



briefing notes road safety issues

Nelson City

This report details aspects of Nelson City's traffic crash data. We begin by looking at how the city measures up regarding those areas of high concern prioritised in Safer Journeys (NZ's Road Safety Strategy 2020) as compared to similar authorities and against the national picture. This is followed by an overview of crashes in Nelson City for 2009. Then we present more detailed analysis of local road safety issues based upon reported crash data and trends for the 2005–2009 period.

Included are graphs, charts and tabulations addressing crash movement, crash factors, road users, location and the social cost of crashes. Trends are determined by looking at the annual data for injury crashes and those injured over the last five year period. The information in this report covers both local roads and state highways.

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).

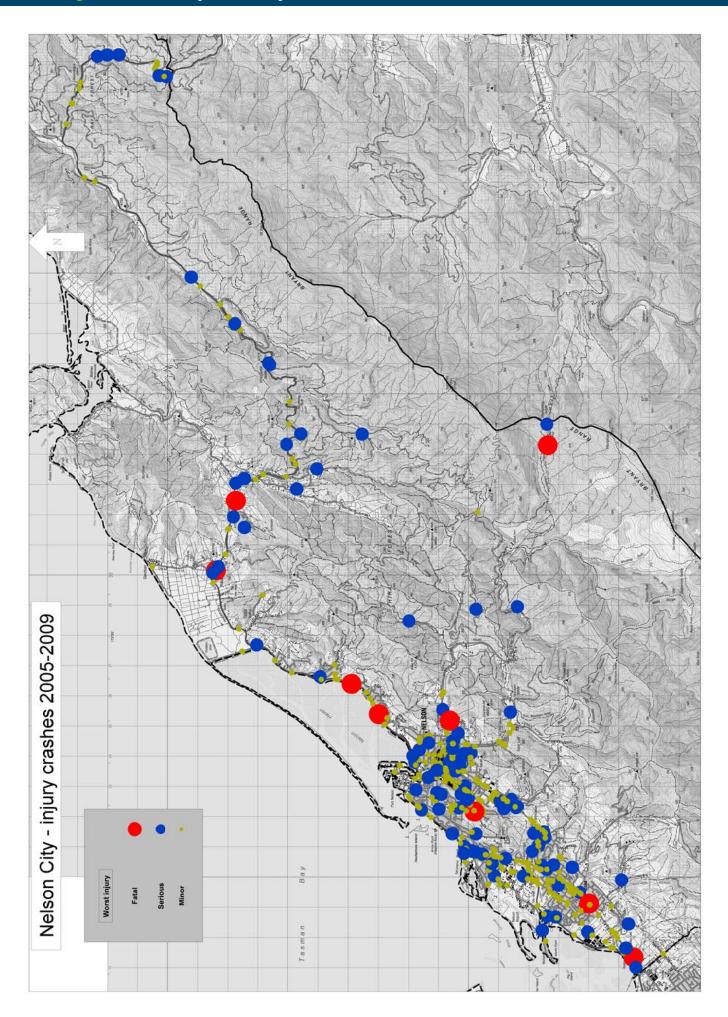
2009 road trauma		
Casualties	Nelson City	
Death	3	
Serious injury	27	
Minor injury	96	
Total casualties	126	

Crashes	Nelson City
Fatal crashes	3
Serious injury crashes	25
Minor injury crashes	78
Total injury crashes	105
Non-injury crashes	314 reported

2009 - social	cost of crashes
Local roads	\$ 27.91M
State highways	\$ 11.82M
Total	\$ 39.73M
NOTE: The estimated social cost includes loss of life or quality of life, loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage.	

Local road safety issues		
Nelson City		
Loss of control		
Intersections		
Young drivers		
Vulnerable road users; pedestrians		
cyclists		
motorcyclists		





2020 Safer Journeys

"A safe road system increasingly free of death and serious injury"

Safer Journeys is New Zealand's Road Safety Strategy for 2010-2020. It identifies actions and interventions to reduce trauma on our roads.

