



# briefing notes - road safety issues

## Christchurch City

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 in Christchurch City.

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 Christchurch City 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 city.

We encourage Christchurch City 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

Note  
Issues are not in  
any order

#### Christchurch City

Intersections

Young drivers

Cyclists

Motorcyclists

#### Nationally

Speed

Alcohol / Drugs

Young Drivers

Roads and Roadsides

Motorcyclists

### 2009 road trauma

#### Casualties

#### Christchurch City

Deaths

13

Serious casualties

183

Minor casualties

941

#### Crashes

#### Christchurch City

Fatal crashes

11

Serious injury crashes

163

Minor injury crashes

735

Non-injury crashes

1644

## 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 Canterbury / West Coast 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	✓	✓	✓	✓

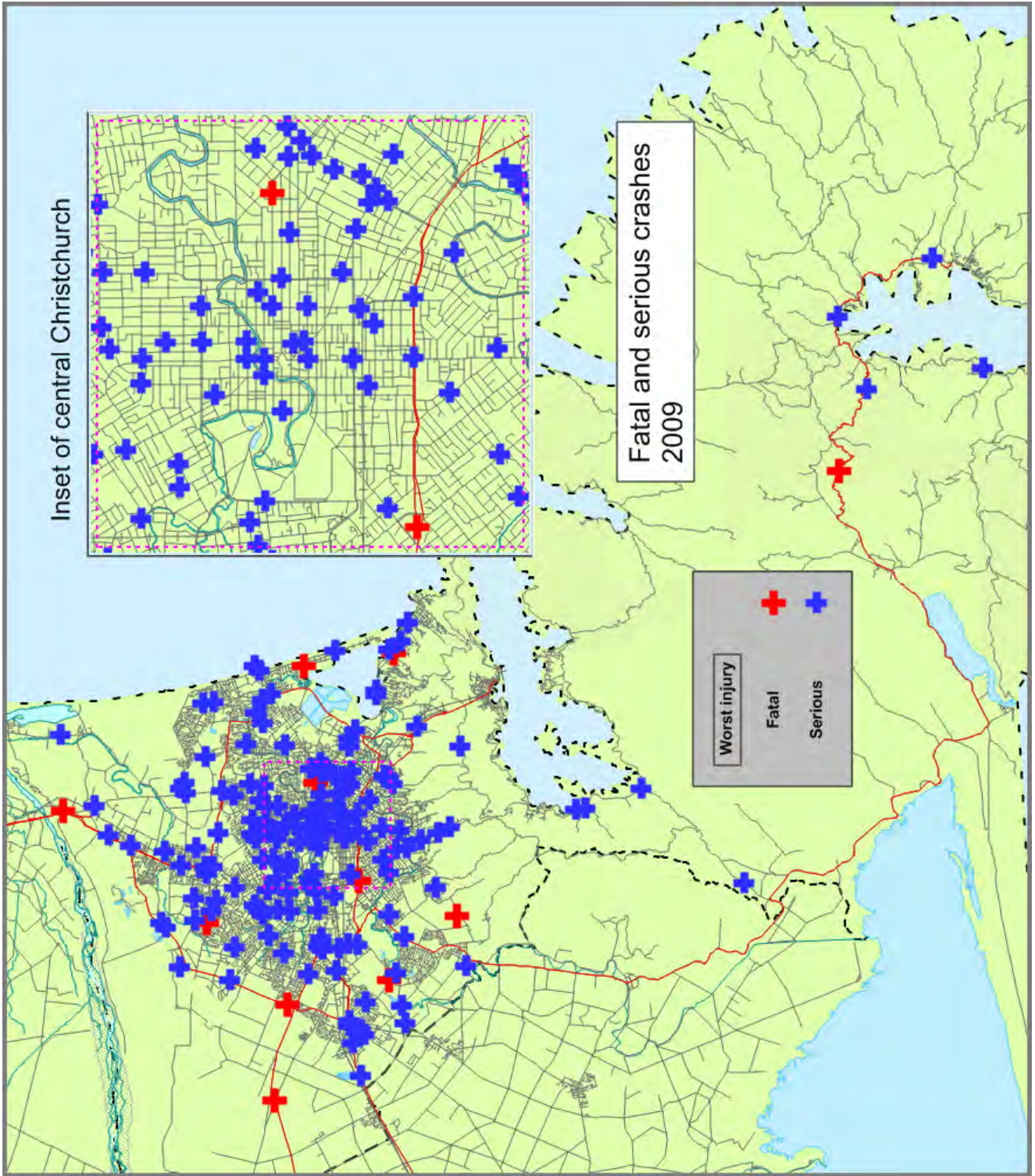
For some priorities (eg motorcycling), complementary action will be taken across all four areas of the Safe System. For others (eg reducing the impact of drink driving or safe roads), more effort would be focussed on one or two of the four Safe System areas.

