

briefing notes road safety issues

Rangitikei District

This report details aspects of Rangitikei 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 Rangitikei 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 Rangitikei District is compared to similar authorities and those crashes with a high social cost (relating mainly to high numbers of fatal and serious crashes).

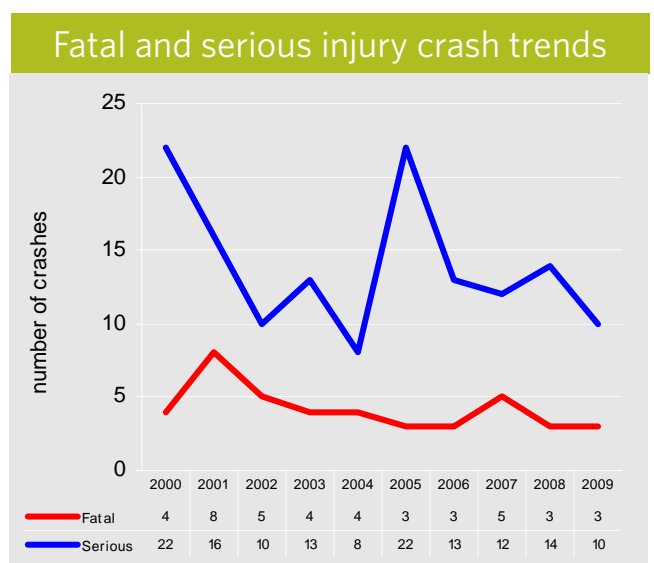
2009 road trauma	
Casualties	Rangitikei District
Death	3
Serious injury	14
Minor injury	61
Total casualties	78

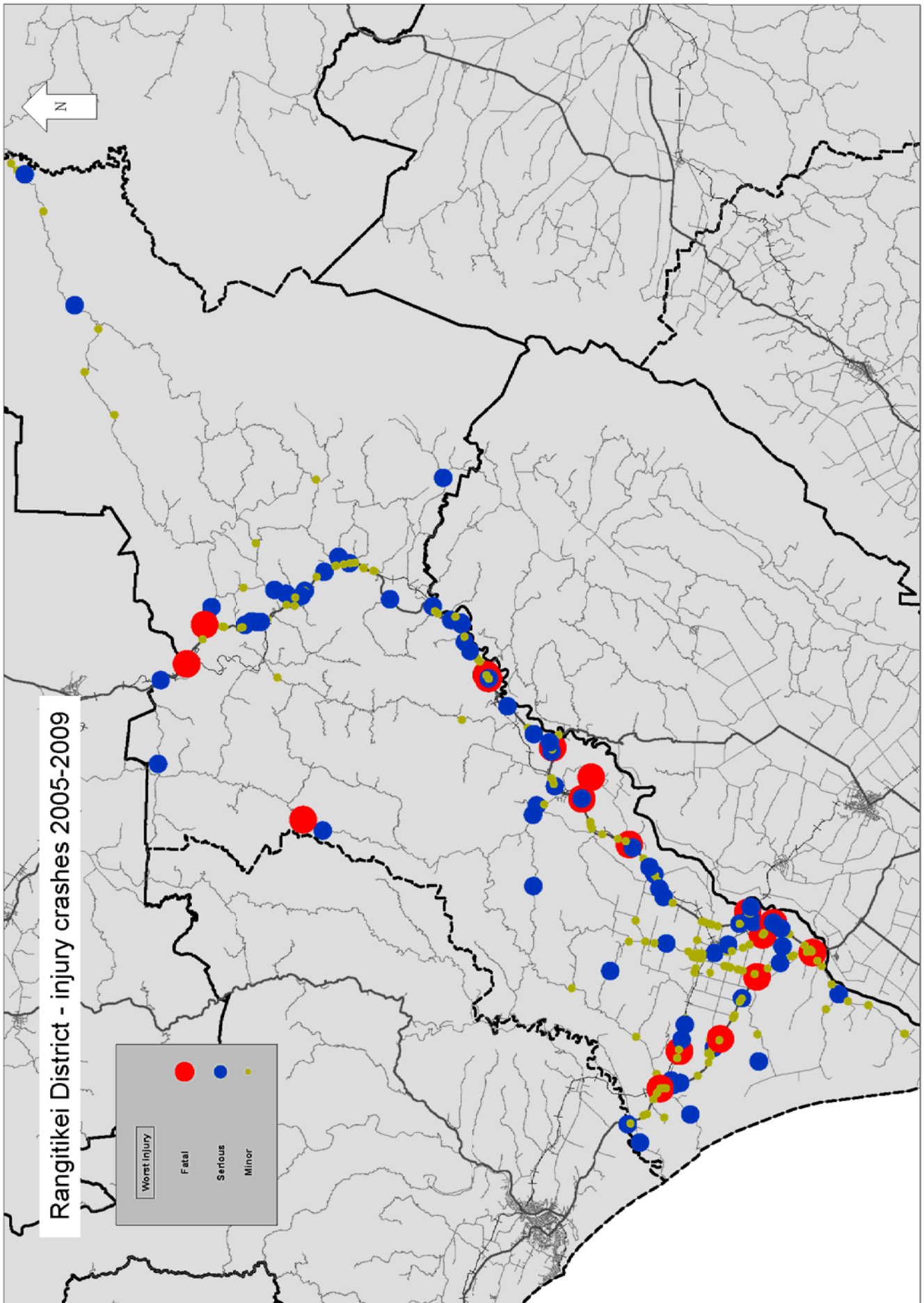
Crashes	Rangitikei District
Fatal crashes	3
Serious injury crashes	10
Minor injury crashes	40
Total injury crashes	53
Non-injury crashes	106 reported

