



briefing notes - road safety issues

Otago Region

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 Otago Region.

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 Otago Region 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 region.

We encourage Otago Region to delve deeper into the highlighted issues and other road safety issues in the district. Contact the NZTA Southern Performance Information Team in Christchurch for additional information from the Ministry of Transport’s Crash Analysis System (CAS).

Major road safety issues

Note
issues are not in
any order

Otago Region

Intersections
Young drivers
Bend - loss of control or head-on

2009 road trauma

Casualties	Otago Region
Deaths	12
Serious casualties	209
Minor casualties	907

Nationally

Speed
Alcohol / Drugs
Young Drivers
Roads and Roadsides
Motorcyclists

Crashes

Crashes	Otago Region
Fatal crashes	11
Serious injury crashes	170
Minor injury crashes	611
Non-injury crashes	1392

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

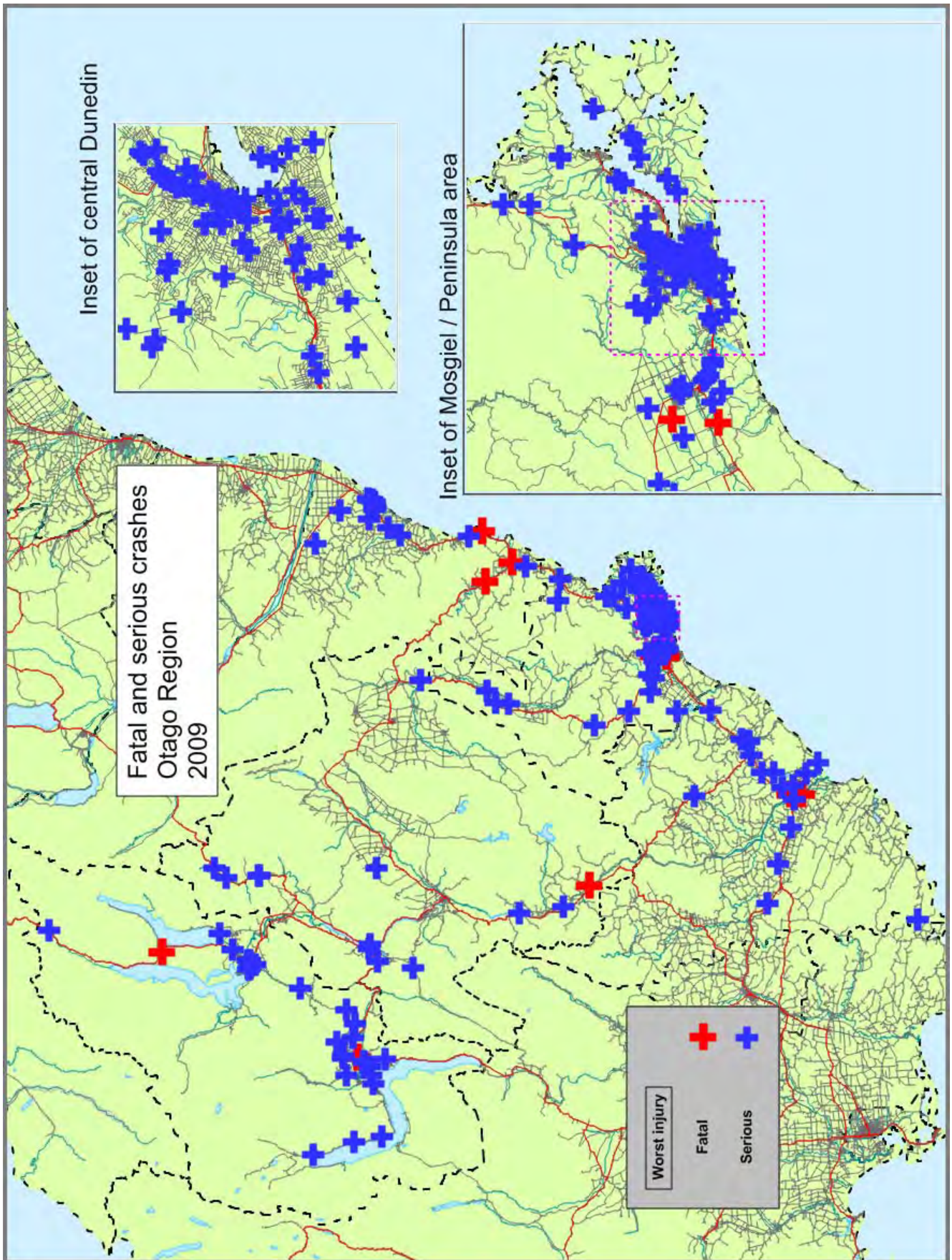
AREAS OF CONCERN WE WILL ADDRESS	WHERE WE WILL TAKE ACTION ACROSS THE SAFE SYSTEM			
	SAFE ROADS AND ROAD-SIDES	SAFE SPEEDS	SAFE VEHICLES	SAFE ROAD USE
Areas of high concern				
Reducing alcohol/drug impaired driving			✓	✓
Increasing the safety of young drivers	✓	✓	✓	✓
Safe roads and roadsides	✓			
Safe speeds	✓	✓	✓	
Increasing the safety of motorcycling	✓	✓	✓	✓
Areas of medium concern				
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		✓	✓	✓
Areas of continued and emerging focus				
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 - Otago / Otago 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
Waitaki District	19	35	52	0	19	16
Central Otago District	18	35	59	3	16	18
Queenstown-Lakes District	20	41	51	2	20	19
Dunedin City	17	44	46	21	21	13
Clutha District	14	36	61	1	22	15
Southland District	20	38	61	1	24	21
Gore District	16	53	46	1	20	18
Invercargill District	15	49	49	19	21	17
Otago Region	17	41	50	27	20	15
Southland Region	18	44	49	21	21	19
New Zealand	23	34	45	446	23	18



