

# road safety issues

## Manukau City

**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 in Manukau City.**

The data in this report applies only to the local roads within Manukau City. There is a separate Transit New Zealand report for state highways.

The issues remain similar to those of previous years. They are selected from the most common crash cause, type or road user group which appear over-represented when Manukau City is compared with similar local bodies or the nation.

Both the national *Road Safety to 2010* strategy and the *Auckland Regional Road Safety Plan* set targets for reductions in deaths and hospitalisations arising from road crashes. While highlighting just four issues in this publication, crash types not specifically covered also need to be addressed if these targets are to be met.

This report also includes a comment on crashes that occurred when entering or leaving a property, which were quite prevalent but of insufficient numbers to be considered a major issue.

### Major road safety issues

#### Manukau City

Failure to give way/poor observation

Alcohol

Speed

Pedestrians

#### Nationally

Speed

Alcohol

Failure to give way

Restraints



### 2004 road trauma for Manukau City



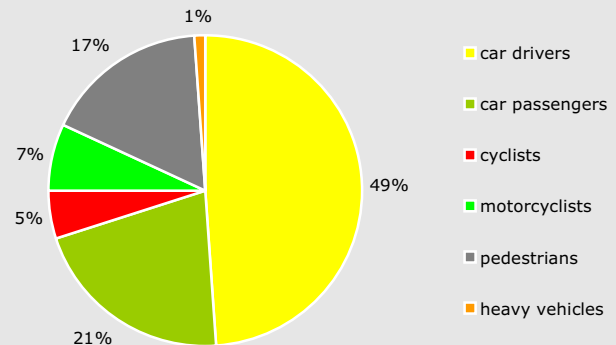
Deaths	20
Serious casualties	94
Minor casualties	617



Fatal crashes	17
Serious injury crashes	75
Minor injury crashes	457
Non-injury crashes	2,066

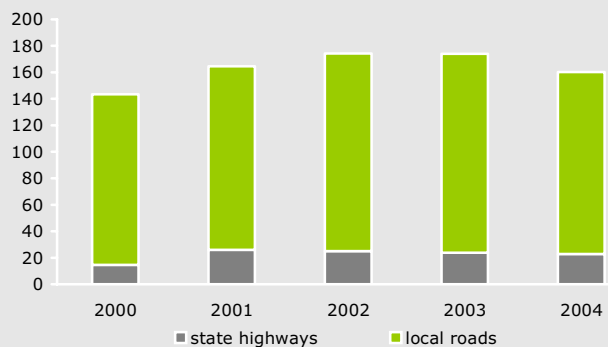
### Fatal and serious casualties

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.

## Overview

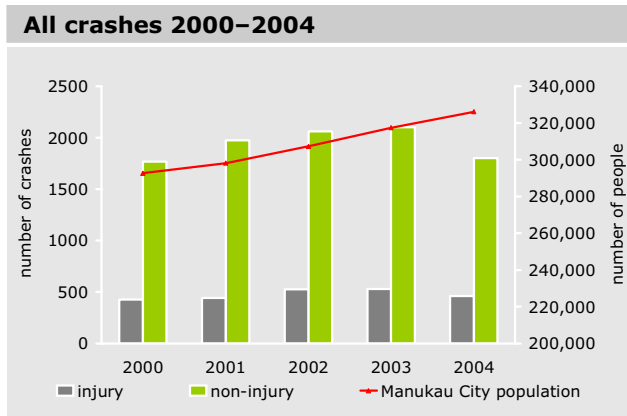
The number of crashes reported in the Manukau City area decreased in 2004, following increases over several years. The main crash types, and the associated percentage of all injury crashes in 2004, are shown in the following table.

