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# road safety issues

# Christchurch City

Land Transport New Zealand has prepared this road safety issues report. It is based on reported injury crash data for the 2001-2005 period. The intent of the report is to highlight the key road safety issues within Christchurch City (including Banks Peninsula).

This report recognises the amalgamation of Christchurch City and Banks Peninsula District by showing combined statistics on the front page. The inside pages show issues for the old Christchurch City area and the old Banks Peninsula area. The two areas have been shown separately because of the differences in their roading networks and types of crashes.

Over the past year significant changes have been:

- the number of urban and rural crashes and casualities have increased
- motorcyclist crashes and casualties have increased.

Over the period from 2001 to 2005:

- young people in the 15–29 year age group accounted for more than 40 percent of the casualties
- drivers accounted for 50 percent of the casualties
- pedestrian casualties have remained at a constant level.

#### Major road safety issues

#### Christchurch City

Intersections

Alcohol

Cyclists

**Pedestrians** 

#### Banks Peninsula

Loss of control on bends

Weekend crashes

#### Nationally

Speed

Alcohol

Failure to give way

Restraints

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### 2005 road trauma for Christchurch City (and Banks Peninsula)

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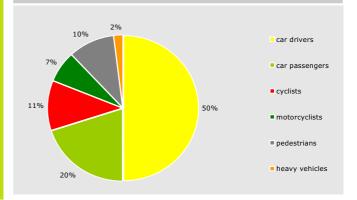
Deaths	15
Serious casualties	177
Minor casualties	825



Fatal crashes	14
Serious injury crashes	159
Minor injury crashes	636
Non-injury crashes	1,693

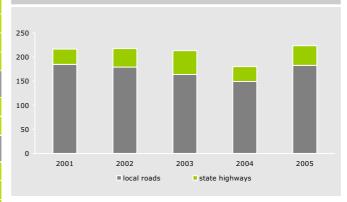
#### Road casualties 2001-2005

User type 2001-2005



# Estimated social cost of crashes\*

Social cost (\$ million)



\* The estimated social cost includes loss of life or life quality (estimated by the amount New Zealanders are prepared to pay to reduce their risk of fatal or non-fatal injury), loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage. These costs are expressed at June 2005 prices.

#### Intersections

#### Christchurch City excluding Banks Peninsula

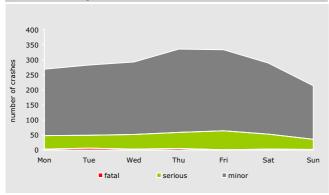
Urban intersections are the most common location for crashes to occur. Over 55 percent of crashes occurred at urban intersections in the period from 2001 to 2005, resulting in 24 fatalities, 363 serious injuries and 2,173 minor injuries.

Drivers at fault in urban intersection injury crashes were generally male, while females only made up a third of the total. The largest number of drivers was in the 15–29 year age group and made up 45 percent of the drivers at fault.

Learner drivers and those on a restricted licence made up 22 percent of the drivers at fault in these crashes.

As shown in the graph below, the highest number of injury crashes at intersections occurred on Thursdays and Fridays. The worst time for these crashes was between 3 pm and 6 pm on weekdays, which coincides with peak afternoon traffic.

# Injury crashes at intersections by day of week and severity 2001–2005



March and May were the worst months for crashes, while January had the least crashes.

Common factors which contributed to these crashes were drivers failing to give way or stop, failing to see approaching traffic or failing to see traffic slowing in front of them. Alcohol and travelling too fast were factors in at least 10 percent of the crashes.

Intersections controlled by traffic signals had the highest number of crashes followed by intersections with Give Way controls and then those intersections without controls.