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 Christchurch City local roads there were 777 reported injury crashes, of which 144 were fatal or serious. In addition, on State Highways there were 136 reported injury crashes of which 32 were fatal or serious.

The table below shows the number of casualties resulting from the 913 injury crashes by rural or urban areas (rural is defined as an area with a speed limit of 80km/h or more).

Casualties 2009 Christchurch City				
	Fatalities	Serious injuries	Minor injuries	Total
Rural	6	30	80	116
Urban	7	155	863	1025
Total	13	185	943	1141

Just over half of all deaths, over 80 percent of all serious injuries, and over 90 percent of minor injuries were sustained in crashes in urban areas of the city.

The number of fatal and serious crashes in the City has generally fluctuated between a low of 127 in 2000 and a high of 176 in 2009, except for 2007 and 2008 when the numbers were close to 220. There was a similar feature in minor injury crashes.

Crash trends in Christchurch City				
Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Crashes
2000	15	112	588	715
2001	14	146	609	769
2002	16	137	654	807
2003	14	147	616	777
2004	10	125	585	720
2005	14	160	640	814
2006	10	159	777	946
2007	12	205	852	1069
2008	16	202	820	1038
2009	11	165	737	913

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 Christchurch City.

Crash characteristics (2005 to 2009) Christchurch City				
Crash type or contributory cause	Percent fatal and serious crashes	Percent all injury crashes	No. of injury crashes	Safer Journeys priority
Alcohol	16	12	588	1
Too fast	15	11	513	1
At bends	18	13	639	1
On straights	10	9	434	1
Intersections	51	55	2642	1
Road factors	6	6	270	1
Motorcycling	22	12	568	1
Young drivers	34	36	1645	1
Fatigue	2	2	144	2
Distraction	7	5	497	2
Pedestrians	17	10	490	2
Cycling	16	14	703	2
Heavy vehicles	8	7	356	2
Older road users	10	8	352	3
Overseas drivers	2	3	135	-

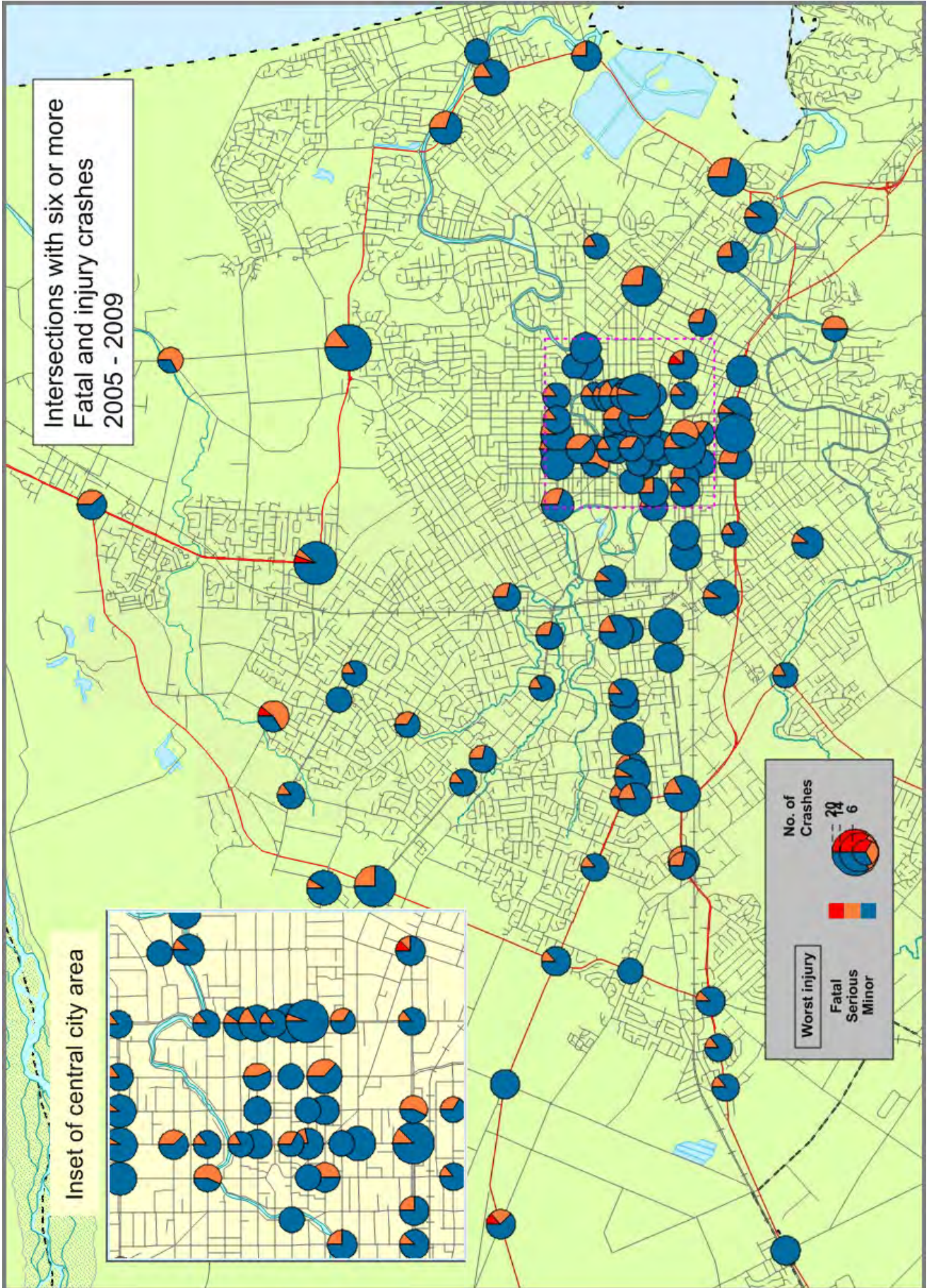
Further information about the 3981 injury crashes on local roads in Christchurch City, 2005 to 2009:

