

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 level of road deaths and injuries in the Papakura district.

The issues identified in this report are based on analysis of crash data for the district's local roads only. State highways, which are covered in a separate report, are excluded, except for the road toll figures given opposite.

Injury crash numbers in the district fell from 1996 to 2000 and then rose in 2001.

Crash rates in other countries, including Australia, are well below those found in New Zealand. If New Zealand is to improve its level of road safety, all road controlling authorities must strive for lower crash rates. The issues outlined in this report will hopefully contribute to this process.

Major road safety issues:

Papakura district

Intersections

Loss of control on bends

Failure to stop or give way

Collisions with objects

Nationally

Speed

Alcohol

Failure to give way

Restraints



2001 road toll for Papakura district



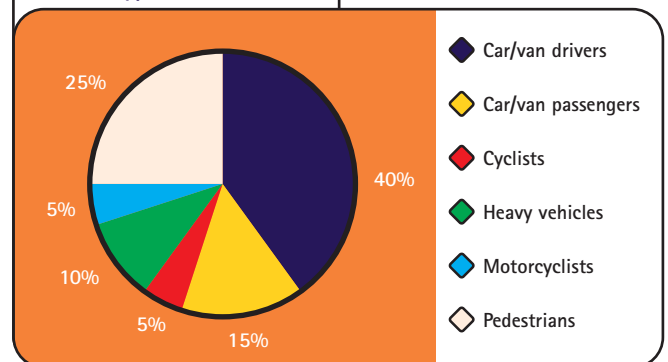
Deaths	3
Serious casualties	21
Minor casualties	107



Fatal crashes	3
Serious injury crashes	17
Minor injury crashes	72
Non-injury crashes	101

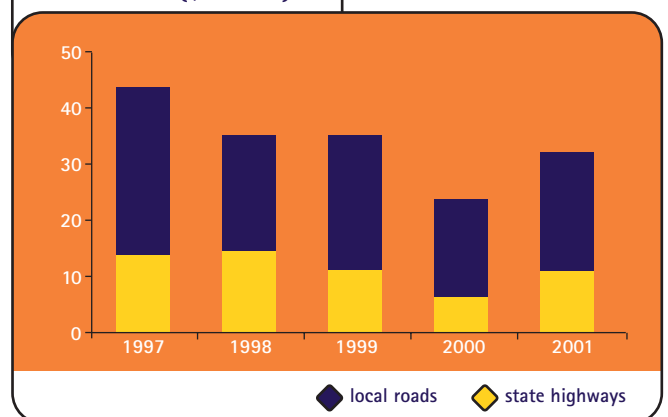
Road deaths 1997–2001

User type 1997–2001



Estimated social cost of crashes*

Social cost (\$ million)



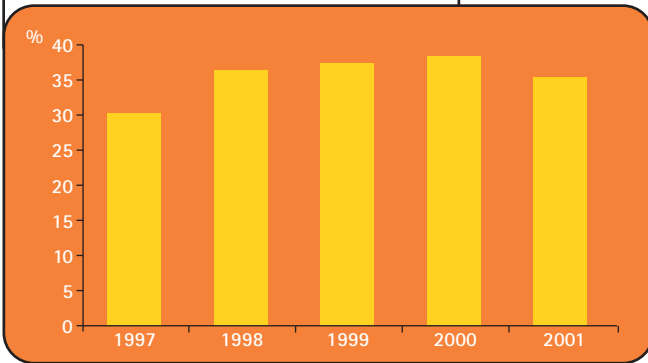
* The estimated social cost includes loss of life or life quality (estimated by the amount New Zealanders are prepared to pay to reduce their risk of fatal or non-fatal injury), loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage. These costs are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



Intersections

Over the past five years 194 injury crashes have occurred at intersections in the Papakura district. This represents almost 40 percent of all crashes.

