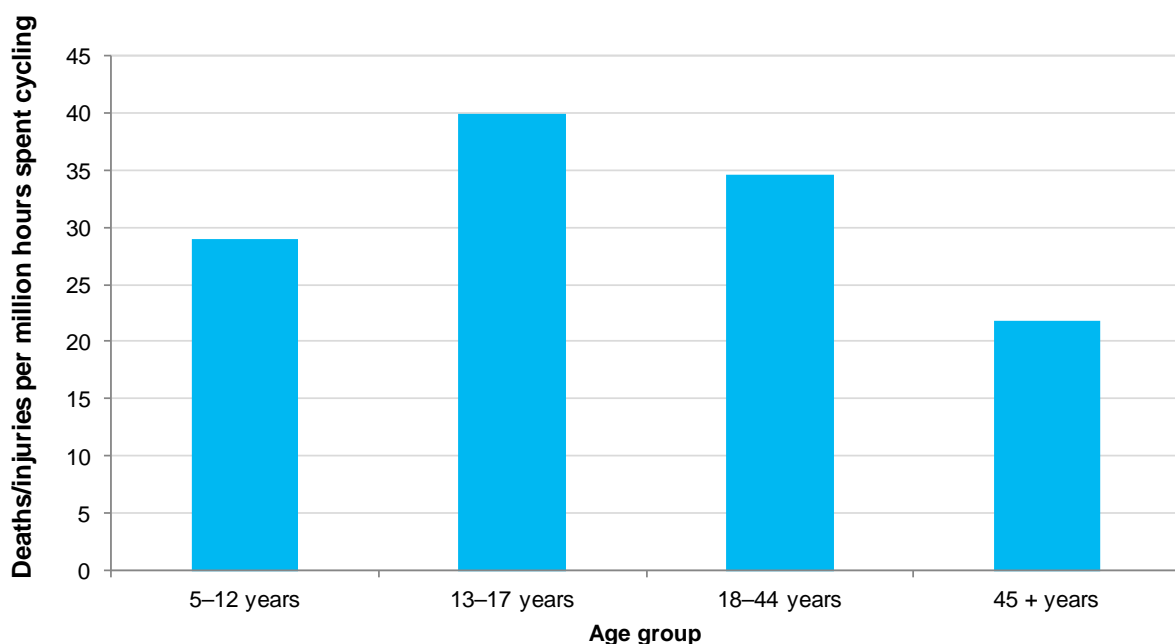
Cyclist deaths and injuries in motor vehicle crashes by age and gender (2008-2012)



Nearly a quarter of cyclists killed or injured in motor vehicle crashes are aged 10-19 years old. Nearly three-quarters (74 percent) of cyclists involved in police-reported crashes, are male

If the number of hours spent riding by different age groups is taken into account (based on the New Zealand Household Travel Survey), cyclists in the 13–17 and 18–44 year old age groups appear to be more at risk of being in a collision with a motor vehicle than younger or older cyclists. These cyclists tend to ride further in a given time than younger cyclists, and may also ride in more dangerous traffic conditions (for example, on major commuting routes in cities and on the open road).

Cyclist deaths and injuries in motor vehicle crashes per million hours cycled, by age



