

road safety issues

Auckland motorways

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2000–2004 period. The intent of the report is to highlight the key road safety issues and be a resource to identify possible ways to reduce the number of road deaths and injuries on Auckland motorways.

Information in this report covers the northern (in North Shore City), southern (to SH 2), south-western and north-western motorways, together with state highways 20 and 20A. The number of injury crashes reported in 2004 was slightly higher than in 2003, which was the previous highest number recorded in the last 10-year period.

The following table shows the distribution of crashes over the network for the period 2000–2004.

Motorway	Fatal	Injury
SH 1	26	1,263
SH 16	7	360
SH 20	2	205
SH 20A	2	46
Local roads	1	466

Note: Local road crashes above and in the social cost graph are those on ramps and at the junctions of motorway ramps and local authority roads.

Major road safety issues

Auckland motorways

Fatal and serious crashes

Crashes on Fridays

Rear-end crashes

Nationally

Speed

Alcohol

Failure to give way

Restraints



2004 road trauma for Auckland motorways



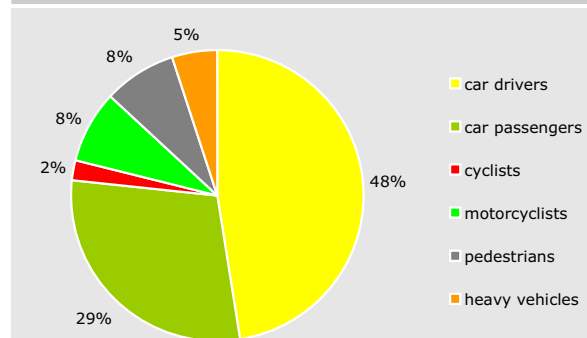
Deaths	11
Serious casualties	52
Minor casualties	667



Fatal crashes	11
Serious injury crashes	40
Minor injury crashes	500
Non-injury crashes	2,016

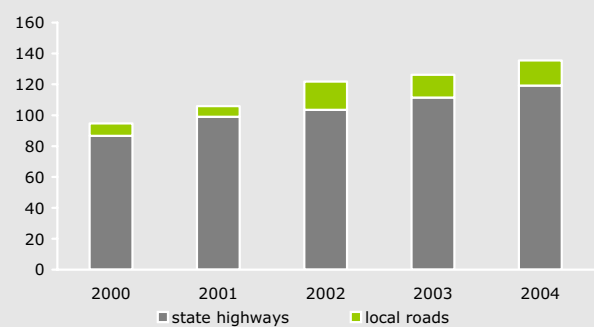
Fatal and serious casualties

User type 2000–2004



Estimated social cost of crashes*

Social cost (\$ million)



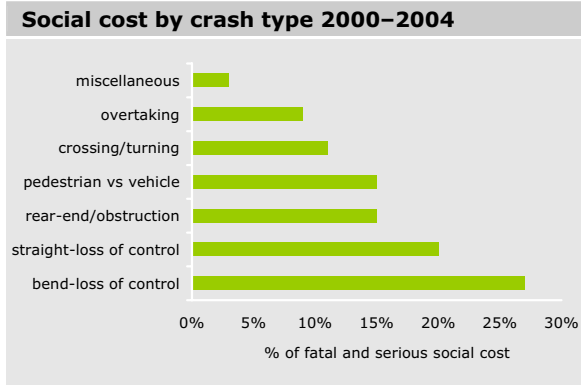
*The estimated social cost includes loss of life or life quality (estimated by the amount New Zealanders are prepared to pay to reduce their risk of fatal or non-fatal injury), loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage. These costs are expressed at June 2004 prices.

Fatal and serious crashes

The number of fatal crashes occurring on Auckland's motorway network in 2004 was the highest in the last five years. Eleven people lost their lives and eight others were injured in the same fatal crashes. These included two fatal crashes on the expressway between Mill Road and SH 2. Three of the deaths involved pedestrians. The government has set clear road safety targets to be reached by the year 2010. These aim at reducing the road toll to no more than 300 deaths per year nationally.

