

briefing notes road safety issues

Nelson City

NZ Transport Agency has prepared this road safety issues report. It is based on reported crash data and trends for the 2004–2008 period.

This report is the tenth road safety report for Nelson City. Most of the information, unless otherwise stated in this report, applies to both local roads and state highways.

The intent of the report is to highlight the key road safety issues and assist in identifying possible ways to reduce the number of road deaths and injuries in the city. More detailed information may be obtained from either Nelson City Council (local roads) or NZ Transport Agency. Please refer to the last page for contact details.

The issues chosen for this report are drawn from the most common crash types, those that appear over-represented when Nelson City is compared to similar authorities and those crashes with a high social cost (relating mainly to high numbers of fatal and serious crashes).

We have also included a brief overview of crashes in Nelson City for 2008.

Major road safety issues	2008 road trauma	
Nelson City	Casualties	Nelson City
Loss of control at bends	Deaths	1
Crossing/turning	Serious injuries	24
Vulnerable road users: pedestrians, cyclists and motorcyclists	Minor injuries	105
Alcohol	Total casualties	130
National issues	Crashes	Nelson City
Speed	Fatal crashes	1
Alcohol	Serious injury crashes	23
Failure to give way	Minor injury crashes	86
Restraints	Non-injury crashes	308

Overview 2008

In 2008 in Nelson City there were 110 injury crashes and 308 non-injury crashes reported by the New Zealand Police. Twenty-eight percent of the total injury crashes in the city were on state highways. The table below shows the number of injuries resulting from these crashes in the city.

Casualties by injury type in 2008

	Fatalities	Serious injuries	Minor injuries	Total
Total	1	24	105	130

Local roads vs state highways

Local roads	1	16	76	93
State highways	0	8	29	37

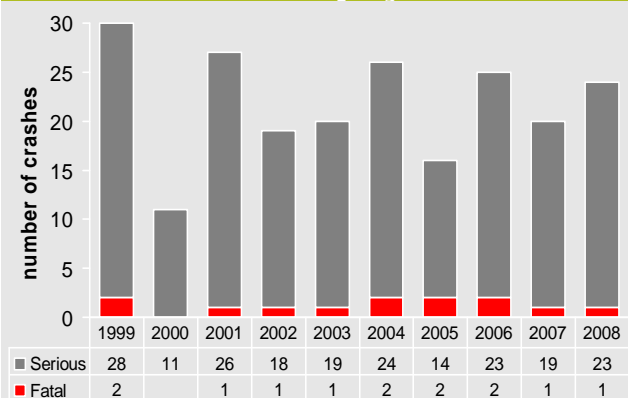
Rural vs urban roads

Rural ¹	0	7	19	26
Urban	1	17	86	104

Note: 1. Rural - area with a speed limit of 80km/h or more

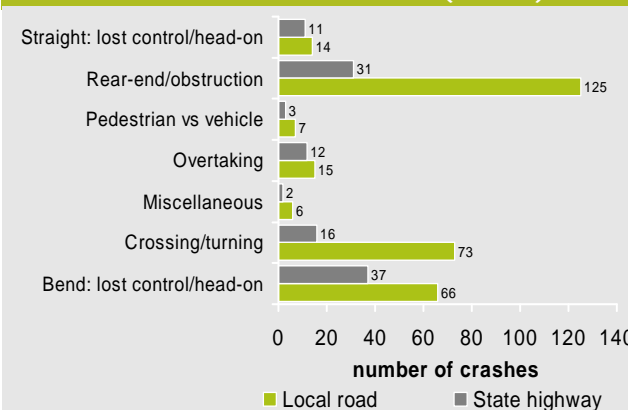
Allowing for annual fluctuations, the latest five year trends show little change in the total number of serious and fatal injury crashes.