2009 - social cost of crashes	
Local roads	\$ 13.16M
State highways	\$ 13.13M
Total	\$ 26.29M

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	
Rangitikei District	
Loss of control	
Intersections	
Speed - incl Alcohol	
Vulnerable road users: - motorcyclists	
Fatigue	





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

Rangitikei District

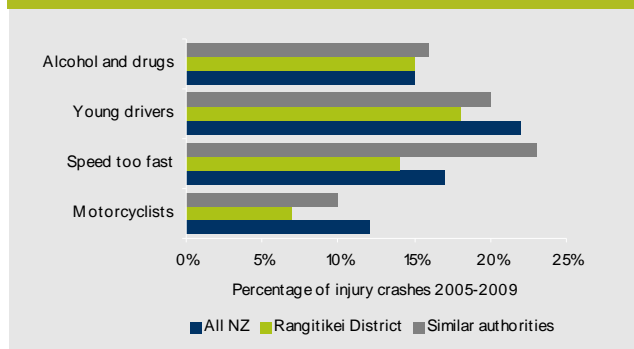
Presented below is a brief look at Rangitikei District’s position on Safer Journeys’ areas of high concern compared to similar authorities’ averages and the all-NZ averages (sample period 2005-2009).

Restraints

According to 2009 survey results, restraint use rate in Rangitikei District are 97 and 95 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 Rangitikei District, alcohol was recorded in 15 percent of injury crashes in the last five years, resulting in 1 death, 18 serious injuries and 37 minor injuries. Alcohol related crashes were lower proportionally when compared to that of similar authorities.

Young drivers

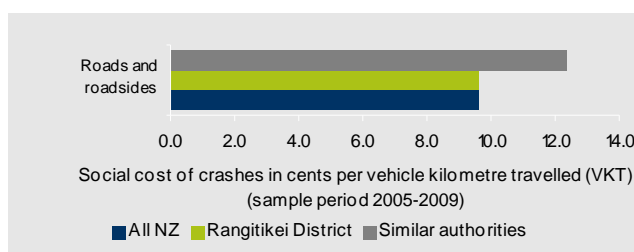
In Rangitikei District, young drivers aged 15-19 years were involved in 18 percent of all injury crashes during the last five year period, resulting in 4 deaths, 13 serious injuries and 64 minor injuries. This was proportionally lower than in similar authorities.

Speed too fast

Speed too fast was recorded in 14 percent of injury crashes in Rangitikei District in the last five years, resulting in 4 deaths, 11 serious injuries and 38 minor injuries. Speed as a factor in crashes was significantly lower proportionally when compared to similar authorities.

Motorcycling

In Rangitikei District, motorcyclists were involved in 7 percent of all injury crashes during the last five year period, resulting in 2 deaths, 13 serious injuries and 18 minor injuries. Injury crashes involving motorcyclists were proportionally significantly lower than in similar authorities.



Roads and roadsides

In Rangitikei District, there were on average 19 injury crashes per 100 million VKT over the last five years. The social cost per VKT of these crashes is 23 percent lower than the similar authority average (see the graph above).

