

# briefing notes - road safety issues

## South Canterbury highways

New Zealand Transport Agency, (NZTA), has prepared this road safety issues report. It is based on reported crash data for the 2005–2009 period. The intent of the report is to highlight the key road safety issues to help identify possible ways to reduce the number of road deaths and injuries on South Canterbury highways.

In March 2010 the Government released a new strategy, "Safer Journeys", to build on the gains made under the Road Safety to 2010 Strategy. The focus of these Issues Reports has changed to reflect the new strategy. Many of the issues reported on in the past fit neatly into the new strategy. An explanation of where things fit is included in this report.

The issues chosen for this report are drawn from: the most common crash types, those that appear over-represented when South Canterbury highways is compared to similar local bodies, those with high social cost, (high numbers of fatal and serious crashes), or those that are a priority under Safer Journeys.

We have included a brief overview of crashes in the Network Management Area (NMA).

We encourage the managers of South Canterbury highways to use its free access to the Ministry of Transport's Crash Analysis System (CAS), to delve deeper into the highlighted issues and other road safety issues in the district. Also the NZTA Southern Performance Information Team in Christchurch is available to provide further information or assistance if required.

Major road safety issues		2009 road trauma	
	Note Issues are not in any order	Casualties	South Canterbury highways
South Canterbury highways			
Straight road - loss of control or head-on		Deaths	1
Young drivers		Serious casualties	39
Intersections		Minor casualties	113
Fatigue			
Nationally		Crashes	South Canterbury highways
Speed		Fatal crashes	1
Alcohol / Drugs		Serious injury crashes	33
Young Drivers		Minor injury crashes	73
Roads and Roadsides		Non-injury crashes	413
Motorcyclists			

## Safer Journeys

For the past few years road safety in New Zealand has been directed by the Road Safety to 2010 strategy. This strategy was introduced in 2003 and aimed to reduce deaths and casualties from road crashes.

In March 2010 the Government released a new strategy, "Safer Journeys", to build on the gains made under the Road Safety to 2010 strategy.

Under this new strategy, road safety will be looked at from a system wide approach rather than focusing on the road user. The emphasis will be on improving all the parts road transport system that impact on safety; the road, the vehicle, travel speeds and the road user.

A number of areas were chosen as the areas of focus under the strategy. These areas were assigned a priority, based on research that shows five major areas of concern, five areas of lesser concern, and three areas where continued focus is needed, or concern is emerging.

These divisions are shown in the table opposite. This table is a direct extract from page 12 of the Safer Journeys document, which can be found at:

<http://www.transport.govt.nz/saferjourneys/Documents/SaferJourneyStrategy.pdf>

In this year's Road Safety Issues Briefing Notes changes have been made to the wording, and to the data presented, to better reflect and emphasise the connections to the new strategy.

On the following page we present a table that shows the areas of "high concern" under the Safer Journeys strategy. This table allows some relative comparison of the Safer Journeys priorities across the local bodies and regional authorities in the Otago / Southland Region of the New Zealand Transport Agency.

**Table 3 – Safer Journeys' areas of concern and the Safe System**

AREAS OF CONCERN WE WILL ADDRESS	WHERE WE WILL TAKE ACTION ACROSS THE SAFE SYSTEM			
	SAFE ROADS AND ROAD-SIDES	SAFE SPEEDS	SAFE VEHICLES	SAFE ROAD USE
<b>Areas of high concern</b>				
Reducing alcohol/drug impaired driving			✓	✓
Increasing the safety of young drivers	✓	✓	✓	✓
Safe roads and roadsides	✓			
Safe speeds	✓	✓	✓	
Increasing the safety of motorcycling	✓	✓	✓	✓
<b>Areas of medium concern</b>				
Improving the safety of the light vehicle fleet			✓	✓
Safe walking and cycling	✓	✓	✓	✓
Improving the safety of heavy vehicles	✓	✓	✓	✓
Reducing the impact of fatigue	✓	✓	✓	✓
Addressing distraction	✓		✓	✓
Reducing the impact of high risk drivers		✓	✓	✓
<b>Areas of continued and emerging focus</b>				
Increasing the level of restraint use			✓	✓
Increasing the safety of older New Zealanders	✓	✓	✓	✓

