

road safety issues

July 2003

The Land Transport Safety Authority (LTSA) has prepared this road safety issues report. It is based on reported crash data and trends for the 1998–2002 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 Auckland Region.

For 2002, the nation witnessed a further reduction in road trauma, to a level not seen since the mid-1960s. That outcome is once again a credit to the many agencies and individuals whose efforts continue to drive the ongoing reduction in road trauma in New Zealand. However, the pain and anguish suffered by individuals and families, and the cost to society of road crashes, remain high. Therefore, there can be no let-up in our efforts not only to consolidate recent gains, but also to drive the level of trauma down even further.

Reported crash numbers in the Auckland Region have generally trended down over the last 10 years, however numbers have been rising again over the last three years. The biggest change occurred on the urban roading network.

The occurrence of injury crashes in local authorities within the Auckland Region over the last five years is shown in the table below.

	Local authority roads	State highways	Fatalities
Auckland City	29%	8%	22%
Manukau City	18%	3%	23%
Waitakere City	12%	1%	9%
North Shore City	11%	2%	11%
Rodney District	4%	4%	21%
Papakura District	3%	1%	4%
Franklin District	3%	1%	10%
Total	80%	20%	

Major road safety issues

Auckland Region

Loss of control (including speed and alcohol)

Vulnerable road users

New drivers

Failure to give way

Nationally

Speed

Alcohol

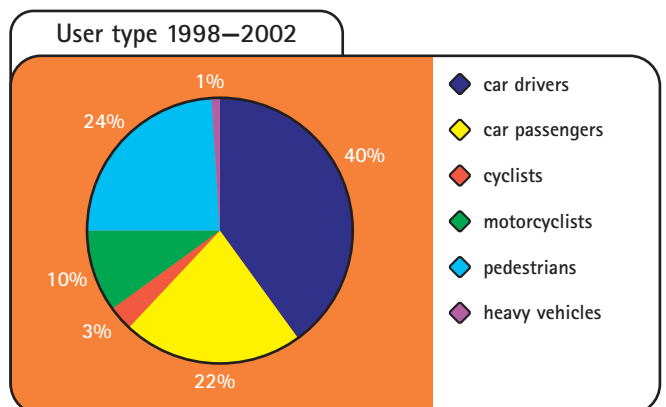
Failure to give way

Restraints

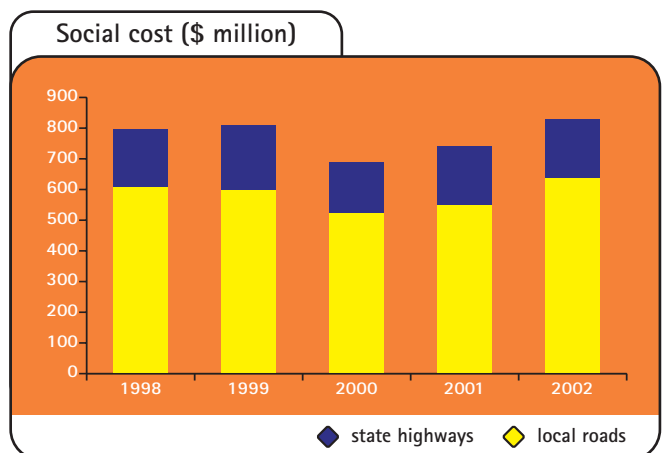
2002 road trauma for Auckland Region

Deaths	77
Serious casualties	612
Minor casualties	3,008
Fatal crashes	70
Serious injury crashes	514
Minor-injury crashes	2,194
Non-injury crashes	11,972

Road deaths 1998–2002



Estimated social cost of crashes*



* 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 2002 prices.



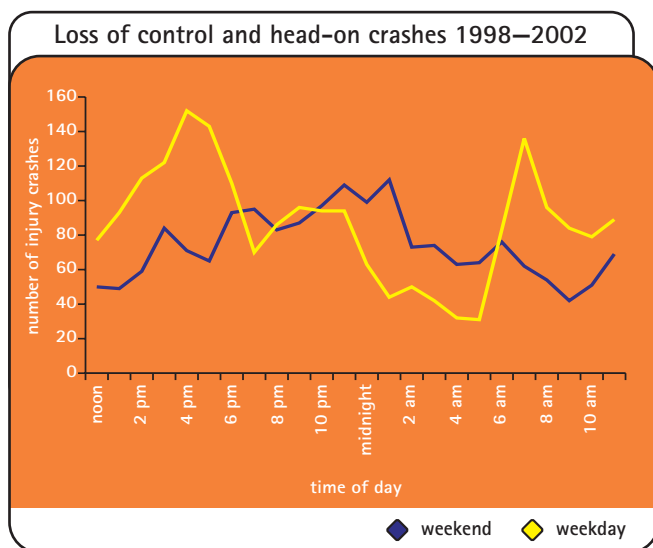
Loss of control (including speed and alcohol)

Loss of control and head-on crashes represented almost a third of all injury crashes in the region. However, they represented 44 percent of the total social cost of crashes in the region. Loss of control crashes make up more than three quarters of this group of crashes.