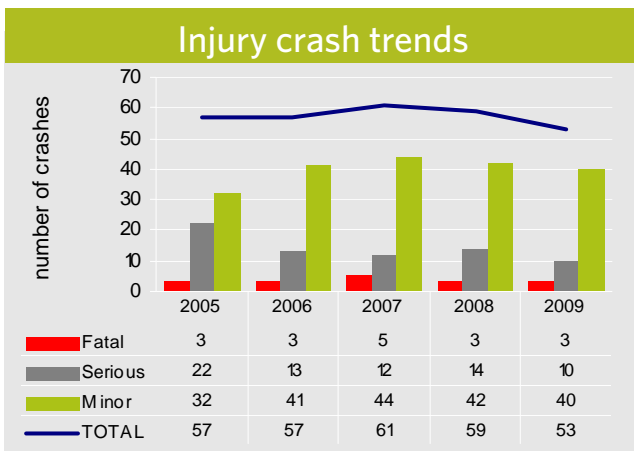
Overview 2009

In 2009 in Rangitikei District, 53 injury crashes resulting in 78 casualties and 106 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.

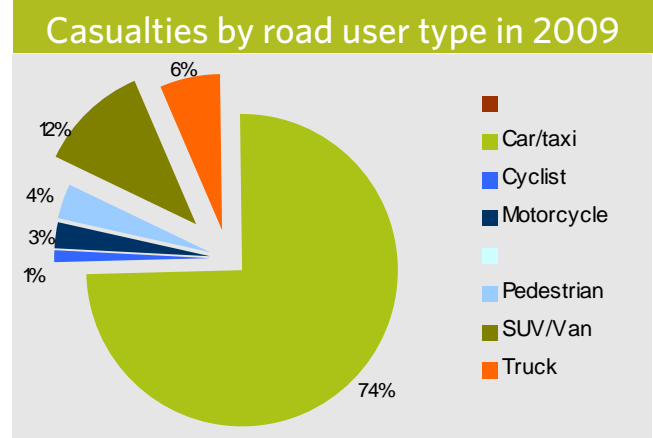
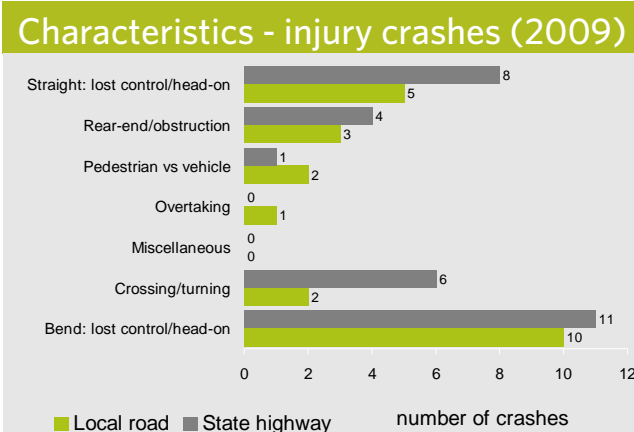
Casualties by injury type in 2009				
	Fatalities	Serious injuries	Minor injuries	Total
Total	3	14	61	78
Local roads vs state highways				
Local roads	2	6	23	31
State highways	1	8	38	47
Rural vs urban roads				
Rural ¹	2	14	44	60
Urban	1	0	17	18

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

The latest five year data shows the total number of injury crashes trend to be slightly downwards.



In 2009 two-thirds of injury crashes involved a driver losing control of their vehicle.



Three-quarters of casualties were drivers or passengers of cars, an eighth of sports utility vehicles or vans and a twelfth were vulnerable road users (pedestrians, cyclists and motorcyclists).

In 2009 in Rangitikei District, young drivers aged 15 to 19 years inclusive were at fault drivers in 10 percent of injury crashes and older drivers, 70 years of age and over, in 2 percent.