- 49 deaths, 799 serious injuries and 4144 minor casualties
- Five year age group with most at fault drivers in injury crashes: 15 to 19 years (19 percent of at fault drivers)
- Social cost of crashes in 2009 \$176.79 m

Further information about the 799 injury crashes on State Highways in Christchurch City, 2005 to 2009:

- 18 deaths, 172 serious injuries and 845 minor casualties
- Five year age group with most at fault drivers in injury crashes: 15 to 19 years (16 percent of at fault drivers)
- Social cost of crashes in 2009 \$50.28 m





## Intersections

During the five year period 2005 to 2009, on roads in Christchurch City, there were a total of 2643 fatal and injury crashes at intersections.

Casualties in crashes at Intersections Christchurch City (2005 - 2009)					
	2005	2006	2007	2008	2009
Deaths	8	5	6	5	6
Serious injury	95	89	119	104	93
Minor injury	441	603	696	619	525
Total	517	697	821	728	624

Over the last five years the number of crashes at intersections rose to a high in 2008 but dropped since.

Young drivers, those aged from 15 years to 24 years, are well represented in crashes at intersections, accounting for 35 percent of at fault drivers. Within this age group, males represented two thirds of at fault drivers. For the rest of the age groups males represented 59 percent of at fault drivers.

Ages of at fault drivers in intersection related crashes 2005 to 2009			
Ages	Male	Female	Total
15 to 19	306	166	472
20 to 24	291	145	436
25 to 29	157	85	242
30 to 39	244	167	411
40 to 49	200	158	358
50 to 59	177	94	271
60 to 69	107	78	185
70 and over	117	113	230
Total	1599	1006	2605

### Main characteristics of injury Intersection crashes Christchurch City (2005-2009)

Crash characteristic	Percentage of crashes
Alcohol	11%
Excessive speed for the conditions	8%
Failed to stop or give way	59%
Poor observation	59%
Urban area	93%

The most common crash types at intersections were: a vehicle travelling straight through being struck by a vehicle from the opposite direction turning right across its path, and a vehicle travelling straight through being struck on the right by a vehicle travelling straight through from the right.

In Christchurch City there were 105 intersection sites which have had more than 5 injury crashes in the last five years, including 30 sites with 10 or more injury crashes in the past five years. It is possible that some of these sites have had remedial work done in recent years.

