

briefing notes road safety issues

Nelson City

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2002–2006 period.

The intent of the report is to highlight the key road safety issues and be a resource to identify possible ways to reduce the number of road deaths and injuries in Nelson City.

This report is the eighth road safety report for Nelson City. Most of the data in this report applies to both local roads and state highways. Where relevant the details of the crashes on local roads and state highways are provided and discussed.

In each new report, the latest year's data is added to a five year block and the oldest year dropped, so it is unlikely that the core issues for any local body would change radically from report to report.

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

We have included a brief overview of crashes in Nelson City for 2006.

Major road safety issues		2006 road trauma	
Nelson City		Casualties	
Vulnerable road users		Deaths	2
Rear-end/obstruction		Serious casualties	23
Loss of control at bends		Minor casualties	109
Crossing/turning			
Nationally		Crashes	
Speed		Fatal crashes	2
Alcohol		Serious injury crashes	23
Failure to give way		Minor injury crashes	94
Restraints		Non injury crashes	297

Overview of crashes in 2006

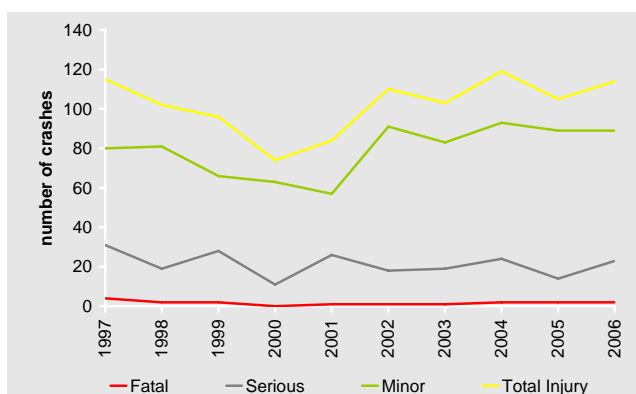
In 2006 on local roads in Nelson City, there were 83 injury crashes and 227 non-injury crashes, in addition there were 36 injury crashes and 70 non-injury crashes on state highways, as reported by Police.

The table below shows the number of fatalities and injuries resulting from crashes in rural and urban areas for both local roads and state highways (rural is defined as an area with a speed limit of 80km/h or more).

	Fatalities	Serious injuries	Minor injuries	Total
Rural	2	5	17	24
Urban	0	18	92	110
Total	2	23	109	134

Fatalities in Nelson City have been constant at two fatalities per year since 2004 as shown in the graph

Injury crashes 1997-2006



below:

Serious injuries have fluctuated over the last ten years. Minor injuries were up in 2002 and 2004 but have settled down since then. Overall, the total injury crashes have shown an upward trend since 2000.

The following table shows the distribution of the injury and non injury crashes on local roads and state

Movement category	Urban	Rural	Total
Bend-lost control/head on	35	51	86
Crossing/turning	1	85	86
Rear-end/obstruction	7	164	171
Straight-lost control/head on	23	8	31
Pedestrian vs vehicle	9	0	9
Overtaking	13	8	21

highways by movement category with urban and rural split:

Further information about injury and non-injury crashes:

Local roads

- Worst month— June (36 crashes)
- Worst day— Thursday (59 crashes)
- Wet road crashes— 16 percent
- Night time crashes— 34 percent
- Mid-block crashes— 56 percent
- At fault (injury crashes only) male driver— 46 percent
- Full NZ licence (injury crashes only) of at fault drivers— 53 percent
- Social cost of crashes— \$17.5 million

State highways

- Worst month— October (16 crashes)
- Worst day— Wednesday (23 crashes)
- Wet road crashes— 23 percent
- Night time crashes— 24 percent
- Mid-block crashes— 69 percent
- At fault (injury crashes only) male driver— 75 percent
- Full NZ licence of at fault drivers— 53 percent
- Social cost of crashes— \$15.9 million

It has been observed nationally that there is a growing group of drivers who have not been exiting the graduated licence system and who are choosing to stay on restricted licences. This is making it increasingly difficult to distinguish between drivers that are truly inexperienced from those that should

Licence status	Injury crashes percentage of at fault drivers	
	Nelson City	New Zealand
Full	52.8	58.4
Learner	7.9	9.5
Restricted	18.0	17.6
Never licensed	0.0	2.2
Disqualified	0.0	1.7
Overseas	4.5	4.2
Expired	0.0	0.5
Other/unknown	16.8	5.6

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, pedestrians featured in 11 percent and cyclists featured in 19 percent of total injuries between 2002 and 2006. In this report, only pedestrian and cyclist issues are discussed because of higher casualty numbers when compared with similar authorities and all New Zealand.