Fatal and serious injury crash trends



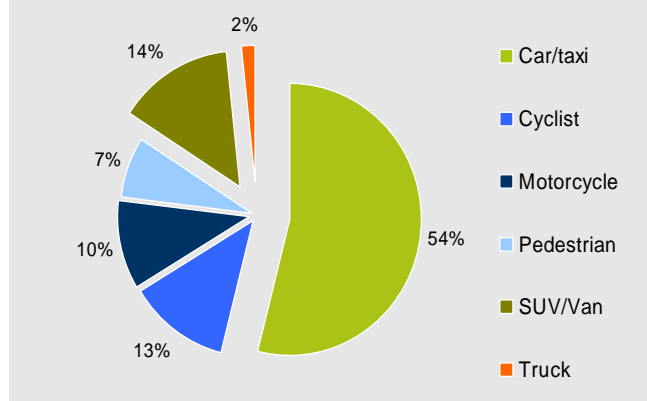
The main type of crash (of all crashes in the city, both injury and non-injury combined) in 2008 was rear-end/obstruction followed by bend-lost control/head-on and crossing/turning crash types.

Crash characteristics (2008)



The highest number of casualties in 2008 were drivers and passengers of cars. Meanwhile, vulnerable road users (pedestrians/cyclists/motorcyclists) constitute 30 percent of all casualties.

Casualties by user type in 2008



Further information about all crashes in 2008 on:

Local roads

- Worst month: *July (11 percent)*
- Worst day of week: *Thursday (20 percent)*
- Wet road crashes: *17 percent*
- Night time crashes: *32 percent*
- Alcohol over limit (injury crashes): *14 percent*
- Too fast for conditions (injury crashes): *10 percent*
- Crashes at Intersection: *47 percent*
- Road factors: *8 percent*
- At fault or part fault male driver: *51 percent*
- At fault driver held a full NZ licence (injury crashes) drivers: *62 percent*

State highways

- Worst month: *December (13 percent)*
- Worst day of week: *Tuesday (23 percent)*
- Wet road crashes: *21 percent*
- Night time crashes: *33 percent*
- Alcohol over limit (injury crashes): *13 percent*
- Too fast for conditions (injury crashes): *13 percent*
- Crashes at Intersection: *35 percent*
- Road factors: *15 percent*
- At fault or part fault male driver: *70 percent*
- At fault driver held a full NZ licence (injury crashes) drivers: *59 percent*

Social cost of crashes

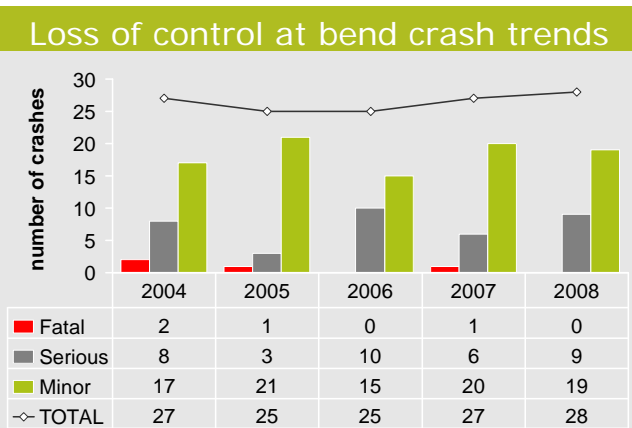
Local roads	\$9.19M
State highways	\$21.39M
Total	\$30.57M

NOTE: The estimated social cost includes loss of life or life quality, loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage.

Loss of control at bends

During the most recent five year period (2004-2008) 22 percent of all crashes in Nelson City occurred due to loss of control at bends. These crashes resulted in 4 deaths, 37 serious injuries and 126 minor injuries. There were a further 303 non-injury crashes reported.

The latest five year trends show the total number of injury crashes due to loss of control at bends as steady, though we see that the ratio between seriousness of crashes fluctuating.



The following table shows the split between crashes at bends on local roads and state highways, also split to show urban and rural limits.

Loss of control	Local urban	Local rural	SH urban	SH rural
At bends	58%	3%	6%	33%

Most crashes at bends involved a driver losing control of their vehicle and running off the road and hitting a roadside object (79 percent) or perhaps colliding with another vehicle (26 percent).

The three most common roadside hazards struck in loss of control at bend crashes were *fences* (19 percent), *banks* and *trees* (13 percent each) out of a total of 473 reported objects struck. Hitting these objects can result in more serious injuries than would otherwise be sustained.

Nearly half (48 percent) of the at fault drivers in these crashes were aged under 24 years of age, mostly male (79 percent) and over a third (35 percent) held either a learner licence, a restricted licence or were never licensed.

