

road safety issues

July 2002

The Land Transport Safety Authority (LTSA) has prepared this Road Safety Issues Report. It is based on reported crash data and trends for the 1997–2001 period. The intent of the report is to highlight the key road safety issues and to identify possible ways to reduce the number of road deaths and injuries in the Timaru district

Five people died in crashes in the Timaru district in 2001. These deaths came from four rural crashes, one on a Timaru district local road and three on state highways. Two of the crashes were single vehicle loss of control crashes, one was a head-on crash on a bend and the other a rear-end collision at an intersection.

Typically rural crashes cause more severe injuries and damage and have a higher social cost than urban crashes. In the Timaru district nearly three quarters of the social cost of crashes in 2001 was from rural crashes. Since 1997 over half the social cost of crashes in Timaru was from crashes on local roads, but in 2001 over half was from casualties on state highways.

Most of the casualties were drivers or passengers in cars or vans. Most were young people, with the 15 to 19 year age group having nearly twice as many casualties as any other five-year age group.

Major road safety issues:

Timaru district

Intersections

Poor observation

Rural loss of control crashes

Young road users

Nationally

Speed

Alcohol

Failure to give way

Restraints



2001 road toll for Timaru district



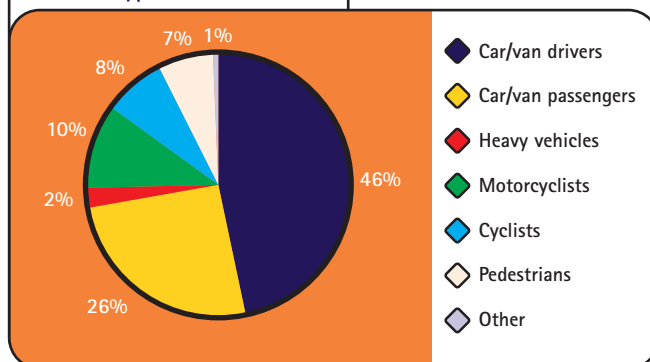
Deaths	5
Serious casualties	30
Minor casualties	96



Fatal crashes	4
Serious injury crashes	24
Minor injury crashes	58
Non-injury crashes	86

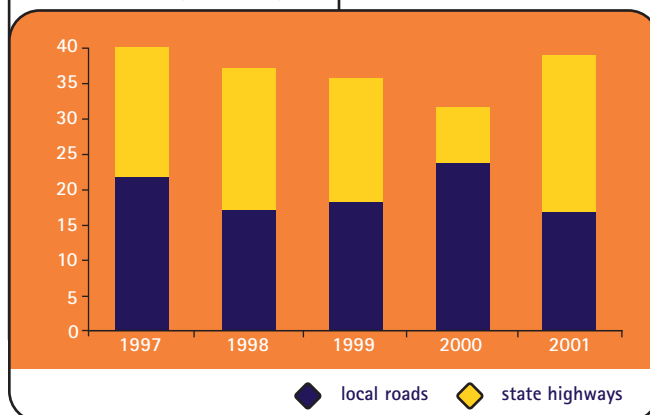
Road user casualties 1997–2001

User type 1997–2001



Estimated social cost of crashes*

Social cost (\$ million)

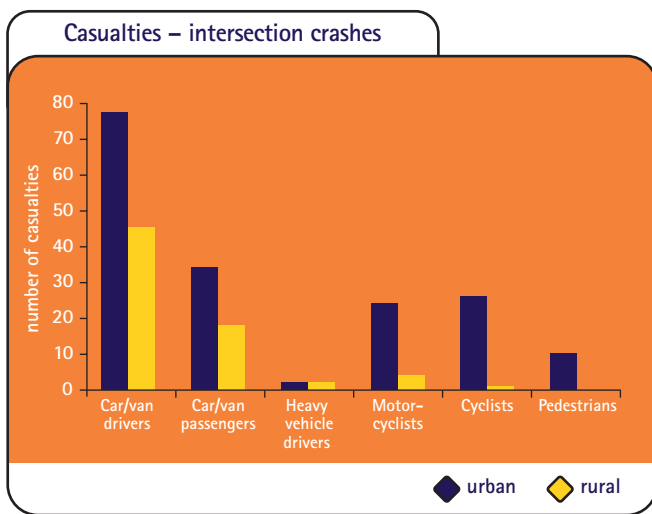


* The estimated social cost includes loss of life or life quality (estimated by the amount New Zealanders are prepared to pay to reduce their risk of fatal or non-fatal injury), loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage. These costs are expressed at June 2001 prices.