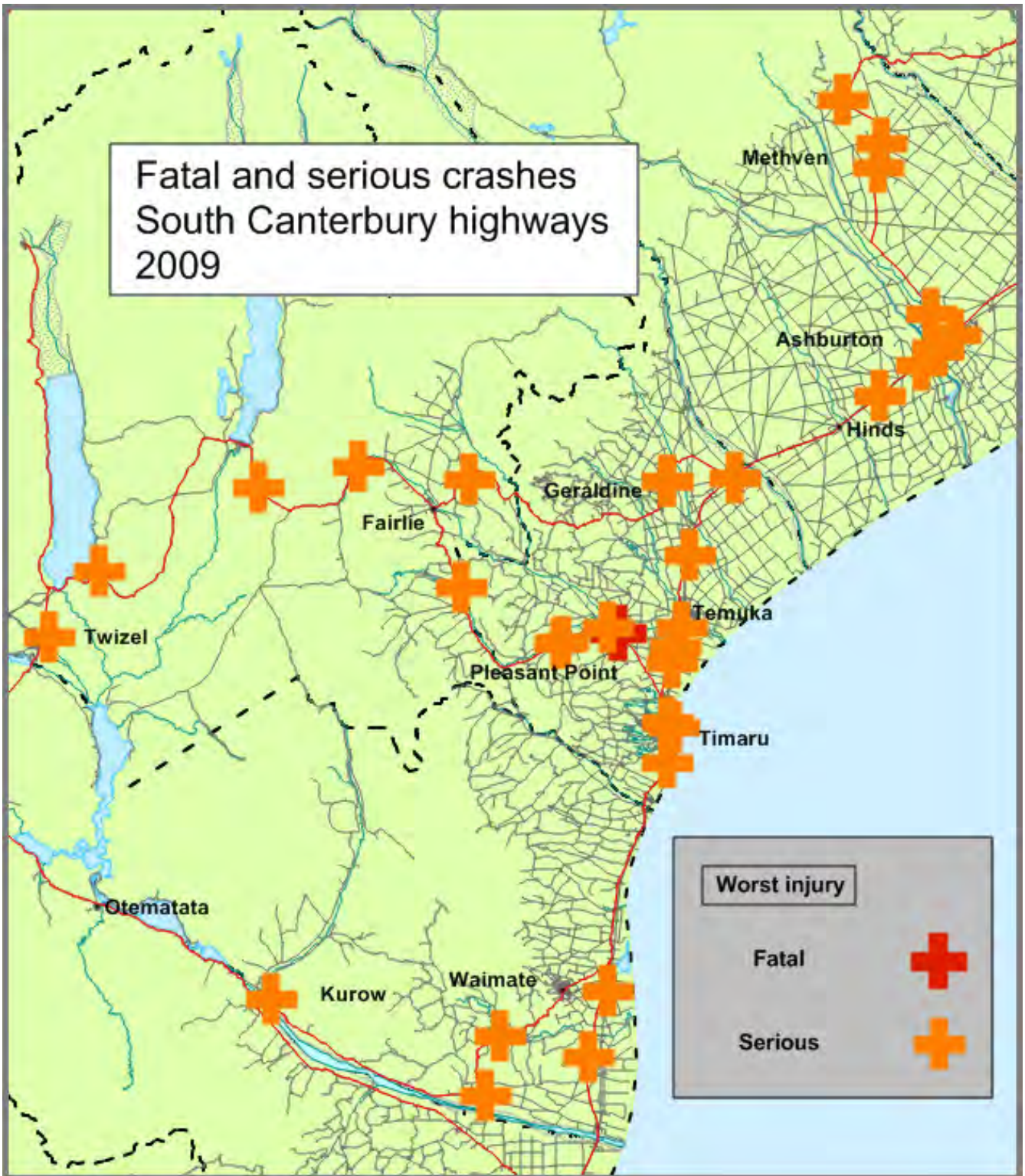
For some priorities (eg motorcycling), complementary action will be taken across all four areas of the Safe System. For others (eg reducing the impact of drink driving or safe roads), more effort would be focussed on one or two of the four Safe System areas.

Source  
Safer Journeys, Road Safety Strategy 2010-2020  
Ministry of Transport  
March 2010

Status of the areas of "high concern" from Safer Journeys 2020 - Canterbury / West Coast Region  
(table is based on 2005 to 2009 fatal and serious crashes - local roads as well as State Highways)

Area of concern	Reducing alcohol and drug impaired driving	Increase the Safety of young drivers	Safer roads and roadsides		Reducing speed related crashes	Increasing the safety of motorcycling
Measure	Percentage of crashes with this factor	Percentage of at fault drivers 24 years or less	Percentage of crashes with an object struck	Number of intersections with two or more fatal or serious casualties in the last five years	Percentage of crashes with this factor	Percentage of crashes involving a motorcyclist
Buller District	17	26	58	0	32	29
Grey District	20	23	49	1	29	31
Westland District	16	32	56	0	32	22
Kaikoura District	15	24	62	0	38	28
Hurunui District	18	21	64	0	34	16
Waimakariri District	20	32	50	3	17	15
Christchurch City	16	34	31	83	15	22
Selwyn District	20	26	45	5	16	17
Ashburton District	21	28	45	2	25	16
Timaru District	18	35	36	2	17	27
Mackenzie District	6	23	63	0	13	3
Waimate District	30	36	45	0	23	23
Chatham Islands	38	17	75	0	25	38
West Coast Region	17	34	55	1	31	27
Canterbury Region	17	31	39	95	18	20
New Zealand	23	34	45	446	23	18





## Overview

In 2009 on South Canterbury State Highways there were 107 reported injury crashes of which 34 were fatal or serious.