Type of crash	Percentage of social cost
Loss of control/head-on	44%
Pedestrian vs vehicle	19%
Crossing/turning	16%
Rear-end/obstruction	12%
Overtaking	6%
Other	3%

The reason for the high social cost of these crashes is the high level of injury severity. Of the 3,905 crashes of this type in the last five years, there were 5,770 people injured (196 fatalities, 1,188 serious injuries and 4,386 minor injuries). One of the contributing factors to the high severity level is the fact that 40 percent of these crashes occurred on open roads, compared with the regional average for all crashes of only 25 percent on open roads.

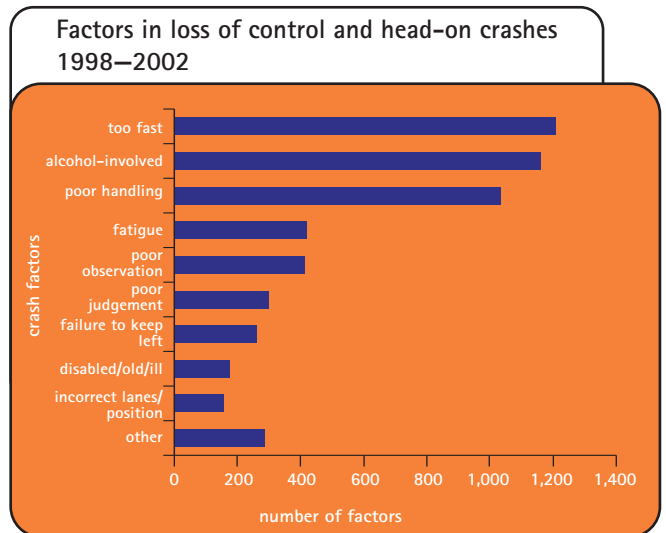
A very high proportion of the loss of control crashes occurred during the hours of darkness (48 percent). This is well above the 35 percent average for all injury crashes in the region. Just under half of these crashes occurred during the weekend. The following graph clearly shows the different pattern of weekend and weekday crashes.



Six out of every 10 crashes occurred at a bend or curve. Many crashes also involved collisions with roadside hazards such as posts, poles, trees and fences.

The majority of drivers were male, with a clear peak in those aged 15 to 24 years.