Crash movement type	%
Crossing/turning	31%
Bend-loss of control/head-on	23%
Rear-end/obstruction	19%

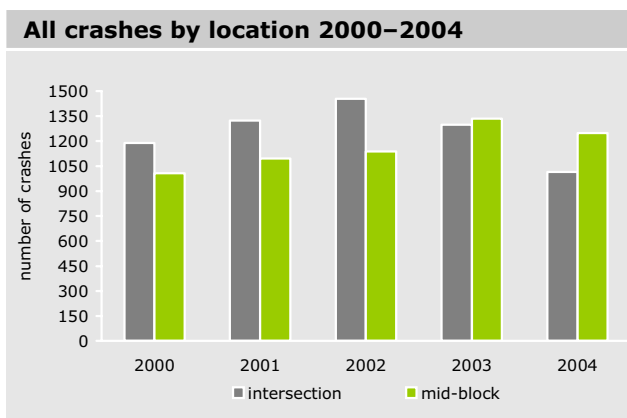
Crashes occurring in darkness were at rates above both the national and peer group A figures for rural and urban crashes.

Peer group A is the average of a group of other similar territorial local authorities (TLAs) – specifically, major urban areas with some rural areas on the outskirts, a population of more than 97,500 and/or rural crashes less than 30 percent.

Similarly, in urban areas only, collisions with objects were at rates above those for all of New Zealand and similar local authorities. Trees, poles, islands, kerbs, signs, and fences or buildings were the main roadside objects struck.



The decrease in the number of crashes in 2004 was similar for both injury and non-injury crashes, and was achieved against a trend of steady growth in the population – assuming the population increase was approximately proportional for all age groups and driving statuses.



This decrease appears to be more pronounced for intersection crashes, which have been decreasing for the past two years, while mid-block crashes decreased in 2004 only. The cumulative effect in 2004 resulted in mid-block crashes becoming more common than intersection crashes, a reversal from figures prior to 2003.

The following table shows the number of injury crashes from 2000 to 2004 that occurred while entering or leaving a property.

Entering/leaving	Fatal	Serious	Minor	Total
Land use	0	1	3	4
Service station	0	1	19	20
Specialised liquor outlet	0	0	1	1
Take away foods	0	0	1	1
Shopping complex	0	2	30	32
Car parking building/area	0	3	10	13
Other commercial	0	5	22	27
Industrial site		0	3	3
Private house/farm	2	15	121	138
Other non-commercial	1	7	34	42
<b>Total</b>	<b>3</b>	<b>34</b>	<b>244</b>	<b>281</b>

While the numbers were not large, this is an area where crashes regularly occurred. Eighty percent of these crashes happened between 8 am and 8 pm, with the crash numbers building from morning to evening. Most days had about the same number of crashes; however, Sunday had lower numbers and Friday had slightly higher.

The above information highlights the need to take special care at driveways, as they are a busy, complex situation for road users to deal with. There is a large speed difference between through traffic and entering/ exiting traffic. Vision may be limited by trees, parked cars or buildings. Cyclists, pedestrians and drivers may be using the facility concurrently, but pedestrians and cyclists are more exposed to risk.

## Failure to give way/ poor observation

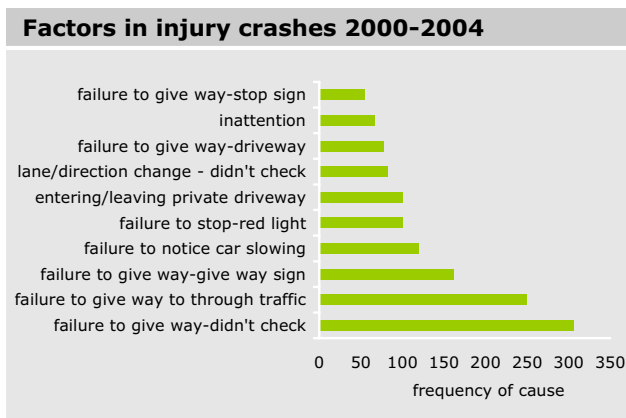
Poor observation and failure to give way are the two largest crash causes in the Manukau City area. In the years 2000–2004, poor observation was a factor in 35 percent of all injury crashes, while failure to yield at a Stop or Give Way sign featured in 31 percent. By comparison, alcohol was the next highest cause at 18 percent. Urban crash rates were marginally higher than the above figures, while rural rates were lower. As rural crashes accounted for only about 11 percent of all crashes, the 89 percent in urban areas dominated.