Intersections

Timaru had a high proportion of crashes at intersections, in both urban and rural areas. Most of the crashes at intersections were collisions between vehicles crossing or turning at the intersection, but rear-end collisions and single vehicle loss of control turning crashes were also quite common. The social cost of crashes at intersections in 2001 was \$11.4 million.

The graph below shows the road users injured in crashes at intersections.



Poor observation and failure to give way were the most common factors in both urban and rural intersection crashes. Speed or travelling too fast for the conditions was also a common factor in intersection crashes.

Urban intersection crashes:

- happened mostly at T junctions
- injured 24 motorcyclists, most under 30 years old
- injured 26 cyclists, most teenagers
- injured 10 pedestrians, aged from 5 to 80 (with no particular age group most common, but those over 60 years old more likely to be seriously injured)
- injured drivers in all age groups, with one 22 year-old driver killed.

Rural intersection crashes:

- happened mostly at Give Way controlled intersections, both X and T junctions
- killed three drivers
- injured four motorcyclists, all under 30 years old
- injured drivers in all age groups, but the 15 to 19 year olds were the most often seriously injured.

Recommended actions

Education

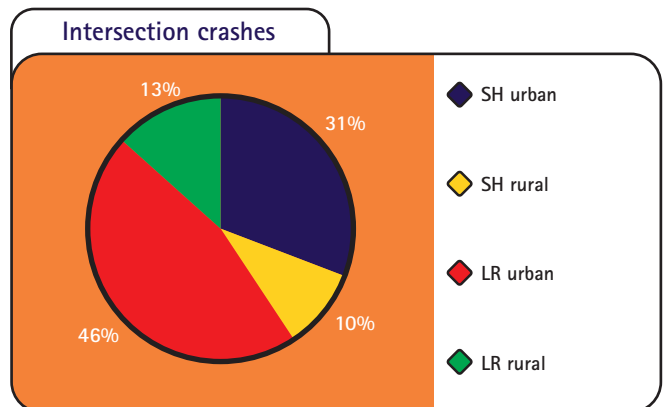
- Initiate and support campaigns on the need to give way at intersections, particularly when turning right.
- Support education and advertising campaigns on the right of way rules.
- Encourage education programmes to address driving at an appropriate speed, keeping a safe distance, signalling intentions, choosing a safe gap and checking for pedestrians and cyclists.

Enforcement

- Support strategic enforcement campaigns aimed at T junctions and crossroads.
- Encourage enforcement campaigns targeting drivers who fail to stop or give way.

Engineering

- Continue crash reduction studies to identify, investigate and remedy intersections with high crash rates.
- Improve visibility at intersections.
- Research reasons why vehicles are failing to notice and give way to other vehicles.
- Conduct a safety audit/survey of intersection controls and visibility.
- Investigate the level of control at T junctions.
- Consider installing roundabouts, where feasible, to reduce the severity of crash injuries.

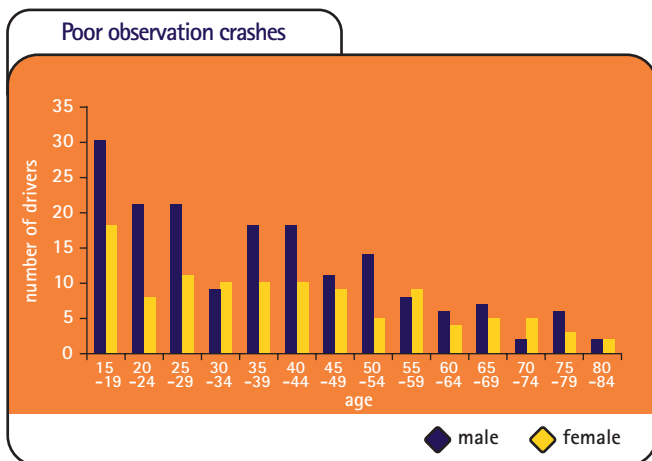


Poor observation

Poor observation factors (including inattention, attention diverted and failure to look for or see another party until too late) were significantly higher in both urban and rural crashes in Timaru than other similar areas. In the 1997–2001 period poor observation contributed to five fatal and 161 other injury crashes. Cyclists were involved in 27 of these crashes, and in a third of these the cyclist was inattentive or did not see/look for the other party until too late.