While fatal and serious crashes only make up a small percentage of the total number of injury crashes on the motorway network, they represent over 60 percent of the social cost.

Analysis of the fatal and serious casualty crashes occurring on the motorways shows that loss of control crashes accounted for almost half of the social cost.



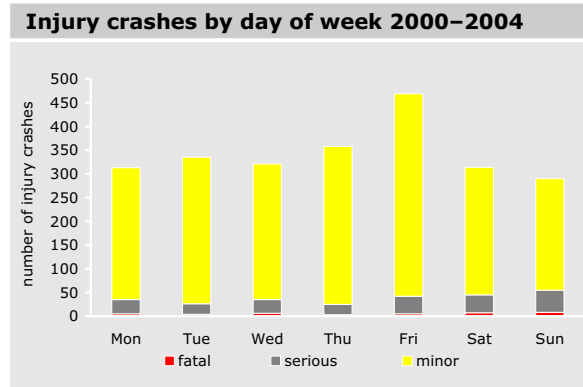
The most commonly reported driver factors contributing to fatal and serious crashes were poor observation (29 percent), closely followed by alcohol (28 percent) and excessive speed (22 percent). Lack of adequate concentration on the driving task or the impairment of driver reactions by alcohol combined with the high speeds that can be attained on motorways can have very serious consequences.

Over half of the fatal and serious crashes occurred during the hours of darkness (54 percent), when the motorway can be less congested and operating speeds higher. There was also a clear over-representation of these crashes occurring in the weekend period (6 pm Friday – 6 am Monday). It could be beneficial to ensure that the allocation of enforcement staff is sufficient during these identified high-risk times.

Almost two thirds of the 261 drivers killed or injured in the fatal and serious crashes between 2000 and 2004 were male. The two main driver age groups for males were 20–24 and 30–34 year olds. Over half of the 150 passengers killed or injured in these crashes were female (52 percent).

Crashes on Fridays

While a large proportion of fatal and serious crashes occurred during the weekend period, there was a very clear peak in crashes on Fridays on the motorway network. The graph below shows that approximately 45 percent more crashes occurred on Fridays compared with the average for the other days.



The number of injury crashes on Fridays has doubled over the last five years, from 62 in 2000 to 126 in 2004.