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

Local roads

- Total number of injury crashes: 23
- Worst month: April (17 percent)
- Worst day of week: Thursday (22 percent)
- Wet road crashes: 22 percent
- Night time crashes: 30 percent
- Alcohol over limit: 17 percent
- Too fast for conditions: 13 percent
- Failed to give way/stop: 9 percent
- Pedestrian factors : 9 percent
- Crashes at intersection: 18 percent
- Road factors: 9 percent
- At fault male driver: 60 percent
- At fault driver held full NZ licence: 65 percent

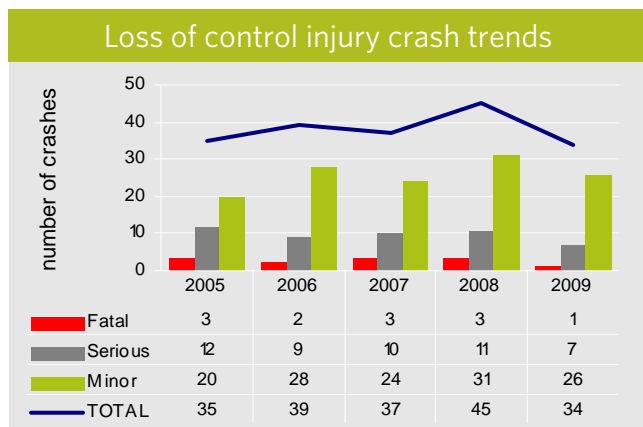
State highways

- Total number of injury crashes: 30
- Worst month: May (20 percent)
- Worst day of week: Wednesday (20 percent)
- Wet road crashes: 33 percent
- Night time crashes: 43 percent
- Alcohol over limit: 13 percent
- Too fast for conditions: 13 percent
- Failed to give way/stop: 13 percent
- Fatigue: 23 percent
- Crashes at intersection: 33 percent
- Road factors: 7 percent
- At fault male driver: 53 percent
- At fault driver held full NZ licence: 67 percent

Loss of control

During the most recent five year period (2005-2009) 66 percent of all injury crashes in Rangitikei District were due to loss of control. These crashes resulted in 14 deaths, 70 serious injuries and 203 minor injuries. A further 341 non-injury crashes were reported involving loss of control.

The latest five year data shows a very slight upwards trend in the total number of injury crashes. The trend in the total of fatal and serious crashes is downwards over this period.



Nearly two-thirds of all loss of control crashes were on state highways (64 percent), these accounted for a similar proportion of the fatalities (64 percent). Sixty-three percent of loss of control crashes occurred at bends. These involved a driver losing control of their vehicle then commonly running off the road or perhaps colliding with another vehicle (15 percent).

The following table shows a breakdown of the general environ of all loss of control crashes (578 crashes) in Rangitikei District 2005-2009, split to show urban and rural speed limits.

Number of crashes	Local urban	Local rural	SH urban	SH rural
At bends	6%	22%	2%	32%
Straight road	4%	8%	1%	25%

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

The three most common roadside hazards struck in loss of control type crashes were fences (31 percent), ditches (22 percent) and banks (11 percent). In total 595 reported objects were struck. Hitting these objects can result in more serious injuries than would otherwise be sustained.

The following table shows the main characteristics of these loss of control crashes. Alcohol was a factor in a fifth of the injury crashes and speed too fast for conditions in a sixth. Most of the loss of control type crashes occurred on rural roads, just under half of all these crashes happened during hours of darkness and a third were in wet conditions.

Main characteristics of loss of control crashes

Crash characteristic	Percentage of crashes
Single vehicle	85%
Alcohol (injury crashes)	19%
Too fast for the conditions (injury crashes)	17%
Road factors	15%
Poor handling (injury crashes)	41%
Rural road	87%
Wet road	31%
Night time	45%

Further information about all loss of control crashes in Rangitikei District 2005-2009 on:

Local roads

- 5 deaths, 23 serious injuries and 80 minor injuries
- Worst month: December (24 crashes)
- Worst day of week: Sunday (45 crashes)
- Wet road crashes: 33 percent
- Night time crashes: 42 percent
- Road factors: 15 percent
- Alcohol over limit (injury crashes): 28 percent
- Most common injury crash factors: poor handling (47 percent) followed by too fast (24 percent)
- At fault male driver (injury crashes): 61 percent
- At fault driver held restricted licence (injury crashes): 23 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years (48 percent) followed by 30-39 years (22 percent)