The table below shows the number of casualties resulting from the 107 injury crashes by rural or urban areas (rural is defined as an area with a speed limit of 80km/h or more).

Casualties 2009 South Canterbury highways				
	Fatalities	Serious injuries	Minor injuries	Total
Rural	1	32	75	108
Urban	0	7	38	45
Total	1	39	113	153

All deaths, over 80 percent of serious injuries, and two thirds of minor injuries were sustained in crashes on highways in rural areas.

In 2009 there was one fatal crash, the lowest in the ten year period. However the number of serious crashes was the second highest in the period, as was the number of minor crashes.

Crash trends in South Canterbury highways				
Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Crashes
2000	3	21	57	81
2001	5	24	58	87
2002	5	22	51	78
2003	10	19	58	87
2004	6	20	52	78
2005	5	21	51	77
2006	2	11	69	82
2007	5	35	83	123
2008	5	21	61	87
2009	1	33	73	107

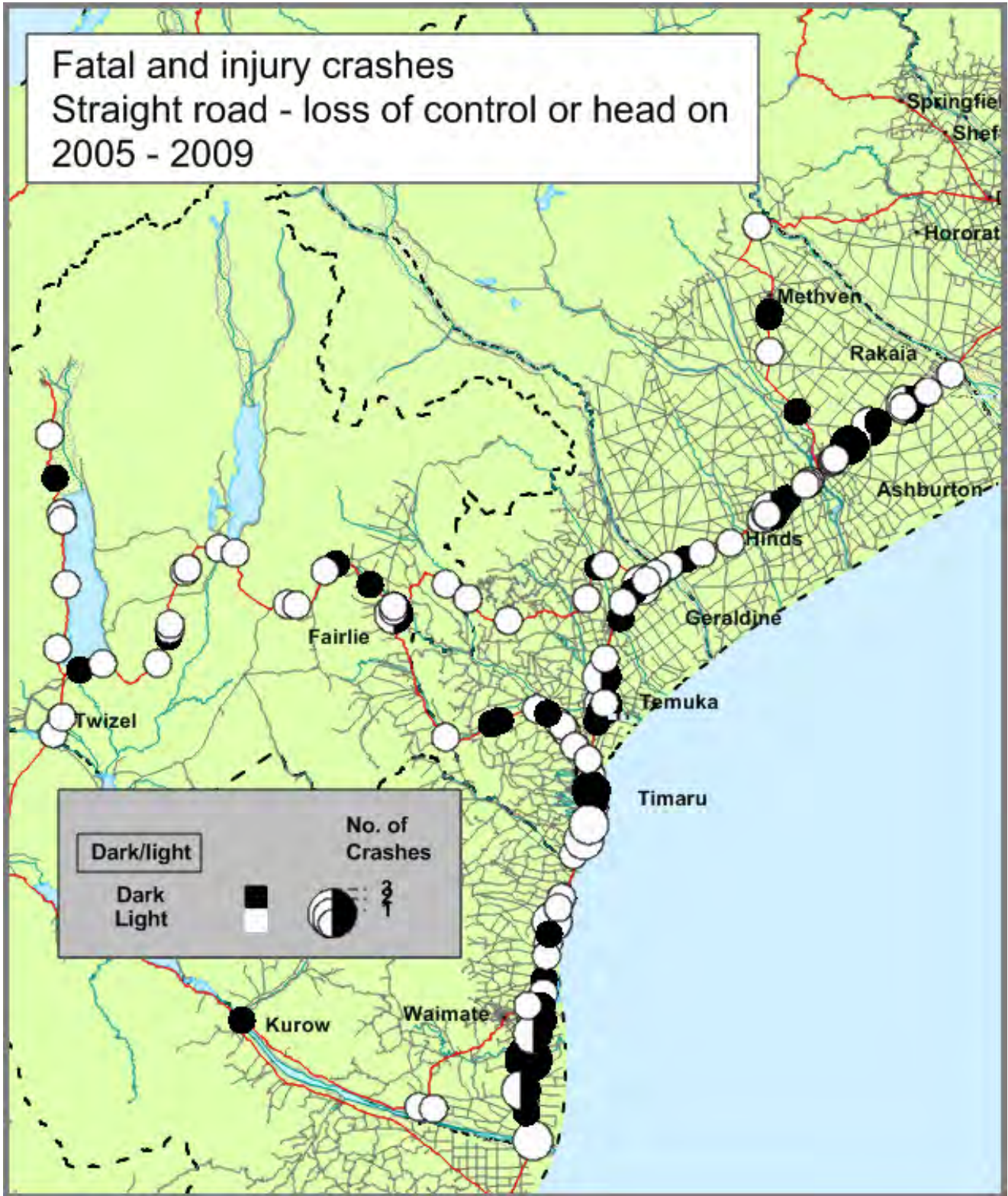
The following table illustrates where the issues considered for this report fit within the Safer Journeys priority. The numbers and percentages give an indication of how they fit in the priorities for Southland Region.