Please take time to visit the Safer Journeys website and study the documents found there:

http://www.transport.govt.nz/saferjourneys/

Areas of high concern have been identified. These are the areas where we need to make the most improvement in road safety or maximise efforts towards a safe system approach. Focusing on these areas could make the largest contribution toward reducing costs imposed on the economy by road deaths and injuries.

Areas of high concern are:

- Reducing alcohol/drug impaired driving
- Increasing the safety of young drivers
- Safe roads and roadsides
- Safe driving speeds
- Increasing the safety of motorcyclists

Areas of medium concern are:

- Improving the safety of the light vehicle fleet
- Safe walking and cycling
- Improving the safety of heavy vehicles
- Reducing the impact of driver fatigue
- Addressing driver distraction
- Reducing the impact of high risk drivers

Areas of continued and emerging focus:

- Increasing the level of restraint use
- Increasing the safety of older New Zealanders

Nelson City

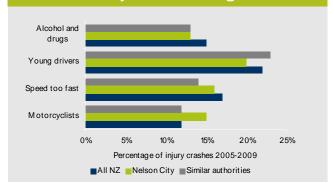
Presented below is a brief look at Nelson City's position on Safer Journeys' areas of high concern compared to similar authorities' averages and the all-NZ averages (sample period 2005-2009).

Restraints

According to 2009 survey results, restraint use rate in Nelson City are 99 and 85 percent for front seat and rear seat respectively; while corresponding national rates are 95 and 87 percent.

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

Safer Journeys' areas of high concern



Alcohol and drugs

In Nelson City, alcohol was recorded in 13 percent of injury crashes in the last five years, resulting in 2 deaths, 15 serious injuries and 56 minor injures. Alcohol related crashes were similar proportionally when compared to similar authorities.

Young drivers

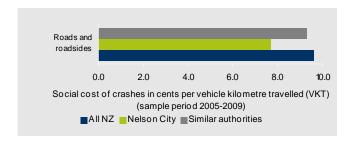
In Nelson City, young drivers aged 15-19 years were involved in 20 percent of all injury crashes during the last five year period, resulting in 2 deaths, 19 serious injuries and 113 minor injuries. This was proportionally lower compared to similar authorities.

Speed too fast

Speed too fast was recorded in 16 percent of injury crashes in Nelson City in the last five years, resulting in 2 deaths, 15 serious injuries and 82 minor injuries. Speed as a factor in crashes was proportionally higher compared to similar authorities.

Motorcyclists

In Nelson City, motorcyclists were involved in 15 percent of all injury crashes during the last five year period, resulting in 32 serious injuries and 58 minor injuries. Injury crashes involving motorcyclists were proportionally higher compared to similar authorities.



Roads and roadsides

In Nelson City, there were on average 31 injury crashes per 100 million VKT over the last five years. The social cost per VKT of these crashes was 17 percent lower than the similar authority average (see the graph above).

Overview 2009

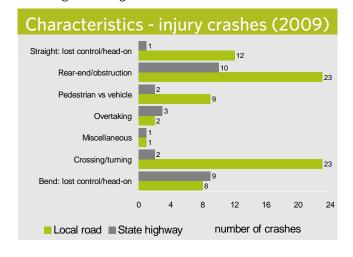
In 2009 in Nelson City, 105 injury crashes resulting in 126 casualties and 314 non-injury crashes were reported by the New Zealand Police. Twenty-seven percent of all injury crashes in the district were on state highways. The table below shows the number of injuries resulting from these crashes in the district.

Casualties by injury type in 2009				
	Fatalities	Serious injuries	Minor injuries	Total
Total	3	28	96	127
	Local roads	vs state hig	ghways	
Local roads	2	20	65	87
State highways	1	8	31	40
Rural vs urban roads				
Rural ¹	1	8	16	25
Urban	2	20	80	102
¹ Rural- an area with a speed limit of 80km/h or more				

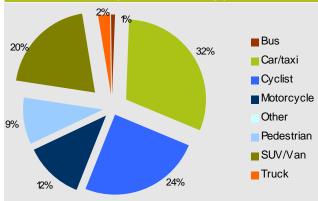
The latest five year data shows a level trend in the total number of injury crashes, within this the serious injury crash trend is upwards.