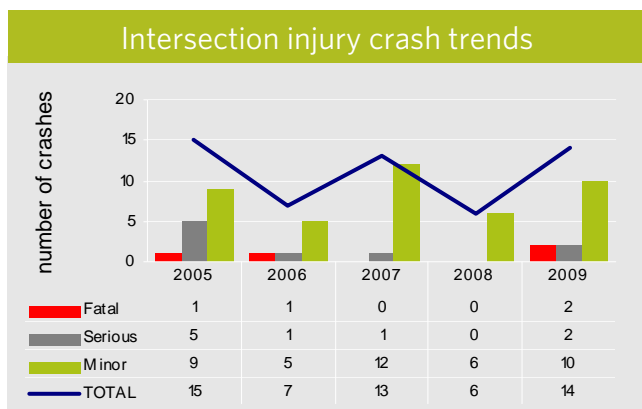
State highways

- 9 deaths, 47 serious injuries and 123 minor injuries
- Worst month: December (37 crashes)
- Worst day of week: Saturday (57 crashes)
- Wet road crashes: 30 percent
- Night time crashes: 48 percent
- Road factors: 15 percent
- Alcohol over limit (injury crashes): 13 percent
- Most common injury crash factors: fatigue (41 Percent) followed by poor handling (36 percent)
- At fault male driver (injury crashes): 78 percent
- At fault driver held learner or restricted licence (injury crashes): 25 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years (32 percent) followed by 40-49 years (23 percent)

Intersections

During the most recent five year period (2005-2009) 19 percent of all injury crashes in Rangitikei District occurred at intersections. These crashes resulted in 4 deaths, 10 serious injuries and 95 minor injuries. There were a further 106 non-injury crashes reported.

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



Just over half of these crashes (54 percent) occurred at intersections on state highways accounting for seventy-nine percent of injuries, meanwhile the fatalities were equally distributed between local roads and state highways.

	Local urban	Local rural	SH urban	SH rural
Intersection	33%	13%	17%	37%

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

The following table below shows the locations of intersections with the highest number of crashes in the Rangitikei District (2005-2009).

Intersection name	Total crashes 2005 - 2009	Injury crashes 2005-2009	Total crashes in 2009
SH 1N / High St	10	5	5
SH 1N / Wellington Road	5	3	0
SH 1N / Rauma Road	4	3	0
SH 1N / Onslow St E	7	3	3
High St / Hammond St	4	2	1
SH 1N / Makirikiri Road	2	2	0
SH 3 / Wilson St	2	2	0
SH 3 / Williamsons Line	3	2	0
Wellington Road / Makirikiri Road	5	2	1

Junction Type	Rural	Urban
T-junction	59	35
Crossroad	15	41
Y-junction	6	1
Driveway	1	2
Roundabout	0	1

Crashes at rural T-junctions and urban crossroads are the most common types of intersection crashes reported in Rangitikei District 2005-2009, followed those by urban T-junctions.

Half of the intersection injury crashes occurred due to failure to give way (49 percent). Of all failure to give way at intersection crashes 43 percent were at give way signs, 17 percent at stop signs and 39 percent of these crashes occurred at intersections without any traffic control.

Further information about all intersection crashes in Rangitikei District 2005-2009 on:

Local roads

- 2 deaths, 1 serious injury and 20 minor injuries
- Worst month: March (11 crashes)
- Worst day of week: Thursday (14 crashes)
- Wet road crashes: 28 percent
- Night time crashes: 30 percent
- Alcohol over limit (injury crashes): 22 percent
- Most common injury crash factors: poor observation (56 percent) followed by failed to give way/stop (50 percent)
- At fault male driver (injury crashes): 76 percent
- At fault driver held learner or restricted licence (injury crashes): 47 percent
- Most common age group (injury crashes): 15-24 years (47 percent)

State highways

- 2 deaths, 9 serious injuries and 75 minor injuries
- Worst months: November and December (10 crashes each)
- Worst day of week: Friday (19 crashes)
- Wet road crashes: 13 percent
- Night time crashes: 26 percent
- Alcohol over limit (injury crashes): 3 percent
- Most common injury crash factors: failed to give way/stop and poor observation (49 percent each)
- At fault male driver (injury crashes): 41 percent
- At fault driver held full NZ licence (injury crashes): 68 percent
- Most common age group (injury crashes): 15-24 years old (41 percent)