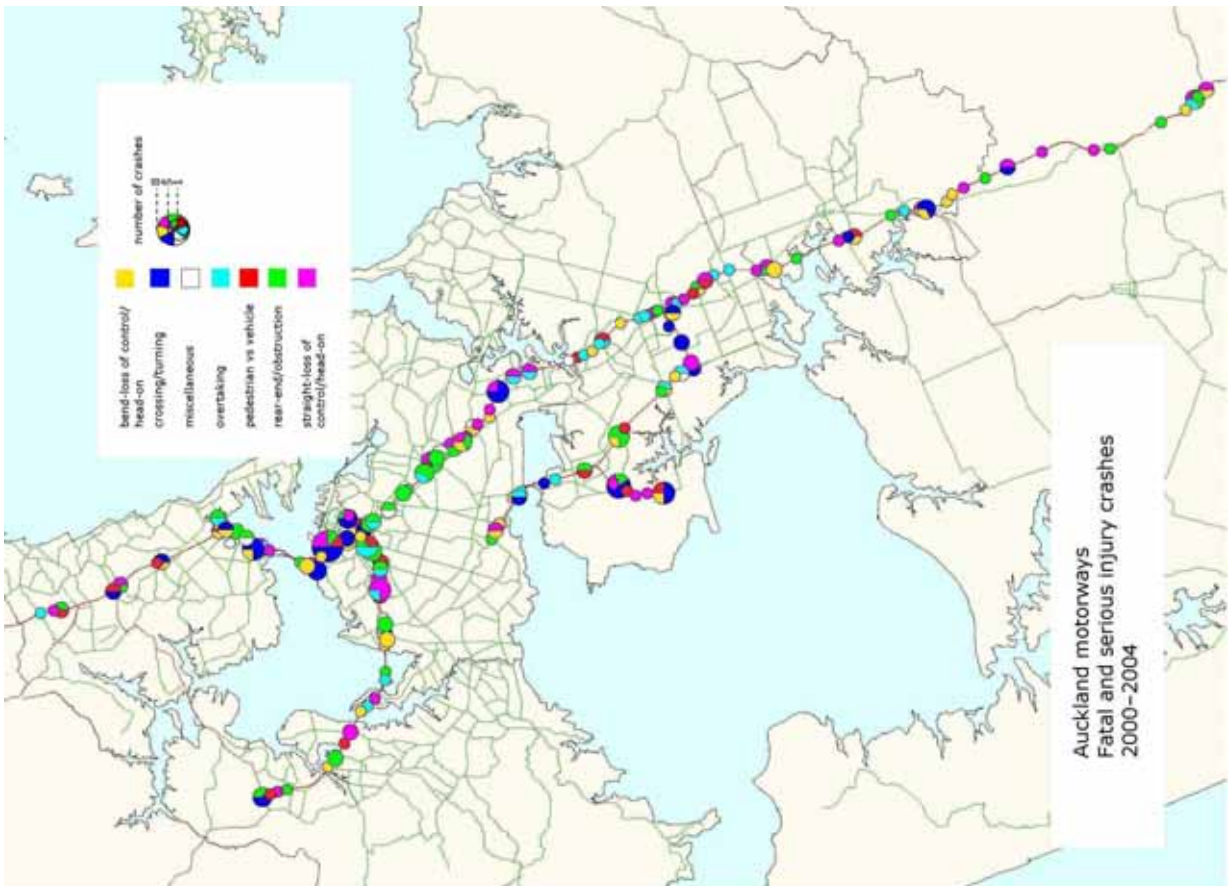
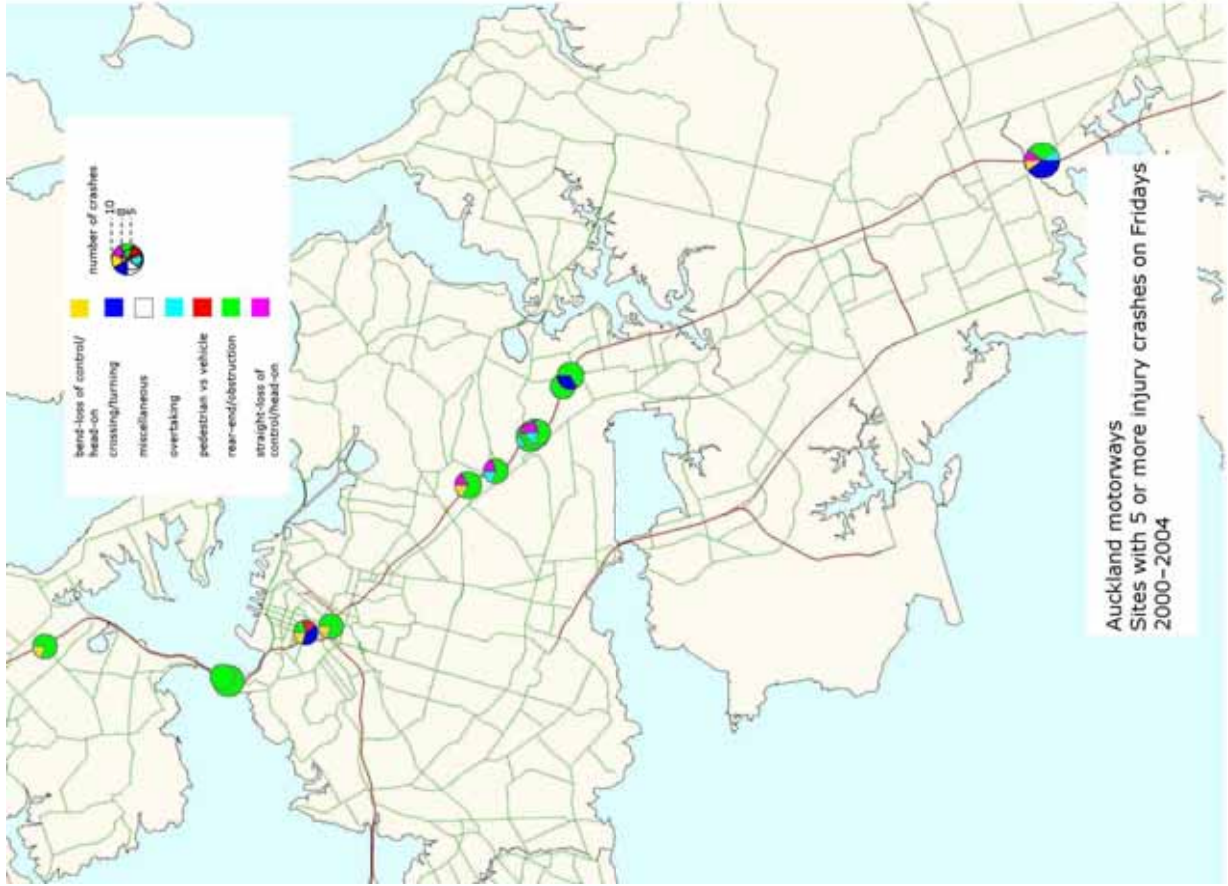
As might be expected, the evening peak period recorded the most crashes; one third of all Friday injury crashes occurred between 4 pm and 7 pm.