In 2009 nearly half the injury crashes involved a driver losing control of their vehicle and a quarter involved a crossing or turning movement.







Nearly half of all the casualties were vulnerable road users (pedestrians, cyclists and motorcyclist), half of these, a quarter of all casualties, were cyclists. One- third were drivers and passengers of cars and a fifth of sports utility vehicles or vans.

In 2009 in Nelson City, young drivers aged 15 to 19 years inclusive were at fault drivers in 26 percent of injury crashes and older drivers, 70 years of age and over, in 12 percent.

Further information about injury crashes in the city during 2009 on:

Local roads

- Total number of injury crashes: 78
- Worst months: September and November (12 percent each)
- Worst day of week: Wednesday (19 percent)
- Wet road crashes: 17 percent
- Night time crashes: 28 percent
- Alcohol over limit: 15 percent
- Failed to give way/stop: 22 percent
- Too fast for conditions: 10 percent
- Pedestrian factors: 8 percent
- Crashes at intersection: 45 percent
- Road factors: 17 percent
- At fault male driver: 67 percent
- At fault driver held full NZ licence: 56 percent

- Total number of injury crashes: 28
- Worst month: February (21 percent)
- Worst day of week: Friday (29 percent)
- Wet road crashes: 38 percent
- Night time crashes: 21 percent
- Alcohol over limit: 7 percent
- Too fast for conditions: 14 percent
- Failed to give way/stop: 7 percent
- Fatigue: 2 nil
- Crashes at intersection: 21 percent
- Road factors: 1 percent
- At fault male driver: 67 percent
- At fault driver held full NZ licence: 67 percent

Loss of control

During the most recent five year period (2005-2009) 32 percent of all injury crashes in Nelson City occurred due to loss of control. These crashes resulted in 5 deaths, 47 serious injuries and 160 minor injuries. There were a further 434 non-injury crashes reported.

The latest five year data shows a slight downward trend in the total number of injury crashes due to loss of control.

Loss of control injury crash trends



Three-quarters of loss of control crashes occurred at bends (73 percent). These crashes involved a driver losing control of their vehicle, commonly running off the road and hitting a roadside object (78 percent). Over a quarter loss of control crashes involved colliding with another vehicle (29 percent).

The following table shows a breakdown of the general environment of all loss of control crashes (605 crashes) in the district 2005-2009.

Loss of Control	Local Urban	Local Rural	SH urban	SH Rural
At bends	43%	2%	6%	22%
Straight road	19%	2%	3%	3%

Note: Rural roads are roads with a speed limit of 80km/hr or more.

In loss of control crashes the three most common roadside hazards struck were fences (20 percent), parked vehicles (15 percent each) and cliff banks (11 percent). In total 656 reported objects were struck. Hitting these objects can result in more serious injuries than would otherwise be sustained.

Half of the at fault drivers in these crashes were aged under 24 years of age (49 percent), three-quarters were male (76 percent) and a third held either a learner or a restricted licence (34 percent).

The following table shows the main characteristics of loss of control crashes. Speed too fast contributed to over a third of injury crashes while alcohol contributed to over a quarter of these injury crashes. Three quarters of all loss of control crashes were single vehicle crashes and half occurred in the daytime.

Main characteristics of loss of control crashes

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Crash characteristics	Percentage of crashes
Single vehicle	72%
Alcohol (injury crashes)	29%
Too fast for the conditions (injury crashes)	36%
Road factors	15%
Poor handling (injury crashes)	30%
Rural road	29%
Wet road	30%
Night time	51%

Further information about all loss of control crashes in Nelson City 2005-2009 on:

Local roads

- 3 deaths, 29 serious injuries and 100 minor injuries
- Worst month: November (42 crashes)
- Worst day of week: Sunday (87 crashes)
- Wet road crashes: 24 percent
- Night time crashes: 57 percent
- Alcohol over limit (injury crashes): 34 percent
- Most common injury crash factors: too fast for condition (41 percent) followed by poor handling (30 percent)
- Road factors: 10 percent
- At fault male driver (injury crashes): 79 percent
- At fault driver held a full NZ licence (injury crashes): 40 percent
- Most common at fault drivers' age group (injury crashes): 15 to 24 years (58 percent)