Overview

In 2009 on local roads in Otago Region there were 521 reported injury crashes, of which 120 were fatal or serious. In addition, on State Highways there were 278 reported injury crashes of which 62 were fatal or serious.

The table below shows the number of casualties resulting from the 799 injury crashes by rural or urban areas (rural is defined as an area with a speed limit of 80km/h or more).

Casualties 2009 Otago Region				
	Fatalities	Serious injuries	Minor injuries	Total
Rural	9	104	376	489
Urban	2	107	536	645
Total	11	211	912	1134

In 2009 on roads in Otago Region, over 80 percent of deaths, just under half of serious injuries, and just over 40 percent of minor injuries were sustained in crashes on roads in rural areas.

In 2009 there were 10 fatal crashes. This figure was the lowest since 2002, but in both 2007 and 2008 the 19 reported fatal crashes was only exceeded by the 20 in 2001.

The number of serious crashes has not changed significantly in the last three years.

Crash trends in Otago Region				
Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Crashes
2000	16	111	229	356
2001	20	203	531	754
2002	10	239	686	935
2003	17	244	608	869
2004	15	227	648	890
2005	12	236	708	956
2006	13	199	658	870
2007	19	163	716	898
2008	19	162	639	820
2009	10	172	617	799

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 Otago Region.

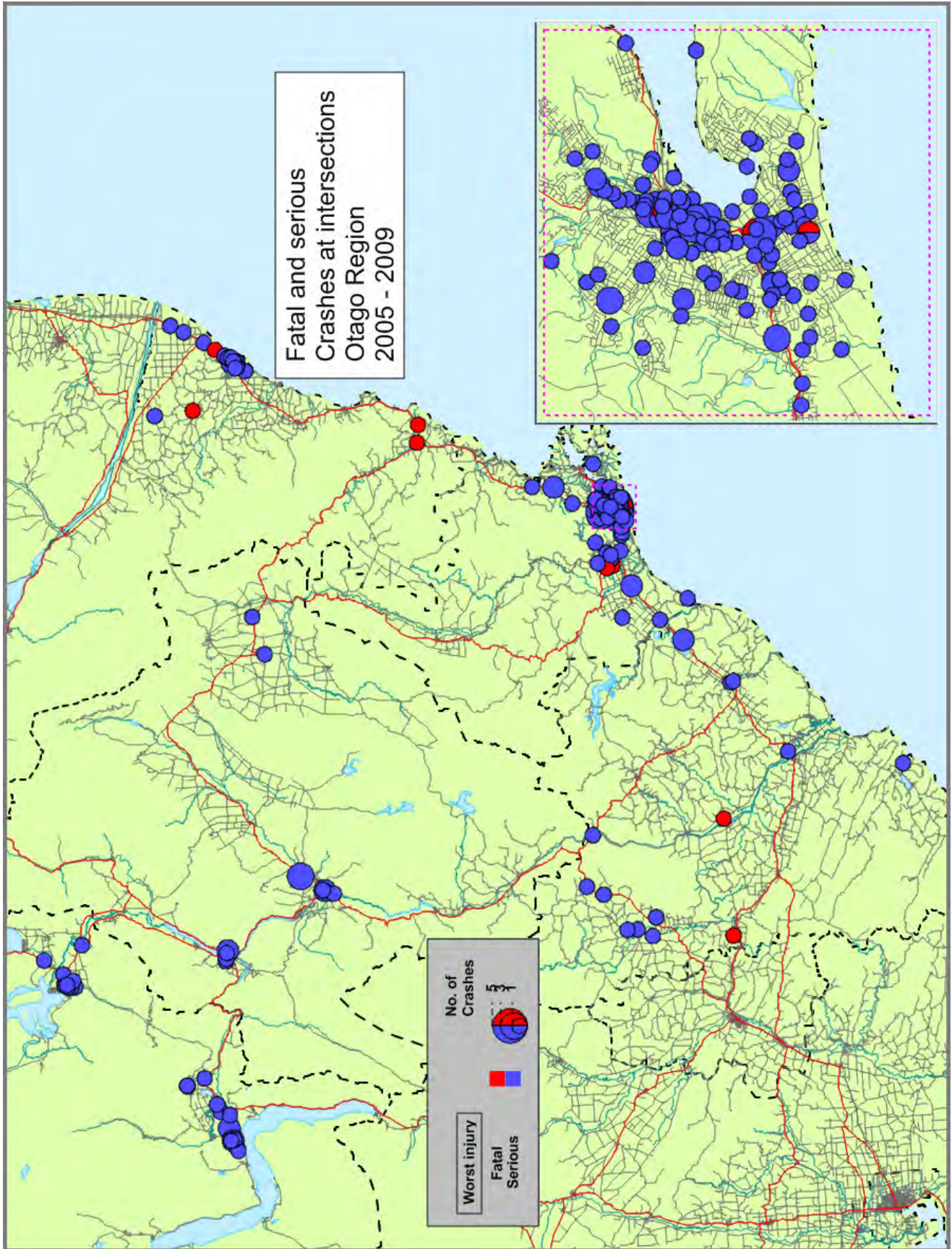
Crash characteristics (2005 to 2009) Otago Region				
Crash type or contributory cause	Percent fatal and serious crashes	Percent all injury crashes	No. of injury crashes	Safer Journeys priority