The following table shows the main characteristics of loss of control at bend crashes. Alcohol was a contributory factor in nearly a third (31 percent), similarly (32 percent) were in wet conditions, while 42 percent recorded speed too fast as a factor, 20 percent show road conditions to be a factor and most (64 percent) were on urban roads.

Main characteristics of loss of control crashes at bends

Crash characteristic	Percentage of crashes
Single vehicle	74%
Alcohol (injury crashes)	31%
Too fast for the conditions (injury crashes)	42%
Road factors	20%
Poor handling (injury crashes)	29%
Rural road	36%
Wet road	32%
Night time	48%

Further information about all crashes at bends in Nelson City 2004-2008 on:

Local roads

- 2 deaths, 21 serious injuries and 66 minor injuries
- Worst month: October (28 crashes)
- Worst day of week: Sunday (58 crashes)
- Wet road crashes: 24 percent
- Night time crashes: 55 percent
- Alcohol over limit (injury crashes): 42 percent
- Most common injury crash factors: too fast (51 percent) followed by alcohol (42 percent)
- Road factors: 9 percent
- At fault male driver (injury crashes): 88 percent
- At fault driver held a full NZ licence (injury crashes): 40 percent
- Most common at fault drivers' age group (injury crashes): 15 to 19 years old

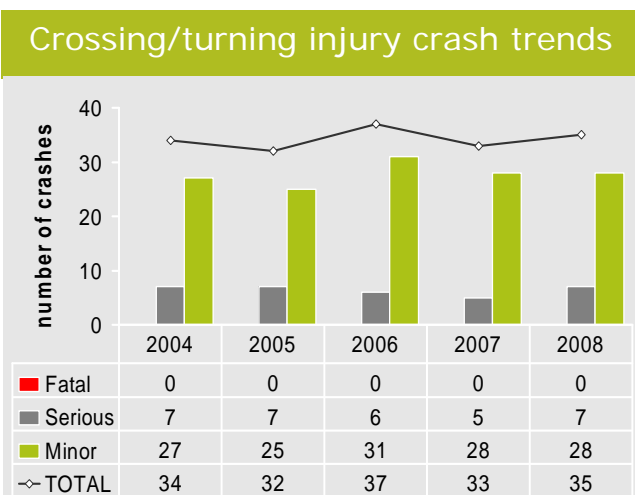
State highways

- 2 deaths, 16 serious injuries and 60 minor injuries
- Worst month: December (25 crashes)
- Worst day of week: Saturday (30 crashes)
- Wet road crashes: 45 percent
- Night time crashes: 37 percent
- Alcohol over limit (injury crashes): 18 percent
- Most common injury crash factors: too fast (33 percent) followed by poor handling (28 percent)
- Road factors: 37 percent
- At fault male driver (injury crashes): 69 percent
- At fault driver held a full NZ licence (injury crashes): 63 percent
- Most common at fault drivers' age group (injury crashes): 15-19 years old

Crossing/turning

During the most recent five year period (2004-2008) there were 352 crashes involving a crossing or turning movement at intersections and 75 of these crashes at driveways. These crossing/turning crashes resulted in 34 serious injuries and 168 minor injuries during this period.

The latest five year trends show the total number of crossing/turning injury crashes to be steady.



The table below shows the locations of the intersections with a high number of crashes in Nelson City 2004-2008.

Intersection name	Total crashes 2004 - 2008	Injury crashes 2004-2008	Total crashes in 2008
Waimea Road/Motueka Street	27	12	4
Waimea Road/Annesbrook Drive	14	8	4
Haven Rd/Halifax St	12	7	2
SH 6/Hay Street	7	5	0
Vanguard St/Toi Toi St	8	3	2
Halifax St/Rutherford St	11	5	0
Tasman St/Grove St	6	3	2

The most common crash movement in these crossing/turning crashes is a vehicle turning right across the traffic from a side road or driveway being hit from the right by a vehicle travelling straight through (38 percent). The second most common crash movement is a vehicle turning right across oncoming traffic being hit by an oncoming vehicle (26 percent).

A high percentage (70 percent) of at fault drivers in *crossing/turning* crashes held a full NZ licence.

