

# briefing notes road safety issues

## Wellington 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 Wellington City.

This report is the eighth road safety report for Wellington 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 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 Wellington City is compared to similar local bodies and the nation 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 Wellington City for 2006.

Major road safety issues	2006 road trauma	
Wellington City	Casualties	
Vulnerable road users	Deaths	7
Rear end/obstruction	Serious casualties	63
Crossing/Turning	Minor casualties	433
Loss of control at hends		

Nationally	Crashes	
Speed	Fatal crashes	7
Alcohol	Serious injury crashes	62
Failure to give way	Minor injury crashes	353
Restraints	Non injury crashes	1434

## Overview of crashes in 2006

In 2006 on local roads in Wellington City there were 320 injury crashes and 1072 non-injury crashes, in addition there were 102 injury crashes and 362 non-injury crashes on State Highways, as reported by the New Zealand Police.

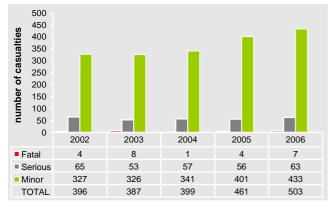
The table below shows the number of injuries resulting from 2006 crashes by rural or urban areas for both local roads and state highways (rural is defined as an area with a speed limit of 80km/h or more).

	Casualties in 2006			
	Fatalities	Serious injuries	Minor injuries	Total
Rural	0	4	87	91
Urban	7	59	346	420
Total	7	63	433	503

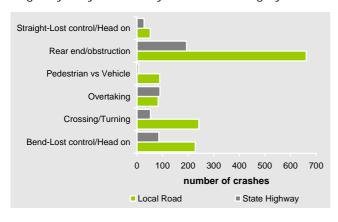
It should be noted that 3 out of 7 fatalities in 2006 were pedestrians.

Number of casualties in 2006 is the highest in the last five years. Fatalities in the district have been rising since 2004, whereas the number of serious injuries is fluctuating between 53 and 65 over the last five years. The number of minor injuries reported is increasing.

#### Casualties trend 2002-2006



The following table shows the distribution of the injury and non-injury crashes on local roads and state highways in year 2006 by movement category.



Further information about 2006 injury and non-injury crashes on:

## Local roads

- Worst month August (148 crashes), best month February (75 crashes)
- Worst day Friday (256 crashes), best day Sunday (151 crashes)
- Wet road 22 percent
- Night time 34 percent
- Mid-block 61 percent
- Social cost of crashes \$85m
- At fault male driver (injury crashes) 68 percent
- Full NZ licence (injury crashes) 66 percent of the at fault drivers

## State highways

- Worst month July (62 crashes), best month September (21 crashes)
- Worst day Wednesday (98 crashes), best day Saturday (43 Crashes)
- Wet road 34 percent
- Night time 39 percent
- Mid-block 64 percent
- Social cost of crashes \$28m
- At fault male driver (injury crashes) 66 percent
- Full NZ licence (injury crashes) 62 percent of the at fault drivers

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

In Wellington City, in the year 2006, 22 percent of at fault drivers in injury crashes were the holder of a learner or a restricted driving licence.

Licence status	Injury crashes percentage of at fault drivers		
Licence status	Wellington City	New Zealand	
Full	64.7	58.4	
Learner	6.6	9.5	
Restricted	15.7	17.6	
Never licensed	1.6	2.2	
Disqualified	1.4	1.7	
Overseas	3.0	4.2	
Expired	< 1	0.5	
Other/unknown	6.6	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.

On 24 February 2005, the Government launched *Getting there - on foot, by cycle*, its strategy to advance walking and cycling in New Zealand transport. It is vitally important to recognise that promotion alone of cycling and walking alone is not going to be effective at increasing their mode share unless they can be made safer.

## Pedestrian

Pedestrian injuries feature highly in the total road injury picture in Wellington City, representing 20 percent of all injuries and 42 percent of all fatalities.

## Casualties trend 2002-2006



Most pedestrian crashes occurred on urban roads, of which 54 percent occurred away from intersections. Twenty-nine percent of these crashes occurred during the hours of darkness.

Wellington City is experiencing a problem with significant numbers of pedestrian crashes involving young people crossing road. Approximately 30 percent of pedestrians injured during this five-year period were between 15 and 24 year of age. Young people under 15 years of age constitute 16 percent of

## Pedestrians injured by age 2002 -2006



the pedestrians injured in crashes.

The recent decision by Police to enforce a lower speed tolerance around schools is a strong step in creating a safer lower speed environment for young pedestrians. Following are the non driver crash factors involved in pedestrian crashes:

- 28 percent involved pedestrians crossing roads heedless of traffic
- 11 percent of pedestrians were intoxicated
- 8 percent involved pedestrians crossing roads without following traffic signals.