Pedestrians

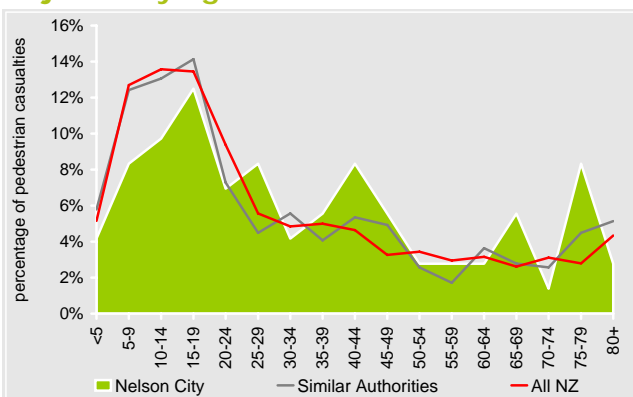
Pedestrian injuries do not feature highly in the total road injury picture in Nelson City, representing only 11 percent of all injuries. These injury crashes are predominantly concentrated on local urban roads. The total number of urban pedestrian casualties for 2002 to 2006 period is higher than similar authorities and all New Zealand.

Pedestrian injuries	2002	2003	2004	2005	2006
Fatal	0	0	0	0	1
Serious	4	1	4	1	1
Minor	16	10	16	15	8
Total	20	11	20	16	10

Most (96 percent) pedestrian crashes occurred on urban roads of which, 64 percent occurred away from intersections. Thirty-one percent of these crashes occurred during hours of darkness.

Although Nelson City is having problems with younger age groups crossing the road, the averages are well below the national and similar peer group average for under 20 years age group as shown in the graph below:

Injuries by age 2002 -2006



Nelson City is also experiencing problems with age groups 40-49 and 60 years plus crossing roads. These age groups are over-represented when compared with similar authorities and all New Zealand.

Following are the crash factors that involved both pedestrians and driver:

- 51 percent involved pedestrians crossing roads heedless of traffic
- 31 percent involved drivers failing to notice pedestrians while reversing/manoeuvring and pulling out from a parked position
- 11 percent involved drivers failing to give way

Pedestrian crashes are concentrated on arterial and collector roads. The top four routes/locations (on the basis of injury crashes) are shown in the table below:

Route/Location	Number of pedestrian injury crashes
Collingwood Street	8
Rutherford Street	7
Bridge Street	6
Waimea Road	5

Further information regarding 2002 -2006 pedestrian injury crashes on local roads:

- The most common crash type— *pedestrian crossing the road being hit by a driver approaching from their right* when running heedless of traffic
- Night time crashes— 31 percent
- Alcohol related crashes— 13 percent
- 56 percent at mid-blocks, 18 percent at cross-roads and 13 percent at Tee-junctions
- Crashes with driver at fault— 49 percent
- Worst month— June (12 crashes)
- Worst day of the week— Friday (17 crashes)

Cyclist

Although cyclist injuries do not feature highly in the total road injury picture in Nelson City representing 19 percent of all injuries, they make up 13 percent of all fatalities.

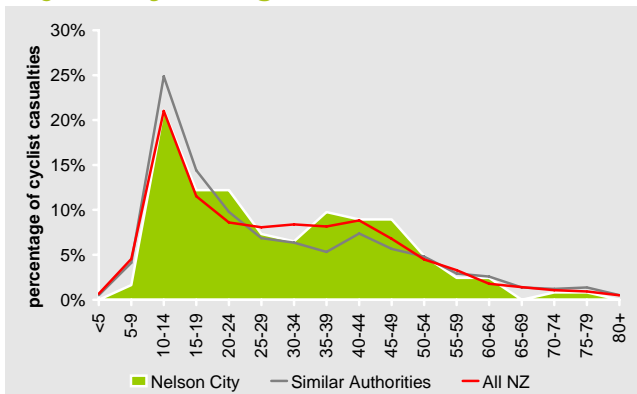
Cyclist injuries	2002	2003	2004	2005	2006
Fatal	0	1	0	0	0
Serious	2	4	7	3	9
Minor	24	15	17	19	28
Total	26	20	24	22	37

There were 128 cyclist injury crashes between 2002 and 2006. This figure is considerably higher when compared to similar authorities and all New Zealand. Most (62 percent) cycle crashes occur on urban roads at intersections with 61 percent during daylight hours.