The following table shows the number of these crashes by junction type and rural/urban split. Rural roads have a speed limit of 80km/h or more.

Junction Type	Rural	Urban
T-junctions	17	136
Driveways	3	72
Crossroads	0	121
Y-junctions	0	5
Roundabout	4	62
Unknown	0	7

Further information about crossing/turning related all crashes in Nelson City for the period 2004 to 2008 on:

Local roads

- 24 serious injuries and 136 minor injuries
- Worst month: April (40 crashes)
- Worst day of week: Thursday (76 crashes)
- Wet road crashes: 16 percent
- Night time crashes: 18 percent
- Alcohol over limit (injury crashes): 2 percent
- Most common injury crash factors: failed to give way/stop (93 percent) followed by poor observation (70 percent)
- Road factors: 6 percent
- At fault male driver (injury crashes): 45 percent
- At fault driver held a full NZ licence (injury crashes): 66 percent
- Most common at fault drivers' age group (injury crashes): 15 to 19 years old

State highways

- 10 serious injuries and 32 minor injuries
- Worst months: January and May (10 crashes each)
- Worst day of week: Friday (13 crashes)
- Wet road crashes: 16 percent
- Night time crashes: 19 percent
- Most common injury crash factors: failed to give way/stop (87 percent) followed by poor observation (80 percent)
- Road factors: 13 percent
- At fault male driver (injury crashes): 80 percent
- At fault driver held a full NZ licence (injury crashes): 80 percent
- Most common at fault drivers' age group (injury crashes): 15 to 19 and over 50 years old

Vulnerable road users

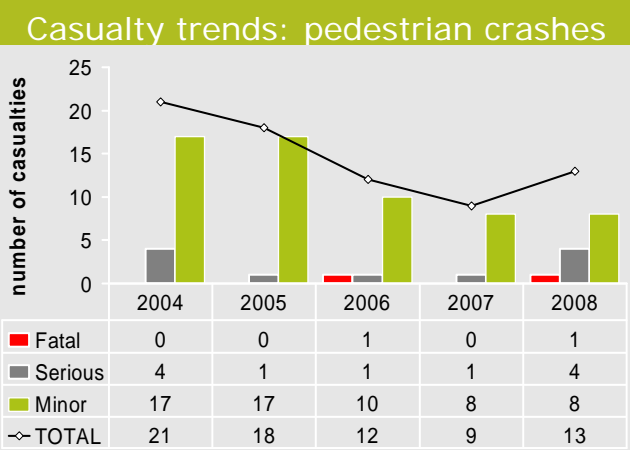
Vulnerable road users are those who have very little physical protection in the event of a crash and are therefore susceptible to severe injuries. These are described as pedestrians, motorcyclists and cyclists.

In Nelson City, vulnerable road users were involved in nearly half (49 percent) of all injury crashes over the last five years (2004-2008), accounting for 44 percent of all casualties; 25 percent of all deaths, 60 percent of all serious injuries and 41 percent of all minor injuries.

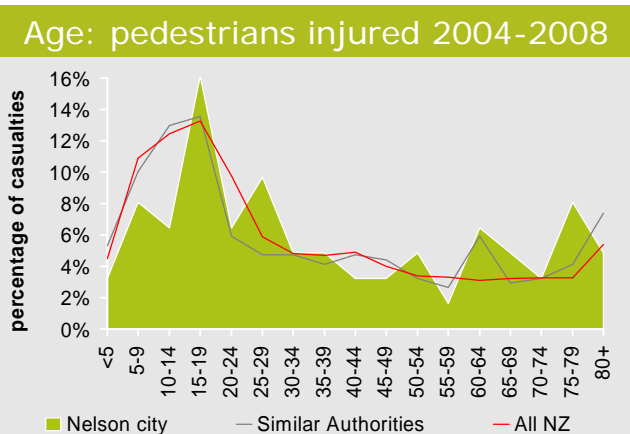
Pedestrians

Injury crashes involving pedestrians in Nelson City accounted for 12 percent of all injury crashes during the last five year period, resulting in 2 deaths, 11 serious injuries and 60 minor injuries.

The latest five year trends shows a decrease in the total number of casualties in crashes involving pedestrians. However there has been an increase in the number of fatal and serious injury crashes.



