

briefing notes road safety issues

Manawatu District

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2003–2007 period.

This report is the ninth road safety report for Manawatu district. 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 district. More detailed information may be obtained from either Manawatu District Council (Local roads) or Transit NZ (State highways). Please refer to the last page for contact details.

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

We have also included a brief overview of crashes in the district for 2007.

Major road safety issues		2007 road trauma	
Manawatu District		Casualties	Manawatu District
Intersections		Deaths	4
Loss of control at bends		Serious casualties	31
Alcohol		Minor casualties	109
Speed			
Fatigue			
Nationally		Crashes	Manawatu District
Speed		Fatal crashes	4
Alcohol		Serious injury crashes	23
Failure to give way		Minor injury crashes	68
Restraints		Non injury crashes	161

Overview 2007

In 2007 in Manawatu district there were 95 injury crashes and 161 non-injury crashes reported by the New Zealand Police. Thirty five percent of the total injury crashes in the district were on State highways.

Crashes by injury type in 2007

	State highways				Local roads			
	F	S	M	NI	F	S	M	NI
Rural ¹	2	6	21	42	2	11	36	74
Urban	0	1	3	14	0	5	8	31

Note: 1/ Rural - area with a speed limit of 80km/h or more
 F - Fatal crashes S - Serious injury crashes
 M - Minor injury crashes NI - Non-Injury crashes

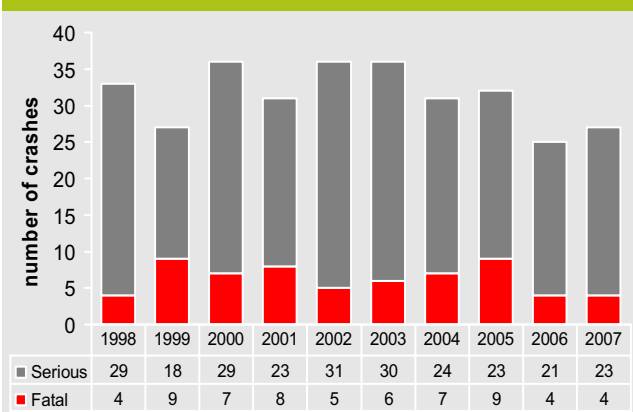
The number of casualties in 2007 due to the crashes is given below:

Casualties by injury type in 2007

	Fatalities	Serious injuries	Minor injuries	Total
Total	4	31	109	144

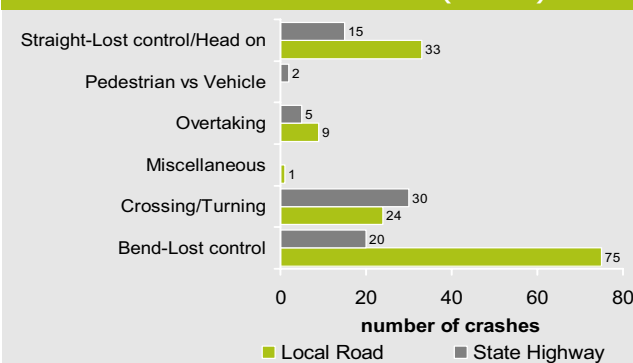
The total number of serious and fatal crashes has been decreasing over the last five year period.

Fatal and serious crash trends



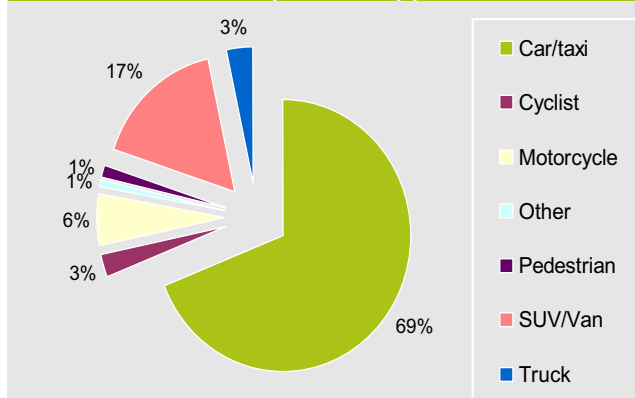
In 2007 *bend-lost control* was the main type of crash in the district. *Straight-lost control/head-on* and the *crossing/turning* crash types were also prominent.