Alcohol	17	10	450	1
Too fast	20	17	722	1
At bends	40	35	1519	1
On straights	17	14	586	1
Intersections	26	33	1443	1
Road factors	22	24	1029	1
Motorcycling	16	8	346	1
Young drivers	40	40	1661	1
Fatigue	7	5	222	2
Distraction	11	6	542	2
Pedestrians	12	7	323	2
Cycling	6	5	222	2
Heavy vehicles	10	7	315	2
Older road users	7	7	299	3
Overseas drivers	7	8	330	-

Further information about the 2716 injury crashes on local roads in Otago Region, 2005 to 2009:

- 38 deaths, 716 serious injuries and 3138 minor casualties
- Five year age group with most at fault drivers in injury crashes: 15 to 19 years (26 percent of at fault drivers)
- Social cost of crashes in 2009 \$128.91 m

Further information about the 1627 injury crashes on State Highways in Otago Region, 2005 to 2009:

- 48 deaths, 422 serious injuries and 2010 minor casualties
- Five year age group with most at fault drivers in injury crashes: 15 to 19 years and 20 to 24 years (each with 16 percent of at fault drivers)
- Social cost of crashes in 2009 \$83.20 m



Intersections

During the five year period 2005 to 2009, on roads in Otago Region, there were a total of 1444 fatal and injury crashes at intersections.

Casualties in crashes at Intersections Otago Region (2005 - 2009)					
	2005	2006	2007	2008	2009
Deaths	2	1	2	5	2
Serious injury	54	45	47	47	60
Minor injury	229	203	240	266	241
Total	285	249	289	318	303

The number of injury crashes at intersections has increased slightly over the last five years.. In 2009 the number of serious crashes at intersections was the highest in the five years.