A third (32 percent) of pedestrians injured during the last five years were between 15 and 29 year of age. Young people under 15 years of age constitute 17 percent of the pedestrians injured in crashes. Twenty-two percent were over 64 years of age.



Ninety percent of pedestrian accidents occurred on urban roads and 40 percent were at intersections. Seventy-one percent of these crashes took place during the hours of daylight.

Following are the most commonly reported pedestrian factors involved in these pedestrian crashes:

- 39 percent involved pedestrians crossing heedless of traffic
- 33 percent involved pedestrian crossing the road from the motorists left side
- 6 percent involved pedestrians that were visibly intoxicated

Thirteen percent of pedestrian injury crashes record that a driver failed to give way to a pedestrian using a crossing point on the roadway, either at a zebra crossing or when turning at traffic lights.

The high crash locations/routes for pedestrian crashes in the city are shown in the table below:

Locations/routes	Number of pedestrians injured 2004-2008
Collingwood Street	11
Rutherford Street	6
Vanguard Street	4
Hardy Street	3
Main Road Stoke	3

Further information regarding pedestrian injury crashes in Nelson City 2004-2008 on:

Local roads

- 1 death, 10 serious injuries and 56 minor injuries
- Worst month: August (10 crashes)
- Worst day of week: Monday (13 crashes)
- Wet road crashes: 10 percent
- Night time crashes: 28 percent
- Alcohol over limit (injury crashes): 7 percent
- Crashes at intersection: 42 percent
- Pedestrian factors for crashes: 68 percent

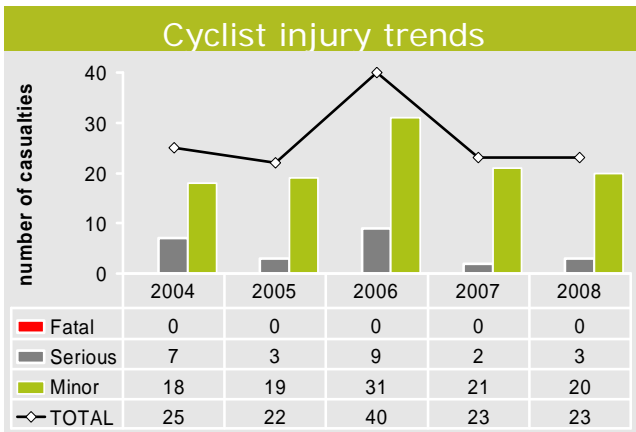
State highways

- 1 death, 1 serious injuries and 4 minor injuries
- Worst months: January-March, June and November (1 crashes each)
- Worst day of week: Tuesday and Wednesday(2 crashes each)
- Wet road crashes: none
- Night time crashes: 40 percent
- Alcohol over limit (injury crashes): none
- Crashes at intersection: none
- Pedestrian factors for crashes: 60 percent

Cyclists

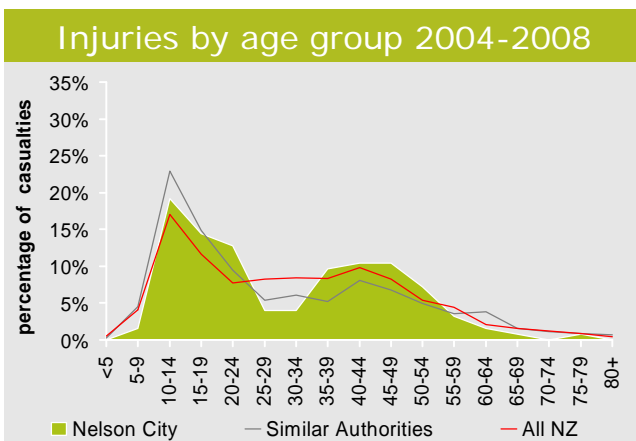
Injury crashes involving cyclists in Nelson City accounted for 23 percent of all injury crashes during the last 5 year period, resulting in 24 serious injuries and 109 minor injuries.

The latest five year trends show that the total number of casualties involved in cyclist crashes is steady, except in 2006 which was abnormally high. The number of serious injury crashes show a decreasing trend.



Nearly all (97 percent) cycling crashes occurred on urban roads, with 63 percent at intersections and 83 percent during daylight hours.