The most common crash types where poor observation was a factor were rear-end crashes with right-turning or U-turning vehicles and intersection type crashes. These were two of the most common crash types in the Timaru district. Most happened during the day, with three quarters of them between 9:30am and 7pm.

The graph below shows the age and gender of drivers in these crashes. Drivers of all age groups are represented, with the highest number being males in the 15 to 19 year-old age group.



Recommended actions

Education

- Support education/publicity campaigns aimed to increase driver awareness of the need to pay attention to the driving task and be aware of other road users.
- Encourage education programmes to get drivers to keep a safe distance, signal intentions, choose a safe gap and check for pedestrians and cyclists.

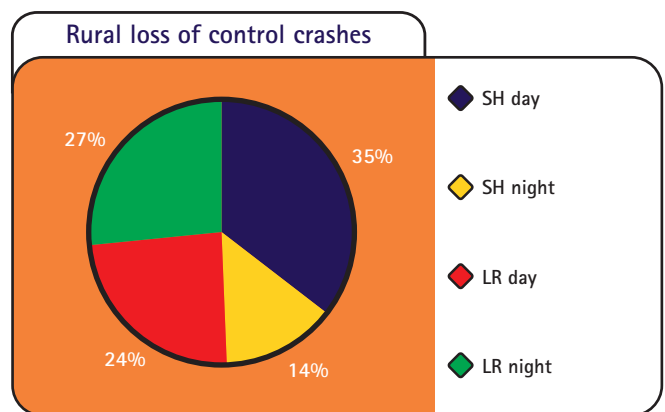
Engineering

- Ensure distracted drivers do not encounter 'surprises' in the road environment.
- Design simple intersection layouts.
- Ensure that intersections, curves and other potential hazards are as easy to see as possible.

Rural loss of control crashes

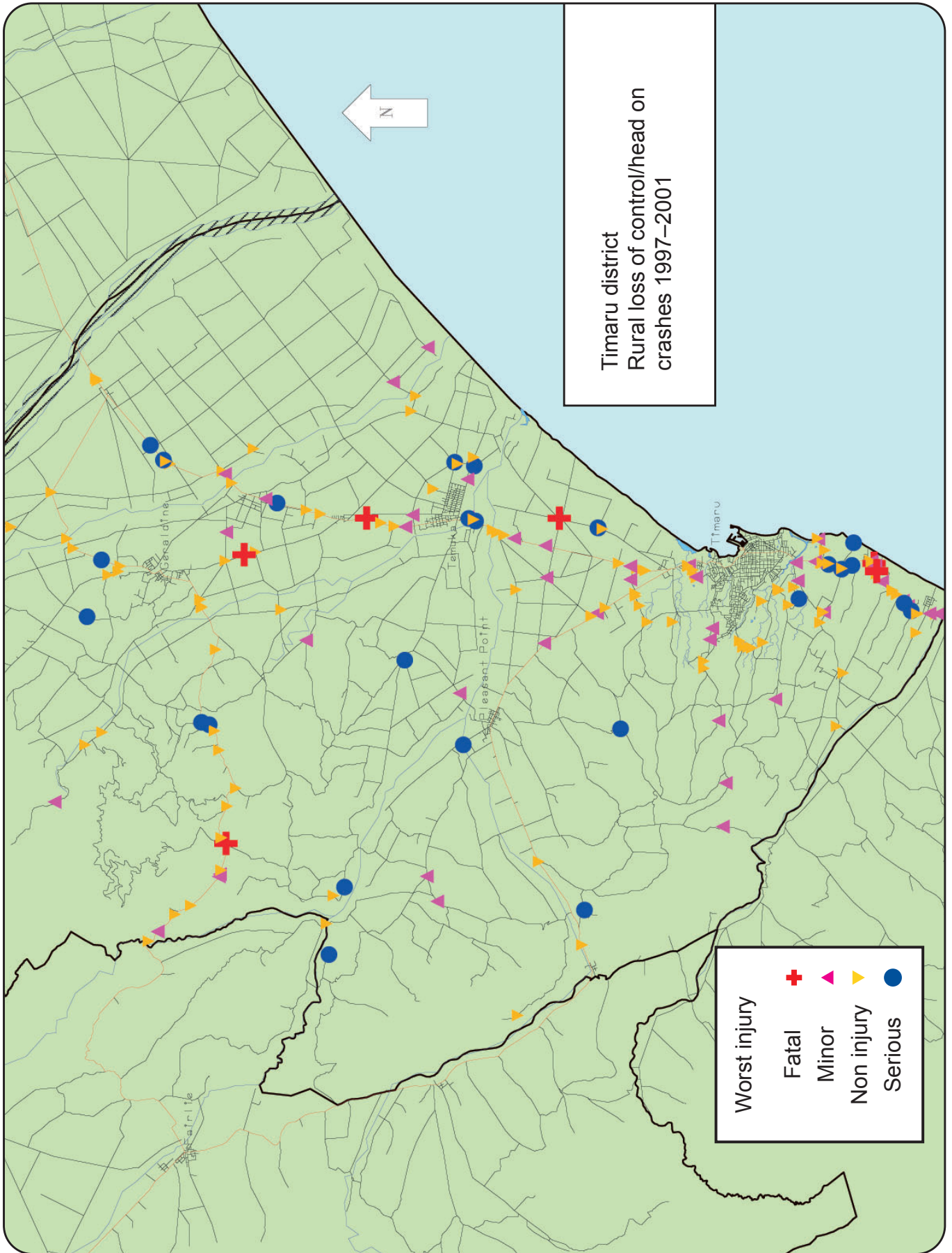
Crashes on rural roads accounted for nearly three quarters of the 2001 social cost of crashes in Timaru. Half the rural crashes were loss of control crashes. There were seven fatal and 72 other injury rural loss of control crashes from 1997 to 2001.