Crash characteristics (2007)



The highest number of casualties in 2007 were drivers and passengers of car followed by those of SUV/Vans and motorcycles.

Casualties by user type in 2007



It should be noted that cyclists and motorcyclists are over represented in the urban area of the district. About 25% of drivers involved in the rural areas are either on a learner or restricted licence.

Further information about all crashes in 2007 on:

Local roads

- Worst day of week: *Saturday* (17 percent)
- Wet road crashes: 34 percent
- Night time crashes: 35 percent
- Alcohol over limit (injury crashes): 8 percent
- Too fast for conditions (injury crashes): 18 percent
- Crashes at intersection: 30 percent
- Road factors: 14 percent
- At fault male (injury crashes) driver : 61 percent
- Full NZ licence held by at fault (injury crashes) drivers: 56 percent

State highways

- Worst day of week: *Friday* (18 percent)
- Wet road crashes: 25 percent
- Night time crashes: 31 percent
- Alcohol over limit (injury crashes): 30 percent
- Too fast for conditions (injury crashes): 33 percent
- Crashes at intersection: 47 percent
- Road factors: 4 percent
- At fault male (injury crashes) driver: 61 percent
- Full NZ licence held by at fault (injury crashes) drivers: 65 percent

Social cost of crashes

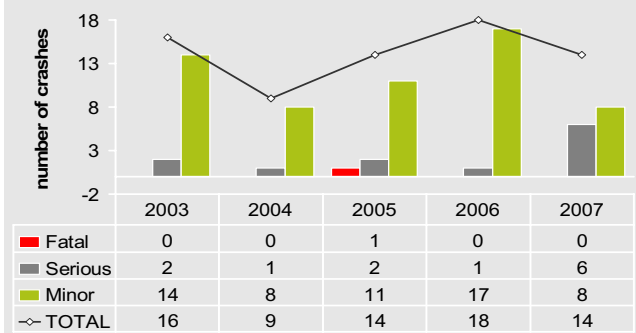
Local roads	\$ 26.93M
State highways	\$ 17.45M
Total	\$ 44.38M

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.

Urban Intersections

Between 2003 and 2007, 15 percent of all crashes and 15 percent of injury crashes in the Manawatu district occurred at urban intersections. These included 71 injury crashes, resulting in 1 death, 14 serious injuries and 74 minor injuries. There were an additional 116 non-injury crashes.

Urban intersection injury crash trends



Sixty-one percent of urban intersection crashes occurred on local roads. Locations of the urban intersections in the Manawatu district with the highest number of crashes between 2003 and 2007 are:

Intersection name	Total crashes 2003–2007	Injury crashes 2003–2007	Total crashes in 2007
SH54/Derby St	18	10	6
SH54/Aorangi St	12	5	1
Beattie St / Grey St	11	2	1
Kairanga Bunnythorpe Rd/ Campbell Rd	8	5	4

Failure to stop/give way was identified as a factor in three quarters of the injury crashes at urban intersections. Half involved *poor observation*, 14 percent involved *travelling too fast* for the conditions and 8 percent involved *alcohol*.

Sixty-eight percent of urban intersection crashes occurred at intersections with a giveway control, 10 percent at intersections with a stop control and 22 percent occurred at intersections with no form of traffic control.

