

# briefing notes road safety issues

## South Wairarapa District

This report details aspects of South Wairarapa District's traffic crash data. We begin by looking at how the district 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 South Wairarapa District 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 South Wairarapa District is compared to similar authorities and those crashes with a high social cost (relating mainly to high numbers of fatal and serious crashes).

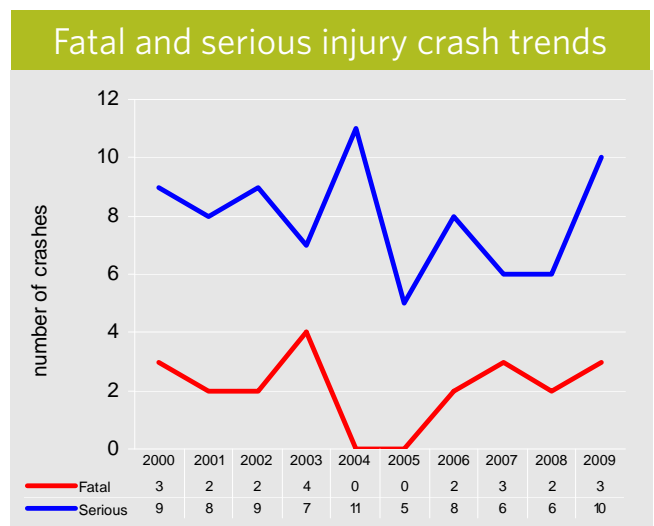
2009 road trauma	
Casualties	South Wairarapa District
Death	3
Serious injury	11
Minor injury	41
<b>Total casualties</b>	<b>55</b>

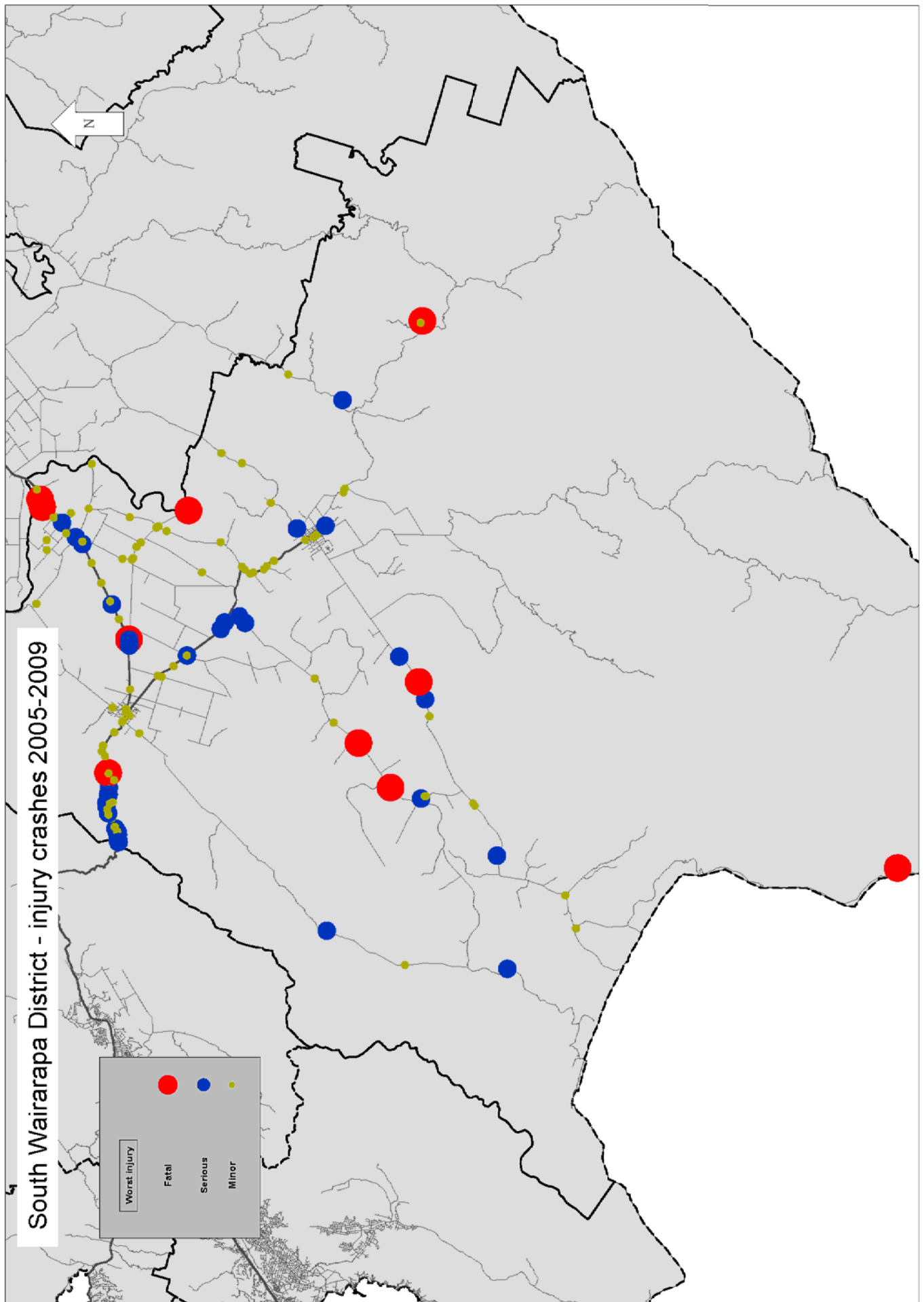
Crashes	South Wairarapa District
Fatal crashes	3
Serious injury crashes	10
Minor injury crashes	22
<b>Total injury crashes</b>	<b>35</b>
Non-injury crashes	77 reported