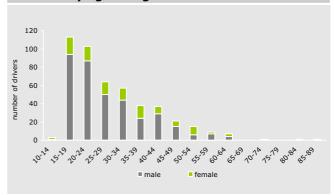
The highest concentration of intersection crashes occurred in the central city with the worst roads being Bealey Ave, Fitzgerald Ave and Moorhouse Ave. Other arterial roads within the city also had significant numbers of crashes. See the map titled Urban intersection injury crashes 2001–2005.

#### **Alcohol**

# **Christchurch City excluding Banks Peninsula**

In Christchurch City, 12 percent of crashes involved alcohol as a contributing factor. In the period from 2001 to 2005 these crashes resulted in 16 fatalities, 122 serious injuries and 485 minor injuries. In over a third of the crashes, speed was also a contributing factor.

# Drivers at fault in alcohol-involved injury crashes by age and gender 2001–2005

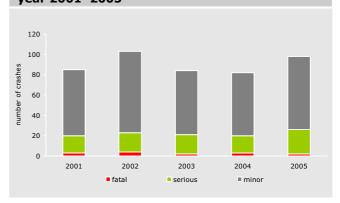


Drivers at fault in these crashes were frequently young males aged between 15 and 24 years. This group made up 39 percent of the at-fault drivers. Many of the drivers held learner or restricted licences, or were disqualified drivers or had never held a driver licence.

As might be expected the time of the crashes corresponded with the times when young people socialise. The largest number of crashes occurred on Thursday, Friday and Saturday nights and early morning periods.

The map titled Crashes involving alcohol 2001–2005, shows that these crashes were spread throughout the city. The severity of the crashes was similar throughout the city, with both serious and fatal crashes occurring in residential and rural areas. The chart below shows there was an increase in alcohol-involved crashes in 2005 compared to 2003 and 2004.

# Alcohol involved injury crashes by severity and year 2001-2005



### **Cyclists**

#### Christchurch City excluding Banks Peninsula

Cyclists are one of the most vulnerable groups of road users. They mix with larger and faster vehicles, so when they are involved in a crash it is likely that the consequences will be severe.

In the period from 2001 to 2005 there were five cyclist fatalities, 117 serious injuries and 438 minor injuries. The main areas for cycle crashes were along arterial routes and within the central city.

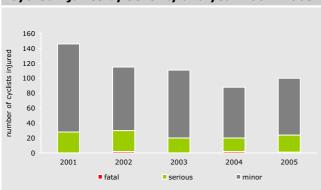
Most crashes occurred during the weekdays in the morning and evening rush hours. The highest number of crashes occurred on Tuesday, Wednesday and Thursday. In total, weekday crashes accounted for 83 percent of cyclist crashes.

Cyclist crashes showed a sudden rise in February, which corresponds with the start of the school year. The crash rate declined from this point to the end of the year.

Many of the crashes involved drivers failing to see cyclists. If cyclists were to wear bright and reflective clothing, this could help visibility. In dark and twilight conditions, cyclists can improve their visibility by using front and rear lights.

The graph below shows that the number of cyclists injured has declined since the peak of 2001, although it has increased in 2005 compared to 2004.

#### Cyclist injuries by severity and year 2001-2005



Of the cyclists injured, 50 percent were between the ages of 10 and 29 years. The greatest number of injuries was sustained by cyclists in the 10 to 14 year age range. This emphasises the vulnerability of younger road users. Over twice as many male cyclists were injured as female cyclists. A significant number of male cyclists injured were in the 20–44 year age range.

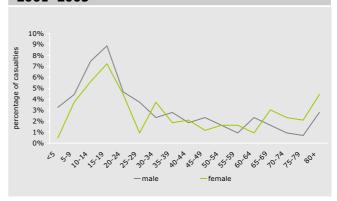
#### **Pedestrians**

# **Christchurch City excluding Banks Peninsula**

From 2001 to 2005 there were 17 pedestrian fatalities, 128 serious injuries and 321 minor injuries.