Crash characteristics (2005 to 2009) South Canterbury highways				
Crash type or contributory cause	Percent fatal and serious crashes	Percent all injury crashes	No. of injury crashes	Safer Journeys priority
Alcohol	18	12	57	1
Too fast	12	14	65	1
At bends	22	22	103	1
On straights	35	31	147	1
Intersections	25	31	149	1
Road factors	9	12	59	1
Motorcycling	14	9	47	1
Young drivers	31	33	156	1
Fatigue	24	18	87	2
Distraction	11	8	77	2
Pedestrians	4	3	12	2
Cycling	5	3	16	2
Heavy vehicles	14	15	77	2
Older road users	4	8	38	3
Overseas drivers	10	11	52	-

Further information about the 476 injury crashes on State Highways in South Canterbury highways, 2005 to 2009:

- 22 deaths, 147 serious injuries and 506 minor casualties
- Five year age group with most at fault drivers in injury crashes: 20 to 24 years (17 percent of at fault drivers)
- Social cost of crashes in 2009 \$36.86 m





## Straight road - loss of control or head on

Between 2005 and 2009, 31 percent of all fatal and injury crashes on South Canterbury highways were straight road - loss of control or head on crashes. These 147 crashes resulted in 14 deaths, 50 serious injuries and 135 minor injuries.

Straight road - loss of control or head on crashes South Canterbury highways				
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2005	3	5	14	22
2006	1	4	25	30
2007	2	12	23	37
2008	3	6	20	29
2009	1	11	17	29
Total	10	38	99	147

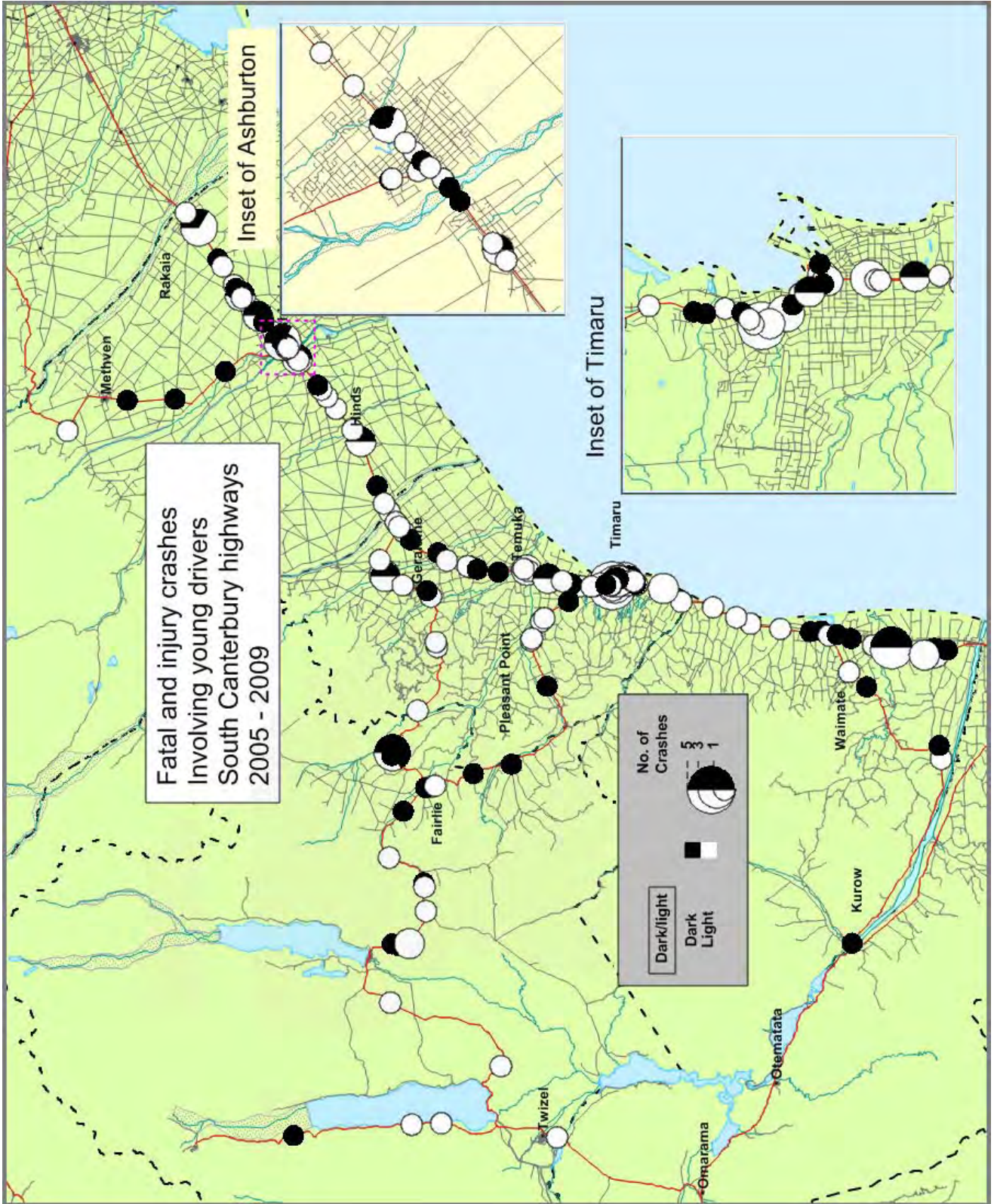
These crashes occurred when a driver lost control and either ran off the road or collided with another vehicle. If drivers lose control, they may crash into roadside hazards such as ditches, banks, poles or trees. Hitting roadside objects can result in a minor off-road event becoming more serious.