2009 - social cost of crashes	
Local roads	\$ 16.04M
State highways	\$ 9.26M
<b>Total</b>	<b>\$ 25.30M</b>

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	
South Wairarapa District	
Loss of control at bends	
Vulnerable road users; - motorcyclists	
Alcohol	
Speed	





## 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

## South Wairarapa District

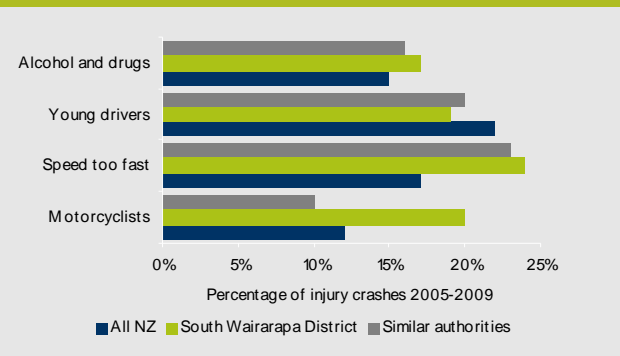
Presented below is a brief look at South Wairarapa District’s position on Safer Journeys’ areas of high concern compared to similar authorities’ averages and the all-NZ averages (sample period 2005-2009).

### Restraints

According to 2009 survey results, restraint use rate in South Wairarapa District are 90 and 78 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 South Wairarapa District, alcohol was recorded in 17 percent of injury crashes in the last five years, resulting in 3 deaths, 10 serious injuries and 30 minor injuries. Alcohol-related crashes were higher proportionally than in similar authorities.

### Young drivers

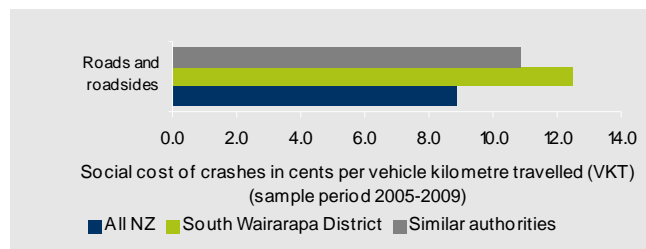
In South Wairarapa District, young drivers aged 15-19 years were involved in 19 percent of all injury crashes during the last five year period, resulting in 2 serious injuries and 37 minor injuries. This was proportionally lower when compared to similar authorities.