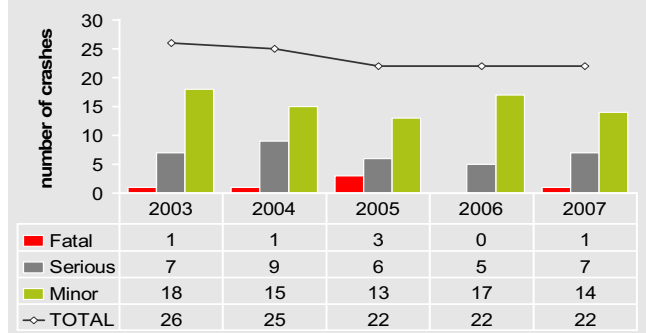
Junction Type	Number of crashes 2003-2007
Crossroad (X)	85
T-junction	67
Roundabout	27
Y-junction	5
Other	3

Fifty-eight percent of urban intersection crashes occurred between 3pm and 9pm and 31 percent between 9am and 12 noon.

Rural Intersections

Between 2003 and 2007, 23 percent of all crashes and 24 percent of injury crashes in the Manawatu district occurred at rural intersections. These included 117 injury crashes, resulting in 7 deaths, 44 serious injuries and 156 minor injuries. There were an additional 158 non-injury crashes.

Rural intersection injury crash trends



Fifty-one percent of rural intersection crashes occurred on local roads and 49 percent on State highways. Locations of the rural intersections in the Manawatu district with the highest number of crashes between 2003 and 2007 are:

Intersection name	Total crashes 2003–2007	Injury crashes 2003–2007	Total crashes in 2007
SH3 / Kairanga Bunnythorpe	22	10	6
Milson Line / Kairanga Bunnythorpe	16	5	3
Makino Road / Reid Line West	13	6	0
SH54/Waughs Rd S	12	2	3
Kairanga Bunnythorpe/ Gillespies Line	11	3	1

Failure to stop/giveway was identified as a factor in half of the injury crashes at rural intersections. Forty-one percent involved *poor observation*, 21 percent involved *travelling too fast* for the conditions and 9 percent involved *alcohol*.

Thirty-eight percent of rural intersection crashes occurred at intersections with a giveway control, 37 percent with a stop control and 24 percent occurred at intersections with no form of traffic control.

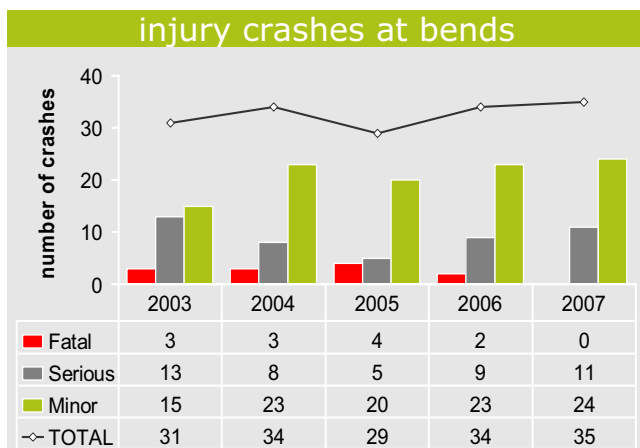
Junction Type	Number of crashes 2002-2006
T-junction	132
Crossroad (X)	112
Y-junction	29
Other (inc driveways)	2

Twelve percent of rural intersection crashes occurred between 7am and 9am and 24 percent between 3pm and 6pm.

Loss of control at bends

During the five year period 2003 to 2007, 32 percent of all injury crashes in Manawatu district occurred due to loss of control at bends. These crashes resulted in 13 deaths, 58 serious injuries and 175 minor injuries. There were a further 233 non-injury crashes reported.

The total number of injury crashes has remained steady in the last five year period. No fatal crash occurred in 2007 due to loss of control at bends.



Most crashes at bends involved a driver losing control of their vehicle and running off the road or on occasions colliding with another vehicle. The three most common roadside hazards struck during crashes in the district were *fences* (28 percent), *ditches* (26 percent) and *posts or poles* (11 percent) out of the total number of 413 objects struck.

Main characteristics of crashes at bends

Crash characteristic	Percentage of crashes
Single vehicle	85
Alcohol (injury crashes)	20
Too fast for the conditions (injury crashes)	43
Road factors	22
Poor handling (injury crashes)	44
Rural road	85
Wet road	33
Night time	45

The following table shows that loss of control crashes are more predominant in rural areas.