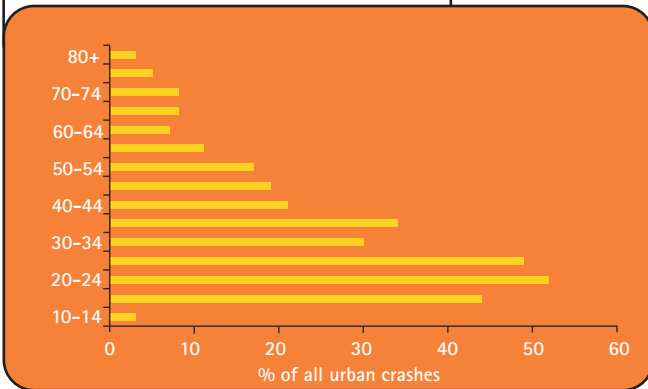
Crashes occurring at intersections



Eighty-six percent of the crashes were in areas classified as urban (with a speed limit of 70km/h or less).

Half of the drivers in these crashes were aged 30 or under, with a peak in the 20–24 year age group.

Driver age in intersection crashes



The three most common crash movements, accounting for a total of 109, or 56 percent, of all the intersection crashes were:



21%



20%



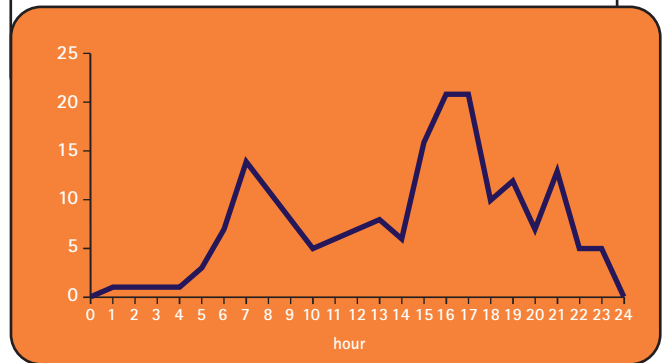
15%

The New Zealand Police identified a total of 337 contributing factors in the 194 crashes.

Most commonly drivers failed to give way to other vehicles at locations controlled by Stop or Give Way signs.