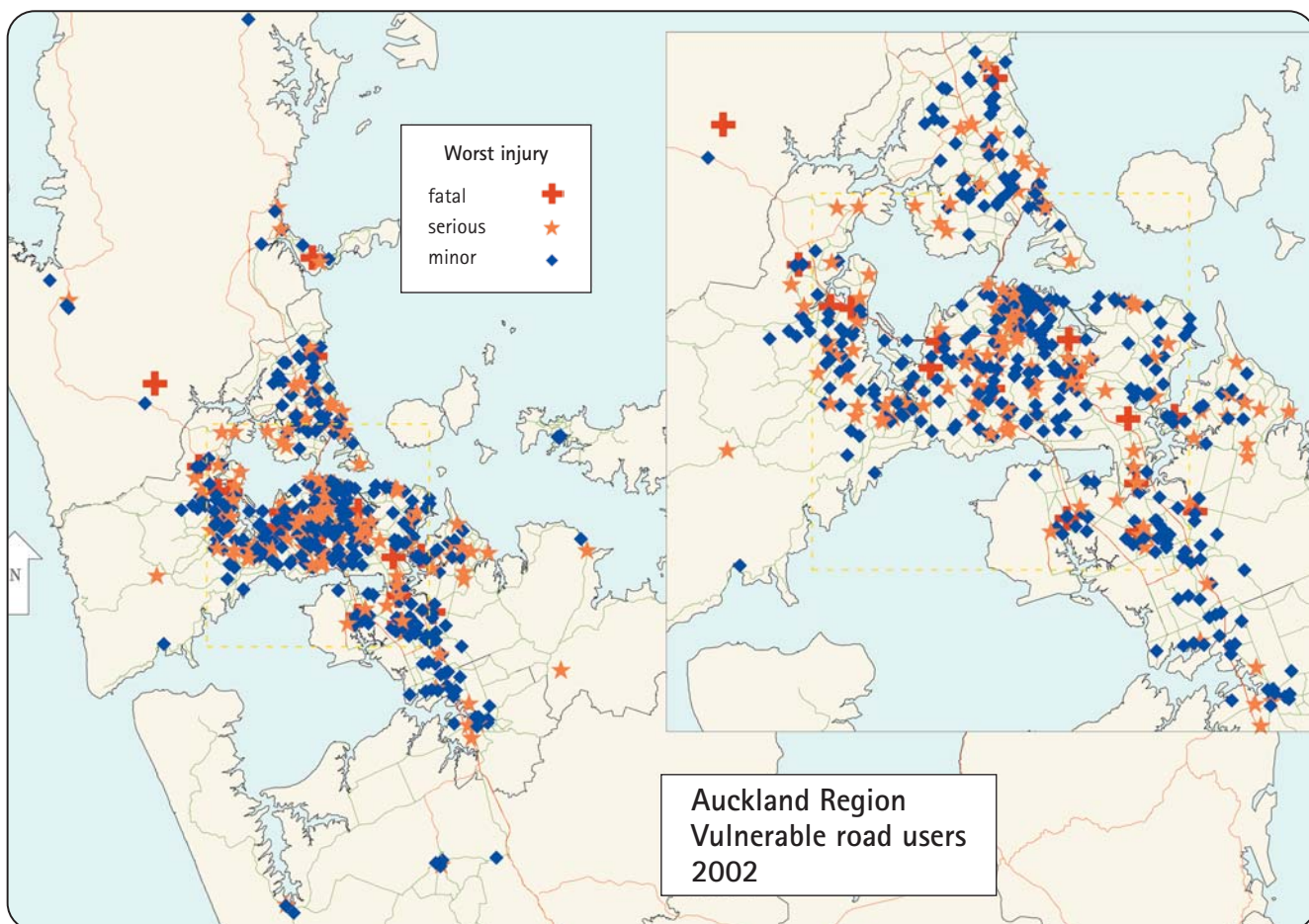
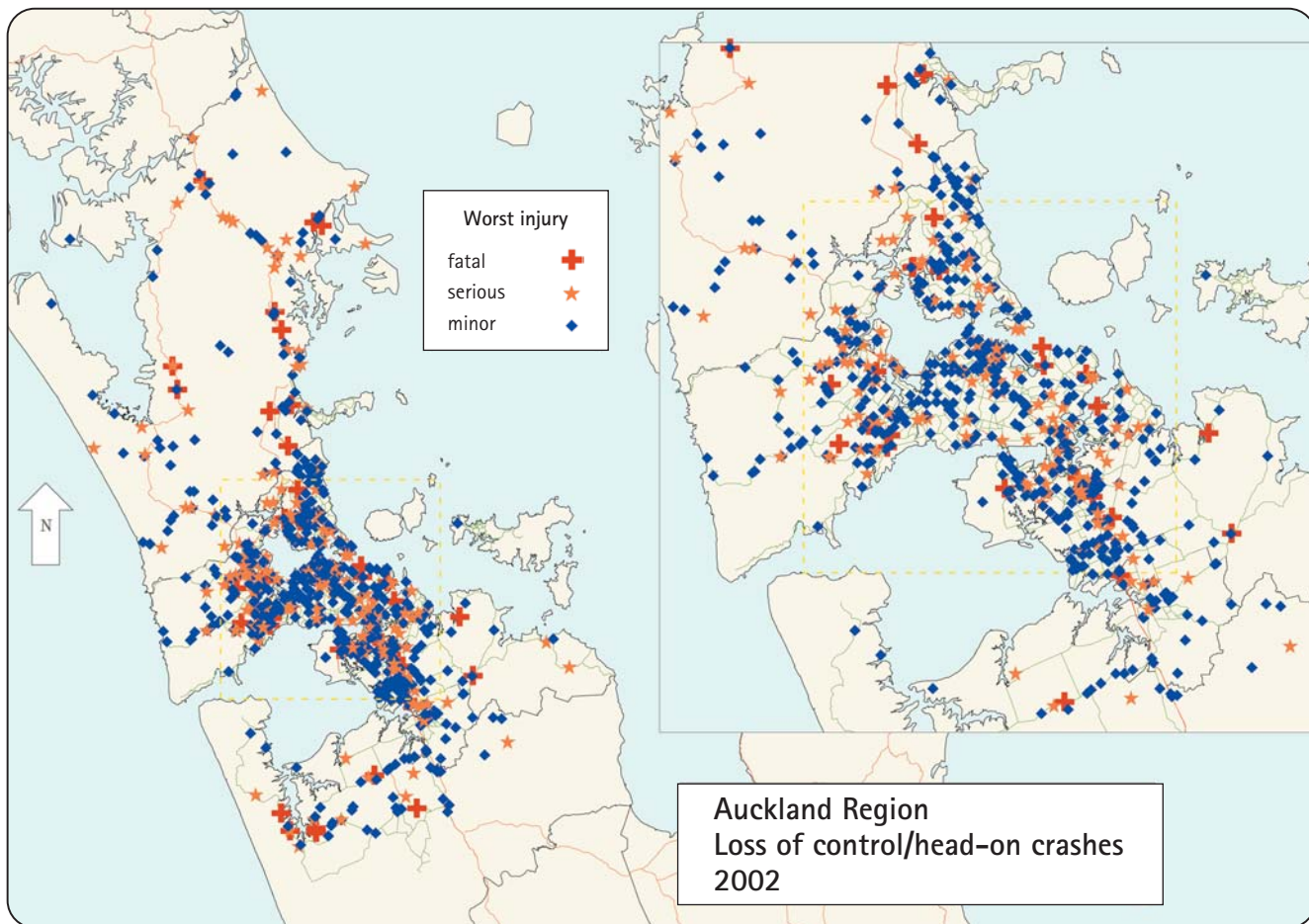
Speed and alcohol involvement feature predominantly in these crashes. The number of speed-related crashes has increased in the last few years from approximately 220 in 1998 to 250 in 2002. The number where alcohol was involved has dropped very slightly from 250 in 1998 to 242 in 2002, following a dip to 207 in 2001.