Crash location	Local urban	Local rural	SH urban	SH rural
Loss of control at bends crashes	12%	61%	3%	23%

Eighty five percent of loss of control crashes at bends occurred on rural roads. Seventy four percent of crashes occurred on local roads and 26 percent on State highways. Out of the 104 State highway crashes, 17 were on SH1, 29 were on SH3, 38 were on SH54 and 20 were on SH56.

Forty-two percent of *loss of control* crashes at bends occurred on a weekend (between Friday 6pm and Monday 6am). Forty-five percent of crashes occurred during the hours of darkness/twilight, compared with 32 percent when considering all crashes in the Manawatu district.

Further information about loss of control crashes at bends in the district for the period 2003-2007 on:

Local roads

- 7 deaths, 37 serious injuries and 127 minor injuries
- Worst day of week: *Saturday* (55 crashes)
- Wet road crashes: 24 percent
- Night time crashes: 45 percent
- Driver with alcohol over limit (injury crashes): 18 percent
- Most common injury crash factors: *too fast* (43 percent) and *poor handling* (43 percent)
- At fault male driver (injury crashes): 62 percent
- Full NZ licence held by at fault drivers (injury crashes): 50 percent
- Most common fault drivers' age group (injury crashes): 15 to 49 years old

State highways

- 6 deaths, 21 serious injuries and 48 minor injuries
- Worst day of week: *Saturday* (24 crashes)
- Wet road crashes: 27 percent
- Night time crashes: 47 percent
- Driver with alcohol over limit (injury crashes): 25 percent
- Most common injury crash factors: *poor handling* (44 percent) followed by *too fast* (42 percent)
- At fault male driver (injury crashes) : 72 percent
- Full NZ licence held by at fault drivers (injury crashes): 66 percent
- Most common fault drivers' age group (injury crashes): 15 to 24 followed by 25 to 59 years old

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.

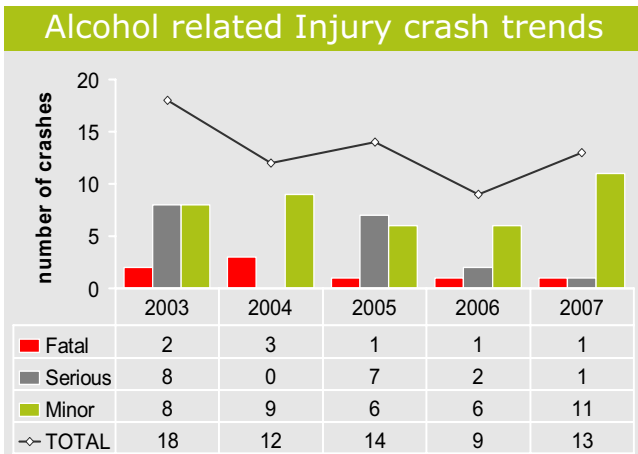
People with high blood alcohol levels are more likely to be injured or killed in a crash than sober drivers in the same crash.

Nationally in 2007, alcohol-affected drivers contributed to 34 percent of all fatal crashes and 15 percent of all injury crashes.

In the Manawatu district, alcohol was a factor in 16 percent of all injury crashes in 2007.

Alcohol was a factor in 66 reported injury crashes, and 55 reported non-injury crashes in the last five years. These crashes have resulted in 8 deaths, 22 serious and 56 minor injuries.

The total number of alcohol related injury crashes shows a decreasing trend. The total number of fatal and serious injury crashes in 2007 was the lowest in the last five year period.



Three quarters of all alcohol related crashes have occurred on rural roads. Less than 40 percent of the crashes occurred on State highways, but their share on fatalities were more than 60 percent.

More than 60 percent of the alcohol related crashes occurred at the weekend (between Friday 6 PM and Monday 6 AM). Most of these crashes occurred during the night time.

Most (76 percent) of the at fault drivers in alcohol related injury crashes were less than 40 years old.