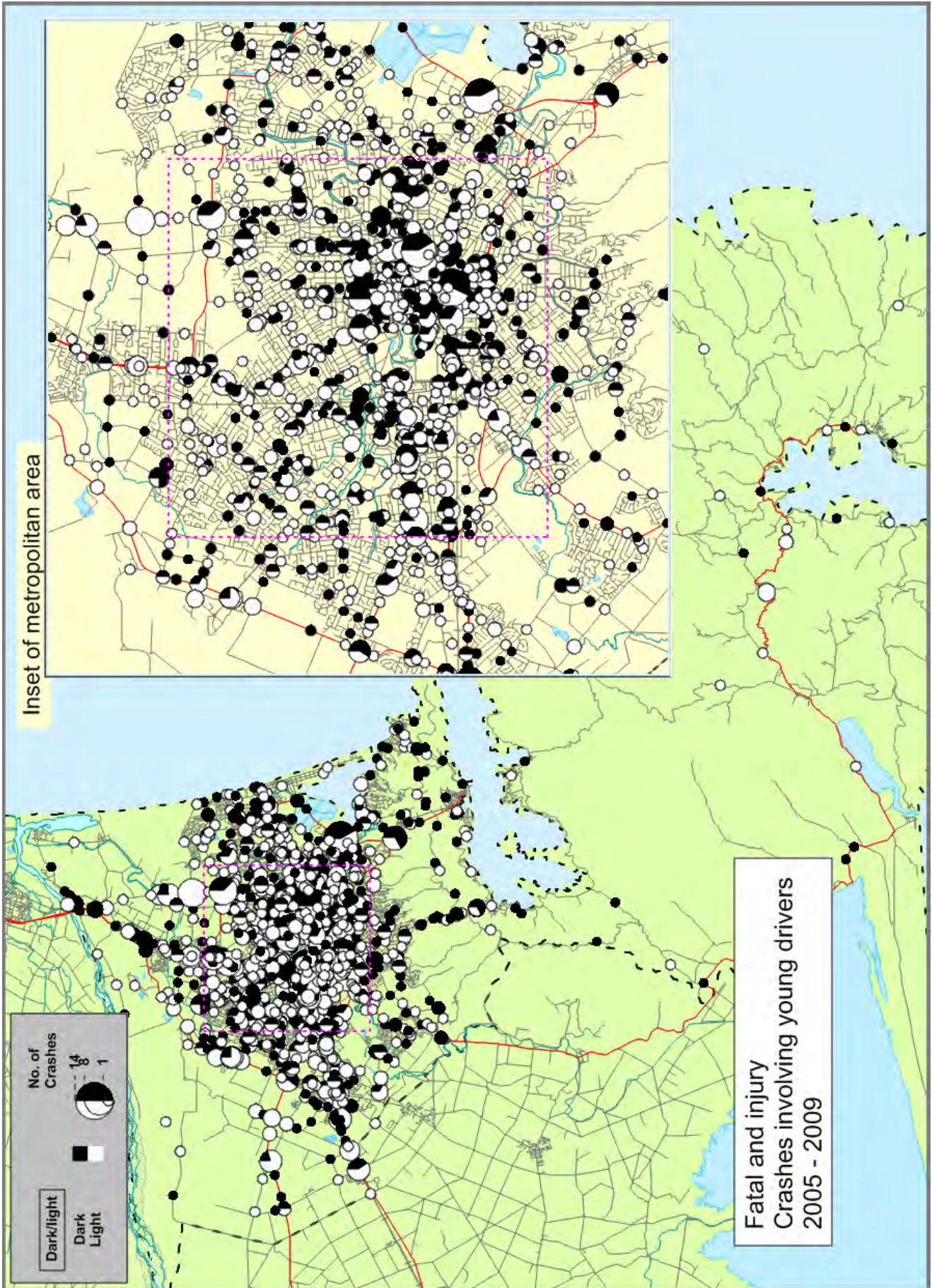
Further information about the 2160 injury crashes at intersections on local roads in Christchurch City 2005 to 2009:

- 24 deaths, 400 serious injuries and 2342 minor injuries
- 17 percent wet or icy roads
- 28 percent night time
- Worst month May
- Worst day of week Friday
- Worst time 3 pm till 6 pm

Further information about the 483 injury crashes at intersections on State Highways in Christchurch City 2005 to 2009:

- 6 deaths, 100 serious injuries and 542 minor injuries
- 13 percent wet or icy roads
- 32 percent night time
- Worst month March
- Worst day of week Friday
- Worst time 3 pm till 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 Christchurch City between 2005 and 2009, 36 percent of injury crashes involved young drivers. These 2024 crashes resulted in 22 deaths, 375 serious injuries and 2290 minor injuries.