### Speed too fast

Speed too fast was recorded in 24 percent of injury crashes in South Wairarapa District in the last five years, resulting in 4 deaths, 13 serious injuries and 42 minor injuries. Speed as a factor in crashes was higher proportionally as compared to similar authorities.

### Motorcyclists

In South Wairarapa District, motorcyclists were involved in 20 percent of all injury crashes during the last five year period, resulting in 2 deaths, 12 serious injuries and 19 minor injuries. Injury crashes involving motorcyclists were significantly higher proportionally compared to similar authorities.



### Roads and roadsides

In South Wairarapa District, there were on average 27 injury crashes per 100 million VKT over the last five years. The social cost per VKT of these crashes is 13 percent higher than the similar authority average (see the graph above).

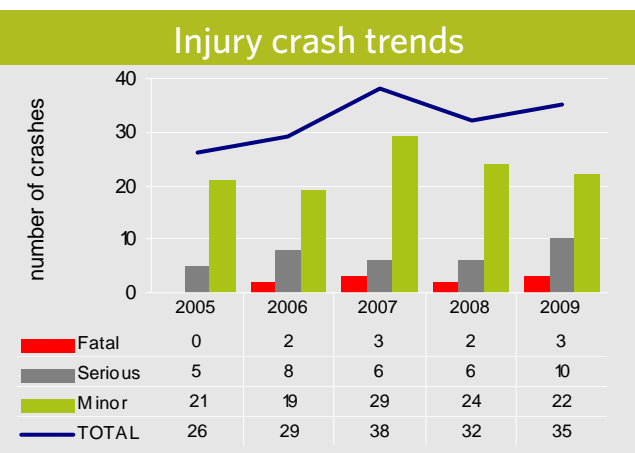
## Overview 2009

In 2009 in South Wairarapa District, 35 injury crashes resulting in 55 casualties and 77 non-injury crashes were reported by the New Zealand Police. Fifty-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.

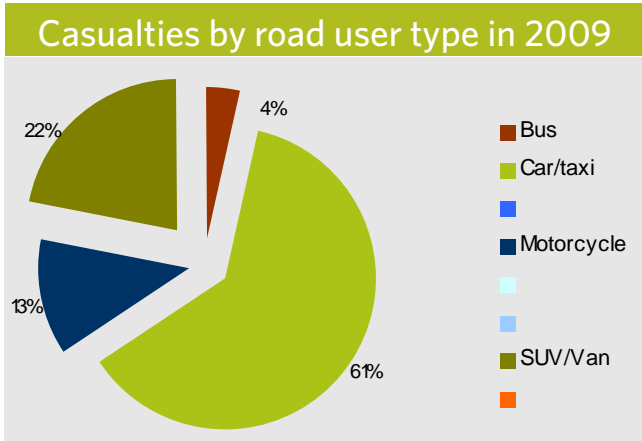
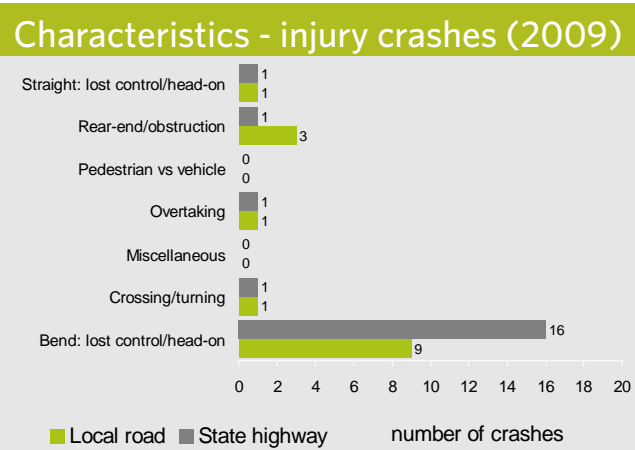
Casualties by injury type in 2009				
	Fatalities	Serious injuries	Minor injuries	Total
Total	3	11	41	55
Local roads vs state highways				
Local roads	3	4	11	18
State highways	0	7	30	37
Rural vs urban roads				
Rural <sup>1</sup>	3	9	36	48
Urban	0	2	5	7

<sup>1</sup> Rural- an area with a speed limit of 80km/h or more

The latest five year data shows an upwards trend in the total number of injury crashes, in particular trending upwards is the serious injury crash numbers.