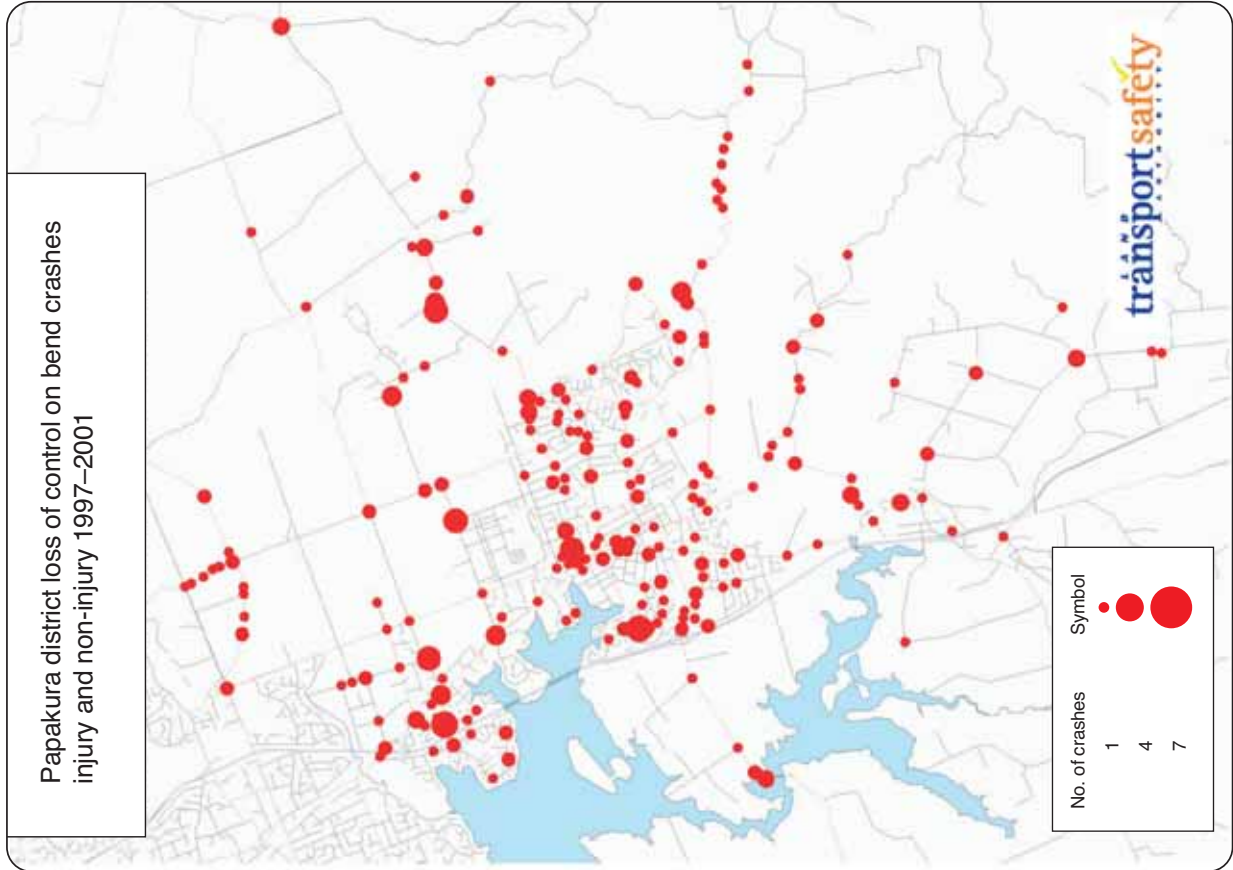
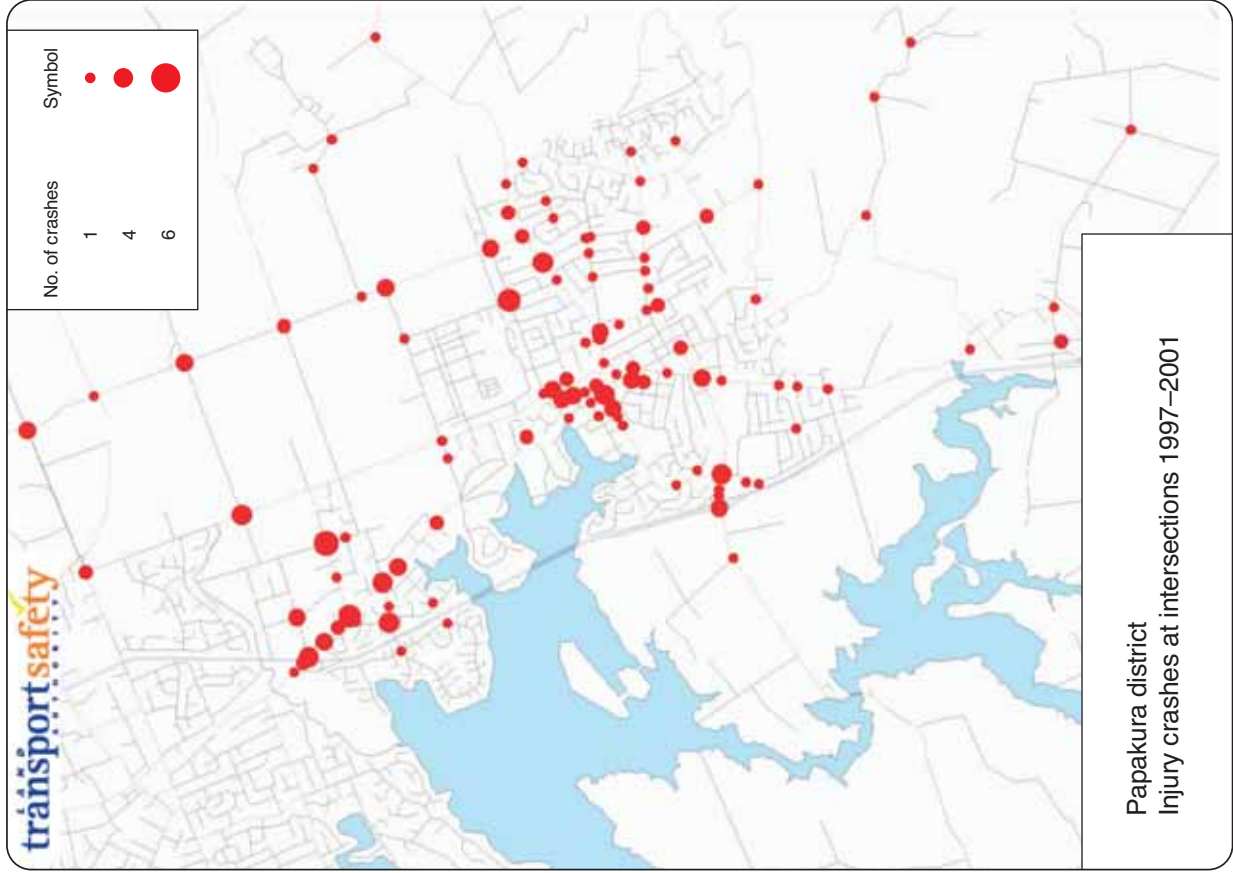
The majority of crashes (64 percent) occurred in daylight hours, with the most significant time of the day being the afternoon–evening peak time.