The greatest number of pedestrian crashes occurred during weekdays in the period from 3 pm to 6 pm. This coincides with the times that school children are going home from school. The largest number of injuries was incurred by people in the 10–19 year age group. The chart below shows that there was an almost equal split of males and females who were injured and this was consistent throughout the age groups.

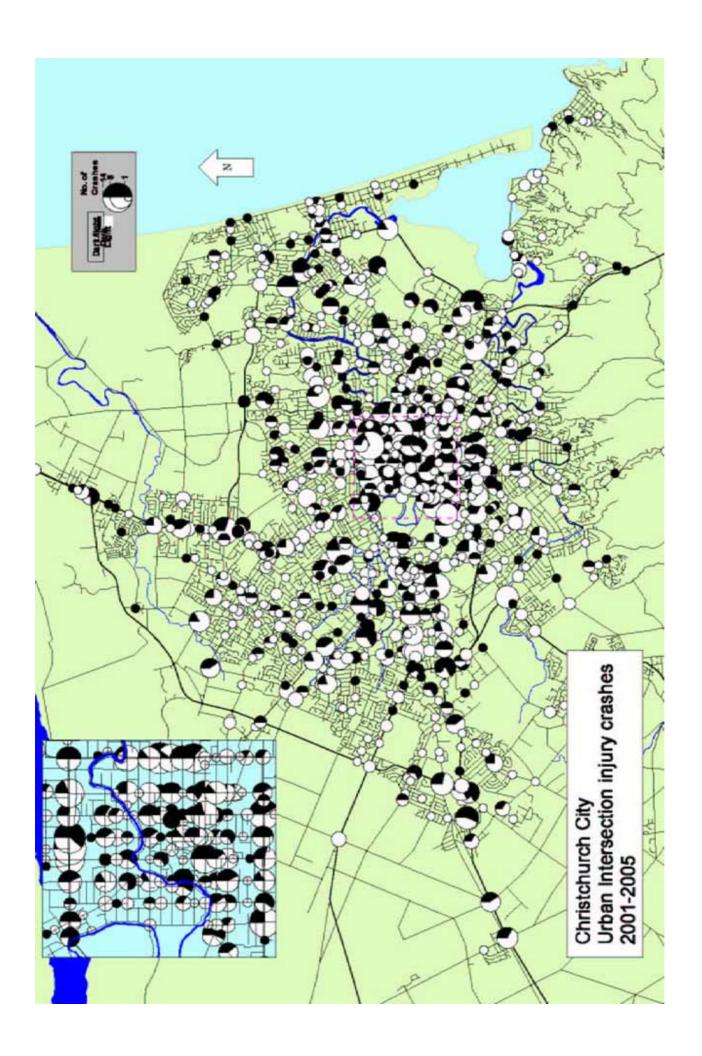
# Pedestrian casualties by age and gender 2001-2005

