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# road safety issues

# Transit New Zealand Wellington Region

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2001-2005 period. The intent of this report is to highlight road safety issues on the state highway network in the Transit New Zealand (Transit) Wellington Region. This region covers the same area as that of Greater Wellington.

This report covers both urban and rural state highways. Rural state highways are those with a speed limit of 80 km/h or more.

Injury crash numbers have shown a small upward trend over the past five years. However, the number of casualties has declined.

Loss of control crashes on bends or straight sections of road (38 percent) were the major crash type closely followed by rear-end/obstruction crashes (30 percent).

Vehicle occupants were the largest casualty group in the region. Vulnerable road users (pedestrians, cyclists and motorcyclists) made up 14 percent of state highway casualties.

The social cost of crashes on the state highways in the region for 2005 was \$94 million. Regional and national road safety issues are identified below. The specific issues for the Transit Wellington Region are considered in detail overleaf, whilst national issues are considered on the back page.

# Major road safety issues

#### Transit Wellington Region

Rural loss of control

Urban crossing/turning

Rear-end/obstruction

#### **Nationally**

Speed

Alcohol

Failure to give way

Restraints

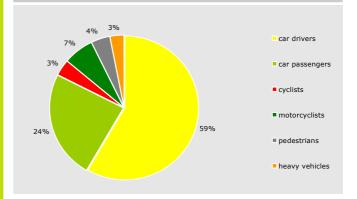
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# 2005 road trauma for Transit Wellington Region

¥	Deaths Serious casualties Minor casualties	10 63 298
<b>—</b>	Fatal crashes Serious injury crashes Minor injury crashes Non-injury crashes	8 51 201 707

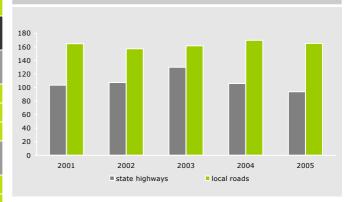
#### Road casualties 2001-2005

User type 2001-2005



# Estimated social cost of crashes\*

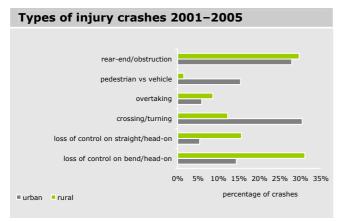
Social cost (\$ million)

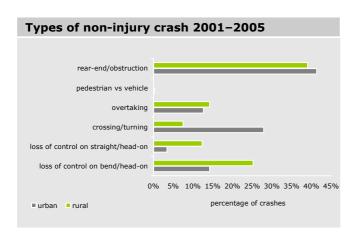


\* The estimated social cost includes loss of life or life quality (estimated by the amount New Zealanders are prepared to pay to reduce their risk of fatal or non-fatal injury), loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage. These costs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

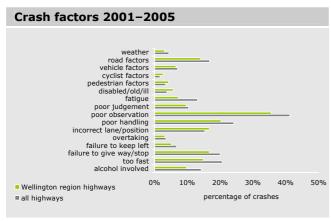
# **Types of crashes**

The state highways within the region comprise a mixture of urban streets and rural highways, including motorways. The different road types show different types and severity of crashes.





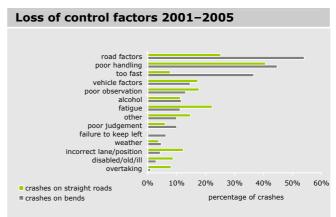
There are approximately twice as many non-injury crashes as injury crashes but the types of crashes in each class are similarly distributed.



In general, factors associated with Transit Wellington Region's highway crashes are reported less often than nationally though pedestrian, cyclist and disability factors are higher.

## **Rural loss of control**

Almost half the injury crashes on rural state highways involved a driver losing control of their vehicle either on a bend or on a straight road. A number of factors contribute to drivers losing control of their vehicles.

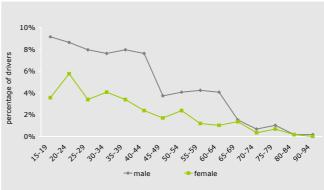


Road factors include surface conditions, visibility, signs and markings. Poor handling and judgement were major factors in the loss of control crashes.

Fatigue was also reported more often as a factor and is associated with poor handling and judgement when driving.

Loss of control conditions 2001–2005						
Dark Light Total						
Dry	20.5%	29.8%	50.3%			
Wet	22.9%	26.8%	49.7%			
Total	43.4%	56.6%	100%			

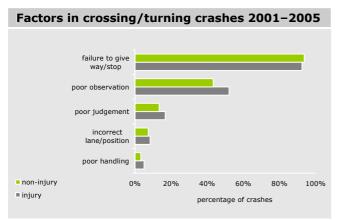




A higher proportion of male drivers than female drivers were involved in loss of control crashes. These proportions decrease as drivers get older.

# **Urban crossing/turning**

Thirty percent of injury crashes on the urban state highway network involved one of the parties crossing or turning at an intersection or driveway.