Further information about alcohol related crashes in the district between 2003 and 2007 on:

Local roads

- 3 deaths, 15 serious injuries and 37 minor injuries
- Worst day of week: *Saturday (24 crashes)*
- Wet road crashes: *31 percent*
- Night time crashes: *76 percent*
- Crashes at intersection: *29 percent*
- Most common injury crash factors: *poor handling (30 percent)* followed by *too fast (28 percent)*
- Road factors: *9 percent*
- At fault male driver (injury crashes): *69 percent*
- Full NZ licence at fault drivers (injury crashes): *50 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 39 years old*

State highways

- 5 deaths 7 serious injury and 19 minor injuries
- Worst day of week: *Saturday (18 crashes)*
- Wet road crashes: *17 percent*
- Night time crashes: *83 percent*
- Crashes at intersection: *24 percent*
- Most common injury crash factors: *Too fast (31 percent)* followed by *poor handling (8 percent)*
- Road factors: *9 percent*
- At fault male driver (injury crashes): *70 percent*
- Full NZ licence at fault drivers (injury crashes): *70 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 59 years old*

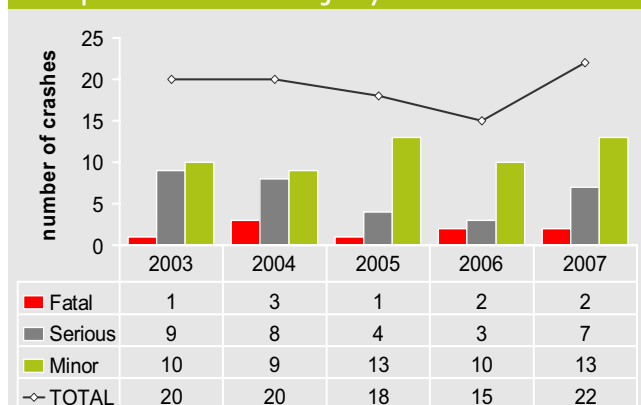
Speed

Nationally, speed is one of the major contributing factors to road crashes on our roads. In 2007, excessive speed contributed to 33 percent of fatal crashes and 18 percent of all injury crashes nationally.

In the Manawatu district, excessive speed was a factor in 23 percent of all injury crashes in 2007. There were 95 speed-related injury crashes and 137 non-injury crashes reported in the last five years.

After a gradual reduction on speed related injury crashes from 2003 to 2006, they have increased significantly in 2007. The total number of injury crashes in 2007 was the highest in the last five year period.

Speed related injury crash trends



Most (80 percent) of the speed related crashes occurred in rural areas. In 2007 there were 43 speed related crashes on rural roads that was the highest in the last 10 year period.

Speed related crashes

	2003	2004	2005	2006	2007
Urban	8	11	9	10	5
Rural	33	37	33	31	43
Total	41	48	42	41	48

Approximately 46 percent of the speed related crashes occurred on weekend between Friday 6 PM and Monday 6 AM. Half of the speed related crashes occurred during the night time.

More than half (52 percent) of the at fault drivers in speed related injury crashes were less than 25 years old. Half of the at fault drivers on these crashes were holders of learner/restricted license or never licensed or disqualified.

Males represented 71 percent of at fault drivers in speed related injury crashes.

Age and sex of at fault drivers

Drivers at fault in speed related injury crashes (2003- 2007)	Male	Female	Total
15 - 19 years	21	15	36
20 - 24	12	2	14
25 - 29	7	5	12
30 - 39	15	4	19
40 - 49	7	1	8
50 - 59	3	0	3
60 - 69	2	0	2
70+	1	1	2
Total	68	28	96

Further information about speed related crashes in the district between 2003 and 2007 on:

Local roads

- 7 deaths, 30 serious injuries and 77 minor injuries
- Worst day of week: *Saturday (31 crashes)*
- Wet road crashes: *38 percent*
- Night time crashes: *50 percent*
- With alcohol over limit (injury crashes): *16 percent*
- Most common injury crash factor: *bend-loss of control (76 percent)*
- At fault male driver (injury crashes): *71 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 40 years old*