Injured cyclists were not spread evenly across all age groups. Forty-six percent of the injured cyclists were in the 10-24 year age group and 30 percent in the 35-49 year age group.



The scenarios for crashes involving cyclists were many and varied. The most common scenarios for cyclist injury crashes were:

- a vehicle or cyclist turning right from a side road or driveway across a vehicle travelling straight through: 26 percent
- a vehicle or cyclist turning right across an oncoming vehicle: 12 percent
- A parked car opening its door: 8 percent

Fifty-nine percent of cyclist injury crashes show failure to give way as a factor, 35 percent were at a give way or stop sign control and generally a similar number (36 percent) recorded that one of the parties failed to see or look when required to give way to traffic from another direction. Nine percent record riding on the footpath.

The high crash locations/routes for cyclist crashes in the city are shown in the table below:

High cyclist crash locations/routes	Number of cyclist crashes 2004-2008
SH6 route through Nelson City	22
Waimea Road	20
Main Road Stoke	8
Waimea Road - Annesbrook Drive intersection	7
Rutherford Street	7
Haven Road - Halifax Street intersection	6
Vanguard Street	6

Further information regarding crashes involving cyclists in Nelson City 2004-2008 on:

Local roads

- 19 serious injuries and 91 minor injuries
- Worst month: March (17 crashes)
- Worst day of week: Tuesday (32 crashes)
- Most common injury crash factors: poor observation (71 percent) followed by failure to give way /stop (56 percent)
- Crashes at intersection: 64 percent
- Wet road crashes: 14 percent
- Night time crashes: 16 percent

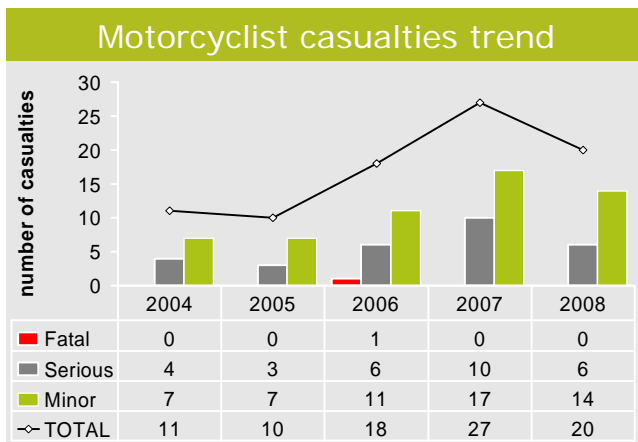
State highways

- 5 serious injuries and 18 minor injuries
- Worst month: November (5 crashes)
- Worst day of week: Tuesday (7 crashes)
- Most common injury crash factors: poor observation (82 percent) followed by failure to give way /stop (59 percent)
- Crashes at intersection: 62 percent
- Wet road crashes: 19 percent
- Night time crashes: 23 percent

Motorcyclists

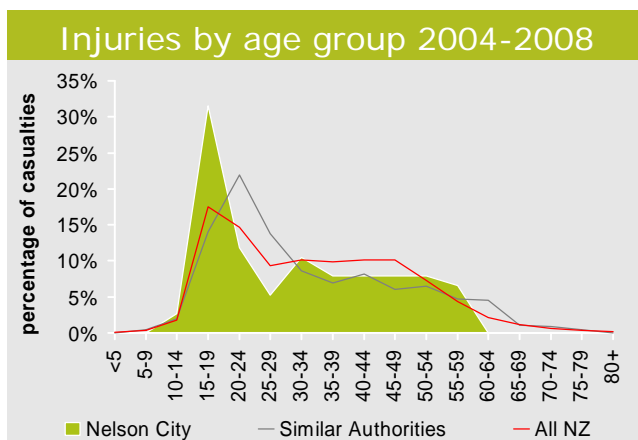
Injury crashes involving motorcyclists represent 14 percent of all injury crashes in Nelson City during the last five year period, resulting in 29 serious injuries and 56 minor injuries.

The latest five year trends show an increase in the total number of casualties involved in motorcyclist crashes, the number of these crashes has basically doubled over the last five years.



Eighty-four percent of motorcycle crashes occurred on urban roads, 81 percent were on dry roads during daylight hours. Thirty-eight percent of these crashes were at intersections. Twenty percent were single party motorcycle only crashes.