Pedestrian crashes are concentrated on arterial and collector roads. The top five locations are shown in the table below.

Location	Number of pedestrians injured
Taranaki St / Courtenay Pl	13
Willis St / Abel Smith St	8
Lambton Quay and Grey St	7
Kent / Majoribanks St	7
Willis St / Mercer St	7

Further information regarding 2002 -2006 pedestrian injury crashes:

## Local roads (90 percent of crashes)

- The most common crash type was for a pedestrian crossing the road being hit by a driver approaching from their right (47 percent)
- 4 deaths, 84 serious injuries and 309 minor injuries
- Worst months June to August (over 40 crashes each)
- Worst day of week Friday (21 percent), best day Sunday (8 percent)
- Pedestrians were at fault in 69 percent of incidents

## State highways

- 5 deaths, 9 serious injuries and 33 minor injuries
- Worst month March (20 percent), best months September and December (3 percent each)
- Worst day of week Wednesday (25 percent), best day Sunday (2 percent)
- Pedestrians were at fault in 69 percent of incidents

## Cyclists

Cyclist injury incidents in Wellington City, represented only 13 percent of all injuries and 4 percent of all fatalities in the last five years. Most (97 percent) cycling crashes occurred on urban roads. Almost half of the cycling crashes occurred at intersections and only 30 percent during night hours.

## Cyclist casualties trend 2002 -2006



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

Cyclist injuries are not spread evenly across all age distributions as shown in the chart below. Approximately three-quarters of all the injured cyclist were between 20 and 45 years of age.

## Cyclist injured by age 2002 -2006



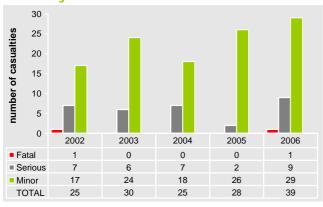
Further information regarding 2002 to 2006 cyclist crashes in local roads and state highways are:

- 1 death, 47 serious injuries and 225 minor injuries
- The most common crash type was a crossing or turning movement
- 51 percent at intersections
- 20 percent at night time
- Worst month March (14 percent)
- Worst days of the week Tuesday and Wednesdays (21 percent each)
- 78 percent of cyclists injured were male

## Motorcyclists

In 2006 motorcyclists accounted for 9.5 percent of road fatalities in New Zealand. Motorcyclist injuries in Wellington comprise 12 percent of all injuries and make up 7 percent of all fatalities. The total number of injuries as well as fatalities and serious injuries were highest in 2006 comparison to any single year in the last five year period.

## Motorcyclist casualties trend 2002 -2006

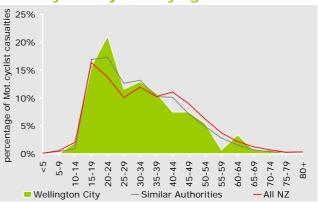


Nationally motorcycling fatalities dropped from a high of 20 percent of all fatalities in 1988 to just 6 percent in 2003. Since then there has been a significant increase in motorcycle registrations and this has reversed the downward trend.

Most (89 percent) motorcycling crashes happen on urban roads, mid blocks (55 percent) and during daylight hours (70 percent).

Almost 50 percent of motorcycle casualties were in the 15 to 30 year age group, the majority of which were males. The 20 to 24 year age group accounted for more than 20 percent of casualties.

## Motorcyclist injuries by age 2002 -2006



Further information regarding motorcycling crashes between 2002 and 2006 on:

#### Local roads

- 75 percent of motorcycle crashes
- 1 death, 27 serious injuries and 79 minor injuries
- The most common crash type was a crossing or turning movement (34 percent). The second was rear end/obstruction (29 percent) and loss of control at bend (13 percent)
- 46 percent at intersections
- 26 percent at night time
- 15 percent on wet roads
- Worst month August (13 percent), best month November (5 percent)
- Worst day of week Friday (34 percent), best day Sunday (15 percent)
- 70 percent of motorcyclists injured were male.

## State highways

- 25 percent of motorcycle crashes
- 2 deaths, 4 serious and 35 minor injuries
- The most common crash type was rear end/ obstructions (36 percent). The second was overtaking crashes (32 percent) followed by crossing/turning (15 percent)
- 40 percent at intersections
- 40 percent at night time
- 13 percent on wet roads
- Worst month June (13 percent ), best month December (2 percent)
- Worst day of the week Friday (25 percent), best day Wednesday (8 percent)
- 81 percent of motorcyclists injured were male

## Rear-end crashes

Rear-end and obstruction type crashes were the most common crash type in Wellington City representing 46 percent of all injury and non-injury crashes in 2006.