Separate analysis of all speed and alcohol-related injury crashes in the region shows that 63 percent involved loss of control or head-on crashes (45 percent at bends) and 62 percent occurred in darkness. Males aged 15 to 24 years again featured predominantly. In the last five years there have been 168 deaths in speed and alcohol-related crashes including 13 multiple fatalities.

Recommended actions

- Continue to support advertising and enforcement campaigns targeting driving too fast for the conditions and alcohol, especially during the weekend and at night.
- Continue to encourage community projects aimed at raising awareness of loss of control at corners amongst at-risk drivers, especially young male drivers.
- Encourage road controlling authorities to:
 - adopt safety audits as a tool for identifying and improving deficiencies on existing routes
 - eliminate service poles within the road environment
 - control the placement of trees in hazardous locations
 - continue to support the crash reduction study programme
 - monitor and improve road surface friction at black spot corners.



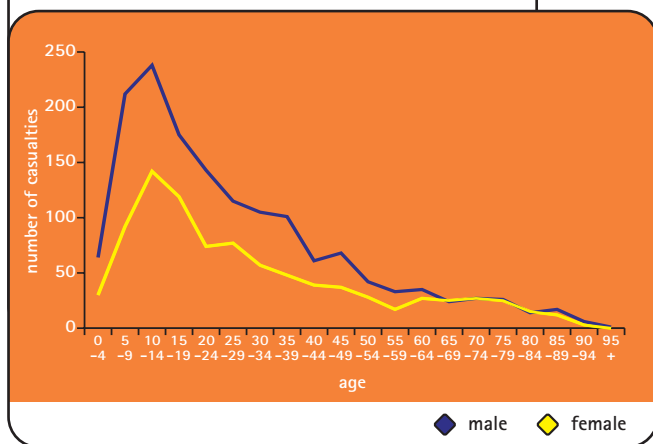
Vulnerable road users

Injuries caused to vulnerable road users accounted for a quarter of the total social cost of crashes in the region. Collisions with vulnerable road users often resulted in severe injuries. In the last five years there have been 103 people killed, 610 seriously injured, and 1,970 received minor injuries. Vulnerable road users included pedestrians, cyclists, skateboarders and other wheeled pedestrians such as those on roller skates. The number of casualties per year has continued to increase over the last five years. The following table shows the change for the two main groups.