- 2 deaths, 18 serious injuries and 60 minor injuries
- Worst month: December (27 crashes)
- Worst day of week: Saturday (35 crashes)
- Wet road crashes: 40 percent
- Night time crashes: 40 percent
- Alcohol over limit (injury crashes): 21 percent
- Most common injury crash factors: too fast (29 percent) followed by poor handling (30 percent)
- Road factors: 25 percent
- At fault male driver (injury crashes): 71 percent
- At fault driver held a full NZ licence (injury crashes): 58 percent
- Most common at fault drivers' age group (injury crashes): 15-39 years (70 percent)

Intersections

During the last five year period (2005-2009) 43 percent of all injury crashes in Nelson City occurred at intersections. These crashes resulted in 1 death, 37 serious injuries and 241 minor injuries. There were a further 571 non-injury crashes reported.

The latest five year data shows a downward trend in the total number of injury crashes at intersections.



Most of these crashes occurred at urban intersections (93 percent). Eighty-one percent of intersection crashes occurred on local roads, accounting for 84 percent of all serious injuries at intersections in the last five years.

	Local	Local	SH	SH
	urban	rural	urban	rural
Intersection crashes	78%	2%	15%	5%

Note: Rural roads are roads with a speed limit of 80km/hr or more.

The table below shows the locations of intersections with a high number of crashes in Nelson City (2005-2009).

Intersection name	Total crashes 2005 - 2009	Injury crashes 2005- 2009	Total crashes in 2009
Waimea Road / Motueka St	27	12	1
Haven Road / Halifax St	18	7	4
Main Road Stoke / Annesbrook Drive	15	7	3
Grove St / Collingwood St	8	5	1
Rutherford St / Waimea Road	6	5	0
Rutherford St / Halifax St	14	5	2
SH 6 / Hay St	7	5	1
Toi Toi St / Vanguard St	21	5	7
Waimea Road/Boundary Road	8	5	3
Collingwood St / Nile St	6	4	1
Main Road Stoke / Songer St	12	4	5

Junction Type	Rural	Urban
T-junction	26	355
Crossroad	0	189
Roundabout	26	158
Y-junction	2	24
Driveway	0	27

Crashes at T-junctions and crossroads in urban areas are the most common types of intersection crashes, followed by crashes at roundabouts, during 2005-2009.

Fifty-five percent of intersection injury crashes occurred due to a driver failing to give way or stop. Forty-five percent of all crashes occurred at give way signs, 3 percent at traffic signals and 1 percent at stop signs. Fifty-two percent of all crashes occurred at intersections without any traffic control.

Further information regarding crashes at intersections in Nelson City 2005-2009 on:

Local roads

- 1 death, 26 serious injuries and 196 minor injuries
- Worst month: May (62 crashes)
- Worst day of week: Thursday (132 crashes)
- Wet road crashes: 16 percent
- Night time crashes: 28 percent
- Alcohol over limit (injury crashes): 9 percent
- Most common injury crash factors: failed to give way/stop (55 percent) and poor observation (59 percent)
- At fault male driver (injury crashes): 58 percent
- At fault driver held full NZ licence (injury crashes): 61 percent
- At fault driver held learner or restricted license (injury crashes): 23 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years (33 percent) and 30-49 years (35 percent)

- 11 serious injuries and 45 minor injuries
- Worst month: September (17 crashes)
- Worst day of week: Thursday (30 crashes)
- Wet road crashes: 18 percent
- Night time crashes: 29 percent
- Alcohol over limit (injury crashes): 8 percent
- Most common injury crash factors: failed to give way/stop (53 percent) and poor observation (58
- At fault male driver (injury crashes): 68 percent
- At fault driver held full NZ licence (injury crashes): 82 percent
- Most common at fault drivers' age group (injury crashes): 40-69 years (56 percent)

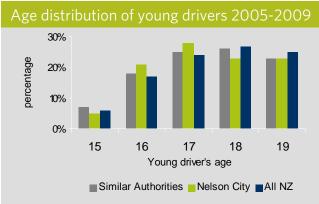
Young drivers

During the most recent five year period (2005-2009) in Nelson City, 20 percent of all injury crashes involved young drivers, aged 15-19 years. These crashes resulted in 2 deaths, 19 serious injuries and 113 minor injuries.