The total number of casualties from crashes involving young drivers rose in 2007 to a high of 657 in 2007. The number has dropped each year since.

Casualties from crashes involving young drivers Christchurch City				
	Fatal	Serious	Minor	Total
2005	7	82	380	469
2006	1	60	431	492
2007	6	81	570	657
2008	5	85	480	570
2009	3	67	429	499
Total	22	375	2290	2687

Over half of the 2299 young drivers in these crashes had a learner or restricted licence. Of these drivers, 60 percent were males. Overall 64 percent of at fault young drivers were males.

Young drivers at fault in injury crashes Christchurch City (2005 - 2009)			
Licence type	Female	Male	Total
Full	295	598	893
Learner	134	257	391
Restricted	323	442	765
Overseas	15	41	56
Never licensed	22	28	50
Disqualified	3	44	47
Other (unknown, wrong class)	36	61	97
Total	828	1471	2299

### Injury crashes involving young drivers Christchurch City (2005 - 2009)

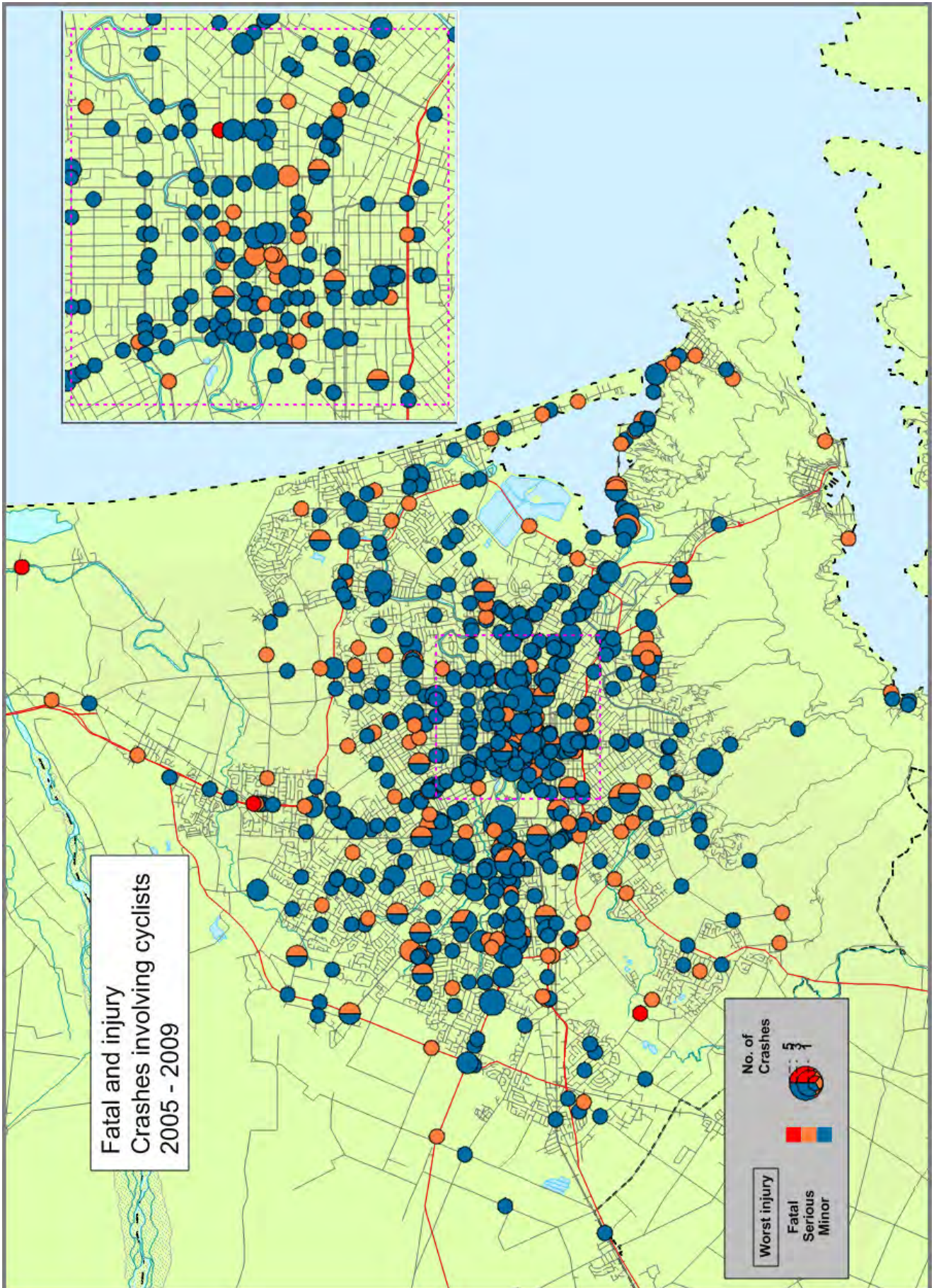
Crash type or contributory cause	Urban roads	Rural roads
Alcohol	281	20
Speed	321	44
Failed to stop/Give way	733	40
Poor observation	1131	80
Lost control - straight	156	24
Lost control - bend	284	66
Rear end / obstruction	477	32
Crossing / turning	723	38