It is reasonable to say that with the lower speeds in this type of crash, the trauma is sometimes less than that of alcohol or speed-related crashes. In spite of this, it is an area that is causing fatal and serious injuries to road users.

In the following table showing the percentage of vehicle type involved in crashes, the totals can be higher than 100 percent as more than one vehicle may be involved in any one crash.

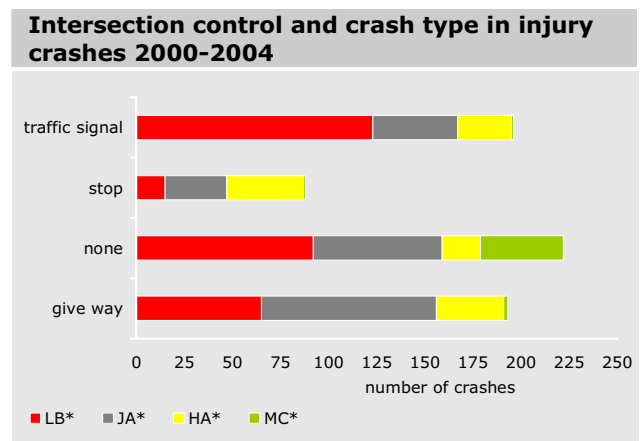
	All injury crashes 2000–2004	Fatal and serious failure to give way/ poor observation crashes 2004
Car	91%	75%
Van/ute	16%	36%
Truck	7%	14%
Bus	2%	4%
Motorcycle	5%	21%
Bicycle	6%	14%

Certain vehicle types were over-represented in fatal and serious crashes in 2004. Investigation into particular features of these vehicles and their drivers would assist with understanding the underlying issues.



The preceding graph shows the 10 most common factors recorded in poor observation/failure to give way injury crashes in 2000–2004. Multiple factors may be associated with any one crash. The 3rd, 5th and 10th factors involved intersection controls – Give Way signs, red lights and Stop signs respectively. If a crash occurs at a red light, the control has not been obeyed. However, with Give Way and Stop signs, it is possible that the driver obeyed but then proceeded and was involved in a crash.

The two highest factors largely relate to not applying the give way rule. Not noticing other traffic and its intention was a common theme with the other factors shown.



\*For explanation please see text below.

The graph above shows the four most common crash movements and the type of intersection control involved for failure to give way/poor observation injury crashes in 2000–2004. The legend is as follows:

- LB – making a right turn against approaching traffic
- JA – right turning traffic from a side road hit by through traffic approaching from the right
- HA – crossing traffic, both going straight through an intersection (typically a crossroads)
- MC – U-turn, hit by traffic travelling in the same direction.

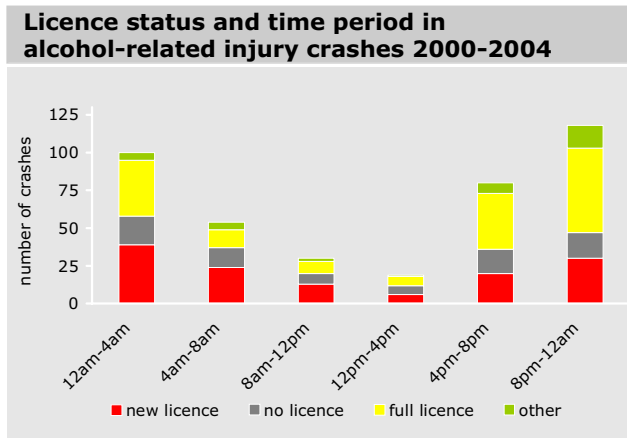
U-turn crashes almost exclusively took place away from intersection controls. The LB and JA crashes were far more prevalent than any other crash type in failure to give way/poor observation crashes.

Failure to give way/poor observation crash information for 2000–2004 also included:

- 60 percent were crossing/turning crashes
- 23 percent were rear-end/obstruction crashes
- 55 percent occurred at an intersection
- 73 percent occurred in daylight, compared with the Manukau City average (for all injury crashes between 2000 and 2004) of 64 percent
- the most common time was between 3.30 pm and 7 pm, followed by 6 am to 9.30 am weekdays
- 77 percent occurred in dry conditions
- two people died, both on motorcycles.