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

Over one third of at fault drivers in crashes at intersections were young drivers. Of these young drivers, 69 percent were males. Overall, 62 percent of at fault drivers were males.

Ages of at fault drivers in intersection related crashes 2005 to 2009			
Ages	Male	Female	Total
15 to 19	189	85	274
20 to 24	150	76	226
25 to 29	74	50	124
30 to 39	113	88	201
40 to 49	82	69	151
50 to 59	86	56	142
60 to 69	65	40	105
70 and over	92	63	155
Total	851	527	1378

Main characteristics of injury Intersection crashes Otago Region (2005-2009)

Crash characteristic	Percentage of crashes
Alcohol	6%
Excessive speed for the conditions	10%
Failed to stop or give way	55%
Poor observation	67%

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

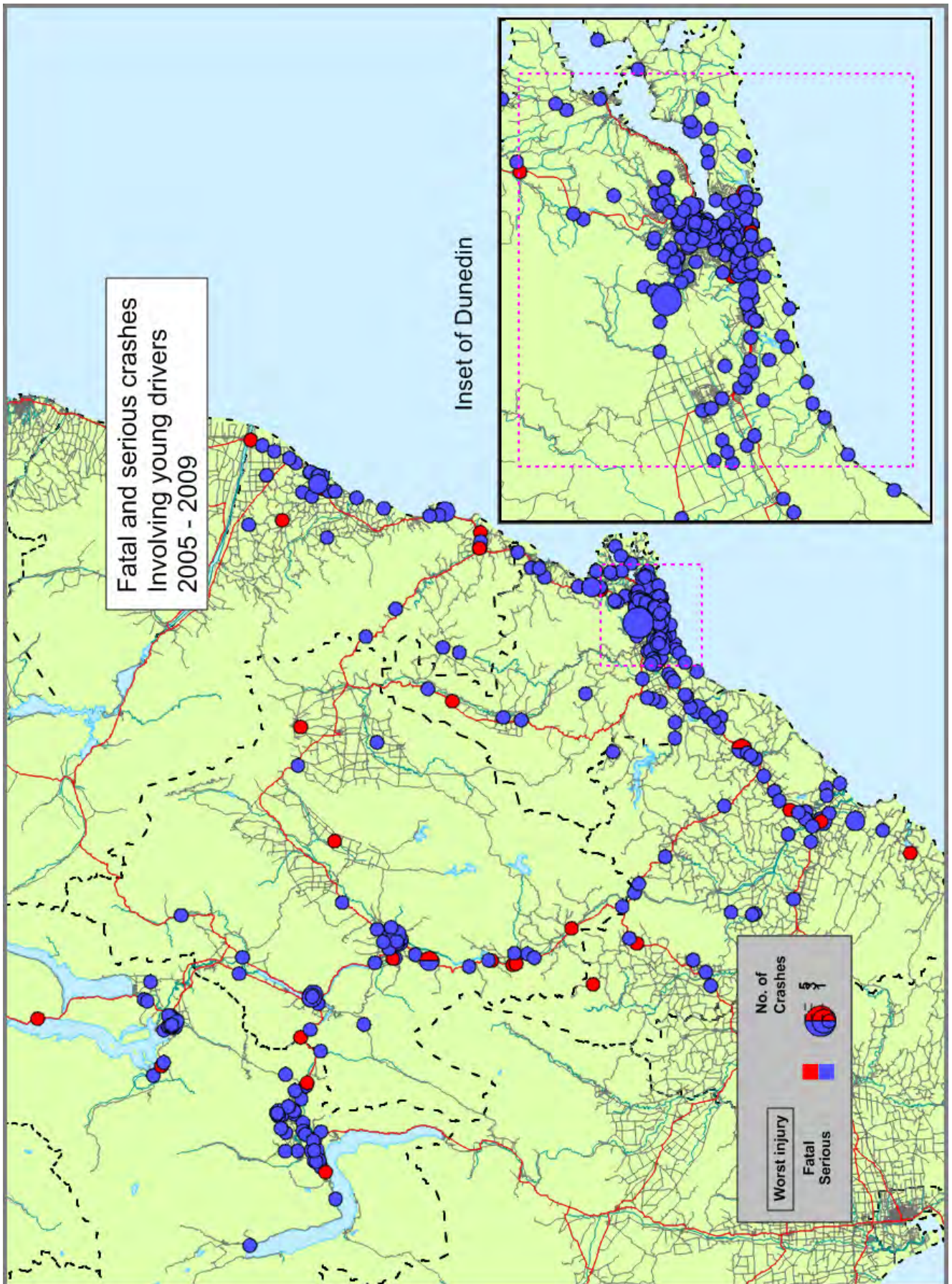
In Otago Region there are 60 intersection sites which have had 5 or more injury crashes in the last five years, including 9 sites with 9 or more injury crashes in the past five years.