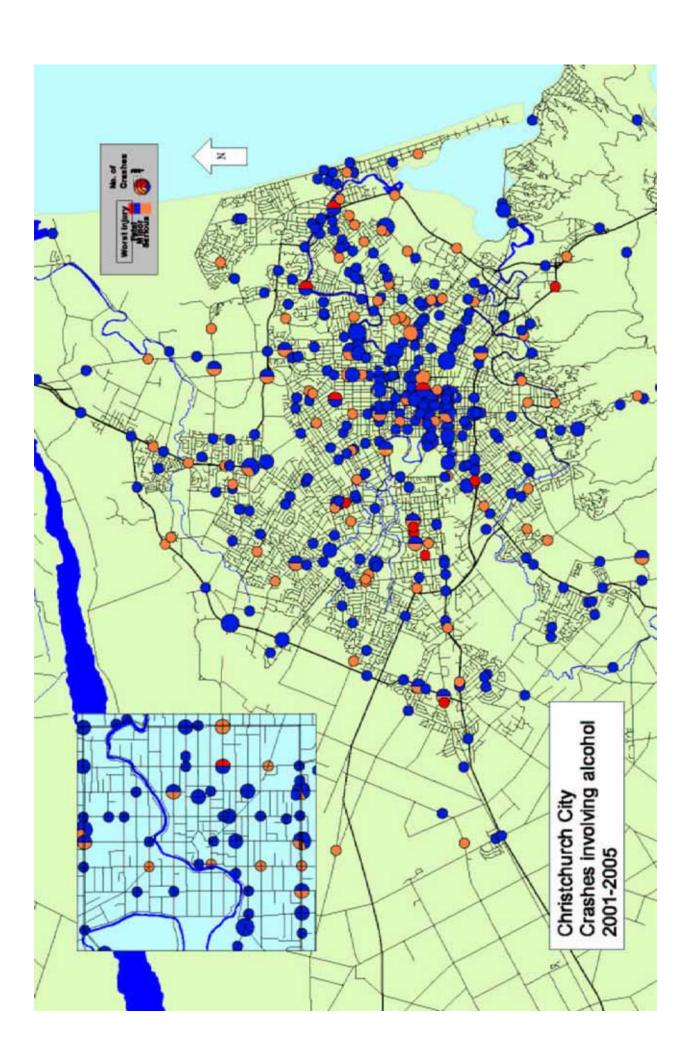


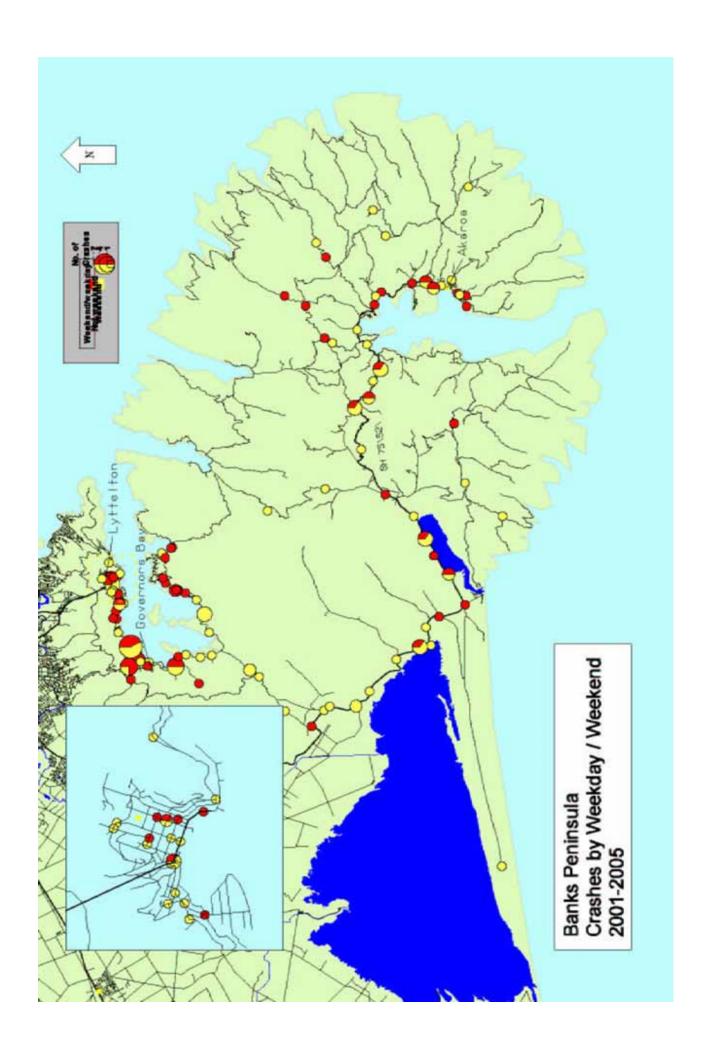
One of the key locations for pedestrian crashes was in the central city. Crashes in this area occurred during the early mornings in the weekend, with both drivers and pedestrians contributing to these crashes. Other concentrations of crashes occurred near the major shopping malls.