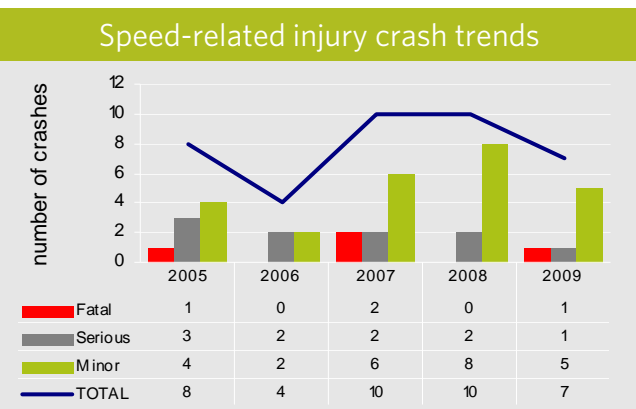
Speed

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 Rangitikei District, speed too fast for conditions was a factor in 13 percent of all injury crashes in 2009, lower proportionally than the national average (17 percent) and the average for similar authorities (23 percent).

During the last five year period (2005-2009) there were 39 speed-related injury crashes resulting in 4 deaths, 12 serious injuries and 38 minor injuries. There were also 79 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.



Four-fifths of the speed-related crashes occurred in rural areas (80 percent). Half of the speed-related crashes occurred on local roads accounting for three-quarters of the fatalities (3 deaths).

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

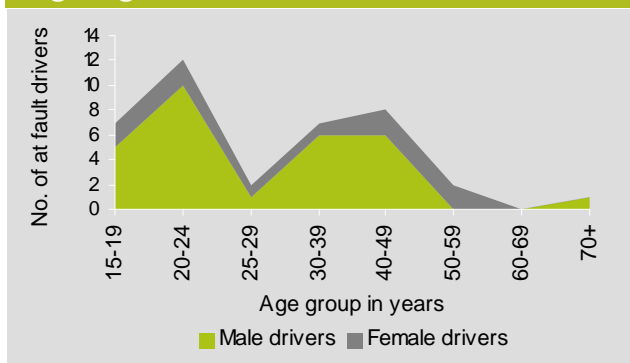
Speed-related crashes					
	2005	2005	2006	2007	2009
Urban	5	1	2	6	7
Rural	20	14	23	19	21
Total	25	15	25	25	28

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

Half of the speed-related crashes occurred on weekends, between Friday 6pm and Monday 6am (51 percent). Fifty-six percent of the speed-related crashes occurred during hours of darkness.

Half of the at fault drivers in speed-related injury crashes were less than 25 years old (49 percent). A quarter of the at fault drivers held a learner licence or a restricted licence (24 percent). Three-quarters of at fault drivers in speed-related injury crashes were male (74 percent).

Age & gender of at fault drivers 2005-2009



Speed and alcohol

Alcohol was a factor in 31 percent of speed-related injury crashes 2005-2009. Alcohol combined with speed too fast for conditions was a contributing factor in 4 percent of all injury crashes in the district for this same period; resulting in 1 death, 5 serious injuries and 9 minor injuries. Alcohol itself has been a factor in 14 percent of all injury crashes in the district in the last five years.

Three-quarters of all crashes where driver alcohol and speed were both contributing factors occurred on local roads (74 percent), mostly in dark conditions (78 percent). Similarly, 78 percent of these were loss of control at bend type crashes. Half of at fault drivers in these injury crashes were males under 25 years of age.

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

Local roads

- 3 deaths, 6 serious injuries and 16 minor injuries
- Worst month: September (10 crashes)
- Worst day of week: Saturday (21 crashes)
- Wet road crashes: 38 percent
- Night time crashes: 50 percent
- Alcohol over limit (injury crashes): 45 percent
- Most common injury crash factor: loss of control at bends (82 percent)
- At fault male driver (injury crashes): 70 percent
- At fault drivers held full NZ licence (injury crashes): 60 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years (45 percent)

State highways

- 1 death, 6 serious injuries and 22 minor injuries
- Worst month: January (9 crashes)
- Worst day of week: Friday (15 crashes)
- Wet road crashes: 34 percent
- Night time crashes: 62 percent
- Alcohol over limit (injury crashes): 16 percent
- Most common injury crash factor: loss of control at bends (72 percent)
- At fault male driver (injury crashes): 79 percent
- At fault driver held full NZ licence (injury crashes): 47 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years (53 percent)