	Reported casualties	
	Pedestrians	Cyclists
1998	334	135
1999	357	159
2000	348	166
2001	403	153
2002	415	197

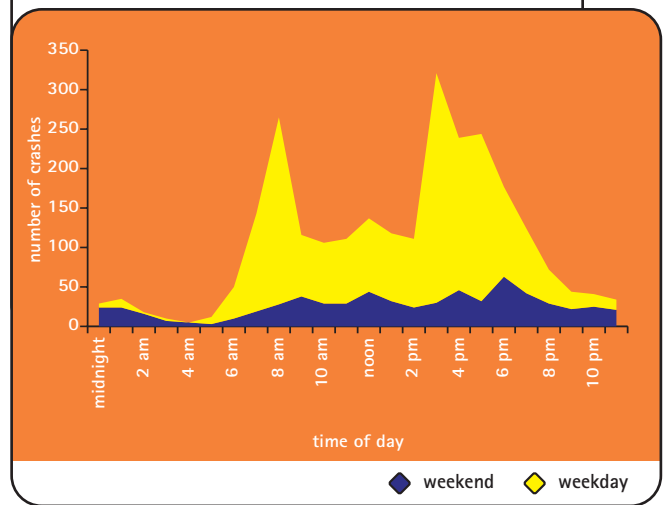
The region's young are clearly over-represented in these crashes, especially young males. Males represented 54 percent of the pedestrian injuries, 78 percent of the cyclist injuries and all of the skateboard injuries.

Age and gender of vulnerable road users 1998–2002



Three quarters of these crashes occurred on a weekday, peaking in the period after school. Weekend crashes peaked at 6 pm with a greater proportion occurring in dark conditions (40 percent) compared with only 18 percent for weekday crashes.