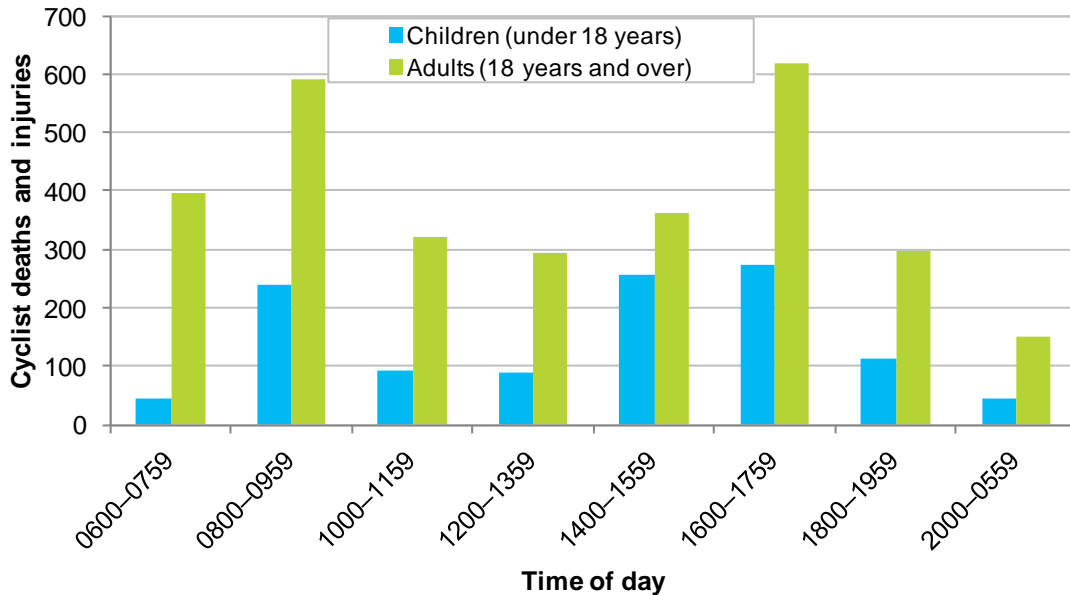
Source: Crash Analysis System, Household Travel Survey (July 2007 - June 2012)

Note: This data does not take fragility into account; that is the differing ability of different age groups to withstand the same degree of force in a crash.

When and where do injuries occur?

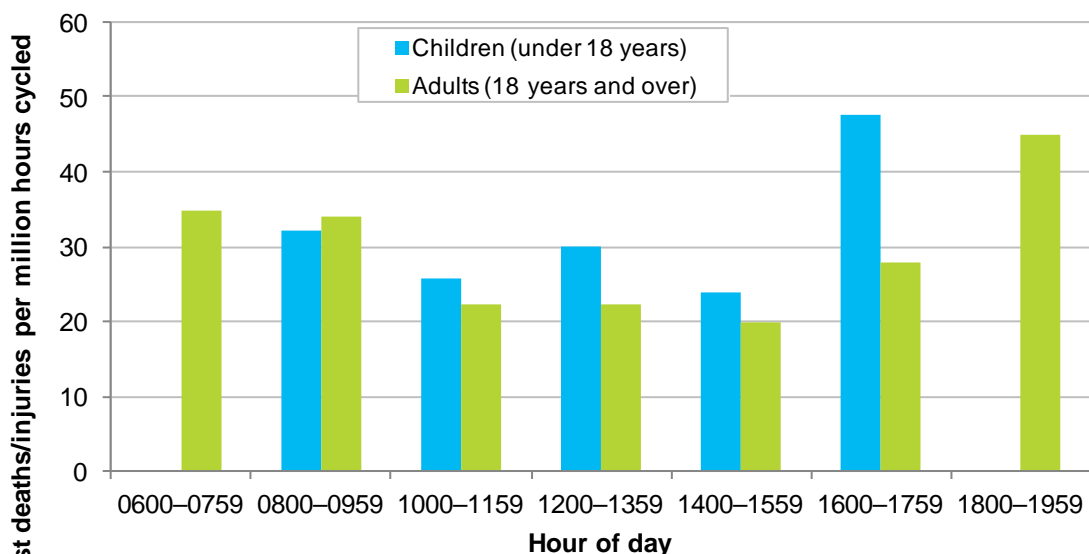
The graph below shows the absolute numbers of cyclists injured in motor vehicle crashes by hour of day. This indicates that the morning (8–10 am) and the early evening (4–6 pm) are the times when the greatest numbers of cyclists are injured in crashes involving motor vehicles.