Further information about the 956 injury crashes at intersections on local roads in Otago Region 2005 to 2009:

- 9 deaths, 216 serious injuries and 1150 minor injuries
- 24 percent wet or icy roads
- 27 percent night time
- Worst month March
- Worst day of week Friday
- Worst time 3 pm till 6 pm

Further information about the 488 injury crashes at intersections on State Highways in Otago Region 2005 to 2009:

- 3 deaths, 81 serious injuries and 621 minor injuries
- 17 percent wet or icy roads
- 25 percent night time
- Worst month May
- Worst day of week Thursday
- 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 Otago Region between 2005 and 2009, 45 percent of injury crashes involved young drivers. These crashes resulted in 42 deaths, 513 serious injuries and 2431 minor injuries.

In 2009, the total number of casualties from crashes involving young drivers was the lowest in the last five years. The four deaths in 2009 was less than half of the average of the previous four years.

Casualties from crashes involving young drivers Otago Region

	Fatal	Serious	Minor	Total
2005	9	127	535	671
2006	9	111	469	589
2007	12	101	561	674
2008	8	78	449	535
2009	4	96	417	517
Total	42	513	2431	2986

Forty four percent of the 2132 young drivers in these crashes had a learner or restricted licence. Nearly two thirds of these 942 drivers were males. Overall males accounted for two thirds of at fault drivers.

Young drivers at fault in injury crashes Otago Region (2005 - 2009)

Licence type	Female	Male	Total
Full	277	622	899
Learner	91	167	258
Restricted	262	422	684
Overseas	51	80	131
Never licensed	20	32	52
Disqualified	8	31	39
Other (unknown, wrong class)	23	46	69
Total	732	1400	2132

Injury crashes involving young drivers Otago Region (2005 - 2009)