Further information about the 1695 injury crashes involving young drivers on local roads in Christchurch City 2005 to 2009:

- 19 deaths, 301 serious injuries 1915 minor injuries
- 25 percent were single vehicle crashes
- 94 percent were on urban roads
- 56 percent at intersections
- 38 percent at night
- 18 percent wet or icy roads
- Worst month March
- Worst day of week Friday
- Worst time 3 pm to 6 pm

Further information about the 329 injury crashes involving young drivers on State highways in Christchurch City 2005 to 2009:

- 3 deaths, 74 serious injuries 375 minor injuries
- 19 percent were single vehicle crashes
- 77 percent were on urban roads
- 64 percent at intersections
- 38 percent at night
- 19 percent on wet or icy roads
- Worst month July
- Worst day of week Thursday
- Worst time 3 pm to 6 pm





## Cyclists

Although cyclist injuries do not feature highly in the overall crash numbers in Christchurch City, representing only 12 percent of all casualties, they made up 16 percent of fatal and serious casualties in the last five years.

The number of cyclists being injured in crashes in Christchurch City rose to a high of 174 in 2007 but has since reduced. There were two cyclist deaths that year

Cyclist casualties, (2005-2009) Christchurch City					
Cyclist injuries	2005	2006	2007	2008	2009
Fatal	1	0	2	0	1
Serious	24	23	41	37	29
Minor	81	117	131	131	103
Total	106	140	174	168	133

Ninety six percent of cyclist crashes were on urban roads.

The most common type of cyclist crash is when a cyclist travelling straight through is struck by a right turning vehicle from the opposite direction.

Major causes in cycle crashes, Christchurch City, (2005-2009)		
Cause	Cyclist at fault	Other road users at fault
Poor observation	61	320
Failed to give way or stop	45	285
Forbidden movements	52	0
Failed to keep left	27	23
Inattention	26	22
Distracted	5	33
Misjudged speed	12	18