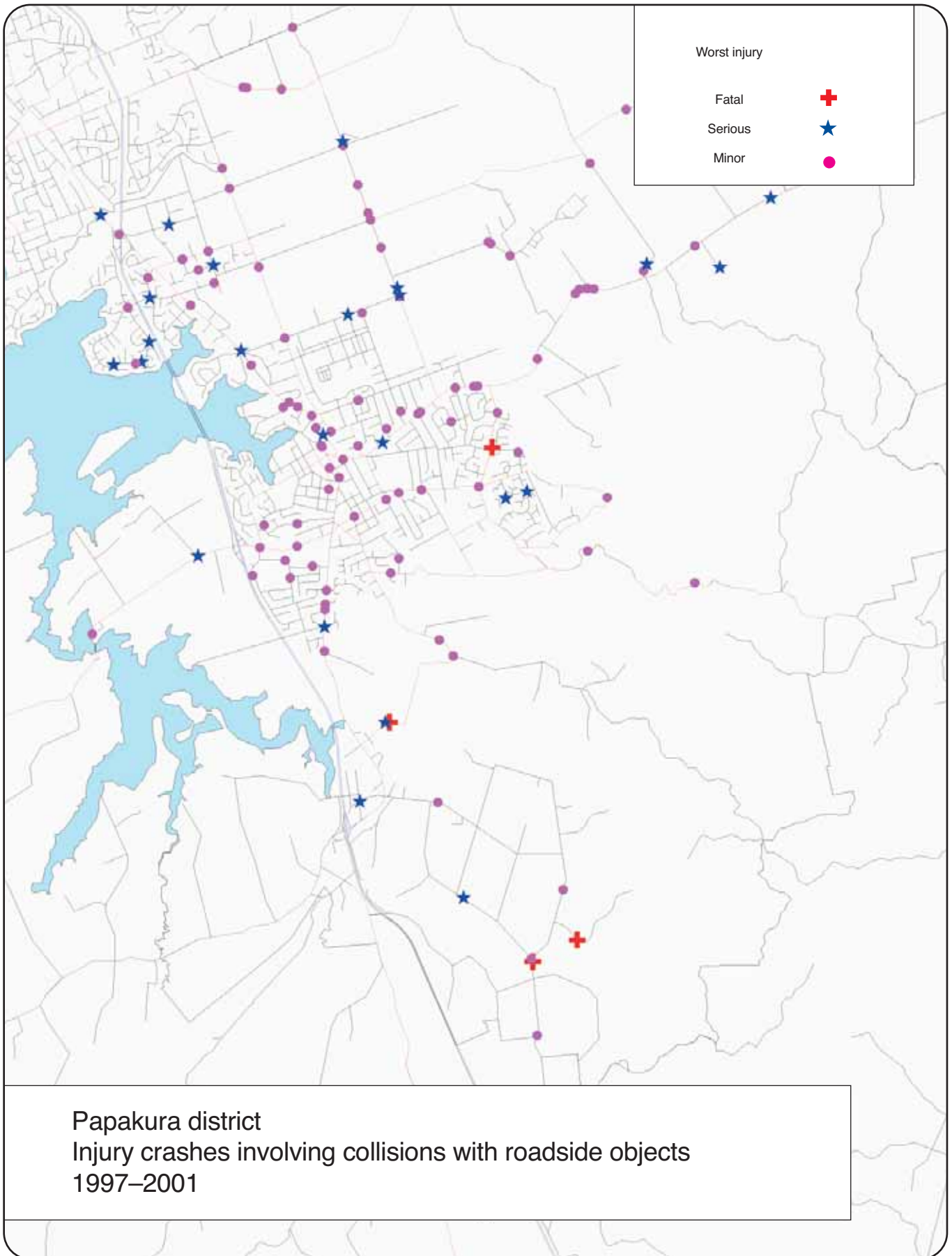
Number of intersection crashes by time of day