In 2009 three-quarters of injury crashes involved drivers losing control of their vehicles.



Three-fifths of the casualties were drivers and passengers of cars, two-fifths of sports utility vehicles or vans and an eighth were motorcyclists.

In 2009 in South Wairarapa District, young drivers aged 15 to 19 years inclusive were at fault drivers in 16 percent of injury crashes and older drivers, 70 years of age and over, in 11 percent.

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

### Local roads

- Total number of injury crashes: 15
- Worst month: February (27 percent)
- Worst days of week: Saturday and Sunday (20 percent each)
- Wet road crashes: 20 percent
- Night time crashes: 26 percent
- Alcohol over limit: 27 percent
- Too fast for conditions: 20 percent
- Failed to give way/stop: 7 percent
- Fatigue : 7 percent
- Crashes at intersection: 26 percent
- Road factors: 13 percent
- At fault male driver: 82 percent
- At fault driver held full NZ licence: 59 percent

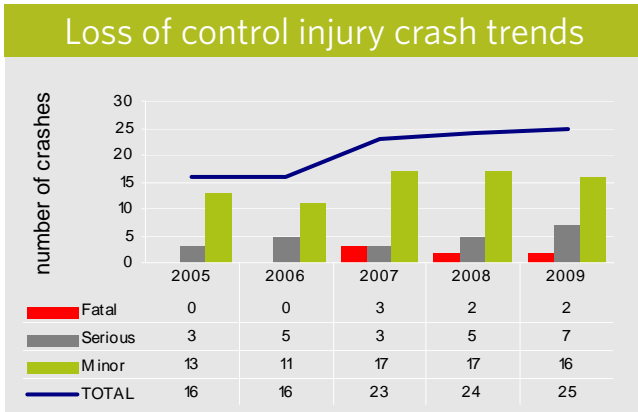
### State highways

- Total number of injury crashes: 20
- Worst months: April (20 percent)
- Worst day of week: Thursday (25 percent)
- Wet road crashes: 55 percent
- Night time crashes: 20 percent
- Alcohol over limit: 20 percent
- Too fast for conditions: 35 percent
- Failed to give way/stop: 5 percent
- Fatigue: 5 percent
- Crashes at intersection: 5 percent
- Road factors: 35 percent
- At fault male driver: 81 percent
- At fault driver held full NZ licence: 52 percent

## Loss of control at bends

During the most recent five year period (2005-2009) 65 percent of all injury crashes in the South Wairarapa District occurred due to loss of control at bends. These crashes resulted in 7 deaths, 29 serious injuries and 108 minor injuries. There were a further 148 non-injury crashes reported involving loss of control at bends.

The latest five year data shows an upward trend in the total number of injury crashes due to loss of control at bends. Also over this period, there is an upward trend in number of serious injury crashes.



Three-quarters of these loss of control crashes at bends involved a driver running off the road and hitting roadside objects (74 percent). A quarter of these crashes at bends resulted in a collision with another vehicle (25 percent).

The three most common roadside hazards struck in loss of control at bend crashes were fences (26 percent) followed by cliff banks (24 percent) and ditches (13 percent). There were a total of 259 times the reported objects were struck. Hitting these objects can result in more serious injuries than would otherwise be sustained.

The following table shows loss of control crashes at bends split between local roads and state highways and urban and rural speed limits.