### Age and gender of cyclist casualties 2005 to 2009 and 1980 to 1984 (25 years ago)

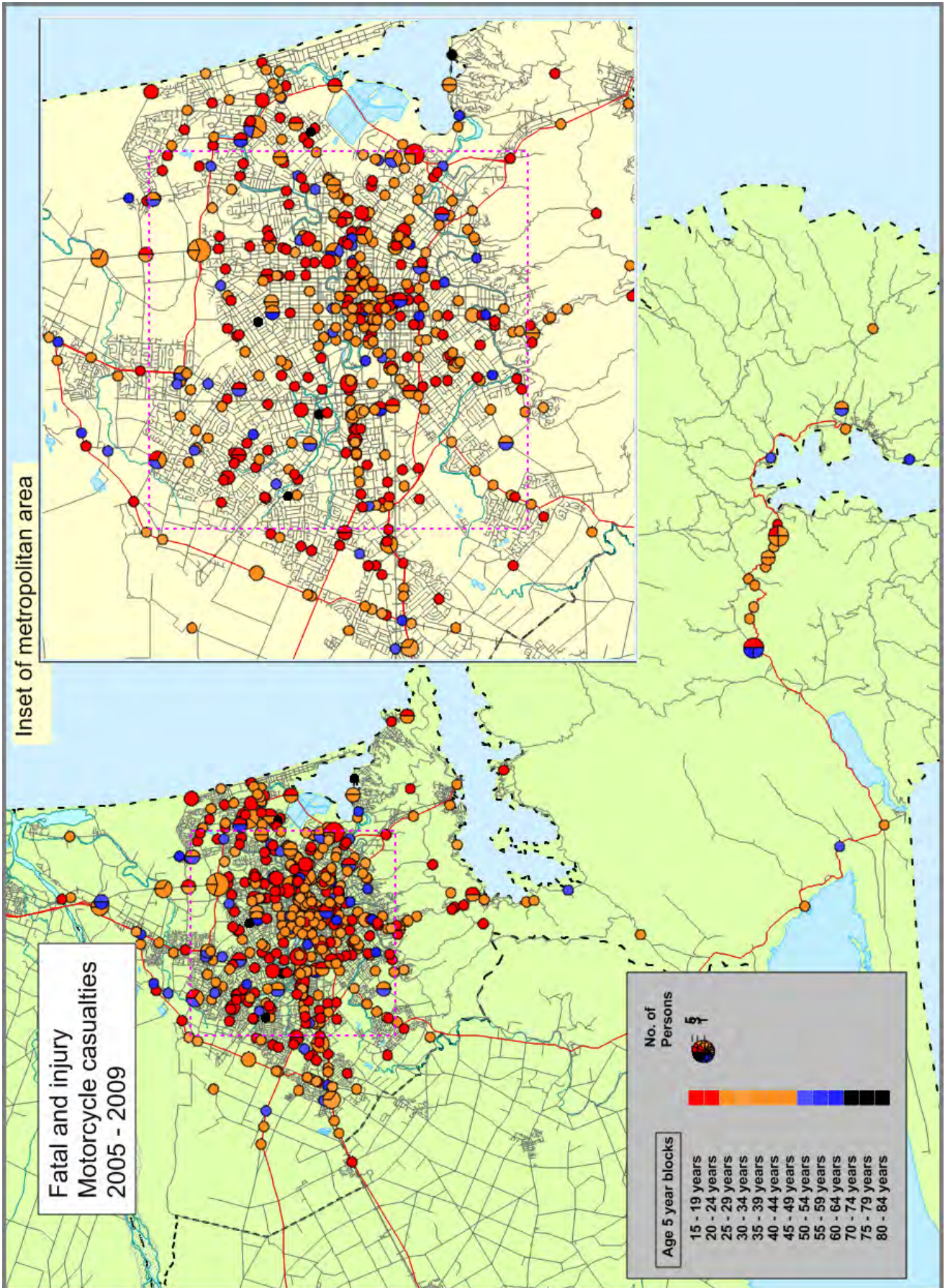
Ages	Female 2005 to 2009	Male 2005 to 2009	Total 2005 to 2009	25 years ago
0 to 4	1	0	1	3
5 to 9	5	12	17	55
10 to 14	19	48	67	260
15 to 19	21	56	77	249
20 to 24	32	27	59	129
25 to 29	39	36	75	45
30 to 34	18	36	54	27
35 to 39	21	54	75	20
40 to 44	18	46	64	21
45 to 49	16	42	58	25
50 to 54	23	33	56	21
55 to 59	6	24	30	18
60 to 64	2	12	14	13
65 to 69	0	6	6	19
70 to 74	3	9	12	14
75 plus	0	11	11	14

Further information about the 617 injury cyclist crashes on local roads in Christchurch City 2005 to 2009:

- 59 percent at intersections
- 9 percent on wet or icy roads
- 14 percent at night
- Worst month March
- Worst day of week Wednesday

Further information about the 72 injury cyclist crashes on State Highways in Christchurch City 2005 to 2009:

- 67 percent at intersections
- 12 percent on wet or icy roads
- 15 percent at night
- Worst months, May, November
- Worst day of week Tuesday





## Motorcyclists

Nationally, motorcycling fatalities dropped from 20 percent of all fatalities in 1988, to six percent in 2003. Since then there has been an increase in motorcycle registrations and this has reversed the downward trend. In 2009, motorcyclists accounted for 13 percent of road fatalities in New Zealand. Towards mid 2010 this had risen to 17 percent.

Motorcyclist casualties do not feature highly in the overall statistics in Christchurch City, representing only 10 percent of all casualties. However, they make up 20 percent of fatal and serious casualties.

Casualties from motorcyclist crashes Christchurch City (2005-2009)					
	2005	2006	2007	2008	2009
Fatal	1	3	1	3	2
Serious	38	34	49	39	44
Minor	50	67	101	86	95
Total	89	104	151	128	141

In Christchurch, the most common type of motorcyclist crash happens when a vehicle turning right turns into the path of a vehicle travelling straight through from the opposite direction. Commonly the motorcycle is the through vehicle.