Ages of at fault drivers in straight road related crashes 2005 to 2009			
Ages	Male	Female	Total
15 to 19	17	8	25
20 to 24	17	11	28
25 to 29	12	3	15
30 to 39	10	5	15
40 to 49	14	4	18
50 to 59	14	12	26
60 to 69	5	3	8
70 and over	9	4	13
Total	98	50	148

Further information about the 147 injury straight road - loss of control or head on crashes on State Highways in South Canterbury (2005 to 2009):

- Most common crash type "off road to left"
- 20 percent of crashes involved alcohol
- 9 percent of crashes involved speed
- 8 percent involved "road factors"
- 44 percent involved fatigue
- 67 percent resulted in a roadside hazard being struck
- Commonly struck objects were fence, post or pole, tree and ditch
- 15 percent on wet or icy roads
- 36 percent at night
- Worst month December
- Worst day of week Saturday
- Worst time period 3 pm to 6 pm







## Young drivers

Young drivers are those aged less than 25 years. This analysis is based on injury crashes only as driver age is not recorded in non-injury crashes.

In South Canterbury highways between 2005 and 2009, 33 percent of injury crashes involved young drivers. These crashes resulted in 8 deaths, 58 serious injuries and 197 minor injuries.

The total number of casualties from crashes involving young drivers rose from 2005 to 2008, but has since reduced. In 2009 there were no fatalities from these crashes, the only year in the last five where this was the case.

### Casualties from crashes involving young drivers South Canterbury highways

	Fatal	Serious	Minor	Total
2005	4	12	30	46
2006	1	4	44	49
2007	1	16	52	69
2008	2	12	40	54
2009	0	14	31	45
Total	8	58	197	263

Over 40 percent of the 203 young drivers in these crashes had a learner or restricted licence. Nearly 60 percent of them were males.

Two thirds of the young drivers were local residents.