Last year (2006) more cycles than cars were imported into New Zealand. It is noticeable in many areas across the country that there are many more cyclists using the roads than in past years.

Forty-seven percent of injured cyclists were younger than 25 years of age. This figure is less than that of similar authorities and all New Zealand.

Injured cyclist age 2002-2006



The top five routes/locations (on the basis of injury crashes) for cycle crashes in Nelson City for the 2002 to 2006 period are shown in the table below:

Route/Location	Number of cyclist injury crashes
SH6 (from Trafalgar Park to Tahunanui)	26
Waimea Road	15
Main Road Stoke	7
Rutherford Street	6
Vanguard street	6

Further information about 2002 to 2006 cycle injury crashes:

Local roads

- The most common crash type— *crossing or turning movement (61 percent)*
- Intersections crashes—63 percent
- Daytime crashes—82 percent
- Worst month— March (15 crashes)
- Worst day of the week— Tuesday (26 crashes)
- Number of crashes involving collision with opened door of parked vehicle— 10
- Male cyclist— 73 percent

State highways

- The most common crash type— *crossing or turning movement (59 percent)*
- Intersections crashes—63 percent
- Daytime crashes—81 percent
- Worst month— November (5 crashes)
- Worst day of the week— Friday (7 crashes)
- Number of crashes involving collision with opened door of parked vehicle—2
- Male cyclist— 56 percent

Rear-end/obstruction

Rear-end and obstruction type crashes are the second most common crash type in Nelson City representing 24 percent of the injury crashes. If reported non-injury crashes are included, they represent 41 percent of crashes.

There have been no reported fatalities in last five years. Serious injuries also remained low in this period. Minor injury crashes are the predominant type of reported crashes. Overall, the total injury crashes have not shown any major improvement in the last three years as shown in the following graph:

Injury crashes 2002-2006



The five most common crashes in this category are:

- collision with the end of a queue of traffic (17 percent)
- collision with a parked vehicle (16 percent)
- collision with a vehicle waiting to make a right turn (10 percent)
- collision with the open door of parked vehicle (9 percent)
- collision with a U-turning vehicle, turning from the left (9 percent)

When examining the times that these crashes occur, the weekday evening hours from 12pm to 4pm are the most hazardous (46 percent). The weekend peak crash period is between 4pm and 8pm.

Driver factors play a significant part in crashes of this type. The number of crashes involving poor observation, which includes driver failing to notice other traffic slowing in front, has increased in recent years. Unsafe following distances is also commonly recorded as a contributing factor.

These crashes were grouped together to identify any obvious problem routes or spots. The majority of these crashes occurred on State Highway 6, Waimea Road and Tahunanui Drive.

Rear-end and obstruction crashes can more commonly be a route rather than site specific problem. A combination of engineering, education and enforcement interventions can be used to address these crashes.

Licence status of at fault drivers :

Licence status	Injury crashes percentage of at fault drivers	
	Nelson City	New Zealand
Full	69.0	43.0
Learner	5.0	15.3
Restricted	13.5	22.5
Never licensed	2.0	4.5
Disqualified	0.5	4.1
Overseas	3.0	3.7
Expired	1.5	0.5
Other/unknown	5.5	6.2

Further facts about 2002 to 2006 rear end and obstruction type injury crashes:

Local roads

- 14 serious injuries and 99 minor injuries
- Night time crashes— 16 percent
- Most common crash factor— *failed to notice car slowing in front*
- Most common age group— 15 to 24 years old
- Alcohol related crashes— 6 percent
- Wet road crashes— 10 percent
- Worst month— June (12 crashes)
- Worst day of the week— Friday (19 crashes)