Those injured motorcyclists are not spread evenly across all age distributions, as shown in the graph below. Young motorcyclists of 15 to 24 years of age are the most commonly injured age group (46 percent). This is higher than national and similar authorities' averages. We also see that 38 of the motorcyclists (30 percent) injured during this five year period were 30 to 54 years of age.



The most common scenarios for injury crashes involving motorcyclists in Nelson City 2004-2008 were:

- loss of control: 30 percent
- a vehicle turning right from a side road or driveway across a vehicle travelling straight through: 20 percent
- a vehicle turning right across an oncoming vehicle: 14 percent

The high crash locations/routes for motorcycle crashes in the city 2004-2008 are shown in the following table.

High motorcyclist crash locations/routes	Number of motorcyclist crashes 2004-2008
SH6 north of the city - route through the Whangamoia Ranges	9
SH6 route through Nelson City	5
Main Road Stoke	8
Main routes and intersections generally in Nelson City centre	-
St Vincent Street	3

Further information regarding crashes involving motorcyclists in Nelson City 2004-2008 on:

Local roads

- 22 serious injuries and 48 minor injuries
- Worst month: February (11 crashes)
- Worst day of week: Monday (16 crashes)
- Most common injury crash factors: Poor observation and failure to give way/stop (45 percent each)
- Wet road crashes: 7 percent
- Night time crashes: 22 percent
- Alcohol over limit (injury crashes): 6 percent
- Crashes at intersection: 41 percent

State highways

- 7 serious injury and 8 minor injuries
- Worst month: April (4 crashes)
- Worst day of week: Wednesday (4 crashes)
- Most common injury crash factors: poor observation (36 percent) followed by Failure to give way/stop (29 percent)
- Wet road crashes: 14 percent
- Night time crashes: 10 percent
- Alcohol over limit (injury crashes): 7 percent
- Crashes at intersection: 29 percent

Alcohol

Alcohol affects the way people drive. Studies show that the risk of being involved in a crash increases rapidly as a driver's blood alcohol level rises. A driver over the legal limit (80mg of alcohol per 100ml of blood) is three times more likely to be involved in a crash than a sober driver.

People with high blood alcohol levels are more likely to be injured or killed in a crash than sober drivers in similar crashes.

During 2008, alcohol-affected drivers contributed to 34 percent of all fatal crashes and 15 percent of all injury crashes in New Zealand.

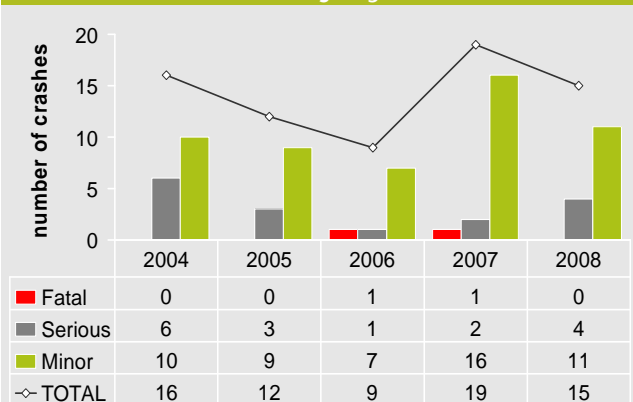
Nelson City

During the last five year period (2004-2008) 13 percent of all injury crashes in Nelson City were alcohol-related. This is higher than the five year average for similar authorities (12 percent). Last year 14 percent of all injury crashes in the city recorded alcohol as a contributing factor.

There were 71 injury and 146 non-injury alcohol-related crashes reported in the last five years. These crashes have resulted in 2 deaths, 16 serious and 70 minor injuries.

The latest five year trends show a slight decrease in the number of fatal and serious injury alcohol-related crashes, but no real gains in reducing the total number of injury crashes.

Alcohol related injury crash trends



Sixty-five percent of alcohol-related crashes were single party crashes. Most (86 percent) were on urban roads and half of these (53 percent) were loss of control. Speed *too fast* was a contributing factor in 41 percent of alcohol-related crashes. Thirty-seven percent were at intersections.