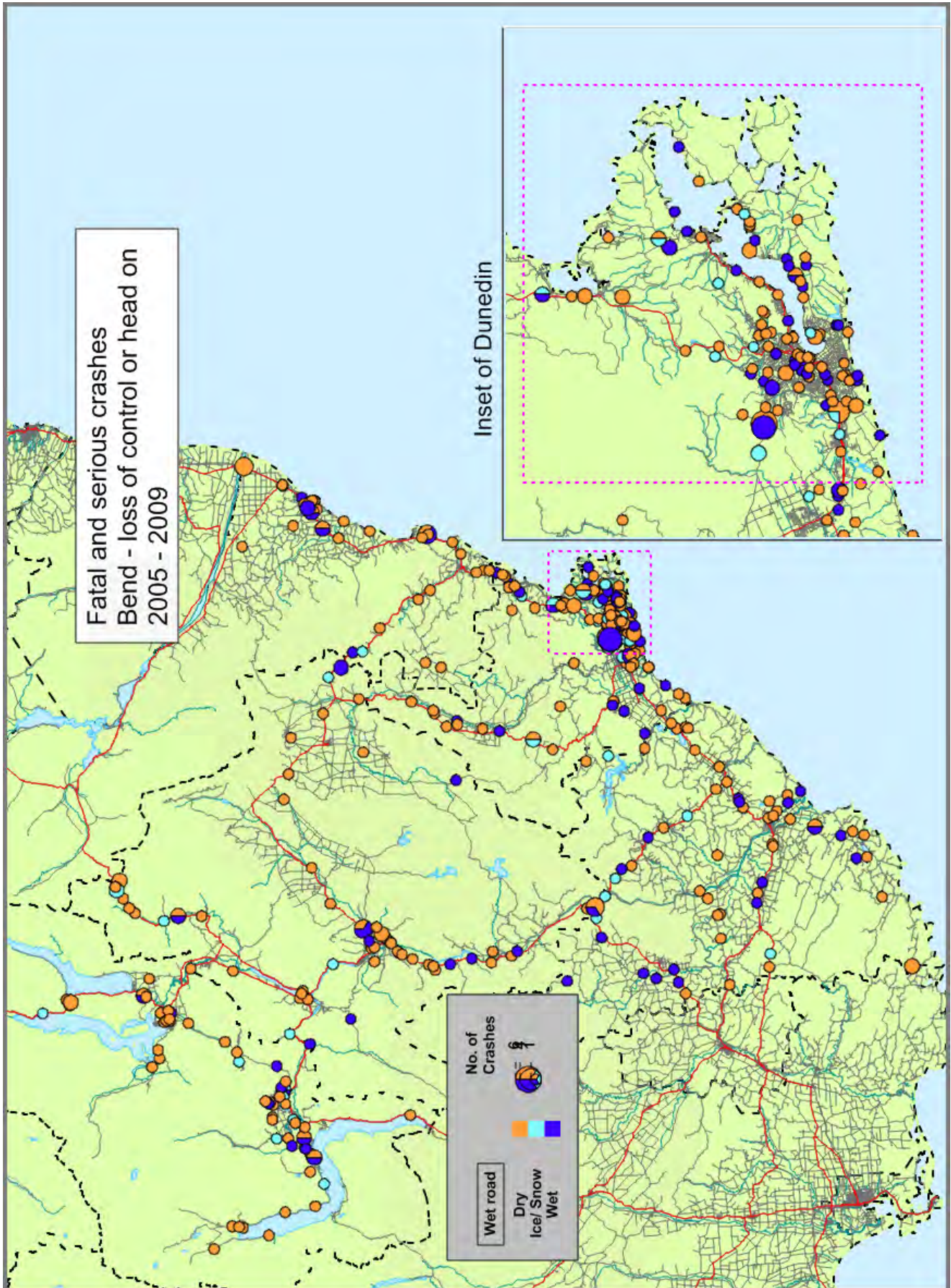
Crash type or contributory cause	Urban roads	Rural roads
Alcohol	151	91
Speed	258	254
Failed to stop/Give way	376	40
Poor handling	291	421
Poor observation	776	246
Lost control - straight	106	160
Lost control - bend	263	438
Rear end / obstruction	318	79
Crossing / turning	351	43

Further information about the 1309 injury crashes involving young drivers on local roads in Otago Region 2005 to 2009:

- 18 deaths, 361 serious injuries 1611 minor injuries
- 45 percent were single vehicle crashes
- 70 percent were on urban roads
- 35 percent at intersections
- 38 percent at night
- 30 percent wet or icy roads
- Worst month March
- Worst day of week Saturday
- Worst time 3 pm to 6 pm

Further information about the 622 injury crashes involving young drivers on State highways in Otago Region 2005 to 2009:

- 24 deaths, 152 serious injuries 820 minor injuries
- 42 percent were single vehicle crashes
- 40 percent were on urban roads
- 32 percent at intersections
- 36 percent at night
- 29 percent on wet or icy roads
- Worst months March, November
- Worst day of week Thursday
- Worst time 3 pm to 6 pm



Bend - loss of control or head on

Between 2005 and 2009 35 percent of all injury crashes in Otago Region were bend - loss of control or head on crashes. These crashes resulted in 41 deaths, 461 serious injuries and 1829 minor injuries.

Total crash numbers rose in 2006 and have dropped each year since.

Bend - loss of control or head on crashes Otago Region (2005 - 2009)				
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2005	4	89	221	314
2006	9	87	242	338
2007	11	68	251	330
2008	9	59	213	281
2009	3	66	190	259
Total	36	369	1117	1522

Overall males made up two thirds of at fault drivers in these crashes.

Young drivers accounted for 46 percent of at fault drivers. Within this age group, males represented almost two thirds of at fault drivers.

At fault drivers in Bend - loss of control or head on crashes 2005 to 2009			
Ages	Male	Female	Total
15 to 19	256	118	374
20 to 24	225	85	310
25 to 29	103	44	147
30 to 39	157	95	252
40 to 49	118	64	182
50 to 59	81	52	133
60 to 69	42	21	63
70 and over	22	21	43
Total	1004	500	1504

If drivers lose control, their vehicles 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.