### Young drivers at fault in injury crashes South Canterbury highways (2005 - 2009)

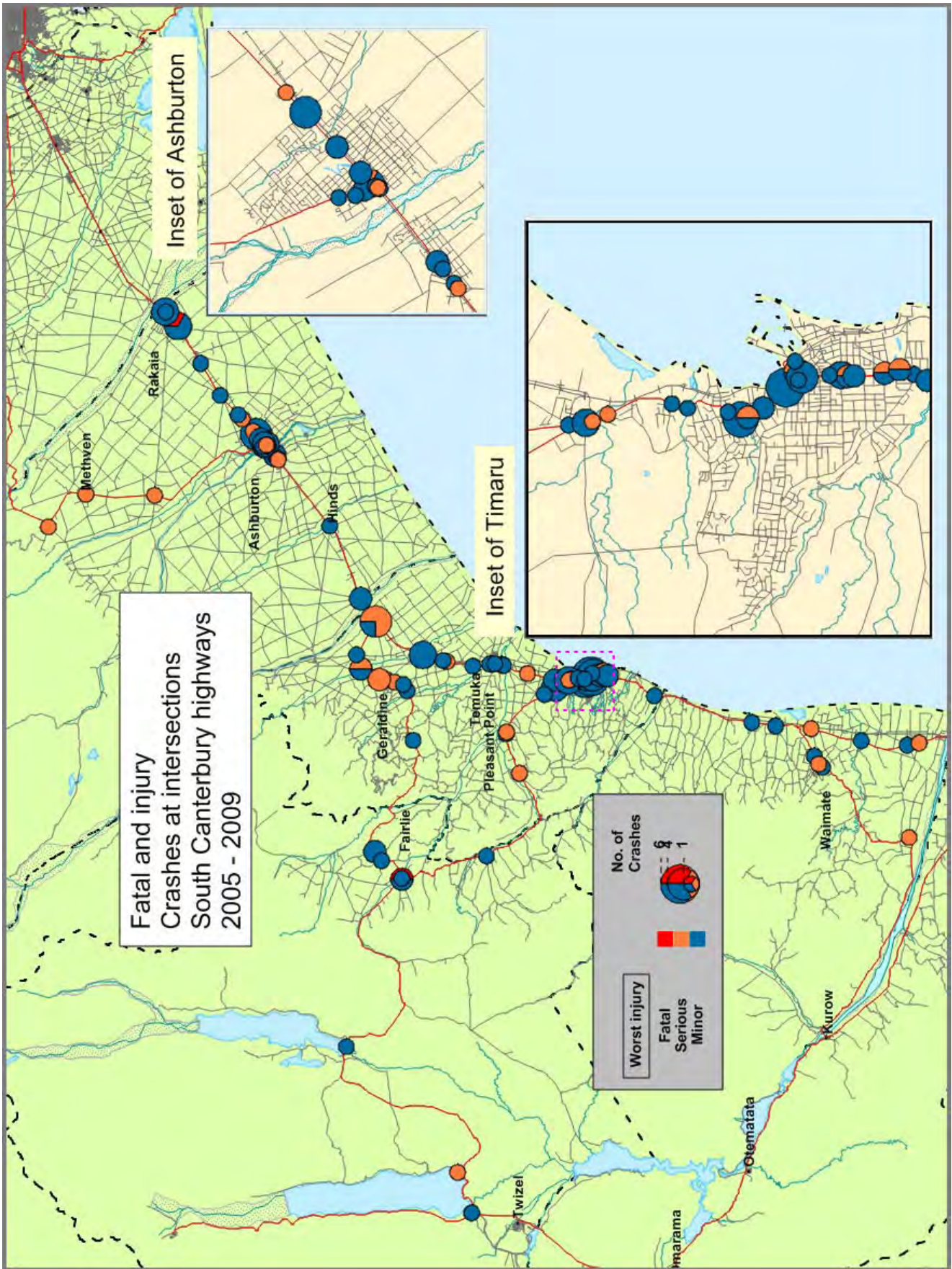
Licence type	Female	Male	Total
Full	30	60	90
Learner	8	11	19
Restricted	33	35	68
Overseas	9	8	17
Never licensed	2	1	3
Disqualified	0	2	2
Other (unknown, wrong class)	3	1	4
Total	85	118	203

### Injury crashes involving young drivers South Canterbury highways (2005 - 2009)

Crash type or contributory cause	Urban roads	Rural roads
Alcohol	11	16
Speed	19	14
Failed to stop/Give way	27	12
Poor handling	5	35
Poor observation	51	53
Poor judgement	12	34
Lost control - straight	9	48
Lost control - bend	7	24
Rear end / obstruction	24	21
Crossing / turning	28	12

Further information about the 186 injury crashes involving young drivers on State highways in South Canterbury 2005 to 2009:

- 39 percent were single vehicle crashes
- 40 percent were on urban roads
- 35 percent at intersections
- 35 percent at night
- 17 percent on wet or icy roads
- Worst month June
- Worst day of week Friday
- Worst time 3 am to 6 pm



## Intersections

During the five year period 2005 to 2009, on highways in South Canterbury, there were a total of 150 fatal and injury crashes at intersections.

Casualties in crashes at Intersections South Canterbury highways (2005 - 2009)					
	2005	2006	2007	2008	2009
Deaths	1	1	0	0	0
Serious injury	6	5	7	9	14
Minor injury	32	31	44	33	41
Total	39	37	51	42	55

In 2009 the number of casualties from crashes at intersections was the highest in the last five years. This was due to a rise in the number of serious casualties. There were no fatalities at intersections on highways in the last two years.

Sixty four percent of crashes at intersections were at intersections in urban areas of the district.