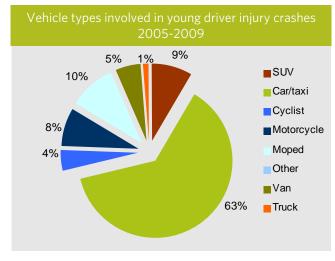
The latest five year data shows an upward trend in the total number of these crashes, influenced particularly by the upward trend in serious injury crashes involving young drivers.



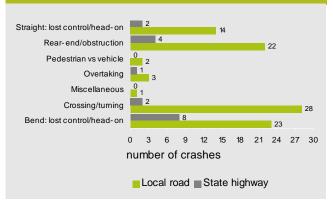
The age distribution of young drivers involved in injury crashes is shown below. Seventy-eight percent of these injury crashes show young drivers were at fault of part-fault.



The types of vehicles involved in injury crashes involving young drivers are shown below.



Characteristics of young driver injury crashes



The chart above shows the general characteristics of injury crashes involving young drivers. The most common general crash movement involves a driver losing control of their vehicle (41 percent):

- loss of control at bends: 21 percent
- loss of control on a straight road: 11 percent
- loss of control head-on collision: 8 percent
- loss of control overtaking: 1 percent

Further information about all injury crashes involving young drivers in Nelson City 2005-2009 on:

Local roads

- 2 deaths, 15 serious injuries and 98 minor injuries
- Worst months: October and November (10 crashes each)
- Worst day of week: Saturday (21 crashes)
- Wet road crashes: 16 percent
- Night time crashes: 35 percent
- Alcohol over limit (injury crashes): 15 percent
- Speed too fast (injury crashes): 25 percent
- Most common injury crash factors: poor observation (42 percent) followed by failed to give way / stop (28 percent)
- At fault driver held learner NZ licence: 29 percent
- At fault driver held restricted NZ licence: 31 percent

- 4 serious injuries and 15 minor injuries
- Worst month: October (6 crashes)
- Worst day of week: Friday (6 crashes)
- Wet road crashes: 48 percent
- Night time crashes: 30 percent
- Alcohol over limit (injury crashes): 12 percent
- Speed too fast (injury crashes): 24 percent
- Most common injury crash factors: poor observation (41 percent) followed by failed to give way / stop and failed to keep left (12 percent each)
- At fault driver held learner NZ licence: 12 percent
- At fault driver held restricted NZ licence: 59 per-

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 (2005-2009), accounting for 45 percent of all casualties; 22 percent of all deaths, 59 percent of all serious injuries and 42 percent of all minor injuries.

Pedestrians

Injury crashes involving pedestrians in Nelson City accounted for 11 percent of all injury crashes during the last five year period, resulting in 2 deaths, 14 serious injuries and 49 minor injuries.

The latest five year data show a downward trend in the total number of casualties in crashes involving pedestrians. However there is an upward trend in the number of serious injury crashes involving pedestrians.

20 number of casualties 15 10 5 0 2005 2006 2007 2008 2009 0 0 1 n Fatal 7 Serious 1 1 1 4 17 10 6 Minor 8 8 12 13 -TOTAL 18 13

A quarter of pedestrians injured during the last five years were in the 15-19 year age group (24 percent). This is significantly higher than similar authorities and all NZ average for the same age group. Another highly represented group is pedestrians aged 25-29years accounting for 11 percent of those injured.