Loss of control at bends	Local urban	Local rural	SH urban	SH rural
252 crashes	4%	28%	3%	65%

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

The following table shows the main characteristics of loss of control crashes at bends. Alcohol was a factor in a fifth of the injury crashes and speed too fast for conditions in a third of these injury crashes. A third of all loss of control crashes at bends occurred during hours of darkness and half were during wet conditions. They were nearly all on rural roads, which have speed limits of 80km/hr or more. Road factors contributed to over a quarter of all these crashes.

**Loss of control crashes at bends**

Crash characteristics	Percentage of crashes
Single vehicle	76%
Alcohol (injury crashes)	20%
Too fast for conditions (injury crashes)	31%
Road factors	29%
Poor handling (injury crashes)	31%
Rural road	94%
Wet road	48%
Night time	31%

Forty-one percent of at fault drivers in loss of control at bend crashes were in the age group 15-24 years. Seventy percent of at fault drivers were male. Twenty-five percent of at fault drivers held a restricted licence.

Further information about all loss of control crashes at bends in South Wairarapa District 2005-2009 on:

### Local roads

- 5 deaths, 13 serious injuries and 41 minor injuries
- Worst month: November (12 crashes)
- Worst days of week: Saturday (19 crashes)
- Wet road crashes: 29 percent
- Night time crashes: 39 percent
- Crashes at intersection: 22 percent
- Road factors: 16 percent
- Alcohol over limit (injury crashes): 33 percent
- Most common injury crash factors: too fast (36 percent) and poor handling (33 percent)
- At fault male driver (injury crashes): 52 percent
- At fault driver held full NZ licence (injury crashes): 59 percent
- Most common at fault driver's age group (injury crashes): 20-29 years (44 percent)

### State highways

- 2 deaths, 16 serious injuries and 67 minor injuries
- Worst month: December (19 crashes)
- Worst day of week: Saturday (40 crashes)
- Wet road crashes: 56 percent
- Night time crashes: 27 percent
- Crashes at intersection: 47 percent
- Road factors: 35 percent
- Alcohol over limit (injury crashes): 10 percent
- Most common injury crash factors: poor handling (29 percent) followed by too fast (27 percent)
- At fault male driver (injury crashes): 83 percent
- At fault driver held full NZ licence (injury crashes): 55 percent
- Most common at fault driver's age group (injury crashes): 15-24 years (46 percent)

## 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 defined as pedestrians, cyclists and motorcyclists.

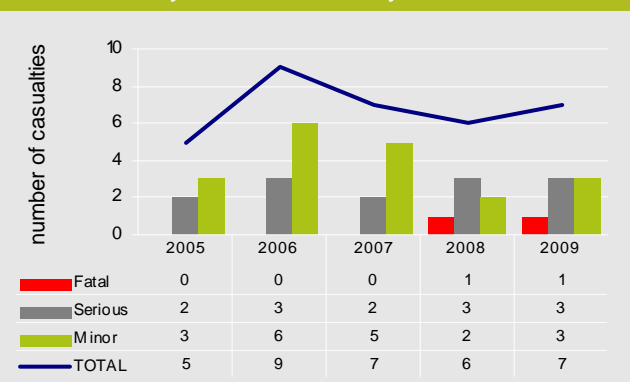
In South Wairarapa District, vulnerable road users were involved in 21 percent of all injury crashes in 2005-2009, accounting for 16 percent of all casualties, 20 percent of all deaths and 30 percent of all serious injuries over the last five year period.

## Motorcyclists

Injury crashes involving motorcyclists in South Wairarapa District accounted for 21 percent of all injury crashes during the last five year period, resulting in 2 deaths, 13 serious injuries and 19 minor injuries.