Recommended actions

- Encourage enforcement campaigns targeting drivers who fail to stop or give way.
- Support the presence of visible police patrols at identified problem spots.
- Encourage education programmes to address driving at an appropriate speed, keeping a safe distance, signalling correctly, choosing a safe gap and checking for pedestrians and cyclists.
- Conduct a safety audit/survey of intersection controls and visibility.
- Consider installing roundabouts, where feasible, to reduce the severity of crash injuries.
- Remove any vegetation that might make signs, signals, vehicles and markings difficult to see.

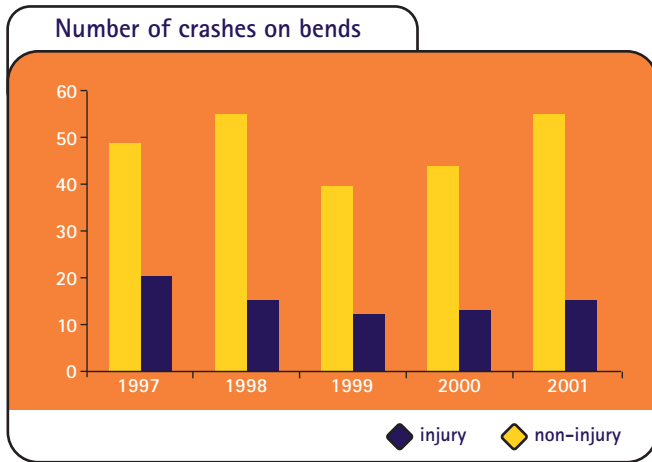






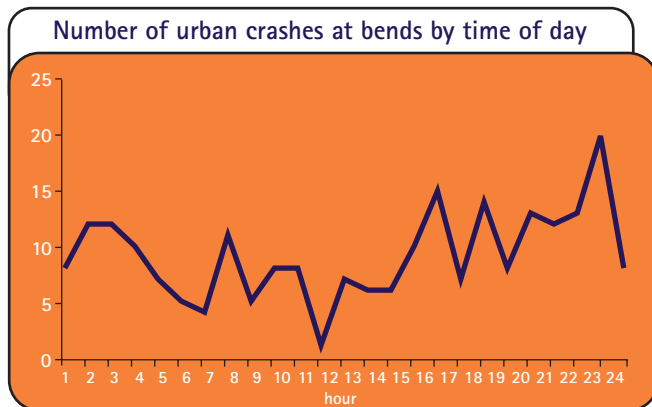
Loss of control on bends

Loss of control on a bend was the most common type of crash in rural Papakura (roads with speed limit of 80km/h or 100km/h) and the second most common in the urban areas.



There was an upward trend in the number of crashes occurring on wet rural roads.

An unusually high number of these crashes occurred at night (57 percent).



The most commonly represented contributing factors identified by the police in these crashes were (in order): driving too fast for conditions, alcohol or drugs, inexperience, fatigue and a slippery surface.

At night 42 percent of drivers involved in the crashes were aged 19 or younger. It is of interest that none of the injury crashes for this age group involved alcohol as a factor.

The most common crash types were:



46%



30%

There were also a number of crashes (10 percent) where a driver had missed the end of the road or the intersecting road at a T junction.

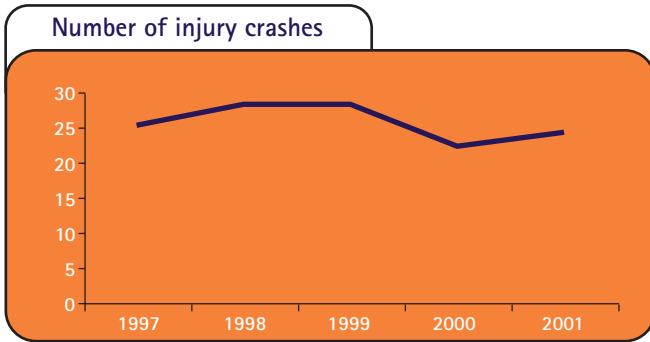
Recommended actions

- Support the use of roving roadblocks and the booze bus in the district.
- Promote and support random alcohol checks by the police.
- Work with local 'at risk' communities and sections of the community to deliver national, regional and local programmes.
- Provide consistent 'no surprises' road environments.
- Improve the standard of road marking, including the use of wider edge lines and high standard reflective signing.
- Encourage enforcement campaigns targeting driving too fast for the conditions.
- Continue to support programmes designed to influence younger drivers.
- Conduct crash reduction studies of known black spots and routes.