Location/route	Number of pedestrian injury crashes (2005-09)
Rutherford St/ Halifax St	3
Collingwood St/ Hardy St	2
Collingwood St/ Bridge St	2
Vanguard St/ Northesk St	2
Bisley Walk/ Beach Road	1
Collingwood St route	7
Rutherford St route	5
Main Road Stoke route	4

High pedestrian crash locations or routes in Nelson City for the period 2005-2009 are shown above.

Ninety-five percent of pedestrian accidents occurred on urban roads and 31 percent were at intersections. Seventy-four percent of these crashes took place during the hours of daylight.

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

- 44 percent involved pedestrians crossing heedless of traffic
- 40 percent involved pedestrian crossing the road from the motorists left side
- 10 percent involved an unsupervised child
- 8 percent involved pedestrians that were visibly intoxicated

Seven 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.

Further information regarding pedestrian injury crashes in Nelson City 2005-2009 on:

Local roads

- 1 death, 11 serious injuries and 45 minor injuries
- Worst months: May & August (7 crashes each)
- Worst day of week: Thursday (13 crashes)
- Wet road crashes: 5 percent
- Night time crashes: 25 percent
- Alcohol over limit (injury crashes): 10 percent
- Crashes at intersection: 34 percent
- Pedestrian factors for crashes: 69 percent

- 1 death, 7 serious injuries and 24 minor injuries
- Worst months: February, March & November (5 crashes each)
- Worst day of week: Tuesday (12 crashes)
- Wet road crashes: 12 percent
- Night time crashes: 21 percent
- Alcohol over limit (injury crashes): 7 percent
- Crashes at intersection: 52 percent
- Pedestrian factors for crashes: 18 percent

Cyclists

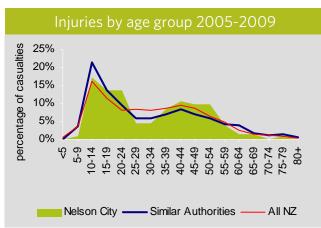
Injury crashes involving cyclists in Nelson City accounted for 25 percent of all injury crashes during the last 5 year period, resulting in 22 serious injuries and 120 minor injuries.

The latest five year data shows a level trend in the total number of casualties involved in cyclist crashes.



Nearly all (97 percent) cycling crashes occurred on urban roads, 59 percent were at intersections and 87 percent occurred during daylight hours.

In Nelson City in 2005-2009 we find that 14 percent of cyclists injured were in the 20-24 age group which is higher than both the all-NZ average (8 percent) and similar authorities' average (9 percent). Also high when compared to similar authorities is the group of cyclists aged 40-54 years (31 percent).



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: 23 percent
- A cyclist collided with a parked vehicle or opened door in the path of a cyclist: 9 percent
- a vehicle or cyclist turning right across an oncoming vehicle: 8 percent

Location/route	Number of cyclist injury crashes 2005-2009
Annesbrook Drive/ Main Road Stoke	6
Haven Road/ Halifax St	5
SH 6/ Hay St	4
Collingwood St/ Nile St	3
Collingwood St/ Grove St	3
SH 6/ Bisley Avenue	3
Tasman St/ Nile St	3
Vanguard St/ Toi Toi St	3
Waimea Road/ Van Diemen St	3
Waimea Road/ Boundary Road	3
Nayland Road route	10
Rutherford St route	7

The high crash locations/routes for cyclist injury crashes in the city are shown in the table above.

Fifty-three percent show failure to give way as a contributory factor of injury crashes involving cyclists, 45 percent were at a give way control and 38 percent occurred at T-junctions. Nine percent recorded riding on the footpath.

Further information regarding all crashes involving cyclists in Nelson City 2005-2009 on:

Local roads

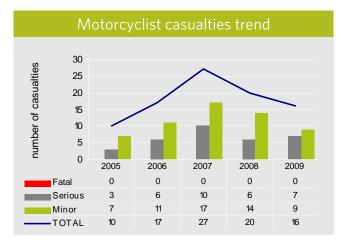
- 17 serious injuries and 99 minor injuries
- Worst month: March (17 crashes)
- Worst day of week: Thursday (30 crashes)
- Most common injury crash factors: poor observation (67 percent) followed by failure to give way /stop (54 percent)
- Crashes at intersection: 59 percent
- Wet road crashes: 14 percent
- Night time crashes: 13 percent