Cyclist deaths and injuries in motor vehicle crashes by time of day (2008–2012)



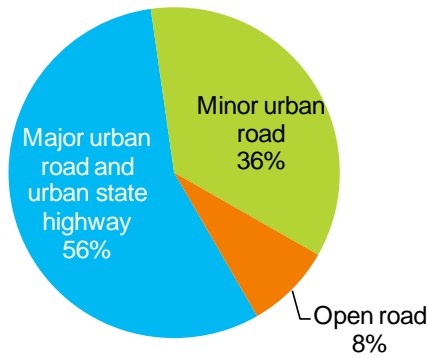
When the number of reported cyclist injuries (2007–2012) is adjusted for the time spent riding by time of day (based on the New Zealand Household Travel Survey), both children and adults are found to be at high risk of injury at around 8–10am and 4–6pm. At these times the roads are busy, and during winter it is generally getting dark in the 4–6pm time period, which makes it harder to see cyclists. Adult cyclists also have a high risk of injury after 6pm.

Cyclist deaths and injuries in motor vehicle crashes per million hours cycled, by age and time of day (July 2007–June 2012)



Note: Values have not been included for children under 18 years for 0600–0759 and 1800–1959 as the number of trips was too small to provide reliable estimates.

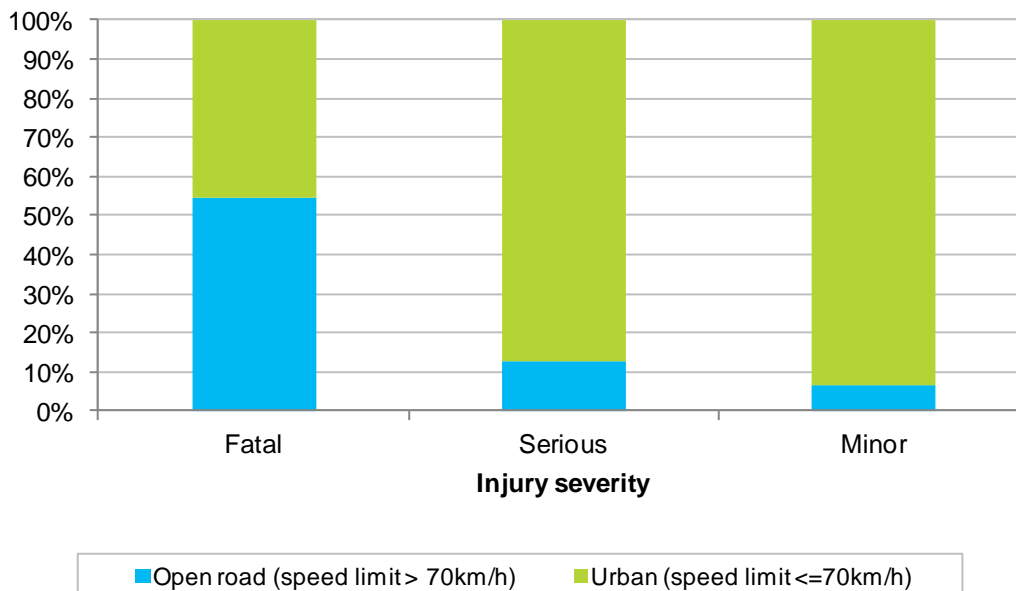
Percentage of cyclist deaths and injuries in motor vehicle crashes by road type (2008–2012)



Approximately nine in every ten reported cyclist casualties (2008–2012) occurred on urban roads (roads with a speed limit of 70km/h or less). Furthermore, over half of all cyclist casualties occur on major urban roads (typically busy arterials), rather than on the minor urban roads that usually provide access to abutting properties.

While most cyclist casualties occur on urban roads, over half of cyclist deaths occur on the open road, due to the high impact speeds associated with crashes on these roads.