In Timaru about half the rural loss of control crashes were on local roads and about half on state highways. On local roads most were on bends and over half were at night. On state highways about half were on bends and half on straight sections of road, but less than a third were at night.



Drivers of all age groups had loss of control crashes, but most drivers were in the 15 to 19 and the 20 to 24 year age groups. In the rural local road loss of control crashes about half the drivers under 25 years old were female, but overall in the rural loss of control crashes about a quarter of the drivers were female.

Speed or travelling too fast for the conditions was the most common contributing factor to these crashes. Other common factors were poor handling, alcohol and fatigue. Drivers, particularly those under 25, approached bends too fast. The poor handling factors included drivers losing control when turning, braking or returning to seal from unsealed shoulder. Alcohol was a factor in about a quarter of the loss of control crashes, with most drink-drivers being under 30 years old.



Recommended actions

Education

- Support campaigns on adjusting speed for different driving conditions.
- Support drink-driving education campaigns.
- Support campaigns that encourage drivers to adjust speed to the environment and road conditions, particularly near bends or corners.

Enforcement

- Support strategic enforcement campaigns targeting speed and alcohol on rural roads.
- Support enforcement campaigns targeting driving too fast for the conditions.

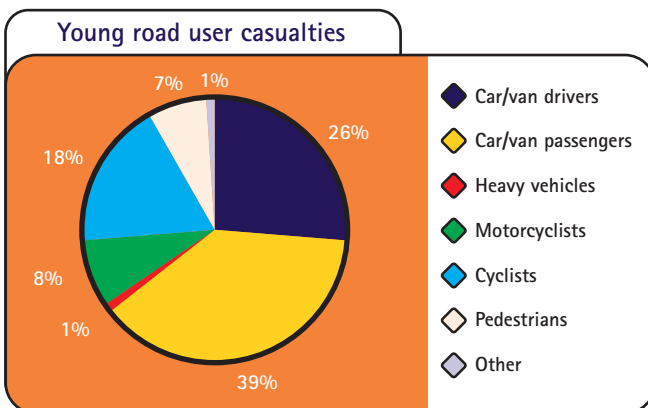
Engineering

- Implement improvements of deficiencies in rural road curve delineation, signposting, shoulder width and surface friction identified by safety surveys or inspections.
- Ensure good road markings around curves, by providing edge lines and centre lines as appropriate.
- Encourage shoulder widening to ensure roads are the appropriate width.
- Ensure advisory signs are appropriate, consistent and in the correct position.
- Ensure roadside areas are kept clear of solid objects.