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

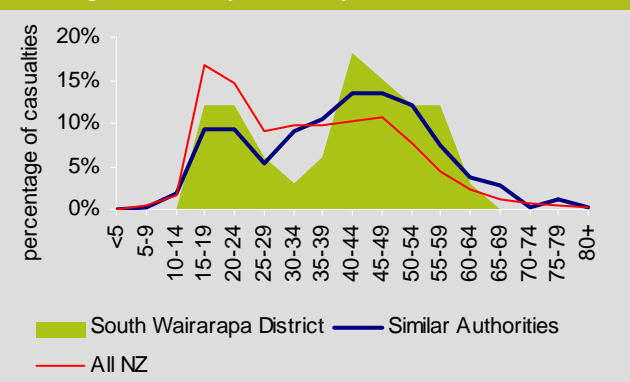
Casualty trends: motorcyclist crashes



Around two-fifths of crashes involving motorcyclist occurred on local urban roads, these accounted for all fatalities. An eighth of all crashes involving motorcyclists happened at intersections (thirteen percent). Just over two-thirds were single party motorcycle crashes (70 percent).

Motorcyclists in the age group 35-44 years were the group most commonly injured (33 percent). Young riders aged 15-19 years were the next most commonly injured age group, four casualties in total 2005-2009 (24 percent).

Age: motorcyclists injured 2005-2009



Location / route	Number of motorcyclist injury crashes
SH 2 route and SH 53 route generally	
SH 2/ Twin Br	4
SH 2/ Rimutaka Summit	3
SH 2/ Rimutaka Sum	3
Pirinoa Road/ Whakatomotomo Road	2
SH 2/ Rimutaka No6 Br	2
SH 53/ Ruamahanga Br	2
SH 53/ No 1 Line	2

The high crash locations or routes for motorcycle crashes in the district 2005-2009 are shown above.

The scenarios for crashes involving motorcyclists were many and varied. The most common scenarios in South Wairarapa District 2005-2009 were:

- loss of control: 75 percent
- a head-on collision between vehicle on a bend, one vehicle either cutting the corner or losing control: 10 percent
- a vehicle turning right from the main road is struck by a following vehicle attempting to overtake it on the right hand side: 8 percent
- a motorcyclist collides with non vehicular obstruction on the roadway: 5 percent

Further information regarding crashes involving motorcyclists in South Wairarapa District 2005-2009 on:

### Local roads

- 2 deaths, 3 serious injuries and 11 minor injuries
- Worst months: February and March (3 crashes each)
- Worst day of week: Sunday (6 crashes)
- Most common injury crash factors: poor handling (53 percent) followed by too fast for conditions (33 percent)
- Wet road crashes: 19 percent
- Night time crashes: 7 percent
- Alcohol over limit (injury crashes): 7 percent
- Crashes at intersection: 32 percent
- Male motorcyclist injured: 73 percent

### State highways

- 10 serious injuries and 8 minor injuries
- Worst month: March (5 crashes)
- Worst days of week: Saturday and Sunday (7 crashes each)
- Most common injury crash factors: poor handling (33 percent) followed by failed to keep left (17 percent)
- Alcohol over limit (injury crashes): nil
- Too fast for conditions (injury crashes): 22 percent
- Wet road crashes: 17 percent
- Night time crashes: 13 percent
- Crashes at intersection: nil
- Male motorcyclist injured: 100 percent



## Alcohol

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

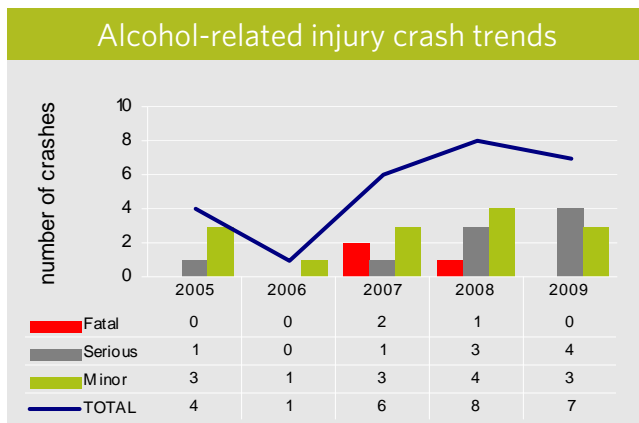
During 2009, alcohol-affected drivers contributed to 31 percent of all fatal crashes and 15 percent of all injury crashes in New Zealand.