Failure to stop or give way

In the combined urban and rural parts of Papakura, failure to stop or give way is listed as a factor in 132 injury crashes between 1997 and 2001.



Three crash types dominate:



34% intersection
35% mid-block



12% mid-block
32% intersection



24% intersection
29% mid-block

A total of 254 factors were identified by the police in the 132 crashes. Alcohol was associated with 15 percent of intersection crashes but only six percent of mid-block crashes. This highlights how alcohol impairment can be more problematic in complex situations.

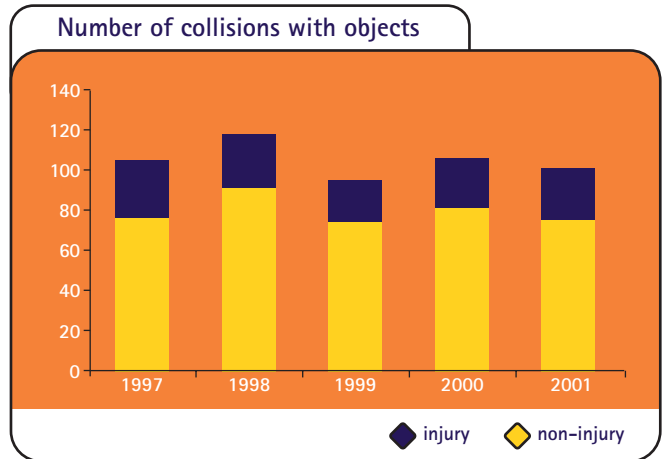
Roading environment or weather factors were also noted in 14 percent of the intersection crashes.

Recommended actions

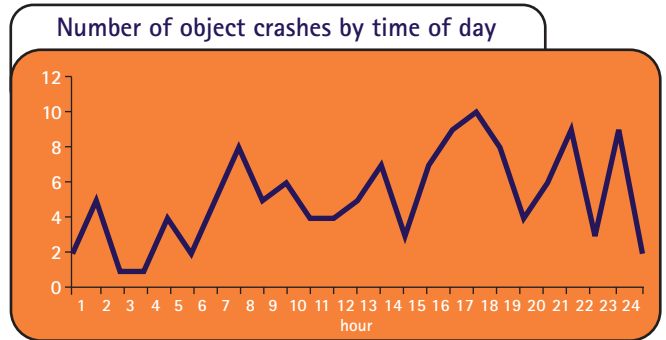
- Encourage enforcement campaigns targeting drivers who fail to stop or give way.
- Encourage education programmes to address driving at an appropriate speed, keeping a safe distance, signalling correctly, choosing a safe gap and checking for pedestrians and cyclists.
- Conduct a safety audit/survey of intersection controls and visibility.
- Remove any vegetation that might make signs, signals, vehicles and markings difficult to see.
- Ensure signs and markings are up to the appropriate standard.

Collisions with objects

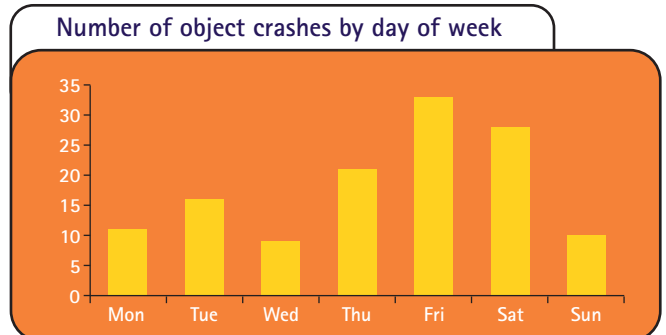
A total of 652 objects were struck in 530 crashes in the Papakura district (173 objects in 128 injury crashes and 479 objects in 402 non-injury crashes).



Some object types were found in crashes at higher rates than might be expected when comparing Papakura to similar local bodies. These were trees and poles in urban areas and poles in rural areas.