Major causes in motorcycle crashes, Christchurch City, (2005-2009)		
Cause	Motorcyclist at fault	Other road users at fault
Poor observation	9	244
Failed to give way	11	204
Loss of control	108	1
Inexperience	43	16
Alcohol / drugs	50	7
Inattention	30	21
Overtaking	37	3
Speed	32	1
Distraction	14	19

### Age and gender of motorcycle and moped casualties between 2005 to 2009 and 1980 to 1984 - (25 years ago)

Ages	Female	Male	Total	25 years ago
5 to 9	0	0	0	3
10 to 14	1	1	2	22
15 to 19	25	86	111	1355
20 to 24	21	75	96	708
25 to 29	12	42	54	220
30 to 34	9	47	56	105
35 to 39	7	36	43	80
40 to 44	9	53	62	37
45 to 49	8	46	54	31
50 to 54	4	34	38	29
55 to 59	3	42	15	25
60 to 64	2	7	9	7
65 to 69	0	3	3	8
70 and over	2	4	6	9

Further information about the 459 injury motorcyclist crashes on local roads in Christchurch City 2005 to 2009:

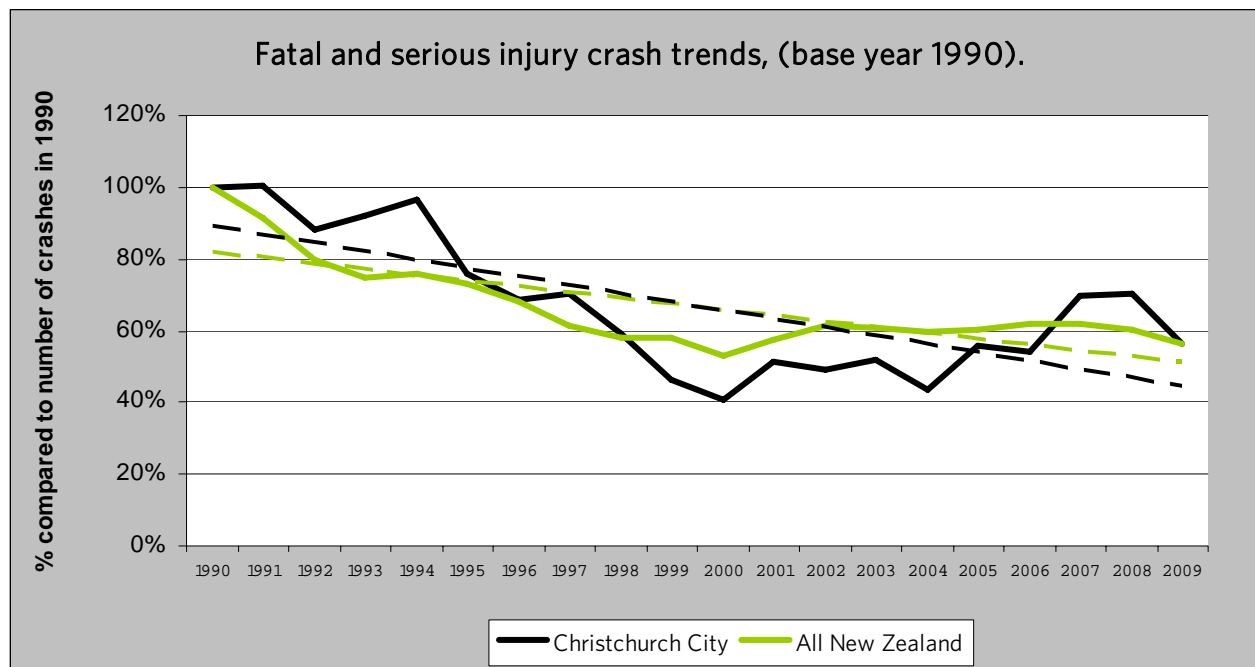
- 6 deaths, 162 serious injuries and 330 minor injuries
- 12 percent were on wet or icy roads
- 25 percent at night
- Worst months March, April
- Worst day of week Thursday
- Worst time 3 pm - 6 pm

Further information about the 104 injury motorcyclist crashes on State highways in Christchurch City 2005 to 2009:

- 4 deaths, 42 serious injuries and 69 minor injuries
- 6 percent were on wet or icy roads
- 19 percent at night
- Worst month January
- Worst day of week Sunday
- Worst time 3 pm - 6 pm

## 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 Christchurch City and for the country as a whole.



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