## Alcohol

Alcohol is the third largest contributing factor for road crashes in the Manukau City area. This was a consistent figure for both 2004 and 2000–2004 injury crashes. Alcohol-related crashes were more prevalent in both rural and urban areas of Manukau City when compared with similar local bodies. These crashes were also more common in urban areas of Manukau City when compared with the rest of New Zealand.



In the above graph, the licence status of drivers in alcohol-related crashes has been grouped into four categories: full licence, new (restricted/learner), no licence (disqualified/never licensed/expired/wrong class/forbidden), and other (overseas/unknown). The figures include all drivers in injury crashes, not only those culpable.

Crashes occurring between midnight and 4 am, where a driver held a learner or restricted licence, stand out. While information regarding passenger licence status is not available, drivers using a learner licence should not be driving without supervision. Drivers holding a restricted licence should not be driving outside of the hours of 10 pm to 5 am without supervision or an exemption.

Another point of interest is the number of people with no licence in the crash data. Approximately 20 percent of alcohol-related injury crashes between 2000 and 2004 involved drivers with no licence.

Alcohol-related injury crash data for 2004 also showed:

- 30 percent involved excessive speed
- 42 percent were loss of control on bend crashes
- 19 percent were straight road loss of control crashes
- 57 percent occurred at mid-block locations
- 73 percent occurred at darkness or twilight, higher than the Manukau City average (for all injury crashes between 2000 and 2004) of 29 percent
- 69 percent took place between 7 pm and 6 am, compared with the Manukau City average of 29 percent.

Six people died in alcohol-related crashes in 2004, four in cars and two pedestrians.

## Speed

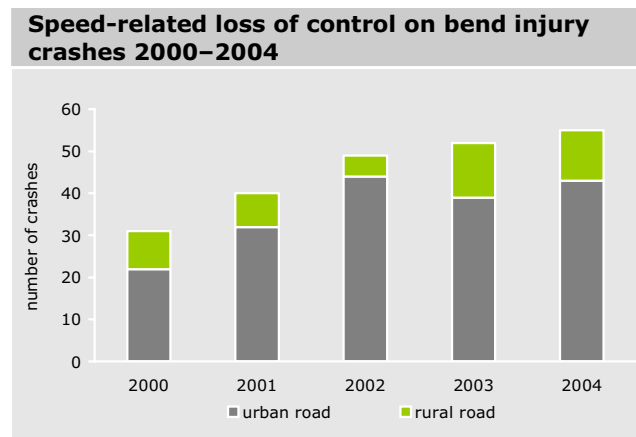
Inappropriate speed was the largest contributing factor (26 percent) for rural injury crashes, and the fourth largest contributing factor (15 percent) for urban injury crashes over the last five years. In urban areas, speed-related injury crashes were significantly higher than for similar local authorities and the rest of New Zealand.



After four years (2000–2003) of an increasing number of speed-related injury crashes, 2004 showed a decrease to almost 2002 levels. However, if only those crashes where the injury was either serious or fatal are considered, a flatter trend emerges with, perhaps, an encouraging year in 2002.

This is shown in the table below, along with the percentages of speed-related crashes compared with all crashes in Manukau City. Inappropriate speed was a contributing factor in 60 percent of all fatal crashes in Manukau City in 2004.

	2000	2001	2002	2003	2004
Fatal	5	7	5	4	9
Serious	22	17	9	20	14
% of all fatal	42%	50%	36%	31%	60%
% of all serious	28%	21%	11%	23%	20%