Crashes with objects occurred throughout the day with no major peaks, although there were generally higher numbers in the later rather than the early part of the day.



The most commonly struck object resulting in injury was a post or pole, while the most common in a non-injury crash was a parked vehicle.

The following table shows the four most often hit objects. The table also shows how often the type of object was hit.

Injury crash	Non-injury crash
Post or pole (34)	Parked vehicle (114)
Fence (29)	Post or pole (74)
Tree (22)	Tree (33)
Parked vehicle (17)	Fence (29)

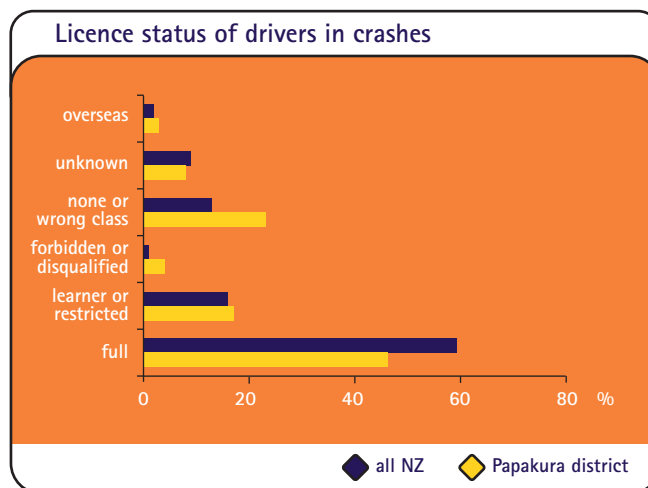
Crashes with objects resulted in four fatalities, 29 serious injuries and 146 minor casualties.

Recommended actions

- Use frangible poles when replacing poles.
- Develop a roadside hazard management strategy to:
 - identify hazardous roadside objects
 - rank the hazards
 - develop a programme to either remove or protect hazards.
- Use the safety audit approach for all new projects and as a management tool for hazards in the existing road environment.
- Continue to work with utility companies to eliminate poles and relocate services within the road reserve underground.

Additional comment: Driver licences

The LTSA has published graphs in its road safety reports to illustrate the driver licence status at the time of an injury crash.



It appears that less than half of the drivers in injury crashes in urban areas had a full driver licence. A further 17 percent were on learner or restricted licences.

At this stage we do not know what the distribution of licence status is in the on-road driving population, as this can only be ascertained in roadside surveys.

It is difficult therefore to draw conclusions. It is clear, however, that when compared to the figures for all New Zealand, there is a problem in urban Papakura. It seems likely that unlicensed drivers are over-represented in the crash statistics.

Recommended actions

- Work with the New Zealand Police to establish the licence status of drivers in Papakura, through roadside surveys/checkpoints.
- Support programmes that facilitate driver training leading to licensing.

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 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 Roding 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 number of deaths and injuries in the Papakura district.

Funding for community projects in the Papakura district from the NZRSP for the 2002/2003 year includes:

Project	Funding	Police hours
Road safety co-ordinator	\$27,000	
Alcohol	\$5,000	
Intersections	\$5,000	

Police enforcement

The police will deliver 25,410 hours in the Papakura district as follows:

Project	Police hours
Strategic – alcohol/drugs, restraint, speed and visible road safety enforcement	20,020
Traffic management – crash attendance events, incidents, emergencies and disasters, traffic flow supervision	4,120
School road safety education	800
Police community services	470

Road environment

The LTSA's Crash Reduction Monitoring database shows that works implemented as a result of crash reduction studies have reduced crashes at the study sites by 33 percent in the Papakura district.

Recommendations from recent studies should be implemented and further studies undertaken to consider mass action or local area traffic management to reduce crash problems.

References

The Papakura District Road Safety Report 1997–2001

LTSA Crash Analysis System

Where to get more information

For more specific information relating to road crashes in the Papakura district, please refer to the 1997 to 2001 Road Safety Report or the LTSA Accident Investigation System, or contact the people or organisations listed below:

Land Transport Safety Authority

Regional Manager
Peter Kippenberger

Regional Education Advisor
Rae-Anne Kurucz

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Chris Hewitt

Road Safety Co-ordinator

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New Zealand Police

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