- 5 serious injuries and 21 minor injuries
- Worst months: March and November (4 crashes each)
- Worst day of week: Tuesday (11 crashes)
- Most common injury crash factors: poor observation (65 percent) followed by failure to give way /stop (48 percent)
- Crashes at intersection: 61 percent
- Wet road crashes: 14 percent
- Night time crashes: 18 percent

Motorcyclists

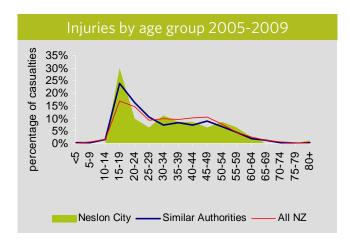
Injury crashes involving motorcyclists represented 15 percent of all injury crashes in Nelson City during the last five year period, resulting in 32 serious injuries and 58 minor injuries.

The latest five year data shows an upward trend in the total number of casualties involved in motorcyclist crashes.



Most motorcycle crashes occurred on urban roads (86 percent) and mostly on dry roads during daylight hours (87 percent). Forty-one percent of crashes involving motorcyclists were at intersections. Twenty percent were single party motorcycle only crashes.

The age distribution of injured motorcyclists is shown below. Young motorcyclists in the group 15-24 years were those most commonly injured (40 percent). This is higher proportionally when compared to both the all-NZ average and similar authorities' averages. Also higher than similar authorities is the group 30-44 years (29 percent).



The high crash locations/routes for motorcycle crashes in the city 2005-2009 are shown in the following table.

locations/routes	Number of motorcyclist crashes 2005-2009
SH 6 / Teal Valley Road	2
St Vincent St / Northesk St	2
Vanguard St / Gloucester St	2
Central Road / Maitai Valley Road	1
Frost Road / Lud Valley Road	1
Hillwood Drive Ext. / Hillwood Drive	1
Vanguard St route	7
Main Road Stoke route	6
Nayland Road route	5
Waimea Road route	4

The most common scenarios for injury crashes involving motorcyclists in Nelson City 2005-2009 were:

- loss of control: 27 percent
- a vehicle turning right from a side road or driveway across a vehicle travelling straight through: 16 percent
- a vehicle turning right across an oncoming vehicle: 13 percent

Further information regarding crashes involving motorcyclists in Nelson City 2005-2009 on:

Local roads

- 24 serious injuries and 50 minor injuries
- Worst month: February (13 crashes)
- Worst day of week: Monday (19 crashes)
- Most common injury crash factors: Poor observation and failure to give way/stop (43 percent each)
- Wet road crashes: 8 percent
- Night time crashes: 19 percent
- Alcohol over limit (injury crashes): 6 percent
- Crashes at intersection: 44 percent

- 8 serious injury and 8 minor injuries
- Worst month: December (4 crashes)
- Worst day of week: Friday (7 crashes)
- Most common injury crash factors: poor observation (43 percent) followed by Failure to give way/stop (29 percent)
- Wet road crashes: 23 percent
- Night time crashes: 9 percent
- Alcohol over limit (injury crashes): 7 percent
- Crashes at intersection: 32 percent

Further information

This report has been prepared by the Performance Information team at NZ Transport Agency. It is the eleventh such annual road safety issues report. The intent of this report is to highlight local road safety issues and assist in identifying possible ways to reduce the number of road deaths and injuries. It has been prepared using data from the Ministry of Transport's Crash Analysis System (CAS) database. This report forms a part of the Briefing Notes series of reports. The Briefing Notes present information derived from pertinent statistics to be used for decision support.

More detailed information may be obtained from either Nelson City Council (local roads) or NZ Transport Agency.

NZ Transport Agency encourages local bodies, regional councils and NZ Police to study the briefing notes series of reports along with the road safety data reports and the road safety black-spot report. There will be road safety issues beyond those covered in this Road Safety Issues Report and we encourage our partners to use their access to the Crash Analysis System to identify and examine these further.

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