Time of day for vulnerable road user crashes 1998–2002

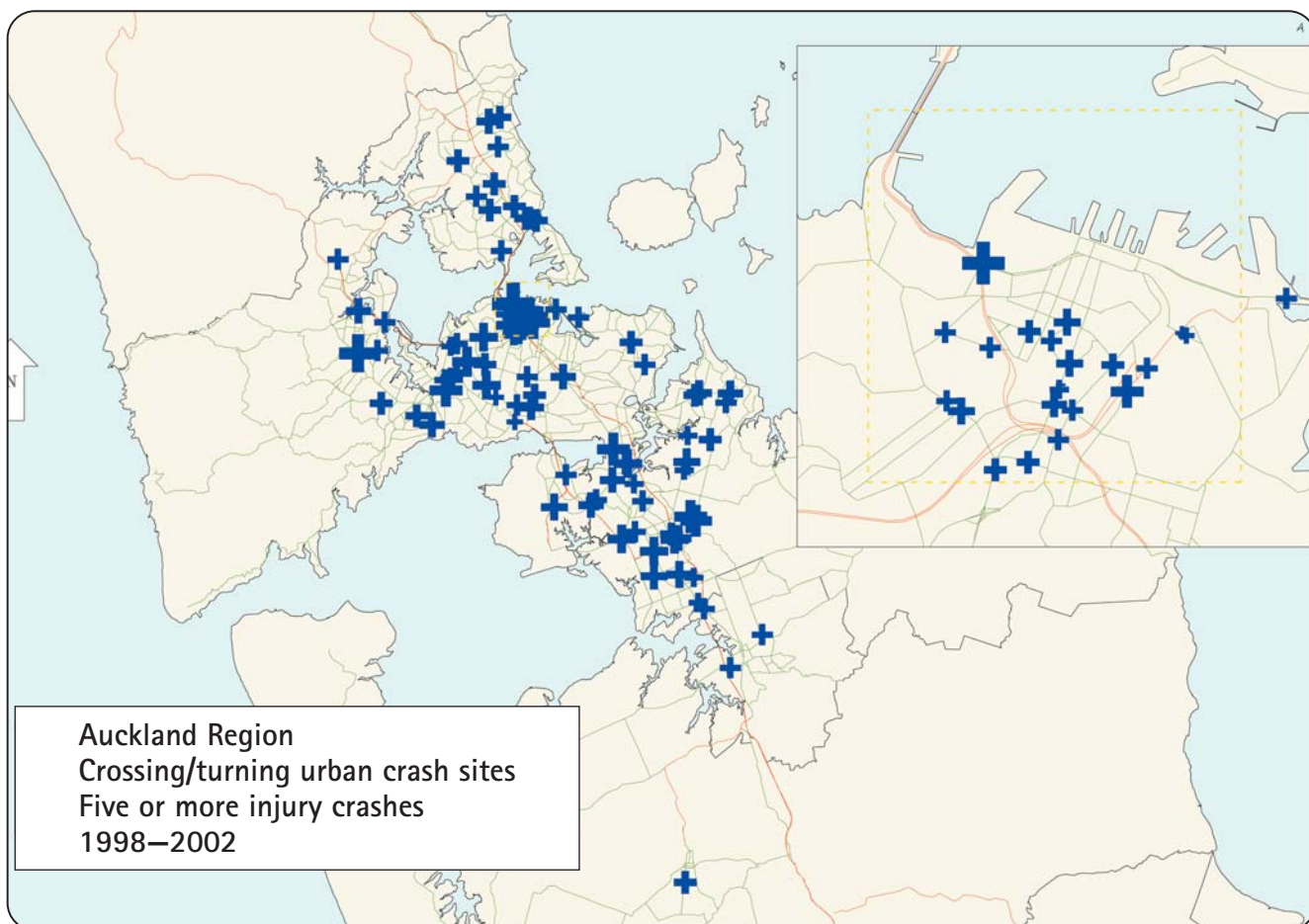
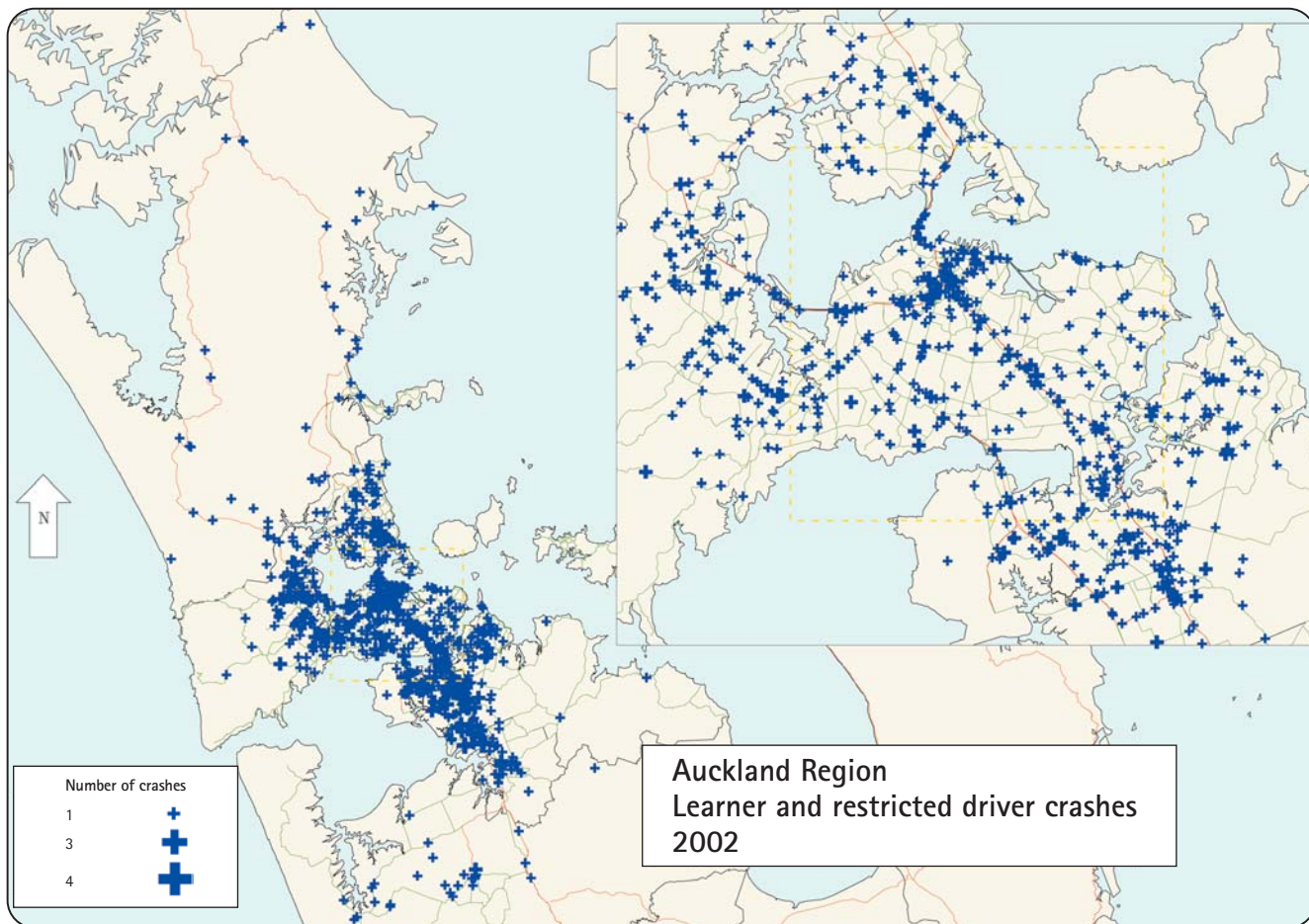


The most common crash movement type for pedestrians involved a pedestrian crossing the road from the left side of the driver of a vehicle. The most common type for cyclists was an oncoming vehicle turning right in front of the cyclist. Many of these crashes occurred on the arterial roads in the region.