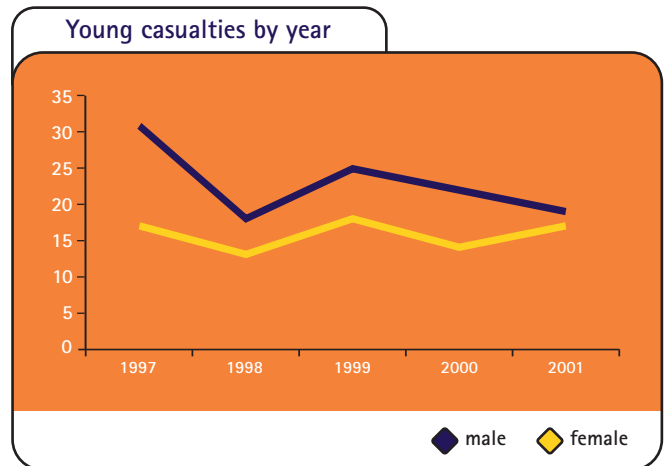
Young road users

Nearly a third (194) of the casualties from road crashes in Timaru were under 20 years old and most of these were 15 to 19 years old. The pie chart below shows most of the young road user casualties were passengers or drivers in cars or vans but they were also motorcyclists, cyclists and pedestrians.



Nearly all the motorcyclist casualties were male, but in each of the other user groups nearly as many females as males were injured. These young road users were killed or injured in all types of crashes, on both urban and rural roads. About 70 percent of the crashes happened in urban areas.

The number of young male casualties has reduced since 1997 but there have been about the same number of female casualties each year.



Young male drivers often injured themselves because they travelled too fast for the conditions, were inexperienced and affected by alcohol. Young female drivers crashed due to inexperience and inattention.

Recommended actions

Education

- Support education campaigns targeting young drivers.
- Continue to support education campaigns aimed at improving pedestrian/cycle awareness.
- Encourage safe cycling campaigns.
- Promote driver awareness of cyclists (particularly at intersections).
- Promote safe cycling routes to schools.

Enforcement

- Support enforcement aimed at the places and times when young people are driving.
- Support enforcement campaigns targeting young road users.

New Zealand Road Safety Programme

Reducing trauma involves a multi-pronged approach, which includes education, engineering and enforcement. The New Zealand Road Safety Programme (NZRSP) provides funding to educate road users to change their behaviour through projects delivered by road safety co-ordinators and community groups. The programme also funds the New Zealand Police for their targeted enforcement activities and support of community road safety projects. Transfund New Zealand provides funding to local authorities for roading projects through its National Land Transport Programme.

Community projects

Community funding of road safety projects aims to encourage local involvement and ownership of issues, and target local resources and effort to local risks. Central to community programmes is the need to develop and motivate local partnerships in road safety to help reduce the level of deaths and injuries in Timaru.

Funding for community projects in the Timaru district from the NZRSP for the 2002/2003 year has been confirmed as follows:

Project	Funding	Police hours
Road safety co-ordinator	\$20,000	
Community alcohol action programme	\$6,000	300
Speed	\$3,000	60
Restraints	\$500	30
Intersections/poor observation/motorcyclists	\$5,500	60
Rural driving/fatigue	\$1,000	30

The Timaru district will also be involved in regionally funded projects to target the high-risk issues of speed, alcohol, restraints and pedestrian issues. These projects have been funded as follows:

Project	General funding	Advertised funding
Regional road safety co-ordinator	\$38,000	-
Speed	\$60,000	\$20,000
Intersection safety	\$50,000	\$8,000
Fatigue	\$20,000	\$29,510
Pedestrian safety	\$10,000	\$10,000
A & P show displays	\$20,000	-
Development of safe driving policies	\$3,500	-
Regional billboard project	-	\$11,000

Police enforcement

In addition to the 480 police hours to support community projects, a further 18,640 hours will be delivered by police in the Timaru district as follows:

	Hours
Strategic – alcohol/drugs, speed, restraint and visible road safety enforcement	13,550
Traffic management including crash attendance, incidents, emergencies and events	3,510
School road safety education	900
Police community services	680

Road environment

Transfund New Zealand's National Land Transport Programme 2002–2003 has allocations for minor safety projects on local roads and state highways in the Timaru district.

Where to get more information

For more specific information relating to road crashes in the Timaru district please refer to the 1997 to 2001 Road Safety Data Report, or contact the people or organisations listed below:

Land Transport Safety Authority

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Road Safety Co-ordinator

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Timaru District Council

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