### South Wairarapa District

During the last five year period (2005-2009) 17 percent of all injury crashes in South Wairarapa District were alcohol related which is higher than the latest five year average for similar authorities (16 percent) and the national average (15 percent). Last year 17 percent of all injury crashes in the district recorded alcohol as a contributing factor.

There were 26 injury and 30 non-injury alcohol related crashes reported in the last five years. These crashes resulted in 3 deaths, 10 serious injuries and 30 minor injuries.

The latest five year data shows an upward trend in the total number of alcohol related injury crashes.



Nearly two-thirds of alcohol related crashes occurred on local roads (63 percent), these crashes account for sixty-six percent of the alcohol-related fatalities. Of these crashes on local roads 63 percent occurred in rural areas, which have speed limits of 80km/hr or more. Similarly on state highways, 62 percent of alcohol related crashes occurred in rural areas.

Half of at fault drivers involved in alcohol related crashes held a full NZ driver licence (49 percent). Fifty-six percent of at fault drivers were in the age group 15-29 years. Seventy percent of at fault drivers were male and of these half were aged 15-24 years.

Three-quarters of all alcohol related crashes occurred during hours of darkness (76 percent) and mostly at weekends, 6pm Friday to 6am Monday (71 percent).

### Alcohol and speed

Speed was a factor in 35 percent of the 56 alcohol related crashes in the district 2005-2009, resulting in 2 deaths, 4 serious injuries and 6 minor injuries. Speed itself has been a contributing factor in 24 percent of all injury crashes in the district in the last five years.

Eighty-two percent of the crashes where alcohol and speed were both contributing factors occurred on local roads, and mostly in dark conditions (94 percent). Eighty-eight percent of these were loss of control at bend type crashes. Similarly, 88 percent were single vehicle crashes.

Forty percent of at fault drivers in these injury crashes were male under 24 years of age.

Further information about alcohol-related crashes in the South Wairarapa District 2005-2009 on:

#### Local roads

- 2 deaths, 5 serious injuries and 16 minor injuries
- Worst month: January (6 crashes)
- Worst day of week: Saturday (12 crashes)
- Wet road crashes: 32 percent
- Night time crashes: 80 percent
- Crashes at intersection: 23 percent
- Too fast for conditions (injury crashes): 47 percent
- Most common injury crash factors: poor handling (18 percent) and poor observation (18 percent)
- Road factors: 6 percent
- At fault male driver (injury crashes): 56 percent
- At fault drivers held full NZ licence (injury crashes): 56 percent
- Most common at fault drivers' age group (injury crashes): 15 to 29 years (56 percent)

#### State highways

- 1 death, 5 serious injuries and 14 minor injuries
- Worst month: November (3 crashes)
- Worst days of week: Saturday (7 crashes)
- Wet road crashes: 19 percent
- Night time crashes: 72 percent
- Crashes at intersection: 29 percent
- Too fast for conditions (injury crashes): 11 percent
- Most common injury crash factors: poor handling (33 percent) and fatigue (22 percent)
- Road factors: 5 percent
- At fault male driver (injury crashes): 100 percent
- At fault drivers held full NZ licence (injury crashes): 33 percent
- Most common at fault drivers' age group (injury crashes): 20 to 24 years (56 percent)

## Speed

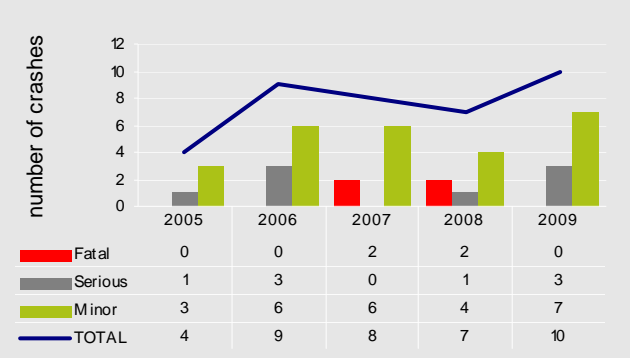
Speed is a major contributing factor involved in road crashes. In 2009, excessive speed contributed to 31 percent of all fatal crashes and 17 percent of all injury crashes in New Zealand. These crashes resulted in 118 deaths, 553 serious injuries and 2067 minor injuries.