State highways

- 2 deaths, 13 serious injuries and 31 minor injuries
- Worst day of week: *Saturday (15 crashes)*
- Wet road crashes: *33 percent*
- Night time crashes: *46 percent*
- With alcohol over limit (injury crashes): *30 percent*
- Most common injury crash factor: *bend-loss of control (64 percent)*
- At fault male driver (injury crashes): *70 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 40 years old*

Fatigue

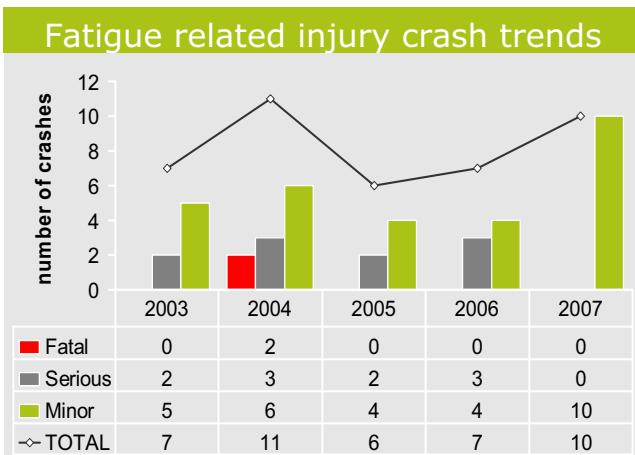
Fatigue remains a difficult cause to identify and it is accepted that the reported number of crashes where fatigue is a factor will be below the actual crash numbers.

Even though it is considered socially acceptable to drive while fatigued, as opposed to drink driving, research indicates that the effects on cognitive skills are similar. It is however extremely difficult for Police to prevent people from driving while fatigued.

Fatigue was identified as a factor in 14 percent of injury crashes in the Manawatu district between 2003 and 2007. There were 82 crashes where fatigue was a contributory cause, 41 of which were injury crashes and most of the crashes (60 percent) occurred on State highways.

These crashes resulted in 2 deaths, 19 serious injuries and 47 minor injuries. There were a further 41 non-injury crashes reported.

The number of injury crashes where fatigue has been identified as a factor is fluctuating over the last five years.



More than half (59 percent) of the fatigue related crashes occurred on State highways in the rural areas. Of the 30 State highway injury crashes, 11 were on SH1N, 8 on SH3, 7 on SH54 and 4 on SH 56. The following table shows the specifically identified causes of fatigue and their contribution to injury crashes from 2003 to 2007.

Causes of Fatigue	Percentage of Injury crashes	
	Manawatu District	New Zealand
General (drowsy, tired, fell asleep)	9.6 %	4.9 %
Long trip	0.4 %	0.2 %
Lack of sleep	1.3 %	0.7 %
Worked long hours before driving	0.2 %	0.3 %

Nearly half of (47 percent) *fatigue* related crashes occurred on a weekend, between Friday 6pm and Monday 6am. Similarly, more than half of (57 percent) the fatigue related crashes occurred during the hours of darkness/twilight.

Approximately 35 percent of drivers at fault in *fatigue* related injury crashes were between 15 and 24 years of age. Almost three fourth (71 percent) of *at fault* drivers were male.

Of all *at fault* drivers it is recorded that 33 percent of drivers held either a *restricted* or a *learner* licence.

Further information about fatigue related crashes in the district for the period between 2003 and 2007 on:

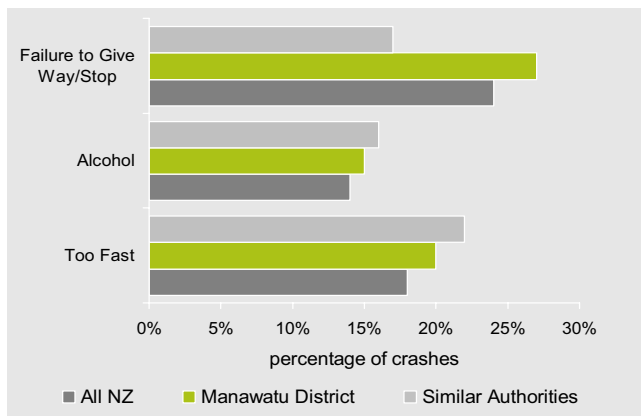
Local roads

- 1 serious injury and 4 minor injuries
- Worst day of week: *Sunday* (3 crashes)
- Wet road crashes: 9 percent
- Night time crashes: 64 percent
- Drivers with alcohol over limit (injury crashes): 20 percent
- Most common injury crash factors: *poor handling* (20 percent), *failed to keep left* and *too fast* (20 percent each)
- Road factors: none
- At fault male driver (injury crashes): 80 percent
- Full NZ licence at fault drivers (injury crashes): 60 percent
- Most common at fault drivers' age group (injury crashes): 15 to 24 years old

State highways

- 2 deaths, 18 serious injuries and 43 minor injuries
- Worst day of week: *Sunday* (16 crashes)
- Wet road crashes: 25 percent
- Night time crashes: 52 percent
- Drivers with alcohol over limit (injury crashes): 8 percent
- Most common injury crash factors: *poor handling* (33 percent) followed by *alcohol* and *too fast* (8 percent each)
- Road factors: 7 percent
- At fault male driver (injury crashes): 61 percent
- Full NZ licence at fault drivers (injury crashes): 61 percent
- Most common at fault drivers' age group (injury crashes): 15 to 24 and 30-49 years old

National issues



Speed

In Manawatu district, *too fast* was recorded in 20 percent of injury crashes in the last five years, resulting in 9 deaths and 151 injuries. *Speed* as a factor in crashes is not reducing in the district.

Seventy-two percent of speed-related crashes involved *loss of control at bends*. *Alcohol* and *poor handling* were the driver factors most often associated with speed related crashes. Male drivers aged under 20 years of age were the most involved in these crashes.

Alcohol

In Manawatu district, *alcohol* was involved in 15 percent of injury crashes in the last five years, resulting in 8 deaths and 83 other injuries. The number of injury crashes involving *alcohol* is not reducing in the district.

Seventy-six percent of alcohol crashes were in rural areas. Eighty-one percent of these crashes involved *loss of control/head on* crashes. Travelling *too fast*, *poor observations* and *fatigue* were the factors often associated with *alcohol*.

Failure to give way

In Manawatu district, *failure to give way or stop* was a factor in 27 percent of all reported injury crashes for the last five years which is higher than peer group and national average. This has resulted in 6 deaths and 196 other injuries. Most (95 percent) of these are related to *crossing/turning manoeuvres* and often associated with *failure to look for other parties*. Fifty-five percent of at fault drivers in these crashes were male.

Restraints

The Ministry of Transport conducts surveys of restraint use. 2007 survey results restraint rate in Manawatu district for front seat and rear seat are 97 and 93 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/belts-index/>

Contacts

Land Transport New Zealand

Palmerston North Office

Level 3, IRD Building
Corner Ashley and Ferguson Streets
PO Box 1947, PALMERSTON NORTH
Telephone 06 953 6396
Fax 06 953 6203

www.landtransport.govt.nz

Partnerships Manager Central

Ian Hunter (04 931 8904)

Manager Performance Information Central

Nabin Pradhan (04 931 8928)

Manager Programmes

Denise Elers (06 974 5526)

Senior Engineer

Sol Hessel (06 953 6622)

Education Advisor

Jane Street (06 953 6623)

Manawatu District Council

Roading Manager

Wayne Keightley
Private Bag 10001, Feilding
Phone 06 323 0813

Transit New Zealand

Regional Manager

Errol Christiansen
PO Box 345, Wanganui
Phone 06 349 6520

Road Safety Coordinator

Horizons Regional Council
PO Box 289, Marton
Phone 0508 800 800

New Zealand Police

Road Policing Manager Central District

Neil Wynne

Central District Headquarters
Private Bag 11040, Palmerston North
Phone 06 351 3600