Vulnerable road users

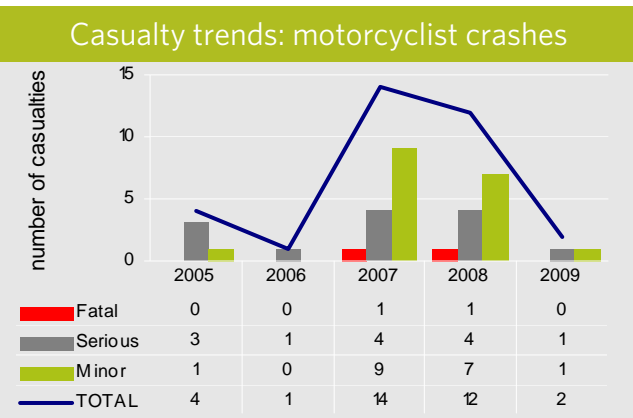
Vulnerable road users are those who have very little physical protection in the event of a crash and are therefore susceptible to severe injuries. These are defined as pedestrians, motorcyclists and cyclists.

In Rangitikei District vulnerable road users accounted for 12 percent of all casualties over the last five years (2005-2009), resulting in 3 deaths (2 motorcyclists and one pedestrian), and 18 percent of all serious injuries in the district for this period.

Motorcyclists

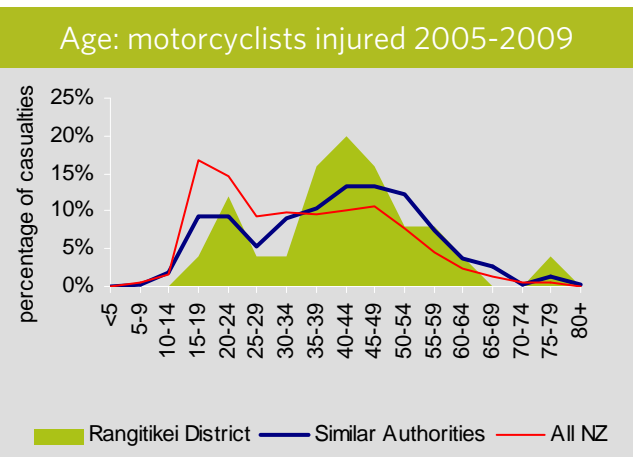
Injury crashes involving motorcyclists represented 8 percent of all injury crashes in Rangitikei District during the last five year period, resulting in 2 deaths, 13 serious injuries and 18 minor injuries.

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



Most crashes involving motorcyclists occurred on rural roads (92 percent). Sixteen percent occurred at intersections. Just over half are reported as single party motorcycle crashes (52 percent).

The age distribution of injured motorcyclists is shown below. Motorcyclists aged 35-49 years were the most commonly injured group (52 percent). Motorcyclists aged 20-24 years accounted for 12 percent of all injured motorcyclists in the district.



Location / route: motorcycle crashes 2005-2009

Mainly along SH 1N-
SH 1: Willis Road - Makarikiriki Road
Kakariki Road: vicinity of SH 1
SH1: north of Mataroa Road, Taihape
Rural Hunterville, SH 3: Duddings Lake Rd - Makirikiri Road
Bulls south along Parewanui Road

Crash locations/routes for motorcycle crashes in Rangitikei 2005-2009 are scattered, high crash roads are shown in the table above.

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

- lost control on a straight road: 24 percent
- lost control at bends: 20 percent
- a vehicle or a motorcycle turning right from a side road or driveway across a vehicle travelling straight through: 8 percent
- a vehicle or a motorcycle swings wide at a bend and collides with an oncoming vehicle: 8 percent

Most crashes involving motorcyclists occurred in rural areas (92 percent), with almost equal numbers upon local roads and state highways. At fault drivers in the injury crashes were mostly male (90 percent). Two-thirds of the at fault drivers in motorcyclist injury crashes held a full NZ driver's licence (65 percent).

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

Local roads

- 1 death, 6 serious injuries and 5 minor injuries
- Worst month: December (4 crashes)
- Worst day of week: Friday (4 crashes)
- Most common injury crash factors: poor observation (40 percent) followed by too fast (20 percent)
- Wet road crashes: 8 percent
- Night time crashes: 38 percent
- Alcohol over limit (injury crashes): 10 percent
- Crashes at intersection: 15 percent
- Male motorcyclist injured: 100 percent