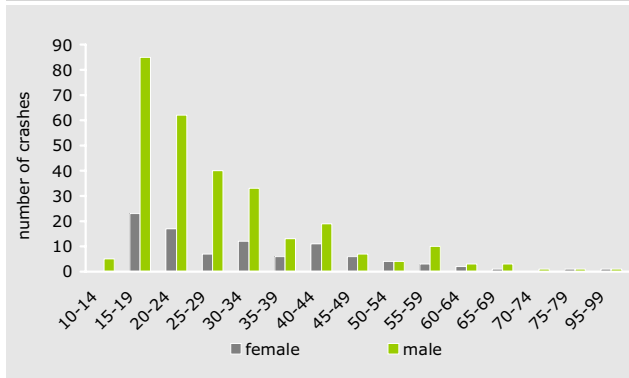


There was a steady rise in the loss of control on bend/head-on type of crash associated with excessive speed over the past five years, especially in urban areas. The total number of injury crashes in 2004 approached double that of 2000. Other crash movement types have not shown this trend. These speed-related crashes go against an underlying, broadly flat trend for all crashes, and the injury crash trend discussed earlier, over the same period.

When considering all crashes in urban areas, this crash type occurred at rates significantly above those of local authorities similar to Manukau City. It also accounted for over half of all rural crashes, however this rate was lower than for rural areas in all of New Zealand.

In 2004, Manukau City undertook a crash reduction study specifically dealing with loss of control crashes. Hopefully the effects of implementing recommendation from this study will become evident over time.

**Age and gender in speed-related injury crashes 2000–2004**



Male drivers aged 15 to 34 dominate the speed-related injury crash statistics.

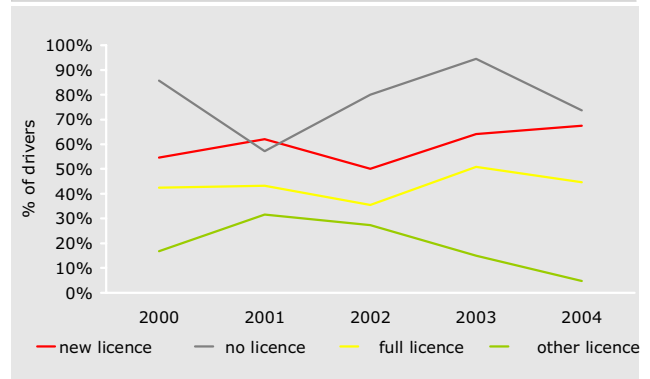
Licence status	2000	2001	2002	2003	2004
New	22	29	40	39	43
None	14	14	20	18	19
Full	59	44	48	59	47
Other	12	19	22	20	21

The table above shows an increasing trend in crash numbers for new licence holders in speed-related crashes over the five years, which may be attributable to the changes in the economy and demographics within Manukau City. Licence status grouping is described in the alcohol section.

The other point of interest is the number of drivers with no licence that featured in these crashes. No data is available regarding the total distance driven for each of these licence categories for the entire community, so it is not possible to calculate whether these figures are over-representative.

Culpable for a single vehicle crash means no-one else was involved (pedestrian, passenger, animal) and there was no vehicle, road or environmental fault. In a multiple crash, culpability is calculated from the type of movement each vehicle was making. Both primary and partial culpability are considered, so more than one driver can be culpable. However, it is possible to compare the percentage of each licence status culpable in speed-related crashes, as shown below.