Surveys carried out to monitor cycle helmet use in the region show that the wearing rate has reduced over the last two years, from a high of 91 percent in 2000 to just 79 percent in 2002.

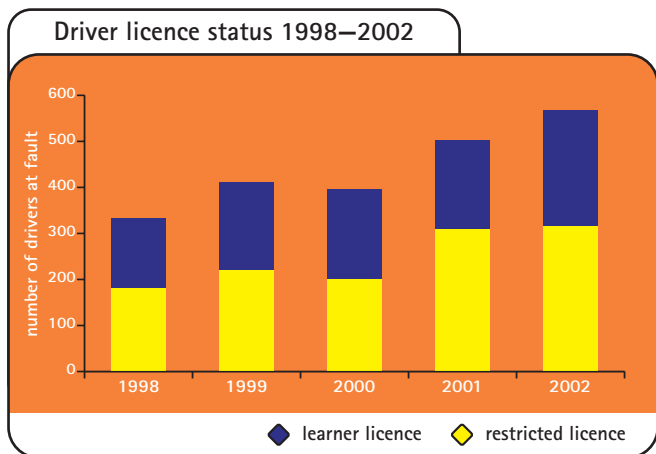
Recommended actions

- Continue to develop and promote the Auckland regional walking strategy and cycle strategy and support and encourage pedestrian and cyclist safety initiatives, especially the creation of walkable and cycle-friendly environments.
- Continue to develop and support programmes aimed at improving pedestrian safety awareness, knowledge and safe road crossing behaviours.
- Continue to support projects that encourage drivers and cyclists to share the responsibility for road safety.
- Encourage community projects aimed at improving cycle safety skills, including correct helmet fitting and promotion of helmet wearing.
- Encourage community projects that foster a road safety culture in and around schools.
- Support enforcement initiatives aimed at targeting:
 - speed, especially during the beginning and end of the school day
 - drivers' failure to give way to cyclists and pedestrians.
- Promote town planning strategies that prevent communities being severed by major arterial roads.



New drivers

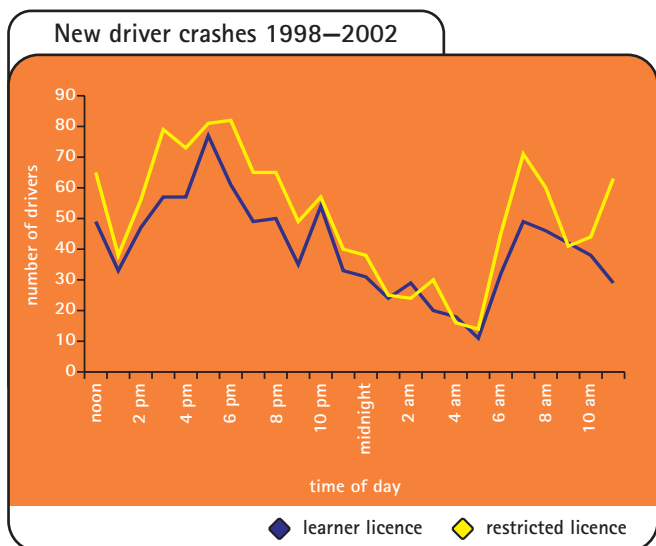
Over a period of 10 years the proportion of drivers involved in injury crashes who hold a full licence has gradually declined from 65 percent in 1993 to 57 percent in 2002. While most other licence categories have remained static there has been an increase in drivers with either a learner or restricted licence from 10 to 17 percent. The following graph shows the number of learner or restricted licence holders involved in injury crashes where they were at fault over the last five years.



A check of driver licence records shows that there are currently just over 143,000 drivers with a current learner or restricted licence registered in the region. This represents 17 percent of all current licence holders.

As would be expected, the majority of drivers were young. Just over a quarter of the drivers, however, are over 25 years old. Those aged 17 and 18 are the most highly represented, as this is the age many would be starting to drive. Males again dominated the count representing 68 percent of these drivers.

A high percentage of crashes involving these drivers occurred during the hours of darkness (43 percent). The regional average is 35 percent. Drivers with a restricted licence are not permitted to drive between the hours of 10 pm and 5 am. However, 20 percent of those crashes involving them occurred in this period – a significant issue.