Alcohol-related crashes mostly occurred at night (81 percent). Forty-seven percent were at weekends, between 6pm Friday until 6am Monday.

Forty percent of the at fault drivers involved in all alcohol-related crashes (2004-2008) held either a learner or restricted licence. A further 19 percent were disqualified or never held a drivers' licence. Just under a third (31 percent) of the at fault drivers were held a full licence. Most (84 percent) of at fault drivers were male.

Further information about alcohol-related crashes in the city between 2004 and 2008 on:

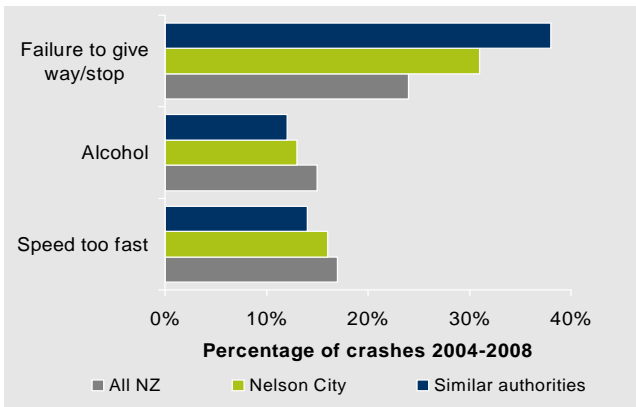
Local roads

- 1 death, 12 serious injuries and 54 minor injuries
- Worst months: April and October (20 crashes each)
- Worst day of week: Sunday (50 crashes)
- Wet road crashes: 21 percent
- Night time crashes: 82 percent
- Crashes at intersection: 39 percent
- Excessive speed (injury crashes): 43 percent
- Most common injury crash factors: poor observation (24 percent) followed by poor handling (12 percent)
- Road factors: 5 percent
- At fault male driver (injury crashes): 85 percent
- At fault driver held a full NZ licence (injury crashes): 29 percent
- Most common at fault drivers' age group (injury crashes): 15 to 19 years old

State highways

- 1 death, 4 serious injuries and 16 minor injuries
- Worst month: December (6 crashes)
- Worst day of week: Saturday (10 crashes)
- Wet road crashes: 17 percent
- Night time crashes: 81 percent
- Crashes at intersection: 28 percent
- Excessive speed (injury crashes): 35 percent
- Most common injury crash factors: fatigue (30 percent) followed by poor handling (20 percent)
- Road factors: 6 percent
- At fault male driver (injury crashes): 78 percent
- At fault driver held a full NZ licence (injury crashes): 39 percent
- Most common at fault drivers' age group (injury crashes): 15 to 19 years old and 30 to 39 years old

National issues



Speed

In Nelson City, speed too fast for conditions was recorded in 16 percent of injury crashes in the last five years, resulting in 2 deaths and 122 injuries. Speed as a factor in the total number of fatal and serious injury crashes remains steady however these minor injury crashes have reduced significantly in 2008.

Sixty-two percent of speed-related crashes were *lost control/head-on at bend* crash movement types. *Alcohol* and *poor handling* were the driver factors most often associated with *speed* crashes. Male drivers aged under 25 years old were the group most involved in these crashes.

Alcohol

In Nelson City, alcohol was involved in 13 percent of injury crashes in the last five years, resulting in 2 deaths and 86 other injuries. The number of injury crashes involving alcohol is steady.

Seventy-nine percent of alcohol-related crashes were in urban areas. Seventy-five percent of these involved *lost control/head-on* crash movement types. Travelling *too fast* and *poor observation* are the main factors often associated with alcohol.

Failure to give way

In Nelson City, *failure to give way or stop* was reported in 31 percent of all reported injury crashes during the last five years resulting in a total of 198 injuries. Most (91 percent) of these are *crossing/turning* manoeuvres, often associated with failure to look for other parties. Fifty-two percent of at fault drivers in these crashes were male.

Restraints

The Ministry of Transport conducts surveys of restraint use. According to 2008 survey results restraint use rate in Nelson City for front seat and rear seat are 97 and 73 percent respectively (while corresponding national rates are 95 and 87 percent). The results are obtainable from the Ministry of Transport website.

<http://www.transport.govt.nz/research/safetybeltstatistics/>

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