Ages of at fault drivers in intersection related crashes 2005 to 2009			
Ages	Male	Female	Total
15 to 19	16	13	29
20 to 24	14	6	20
25 to 29	7	2	9
30 to 39	21	5	26
40 to 49	11	11	22
50 to 59	11	4	15
60 to 69	5	5	10
70 and over	12	4	16
Total	97	50	147

### Main characteristics of injury Intersection crashes South Canterbury highways (2005-2009)

Crash characteristic	Percentage of crashes
Alcohol	6%
Excessive speed for the conditions	13%
Failed to stop or give way	47%
Poor observation	53%
Poor judgement	17%
Poor handling	17%
Loss of control	18%
Young drivers	34%

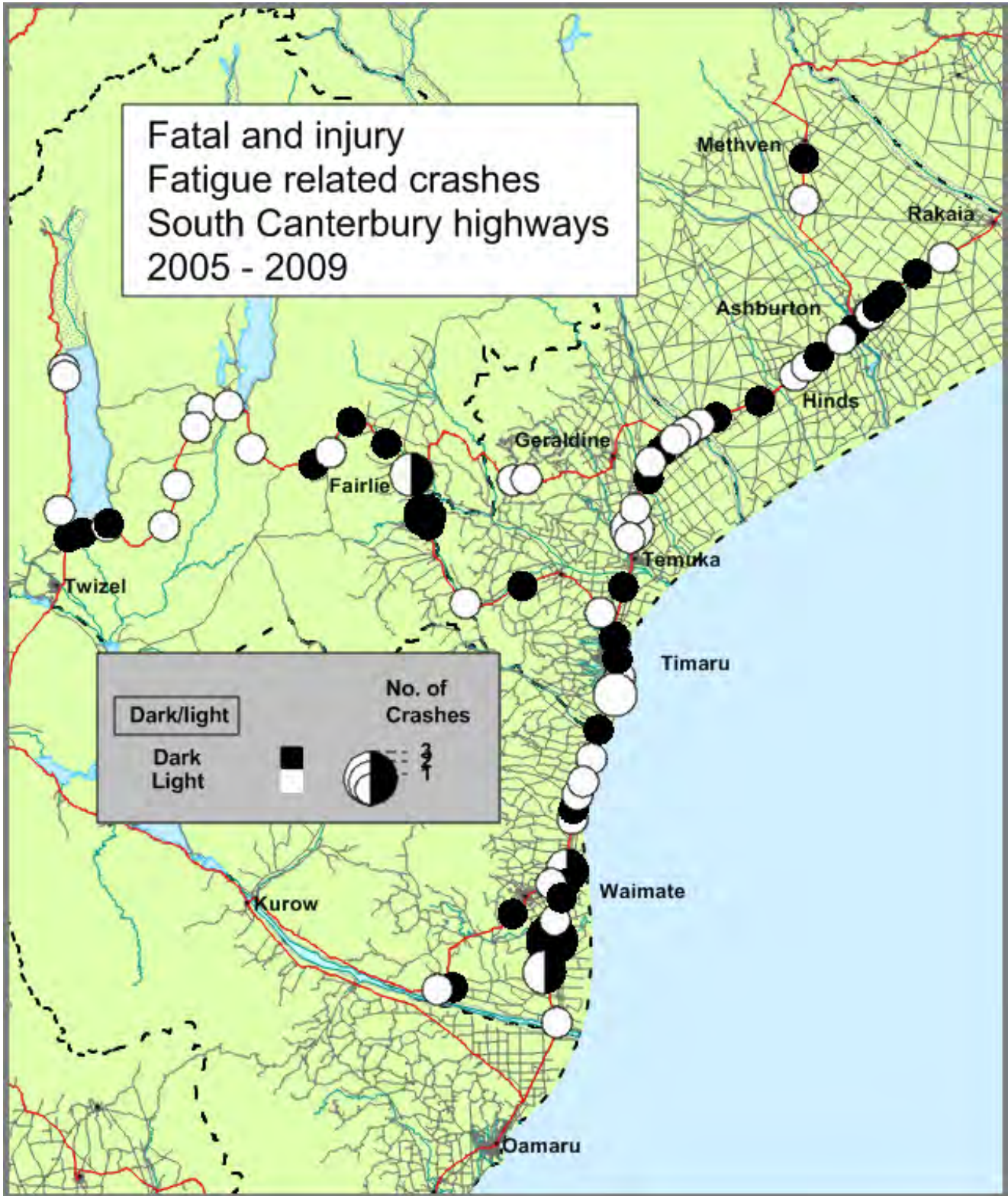
The most common crash types at intersections were when a driver travelling straight is struck on the right by another vehicle travelling straight through from the right, and when a driver turns right and is hit by a vehicle approaching from the opposite direction.

In South Canterbury highways there are 13 intersection sites which have had 3 or more injury crashes in the last five years, including 2 sites with 5 or more injury crashes in the past five years.

Further information about the 150 injury crashes at intersections on State Highways in South Canterbury 2005 to 2009:

- 2 deaths, 41 serious injuries and 181 minor injuries
- 14 percent wet or icy roads
- 23 percent night time
- Worst month December
- Worst day of week Thursday
- Worst time 3 pm till 6 pm





## Fatigue

Fatigue is a condition that is present long before a driver falls asleep. It has negative impacts on reaction time, the ability to concentrate, and a driver's understanding of the prevailing road and traffic conditions.