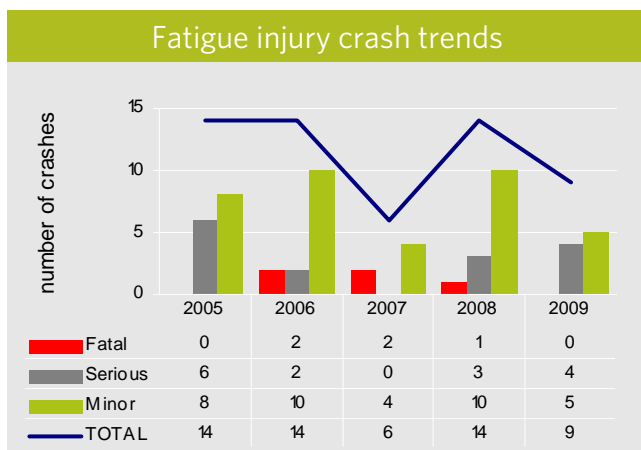
State highways

- 1 death, 7 serious injuries and 13 minor injuries
- Worst months: November and December (2 crashes each)
- Worst day of week: Sunday (3 crashes)
- Most common injury crash factors: poor observation (64 percent) followed by failed to give way/stop (27 percent)
- Wet road crashes: 33 percent
- Night time crashes: 9 percent
- Alcohol over limit (injury crashes): 9 percent
- Crashes at intersection: 17 percent
- Male motorcyclist injured: 88 percent

Fatigue

During the most recent five year period (2005-2009) fatigue was reported as a factor contributing to 20 percent (57 injury crashes) of all injury crashes in Rangitikei District. These crashes resulted in 6 deaths, 28 serious injuries and 62 minor injuries. There were a further 91 non-injury crashes reported.

The latest five year data shows a downward trend in the total number of fatigue-related injury crashes over this period.



Four-fifths of the fatigue-related crashes occurred on state highways in rural areas (79 percent). During 2005-2009 there were 47 fatigue-related injury crashes on state highways:

- SH 1N had 38 fatigue-related injury crashes
- SH 3 had 9 fatigue-related injury crashes

Nearly half of all the fatigue-related crashes occurred on a weekend, between 6pm Friday and 6am Monday (48 percent). And a similar number of the all fatigue-related crashes occurred during the hours of darkness (70 crashes).

The most common contributory factor in the fatigue-related injury crashes was alcohol, recorded in 12 percent of all injury crashes.

The most common movement cause associated with fatigue is loss of control (98 percent):

- loss of control at bends: 51 percent
- loss of control on straight road: 47 percent

The largest represented age group in fatigue-related injury crashes of at fault drivers were aged 20-29 years (29 percent). Young drivers 15-19 years were at fault in 9 percent of these injury crashes and those in the group 30-39 years in 18 percent. Eighty-one percent of at fault drivers were male.

Sixty-one percent of drivers at fault in fatigue-related injury crashes held a full NZ driver's licence. Nearly a quarter (23 percent) of at fault drivers held either a restricted licence or a learner licence.

Fatigue 2005-2009

Fatigue causes	Percentage of injury crashes	
	Rangitikei District	New Zealand
General (drowsy, tired, fell asleep)	17.8%	4.6 %
Long trip	0.3%	0.2 %
Lack of sleep	1.0%	1.0 %
Worked long hours before driving	0.7%	0.3 %

The above table shows the recorded causes of fatigue and their contribution to all injury crashes in Rangitikei District 2005-2009.

Further information about all fatigue-related crashes in Rangitikei District 2005-2009 on:

Local roads

- 2 serious injuries and 9 minor injuries
- Worst month: April (4 crashes)
- Worst days of week: Saturday and Sunday (7 crashes each)
- Wet road crashes: 29 percent
- Night time crashes: 54 percent
- Alcohol over limit (injury crashes): 30 percent
- Most common injury crash factors: poor handling (30 percent) followed by too fast (20 percent)
- Road factors: nil
- At fault male driver (injury crashes): 90 percent
- At fault driver held learner or restricted licence (injury crashes): 50 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years (40 percent)

State highways

- 6 deaths, 26 serious injuries and 53 minor injuries
- Worst month: March (19 crashes)
- Worst day of week: Sunday (25 crashes)
- Wet road crashes: 24 percent
- Night time crashes: 46 percent
- Alcohol over limit (injury crashes): 9 percent
- Most common injury crash factors: poor handling (32 percent) followed by failed to keep left (17 percent)
- Road factors: 1 percent
- At fault male driver (injury crashes): 78 percent
- At fault driver held full NZ licence (injury crashes): 67 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 Rangitikei 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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