State highways

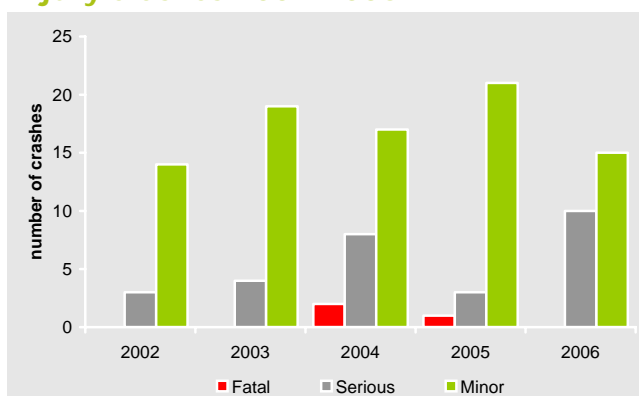
- 3 serious injuries and 47 minor injuries
- Night time crashes— 21 percent
- Most common crash factor— *failed to notice car slowing in front*
- Most common age groups— 20 to 24 and 40 to 44 years old
- Alcohol related crashes— 5 percent
- Wet road crashes— 21 percent
- Worst month— February (7 crashes)
- Worst day of the week— Tuesday (10 crashes)

Loss of control at bends

Between 2002 and 2006, 73 percent of all loss of control injury crashes in Nelson City occurred at bends. These crashes resulted in 3 fatalities, 28 serious injuries and 139 minor injuries.

There is an increase in serious injury crashes in 2006 as compared to previous years. On the other hand, minor injury crashes have shown a reduction in 2006 when compared with the last three years as shown in following graph:

Injury crashes 2002-2006



Most loss of control crashes involved a driver losing control of their vehicle and either running off the road or colliding with another vehicle. The three most common roadside hazards struck in injury crashes were tree (21), over bank (17) and cliff/bank (15) from a total of 145 objects struck.

The following table shows the split between crashes on local roads and state highways (SH):

Loss of control	Local Urban	Local Rural	SH Urban	SH Rural
At Bends	50	2	7	58

The following table lists the main characteristics of these crashes:

Crash characteristic	Percentage
Single vehicle	77 percent
Roadside object struck	76 percent
Alcohol	21 percent
Excessive speed for the conditions	41 percent
Road factors	11 percent
Poor handling	17 percent
Wet road	32 percent
Night time	39 percent

Licence status of at fault drivers:

Licence status	Injury crashes percentage of at fault drivers	
	Nelson City	New Zealand
Full	47.0	51.1
Learner	12.0	10.7
Restricted	16.0	17.9
Never licensed	7.0	4.1
Disqualified	6.0	2.8
Overseas	4.0	5.6
Expired	2.0	0.9
Other/unknown	6.0	6.8

Further information about 2002 to 2006 loss of control injury crashes at bends :

Local roads

- 1 fatality, 12 serious and 53 minor injuries
- Male drivers— 77 percent
- Most common crash factors— *too fast for conditions* and *poor handling*
- Most common age group— 15 to 24 years old
- Alcohol related crashes— 31 percent
- Worst month— September (11 crashes)
- Worst day of the week— Saturday (13 crashes)

State highways

- 2 fatalities, 16 serious and 86 minor injuries
- Male drivers— 68 percent
- Most common crash factors— *too fast* and *road factors*
- Most common age groups— 15 to 24 years old
- Alcohol related crashes— 14 percent
- Worst month— July (12 crashes)
- Worst day of the week— Sunday (21 crashes)

Crossing/turning

Crashes due to crossing/turning movements are the most common crash type in Nelson City.

During the five year period from 2002 to 2006, there were 133 injury crashes at intersections and 27 injury crashes at driveways resulting in 29 serious injuries and 158 minor injuries.

Crossing/turning crashes	2002	2003	2004	2005	2006
Injury crash	27	30	34	32	37
Non-injury crash	56	61	62	38	49
Total	83	91	96	70	86

The table below shows the locations of the five intersections with the highest number of crashes in Nelson City between 2002 and 2006:

Intersection name	Total crashes 2002 - 2006	Injury crashes 2002 - 2006	Total crashes in 2006
Waimea Road/Motueka Street	24	9	3
Waimea Road/Main Road Stoke	11	5	4
SH6/Hay Street	9	7	2
Haven Road/Halifax Street	9	5	5
Vanguard Street/Toi Toi Street	7	2	4

Crashes at Cross-junctions and Tee-junctions in urban areas are the most common type followed by crashes at driveways.