In South Canterbury highways in 2009, fatigue was reported as a factor in 17 percent of fatal and injury crashes. These crashes resulted in 8 people with serious injuries and 14 with minor injuries.

### Injury fatigue related crashes South Canterbury highways (2005 - 2009)

Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2005	1	5	9	15
2006	0	3	8	11
2007	2	7	13	22
2008	4	4	13	21
2009	0	7	11	18
<b>Total</b>	<b>7</b>	<b>26</b>	<b>54</b>	<b>87</b>

Young drivers made up 30 percent of fatigued drivers in crashes on South Canterbury highways.

### Age and gender of at fault drivers in injury fatigue related crashes South Canterbury highways (2009 - 2009)

Drivers age	Male	Female	Total
15-19 years	18	2	20
20 - 24	9	3	12
25 - 29	10	2	12
30 - 39	10	5	15
40 - 49	9	0	9
50 - 59	17	4	21
60 - 69	3	1	4
70+	7	3	10
<b>Total</b>	<b>84</b>	<b>20</b>	<b>104</b>

The majority of fatigued drivers in crashes on highways in South Canterbury are locals or from adjacent areas.

### Home locations of at fault drivers in fatigue related injury crashes on South Canterbury highways (2005 - 2009)

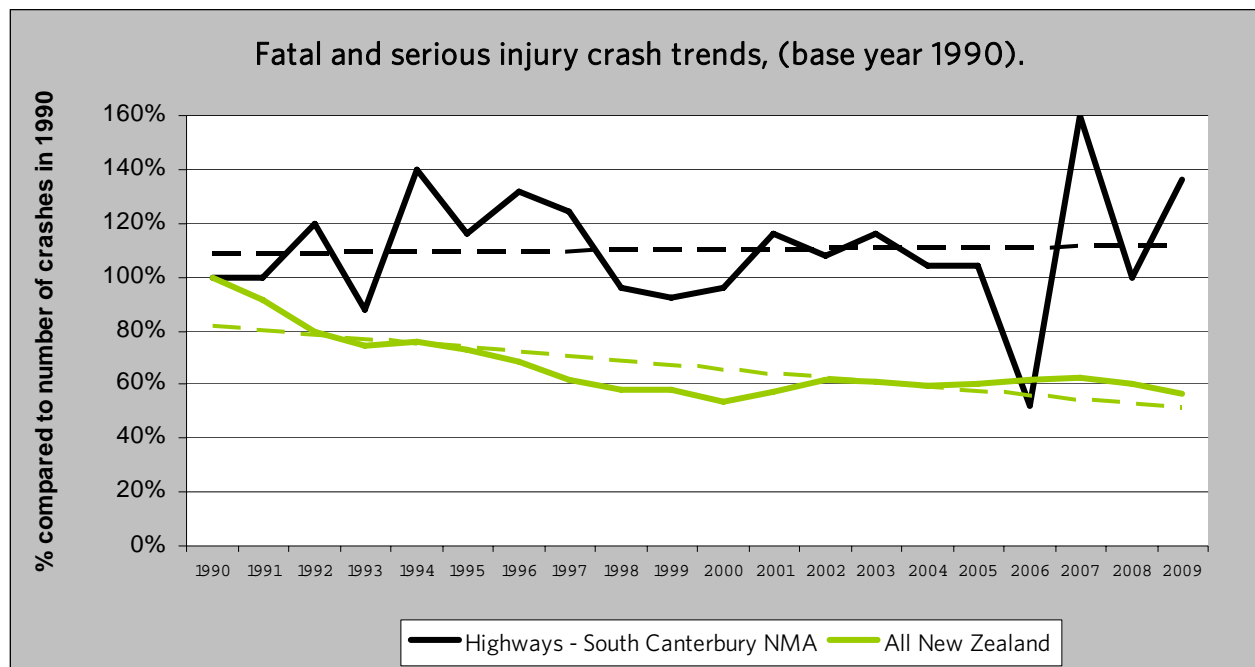
Mid & South Canterbury	51
Christchurch / North Canterbury	23
North and Central Otago	13
South Otago / Southland	5
West Coast	1
North Island	1
Overseas	7

Further information about the 87 fatigue related injury crashes on South Canterbury highways 2005 to 2009:

- 7 deaths, 32 serious injuries, 73 minor injuries
- 80 percent of at fault drivers were male
- 10 percent at intersections
- 91 percent rural
- 14 percent wet or icy road
- 44 percent night time
- Worst month December
- Worst day of week Saturday
- Worst time period 3 am till 6 am

## Looking back - the last two decades.

The vision of the Government's "Safer Journeys" road safety strategy is "A safe road system that is increasingly free of road deaths and serious injuries". The chart below illustrates the progress made in reducing fatal and serious casualties since 1990, for both South Canterbury highways and for the country as a whole.



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