In South Wairarapa District, speed too fast for conditions was a factor in 29 percent of all injury crashes in 2009, higher than the national average (17 percent) and higher than the average for similar authorities (23 percent).

During the last five year period (2005-2009) there were 38 speed-related injury crashes resulting in 4 deaths, 13 serious injuries and 43 minor injuries. There were also 66 non-injury crashes reported for the same period.

The latest five year data shows an upward trend in the total number of speed related injury crashes.

### Speed-related injury crash trends



Most of the speed related crashes occurred in rural areas (94 percent), over half of them on state highways (59 percent). Two-fifths of the speed related crashes occurred on local road, accounting for three-quarters of the fatalities.

The following table shows a breakdown of the speed limit environment of all speed-related crashes in the district 2005-2009.

### Speed related crashes

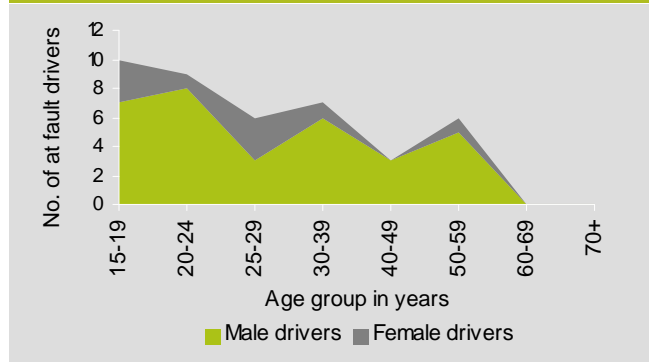
	2005	2005	2006	2007	2009
Urban	0	2	2	2	0
Rural	14	20	21	21	22
<b>Total</b>	<b>14</b>	<b>22</b>	<b>23</b>	<b>23</b>	<b>22</b>

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

Half the at fault drivers in speed-related injury crashes held a full NZ licence (49 percent). Thirty-seven percent of at fault drivers on these crashes held a learner or a restricted licence.

Nearly half of the at fault drivers in speed related injury crashes were less than 25 years of age (47 percent). Just over three-quarters of at fault drivers in speed related injury crashes were male (78 percent).

### Age & gender of at fault drivers 2005-2009



Just over half of the speed related crashes occurred on weekends, between Friday 6pm and Monday 6am (51 percent). Forty-one percent of all speed-related crashes occurred during hours of darkness.

Further information about speed-related crashes in South Wairarapa District 2005-2009 on:

### Local roads

- 3 deaths, 9 serious injuries and 15 minor injuries
- Worst months: June and December (7 crashes each)
- Worst day of week: Saturday (13 crashes)
- Wet road crashes: 32 percent
- Night time crashes: 59 percent
- Alcohol over limit (injury crashes): 42 percent
- Most common injury crash factor: loss of control at bends (80 percent)
- Road factors: 10 percent
- At fault male driver (injury crashes): 76 percent
- At fault drivers held full NZ licence (injury crashes): 48 percent
- Most common at fault drivers' age group (injury crashes): 15 to 29 years (62 percent)

### State highways

- 1 death, 4 serious injuries and 28 minor injuries
- Worst month: June (8 crashes)
- Worst day of week: Saturday (13 crashes)
- Wet road crashes: 67 percent
- Night time crashes: 31 percent
- Alcohol over limit (injury crashes): 5 percent
- Most common injury crash factor: loss of control at bends (86 percent)
- Road factors: 24 percent
- At fault male driver (injury crashes): 80 percent
- At fault drivers held full NZ licence (injury crashes): 50 percent
- Most common at fault drivers' age group (injury crashes): 15 to 24 years (55 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 South Wairarapa District 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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