Junction Type	Rural	Urban
Tee	8	48
Cross (x)	2	47
Driveways	1	26

The top three crash movements are:

- vehicles failed to give way when turning right from a side road or driveway
- vehicles failed to find a safe gap in opposing traffic while making right hand turn
- vehicles failed to give way/stop when crossing at right angle

The table below shows licence status of at fault drivers:

Licence Status	Injury crashes percentage of at fault drivers	
	Nelson City	New Zealand
Full	69.0	60.9
Learner	5.0	9.4
Restricted	18.0	14.8
Never licensed	0.0	2.5
Disqualified	0.0	1.6
Overseas	4.0	3.7
Expired	0.0	0.8
Other/unknown	4.0	6.3

Further information about 2002 to 2006 crossing/turning injury crashes :

Local roads

- 23 serious and 135 minor injuries
- Female drivers— 51 percent
- Most common crash movement— *right turning vehicle hit from right side*
- Alcohol related crashes—1 percent
- Crashes on urban roads with 50km/h speed limit—93 percent
- Wet road crashes—12 percent
- Night time crashes—20 percent
- Worst month— October (16 crashes)
- Worst day of the week— Tuesday (27 crashes)

State highways

- 6 serious and 23 minor injuries
- Male driver— 76 percent
- Most common crash movement— *right turning vehicle hit from right side*
- Alcohol related crashes—1 percent
- Crashes on urban roads with 50km/h speed limit—74 percent
- Wet road crashes—11 percent
- Night time crashes—19 percent
- Worst month— November (5 crashes)
- Worst day of the week— Wednesday (7 crashes)

National issues

Speed

"Too fast" was recorded in 17 percent of all nationally reported injury crashes in the last five years. In Nelson City, "Too fast" was recorded in 2 percent of injury crashes in the district in the last five years resulting in 11 injuries. Fifty-five percent of these crashes were loss of control crashes at bends and at straight sections of the road.

Sixty-two percent of male drivers were involved in speed related crashes.

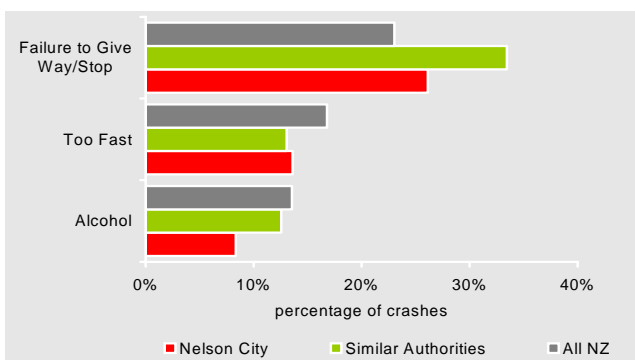
Alcohol

Alcohol was involved in 14 percent of all nationally reported injury crashes in the last five years. In Nelson City, alcohol was involved in 8 percent of injury crashes in the district in the last five years resulting in 1 fatality and 43 injuries. Fifty-seven percent of these were loss of control crashes at bends and at straight sections of the road.

People that drink and drive (with a blood alcohol level over 80mg per 100ml) are three times more likely to be involved in a crash than a sober driver.

Failure to give way

While most failure to give way crashes result in non-injury or minor-injury crashes, many can have serious consequences. Failure to give way or stop was reported in 24 percent of all nationally reported injury crashes for the last five years. In Nelson City, failure to give way or stop was reported in 29 percent of all reported injury crashes for the last five years resulting in 30 serious and 128 minor injuries.



Restraints

Wearing a safety belt reduces the chance of death or serious injury in a crash by 40 percent. Whether you sit in the front or the back seat, the risk of serious or fatal injury is virtually the same.

Results from the 2006 national restraint wearing survey showed that the national average of front seat safety belt wearing was 95 percent, compared to 97 percent for Nelson City.

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