**Culpable drivers in speed-related injury crashes 2000–2004**

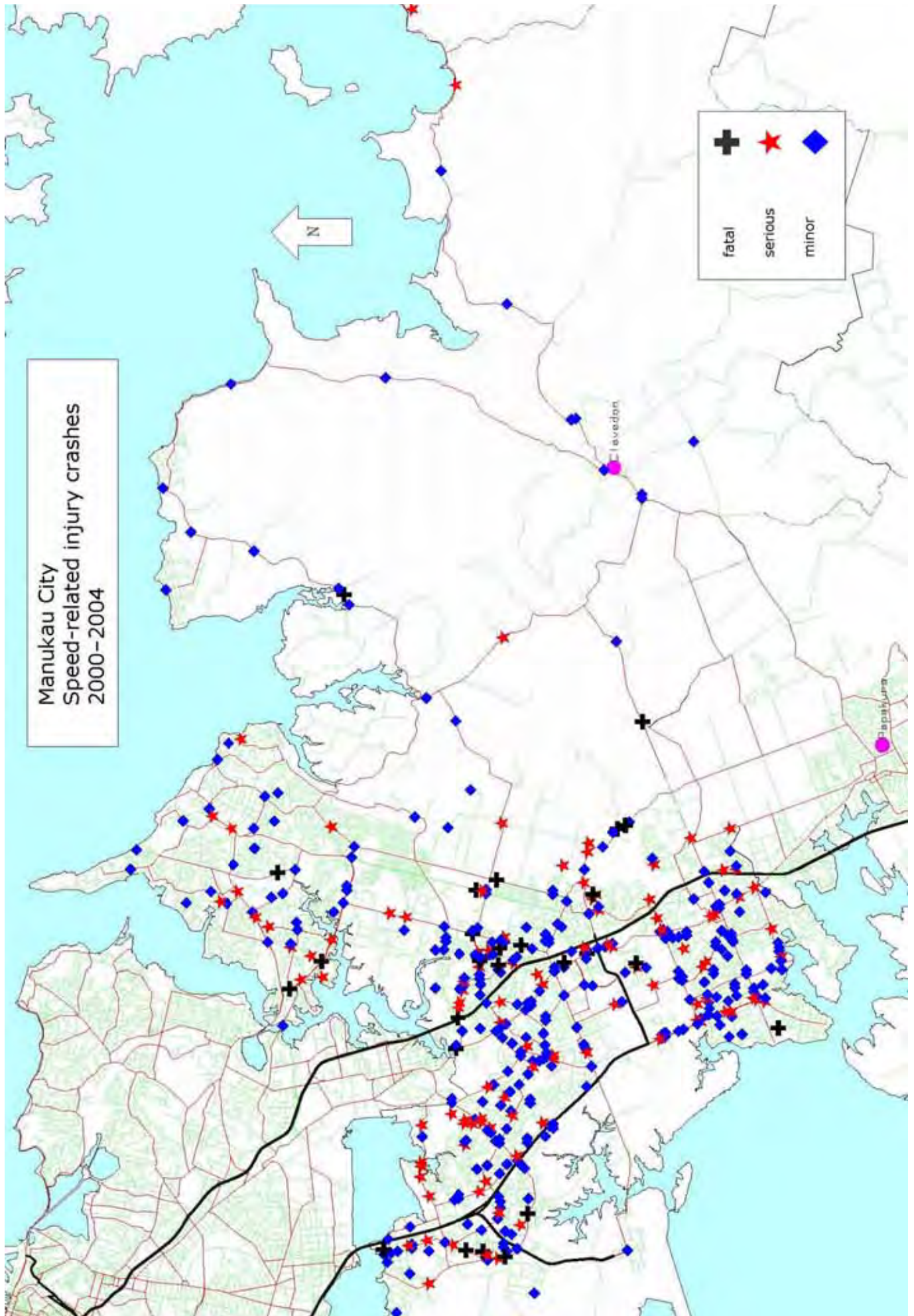


The graph above shows the percentage of culpable drivers in speed-related crashes for each licence status. While speed-related crash numbers are about the same for other and no licence classes, the percentage of culpable drivers in speed crashes is very different. Holders of overseas licence, though sometime featured in the media, are at-fault in very few speed-related crashes. A high number of full licence and new licence holders were culpable in speed-related crashes. Driving inexperience probably explains the higher percentage recorded in the new licence class.

Data from speed-related injury crashes in 2004 also showed:

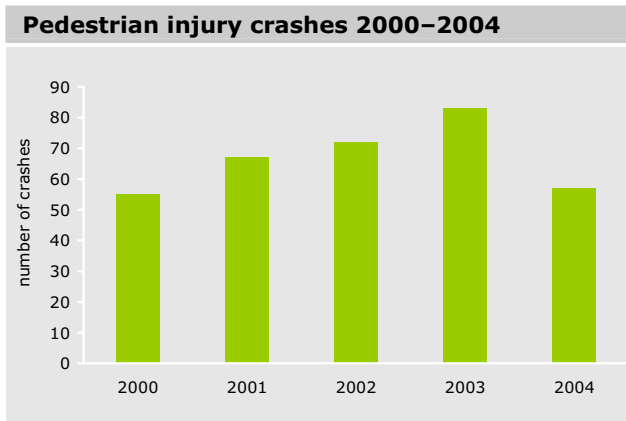
- 33 percent involved alcohol
- 68 percent involved loss of control at a bend
- 35 percent occurred at an intersection
- 41 percent took place in darkness or twilight, higher than the Manukau City average of 34 percent
- 57 percent occurred between 7 pm and 6 am, compared with the Manukau City average of 29 percent
- 36 percent occurred in the wet, compared with the Manukau City average of 24 percent
- objects struck included fences (23 percent), posts/poles (22 percent), trees (20 percent) and parked vehicles (12 percent). (Note: multiple objects may be struck in a crash)
- 12 people died; seven in cars, one on a motorcycle, three in a van or utility and one pedestrian.

The Manukau City average referred to above is for all injury crashes between 2000 and 2004.



## Pedestrians

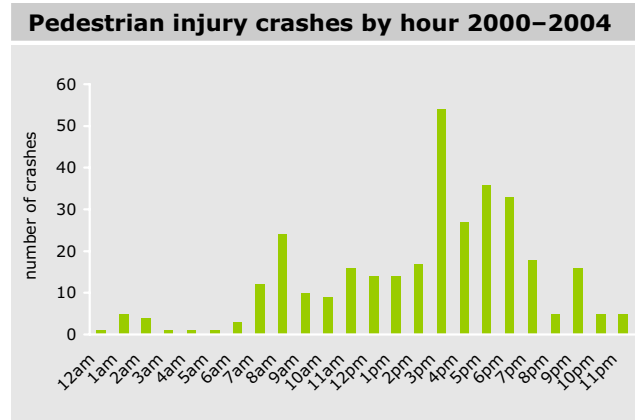
Manukau City pedestrian crashes decreased in 2004, following a steady increase over previous years. Most pedestrian crashes occurred on straight or slightly curved sections of road, away from traffic controls.



The table below shows the main causes of pedestrian crashes between 2000 and 2004.

Cause	Fatal	Injury	Total
Running, heedless of traffic	5	146	151
Walking, heedless of traffic	2	64	66
Unsupervised child	6	51	57
Stepping out from behind parked vehicle	2	20	22
Visibly intoxicated non-driver (pedestrian/cyclist/passenger)	3	16	19
Failure to give way to pedestrian on a crossing	1	18	19
Entering or leaving private house/farm	0	14	14
Inattentive	1	12	13
Didn't check behind when reversing	0	10	10
Misjudged pedestrian movement or intention	0	10	10

The five highest crash causes are pedestrian related, while the next five are driver related. There are many other factors with low counts omitted from this chart. It must be remembered that more than one cause may be attributed to any one crash.



The graph above clearly shows peaks during morning and evening commuter periods. It also shows that most pedestrian crashes occurred during the day.

Further information on pedestrian injury crashes in 2004 included:

- 16 percent involved alcohol
- 88 percent occurred at mid-block locations
- 68 percent were in light/overcast conditions
- 30 percent occurred between 3.30 pm and 7 pm Monday to Friday, compared with the Manukau City average (for all injury crashes between 2000 and 2004) of 16 percent in this period
- 84 percent occurred in dry conditions
- four people died, two of which were five-year-olds.

## Road environment

The Land Transport New Zealand crash reduction monitoring database shows that works implemented as a result of crash reduction studies have reduced crashes at the study sites by 22 percent in Manukau City (eight percent at state highway sites and 24 percent at local road sites).

Recommendations from recent studies should be implemented as soon as possible. Analysis of the crashes at all completed sites should be undertaken regularly to ensure that safety has been improved and sites re-examined if no improvement has occurred. Further crash reduction studies should be undertaken to continue the reduction of crashes.

## Where to get more information

For more specific information relating to road crashes in Manukau City, please refer to the 2000 to 2004 road safety data report, the Land Transport New Zealand's crash analysis system or contact the office listed below right.

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