Between 2002 and 2006, there were 3 fatal, 39 serious injury, 406 minor injuries and 2528 non-injury rear-end/obstruction crashes recorded in Wellington City. These crashes resulted in 3 fatalities, 40 serious injuries and 522 minor injuries.

Crash numbers have been fluctuating over the last five years as shown in the following graph:

## Rear-end injury casualties 2002-2006



The five most common crashes in this category are:

- collision with the end of a queue of traffic
- collision with a parked vehicle
- collision with a U turning vehicle (turning from the left)
- collision with a slower vehicle
- collision with a vehicle waiting to make a right turn

Driver factors play a significant part in crashes of this type. The number of crashes involving poor observation, which includes drivers failing to notice other traffic in front slowing, has increased in recent years. Unsafe following distances is also commonly recorded as a contributing factor and increased in 2006.

Rear-end and obstruction crashes are often not at intersections nor a site specific problem. They can more commonly be a attributed to a specific route.

The following table lists the licence status of at fault drivers of *rear end/obstruction* crashes:

Licence status	Injury crashes percentage of at fault drivers	
	Wellington City	New Zealand
Full	75.7	60.9
Learner	4.9	9.4
Restricted	10.0	14.8
Never licensed	1.2	2.5
Disqualified	0.6	0
Overseas	1.8	3.7
Expired	0.6	0
Other/ Unknown	5.1	6.3

Further facts about rear-end/obstructions related injury and non-injury crashes in Wellington City (2002 -2006) on:

#### Local roads

- 28 serious and 268 minor injuries
- Male drivers 63 percent at fault in injury crashes
- Most common crash factor *poor observation*
- Drivers at fault aged between 30-49 years old are over represented
- 6 percent alcohol over limit
- Worst month August (10 percent), best month January (6 percent)
- Worst day of week Friday(18 percent), best day Sunday (10 percent)

## State highways

- 3 deaths, 12 serious injuries and 215 minor injuries
- Male drivers 65 percent at fault in injury crashes
- Most common crash factor poor observation
- Drivers at fault aged between 30-49 years old are over represented
- 4 percent over alcohol limit
- Worst months July (13 percent), best months January and February (6 percent each)
- Worst day of week Wednesday (20 percent), best day Sunday (9 percent)

"Poor observation" includes not only not looking for other road users, but also being distracted and not seeing other road user until too late.

## **Crossing/turning**

Crashes due to crossing/turning movements are the second most common crash type in Wellington City. This include both intersection and driveway manoeuvres

During the five year period 2002 to 2006 there were 52 serious injury and 297 minor injury crashes. These resulted in 55 serious injuries and 364 minor injuries.

Crossing/ turning crashes	2002	2003	2004	2005	2006
Injury crash	61	57	67	82	82
Non-injury crash	195	150	179	177	214
Total	256	207	246	259	296

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

Intersection name	Total crashes 2002 - 2006	Injury crashes 2002 - 2006	Total crashes in 2006
Karori Rd /Chaytor St	8	7	1
SH1N Vivian/Willis St	19	5	5
Tawa Off SBD / Takapu Rd	13	5	4
Customhouse Quay / Johnston St	10	4	2
SH 1N /Hamilton Rd	11	4	1

Crashes at T junctions in urban areas are the most common type of intersection crash reported, followed by Cross (X) junctions crashes at urban areas.

Junction type	Rural	Urban
Т	10	443
Driveways	1	208
Cross (X)	12	416
Υ	7	63
Roundabout		79
Multi Rd Junction		13

The most common crash is one in which vehicles failed to give way when turning right from a side road or driveway. The second highest is the one in which vehicles failed to find a safe gap in opposing traffic while making a right hand turn.

Intersections present most drivers with one of their biggest driving challenges. In Wellington City we see

a significantly higher proportion of at fault drivers with a full driver licences than the national average.

The table below shows licence class of at fault drivers:

Lianna Chabas	Injury crashes percentage of at fault drivers		
Licence Status	Wellington City	New Zealand	
Full	74.3	60.9	
Learner	6.4	9.4	
Restricted	12.0	14.8	
Never Licensed	0.8	2.5	
Disqualified	0.5	0	
Overseas	1.7	3.7	
Expired	0.5	0	
Other/ Unknown	3.6	6.3	

Further facts about crossing/turning related crashes in Wellington City (2002 to 2006):

#### Local roads

- 50 serious injuries and 296 minor injuries
- Male driver 55 percent at fault in injury crashes
- Most common crash factor failure to give way when turning to non turning traffic
- 20 percent on wet roads
- 28 percent at night time
- Worst months March and July (10 percent each), best month January (5 percent)
- Worst day of week Friday (18 percent), best day Sunday (10 percent)