The most common roadside hazards struck in injury bend - loss of control or head on crashes in Otago Region were cliffs or banks (369), fence (285), over bank (231), ditch (190) and tree (149) from a total of 1673 objects struck.

A roadside hazard was struck in 77 percent of bend - loss of control or head on crashes in the Region.

Further information about the 961 injury bend - loss of control or head on crashes on local roads in Otago Region, (2005 to 2009):

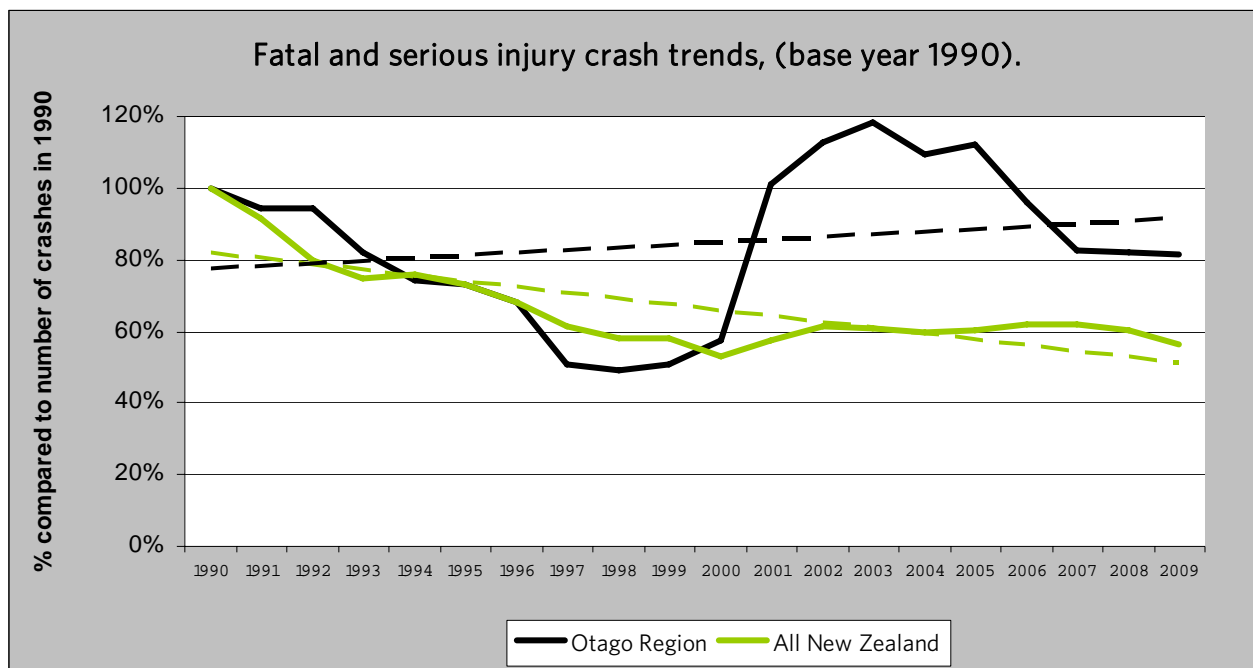
- 17 deaths, 298 serious injuries and 1168 minor injuries
- 18 percent of crashes involved alcohol
- 38 percent of crashes involved speed too fast for the conditions
- 44 percent involved road factors
- 63 percent involved poor handling
- 56 percent were on rural roads
- 42 percent were on wet or icy roads
- 41 percent were at night
- Worst month March
- Worst day of week Saturday
- Worst time period 3 pm till 6 pm

Further information about the 561 injury bend - loss of control or head on crashes on State Highways in Otago Region, (2005 to 2009):

- 24 deaths, 163 serious injuries and 661 minor injuries
- 12 percent of crashes involved alcohol
- 25 percent of crashes involved speed too fast for the conditions
- 37 percent involved road factors
- 54 percent involved poor handling
- 91 percent were on rural roads
- 44 percent were on wet or icy roads
- 40 percent were at night
- Worst month June
- Worst day of week Saturday
- Worst time period 3 pm till 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 Otago Region and for the country as a whole.



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