Percentage of cyclist deaths and injuries by road type (2008–2012)



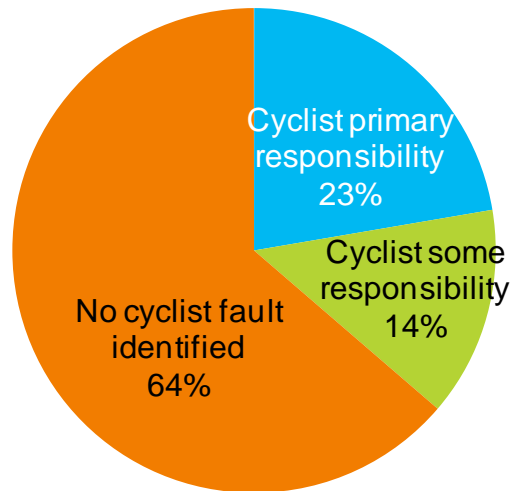
Types of crash

Three specific crash movements each account for more than 10 percent each of all cyclists deaths or injuries in police-reported crashes involving motor vehicles.

<p>RIGHT ANGLE (70° TO 110°)</p>	Crossing (No Turns)	14.3%	This crash type involves a collision at a right angle, typically when both parties involved are moving straight through an intersection.
<p>MAKING TURN</p>	Right Turn Against	15.1%	Approximately 89 percent of this crash type involves another vehicle turning in front of the cyclist.
<p>RIGHT TURN RIGHT SIDE</p>	Crossing (Vehicle Turning)	11.5%	Approximately 81 percent of this crash type involves another vehicle turning in front of the cyclist while crossing an intersection.

Who was at fault?

Percentage of fatal or injury crashes involving injured cyclists by fault (2008–2012)



Cyclists have primary responsibility³ in 23 percent of all cyclist-vehicle crashes in which they are injured or die. As the severity of the crash increases, there is a slight increase in the proportion of cyclists found to have the primary responsibility.

Of the cases where the cyclists are found to have primary responsibility, 39 percent of the at-fault cyclists failed to give way and 24 percent of the at-fault cyclists did not see the other party.

In the cases where the vehicle drivers are found to have primary responsibility in a crash involving a cyclist, 62 percent of the drivers in fatal or injury crashes failed to give way or stop and 58 percent did not see the other party. Fourteen percent were inattentive or their attention was diverted. This rises to 32 percent of the at-fault drivers in fatal crashes involving cyclists being inattentive or their attention being diverted.

³ Primary responsibility (fault) for a crash is based on the crash movements and crash cause factors assigned in the Crash Analysis System. It is not based on legal liability or court conviction.

Terminology

Fatal injuries: injuries that result in death within 30 days of the crash.

Serious injuries: fractures, concussions, internal injuries, crushings, severe cuts and lacerations, severe general shock necessitating medical treatment and any other injury involving removal to and detention in hospital.

Minor injuries: injuries of a minor nature such as sprains and bruises.

Social cost: a measure of the total cost of road crashes to the nation. It includes: loss of life and life quality; loss of productivity; and medical, legal, court, and property damage costs.

Casualty: person who sustained fatal, serious or minor injuries.

Additional Information

For further information on crash statistics see *Motor Vehicle Crashes in New Zealand*, the annual statistical statement produced by the Ministry of Transport. This publication is available online at www.transport.govt.nz.

Enquires relating to crash statistics may be directed to the Ministry of Transport, PO Box 3175, Wellington, or by email at info@transport.govt.nz. For more information about road safety, visit the Ministry of Transport website at www.transport.govt.nz.

A selection of fact sheets is available via the research section of the Ministry of Transport website. These include:

Crash facts:

- Alcohol and drugs
- Cyclists
- Diverted attention
- Fatigue
- Motorcyclists
- Pedestrians
- Speed
- Trucks
- Young drivers

Travel survey:

- Comparing travel modes
- Driver travel
- Risk on the road
 - Introduction and mode comparison
 - Drivers and their passengers
 - Pedestrians, cyclists and motorcyclists
- Walking
- Cycling
- Motorcycling

References:

NZ Transport Agency Research Report 289 (2006) *Predicting accident rates for cyclists and pedestrians*
www.nzta.govt.nz/resources/research/reports/289/index.html

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