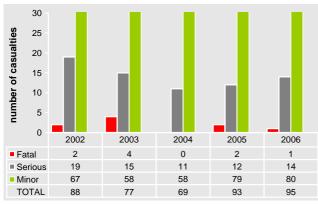
## State highways

- 5 serious injuries and 67 minor injuries
- Male drivers 67 percent at fault in injury crashes
- Most common crash factor failure to give way when turning to non turning traffic
- 12 percent on rural roads
- 22 percent on wet roads
- 41 percent at night time
- Worst months April and May (12 percent each), best month September (4 percent)
- Worst days of week Friday and Saturday (11 percent each), best day Thursday (16 percent)

## Loss of control at bends

Between 2002 and 2006, there were 9 fatal, 63 serious injury, 239 minor injury and 1018 non-injury crashes recorded in Wellington City that occurred at bends. These crashes resulted in 9 fatalities, 71 serious injuries and 342 minor injuries.

#### Casualties trend 2002-2006



When drivers lose control of their vehicles they often crash into roadside hazards such as ditches, banks, poles or trees. Hitting these objects can result in a relatively minor off-road event, turning into something far more serious.

Some of the common roadside hazards struck in a loss of control crash in Wellington City were onto or over banks (235), parked vehicles (219) guard rails (213), fence (177) and poles (144) from a total of 1360 objects struck.

The following table lists the main characteristics of these loss of control crashes.

Crash characteristic	Statistic
Single vehicle	58 percent
Roadside object struck	1360 objects
Alcohol (related to injury crashes)	23 percent
Excessive speed for the conditions	41 percent
Road factors	19 percent
Poor handling (related to injury crashes)	43 percent
Rural road	26 percent
Wet road	38 percent
Night time	48 percent

The following table lists the licence status of at fault drivers of loss of control crashes at bends:

	Injury crashes percentage of at fault drivers		
Licence Status	Wellington City	New Zealand	
Full	49.3	51.1	
Learner	13.9	10.7	
Restricted	19.3	17.9	
Never Licensed	4.2	4.1	
Disqualified	2.5	2.8	
Overseas	3.9	5.6	
Expired	1.0	0.9	
Other/ Unknown	5.8	6.8	

A higher than national average proportion of at-fault learner and restricted drivers being involved in the injury crashes is a matter of concern.

Further facts about loss of control at bends related to injury crashes between 2002 and 2006 on:

## Local roads

- 5 deaths, 48 serious injuries and 242 minor injuries
- 69 percent of at fault drivers are male in injury crashes
- Most common crash factor is poor handling, closely followed by excess speed
- Most common at fault age range 15-19 years old
- 21 percent alcohol over limit in injury crashes
- Worst months July and August (10 percent each)
- Worst day of week Saturday (18 percent), best day Tuesday (10 percent)

## State highways

- 4 deaths, 23 serious injuries and 100 minor injuries
- 67 percent of at fault drivers are male in injury crashes
- Most common crash factor poor handling
- Most common at fault age range 20-24 years old
- 25 percent were over the alcohol limit in injury crashes
- Worst month December (13 percent), best month May (3 percent)
- Worst day of week Friday (18 percent), best day Monday (10 percent)

## **National issues**

## **Speed**

Speed *too fast* was recorded in 17 percent of all nationally reported injury crashes in the last five years. In Wellington City 12 percent of injury crashes recorded *too fast* as a factor resulting in 10 deaths and 295 other injures. Injuries related to speed in 2006 is the highest in the last five year period.

Nationally 67 percent of the speed-related crashes involved Loss of control / heads-on. Alcohol and Poor Handling were the other driver factors most often associated with speed. Male drivers aged under 24 years old were most involved in speed-related crashes.

## **Alcohol**

Alcohol was involved in 14 percent of all nationally reported injury crashes in the last five years. In Wellington City, this factor is present in 10 percent of injury crashes and has resulted in 9 deaths and 228 other injuries. The number of injury crashes involving alcohol in Wellington City is increasing.

Most (85 percent) of alcohol crashes were in urban areas. Fifty-five percent of these involved Loss of control/head-on crashes. Travelling too fast, pedestrian factors and poor handling were often associated with alcohol.

## Failure to give way

Failure to give way or stop was reported in 24 percent of all nationally reported injury crashes for the last five years. In Wellington City this factor is also cited in 24 percent of injury crashes and has resulted in 1 death and 494 other injuries. Most (85 percent) of these are crossing/turning manoeuvres often associated with failure to look for other parties. For drivers at fault in injury crashes 56 percent are male and all age groups are represented.



## **Restraints**

The Ministry of Transport conducts surveys of restraint use. The results of these surveys are at a regional level, and may not be fully appropriate to a Territorial Authority. The results are obtainable from the Ministry of Transport website.

http://www.transport.govt.nz/belts-index/

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