The most common contributing factor in these crashes was failing to give way or stop either at a controlled junction or by not observing another party that has the right of way.

Junction control 2001–2005					
Traffic control	Traffic signal	Stop Sign	Give Way Sign	Nil	Total
Multi road junction	1%	0%	1%	0%	2%
Crossroad	23%	0%	5%	0%	28%
Round-about	0%	0%	16%	0%	16%
T junction	5%	5%	22%	6%	38%
Y junction	0%	0%	6%	0%	6%
Driveway	0%	1%	1%	8%	10%
Total	29%	6%	49%	16%	100%

Most crossing/turning crashes occurred at locations where a control is set, however, there appear to be a number of uncontrolled locations, principally T junctions, which may need altering.

Crossing/turning road conditions 2001-2005				
	Wet	Dry	Total	
Dark	27%	10%	37%	
Light	52%	11%	63%	
Total	79%	21%	100%	

A notable percentage of the crashes also occurred in wet conditions which may be contributing to drivers' poor judgement when turning.

# **Rear-end/obstruction**

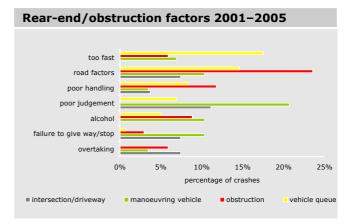
Thirty percent of crashes involved running into the back of a vehicle ahead or colliding with an obstruction. This was above the national level and the second most common crash type in the Transit Wellington Region after loss of control crashes.

The table below indicates the types of crashes in this category and gives an indication of the environment in which they occur.

Rear-end/obstruction crash types 2001-2005					
	Url	ban	Rural		Total
Wellington	Inter- section	Mid- block	Inter- section	Mid- block	
Obstructions	1%	3%	1%	5%	10%
Vehicle queues	8%	9%	11%	47%	75%
At intersection/ driveway	4%	1%	2%	1%	7%
Manoeuvring vehicle	1%	3%	1%	3%	8%
	14%	16%	14%	56%	100%

Rear-end/obstruction crash types 2001-2005					
	Url	ban	Rural		Total
All NZ	Inter- section	Mid- block	Inter- section	Mid- block	
Obstructions	0%	3%	0%	7%	11%
Vehicle queue	8%	10%	6%	41%	65%
At intersection/ driveway	3%	2%	4%	3%	13%
Manoeuvring vehicle	1%	4%	1%	5%	11%
	13%	19%	11%	57%	100%

Poor observation was a major factor in rear-end/ obstruction crashes with all crashes having this as a factor. The chart below shows the other factors contributing to rear-end/obstruction crashes.



Travelling too fast was associated with colliding with queued traffic, road factors, such as wet surfaces, with hitting obstructions and poor judgement with manoeuvring.

Rear-end/obstruction road conditions 2001-2005					
	Wet	Dry	Total		
Dark	9.1%	15.6%	24.7%		
Light	19.6%	55.7%	75.3%		
Total	28.7%	71.3%	100%		

These collisions are occurring under generally good driving conditions.

A median barrier or guard rail was the most commonly struck obstacle often as a secondary collision.

## **National issues**

### **Speed**

The faster drivers go, the more likely an unexpected event will happen resulting in a crash, the consequences of which are an increasing risk of serious injury or death.

In the Transit Wellington Region between 2001 and 2005, speed too fast for the conditions was reported as a factor in 16 percent of crashes compared to 17 percent on all highways and 18 percent for all roads.

#### **Alcohol**

Alcohol has an effect on the way a vehicle is driven by slowing the driver's reactions and their perception of the driving task. There has been a significant reduction in the number of alcohol-related crashes throughout the country but further reducing the incidence of alcohol-related crashes is desirable.

Alcohol was involved in 11 percent of Transit Wellington Region's crashes compared to 13 percent on the national highways and 15 percent on all roads.

# Failure to give way

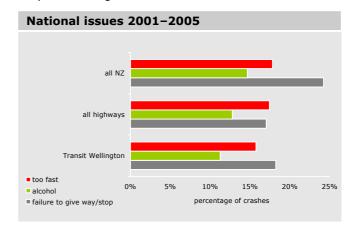
A major cause of crashes is the failure to give way to another party, and particularly so at intersections. In the Transit Wellington Region 18 percent of crashes between 2001 and 2005 involved failure to give way as a factor compared to the national highways figure of 17 percent and is below the value (24 percent) for all roads.

#### Restraints

The use of safety belts and child restraint systems reduces the chance of death or serious injury in a crash by 40 percent.

Surveys conducted by the Ministry of Transport indicate that for persons in the front seats of vehicles in the Transit Wellington Region, 96 percent were wearing their safety belt in 2005.

The most recent survey for back seat passengers (2004) indicated an 87 percent wearing rate and the survey of child restraint use (2004) indicated 89 percent usage.



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