The main contributing factors to these crashes were drivers failing to stop or give way, or failing to see pedestrians. Pedestrians have also contributed to some of the crashes through their own behaviour. Pedestrians and drivers need to be aware of each other and both have a responsibility to follow the road rules.

Almost 70 percent of the at-fault drivers in these crashes were male. Males in the 15 to 24 and the 30 to 39 age groups combined to make up 50 percent of at-fault drivers.







#### Loss of control on bends

#### **Banks Peninsula**

From 2001 to 2005, loss of control crashes on bends resulted in four fatalities, 28 serious injuries and 95 minor injuries. These crashes made up 68 percent of the crashes in Banks Peninsula.

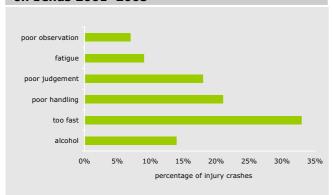
The majority of these loss of control crashes, (80 percent), were single vehicle crashes. Almost 65 percent of these crashes were on local roads and the remainder occurred on State Highway 75 to Akaroa. Crashes on local roads were concentrated in Lyttelton and along the road between Lyttelton and Diamond Harbour.

Weekend crashes made up 55 percent of the loss of control crashes. Most crashes during the weekends occurred between midday and 6 pm on Saturdays and Sundays.

The worst months for crashes were the summer holiday period of November, December and January. July and September also had much higher numbers of crashes than other months.

Major factors contributing to these crashes were excessive speed, poor judgement, lack of vehicle control and alcohol.

# Contributing factors in loss of control crashes on bends 2001–2005



The ages of the at-fault drivers ranged from 14 to 83 years. The largest group of drivers was in the 15 to 24 year age group and these made up over 35 percent of the total. Over 65 percent of at-fault drivers were males. Almost half of the drivers were from Christchurch City with the remainder being from Banks Pensinsula, other parts of Canterbury and some overseas drivers.

#### Weekend crashes

#### **Banks Peninsula**

From 2001 to 2005, weekend crashes made up 55 percent of all the injury crashes in Banks Peninsula. These crashes resulted in two fatalities, 28 serious injuries and 78 minor injuries.

Note: The weekend is from Friday 6 pm to Monday 6 am.

Most crashes occurred on State Highway 75 to Akaroa and on Governors Bay Road from Governors Bay to Lyttelton.

The graph below shows that there has been a reduction in the number of weekend crashes over the last five years.

## Weekend injury crashes by year and severity 2001–2005



Just over three quarters of the crashes were the result of a driver losing control of their vehicle. Crashes at intersections made up 14 percent of the total.

The worst time for crashes within the weekend period was from midday to 6 pm on Sunday. The worst months were November and January with these two months having twice the average number of crashes per month.

The main factors contributing to these crashes were driving too fast, alcohol, poor observation and poor judgement.

The largest group of at-fault drivers was in the 15–19 year age group. This group made up a quarter of the total. The other significant groups were the 30 to 39 year age group and the 40 to 49 year age group – together they accounted for 30 percent of the total at-fault drivers.

#### **Performance measures**

The table below lists some of the local authority performance measures noted in the March 2006 issue of *Road safety progress*, a publication prepared by Research and Statistics, Ministry of Transport. It compares the measures for Christchurch City injury crashes with the national range.

	National range	Christchurch City 2005 injury crashes
Speed	9%-33%	13%
% crashes with excessive speed	(excluding Chatham Islands 75%)	
Alcohol	6%-31%	13%
% driver alcohol crashes		
Intersections	0%-41%	33%
% crashes with failed to stop or give way factors		
Pedestrian	0%-24%	11%
% crashes with pedestrians		
Cyclists	0%-15%	12%
% crashes with cyclists		
Safety belts	1%-13%	3%
% unrestrained – front seat		

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