There was an increased proportion of rear-end crashes on Fridays compared with the rest of the week – six out of every 10 injury crashes were of this type.

By grouping the crashes together, it is possible to identify the worst locations for crashes on Fridays.

The four worst areas are all on SH 1 as shown on the map opposite:

- at the southern end of the Harbour Bridge
- through the central motorway junction
- between Te Coma and Mt Wellington
- at Takanini.

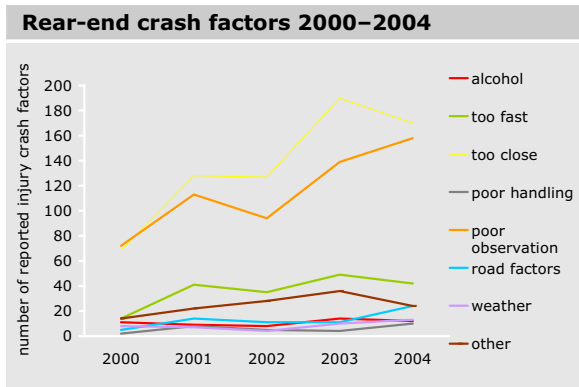


Rear-end crashes

When looking at the total number of reported injury crashes on the motorways, the number of rear-end crashes continued to increase each year and clearly dominated the crash scene. Over the last five years the number of injury rear-end crashes that occurred on the motorways rose from 121 in 2000 to 264 in 2004. This was despite a number of safety campaigns aimed specifically at this particular issue.



Driver factors play a significant role in crashes of this type. The number of crashes involving poor observation, which includes drivers being distracted by other traffic, has increased over the last few years. An unsafe following distance was also commonly recorded as a contributing factor, the incidence of which has generally increased. However, the 2004 figure was down on that of 2003.



When examining the times that these crashes occurred, the weekday evening peak period was the most hazardous. Almost twice as many crashes occurred in the evening peak hour between 5 pm and 6 pm compared with the morning peak period. The weekend peak hour occurs between 6 pm and 7 pm.

Of the 1,510 people injured as a result of rear-end crashes over the last five years, three were killed, 62 received serious injuries and 1,445 sustained minor injuries. Half of those injured were female. Almost a quarter of the females injured were passengers, while only 10 percent of males injured were passengers.

While the vast majority of rear-end crashes resulted in minor damage to vehicles, 991 vehicles received extensive damage, 23 overturned and two caught fire. In the 1,157 rear-end injury crashes in the last five years, 3,218 vehicles were involved.

Road environment

The Land Transport New Zealand crash reduction monitoring database shows that works implemented as a result of crash reduction studies have reduced state highway crashes at the study locations by 43 percent in the Auckland Region. Safety improvements have been fully implemented at over three quarters of the 290 state highway crash locations in the region.

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