The five most commonly quoted driver factors in crashes involving learner or restricted licence drivers are:

Factor	Percentage of crashes with this factor
Poor observation	30%
Failure to give way or stop	29%
Speed too fast for conditions	23%
Alcohol involvement	19%
Poor handling	15%

The most common type of crash is loss of control/head-on, especially on bends. The following table shows the range of crash types. Three quarters of these crashes occurred on urban roads.

Type of crash	Percentage of new driver crashes
Loss of control/head-on	43%
Crossing/turning	29%
Rear-end/obstruction	20%
Overtaking	6%
Pedestrian vs vehicle	2%

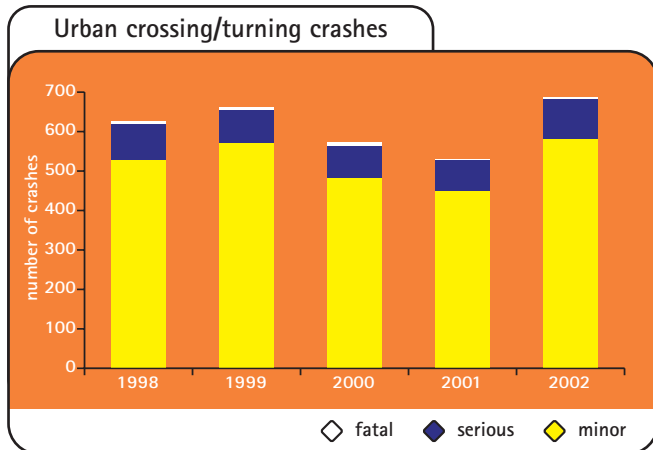
Recommended actions

- Support enforcement campaigns targeting young drivers and restricted driving hours.
- Advise young drivers of the common mistakes they make to encourage them to focus and concentrate on particular driving errors. For example, encourage education programmes that address choosing safe gaps, give way rules and driving at an appropriate speed.
- Support education and other programmes for young drivers that foster defensive driving attitudes and behaviours. An example of this is the recently launched ACC and LTSA programme Practice.



Failure to give way

In urban areas of the region, crossing and turning crashes are the most commonly reported crash type. In the same areas failure to give way or stop and poor observation are the most commonly reported contributing crash factors. The number of reported urban crossing and turning crashes increased in 2002 after showing signs of a downward trend in previous years.



The majority of these crashes occurred at intersections but there were still approximately 20 percent that occurred at driveways. The most common crash involved an oncoming vehicle turning right in front of another vehicle (38 percent). A vehicle turning right out of a side street in the face of a straight through vehicle is the next most common, followed by right angle collisions.

The following table shows the traffic control present at the crash locations.

Type of control	Percentage of crossing/turning crashes
No control	29%
Give Way sign	27%
Traffic signals	25%
Stop sign	19%

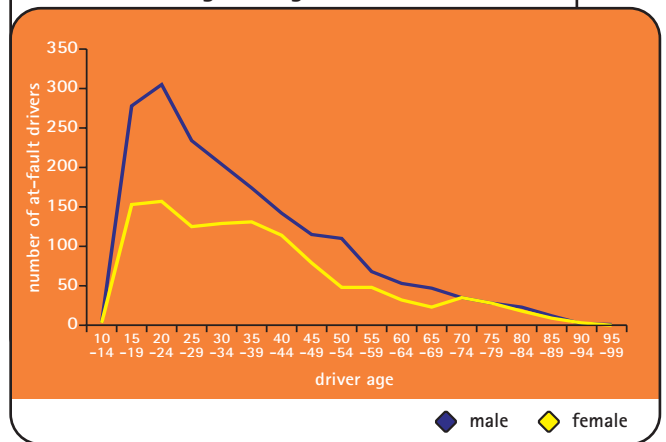
Crashes at T and Y junctions dominate the crash history in the region. No fatal crashes have been reported at roundabouts over the last five years.

1998–2002 reported injury crashes

	Fatal crashes	Serious crashes	Minor crashes
T/Y junctions	13	195	1,118
Crossroads	12	142	871
Driveways	6	87	507
Roundabouts	0	11	114

Young male drivers once again clearly dominated the crash statistics, representing 62 percent of the drivers identified as being at fault in these crossing and turning crashes.

Urban crossing/turning crashes 1998–2002



Of the 4,300 people injured as a result of these crashes, 2,777 were drivers, 1,037 were passengers and 487 were cyclists or pedestrians. As expected, injuries to cyclists and pedestrians were more severe than to other road users, with 17 percent of the former group being fatally or seriously injured.

Recommended actions

- Encourage education and community projects that focus on give way rules, choosing a safe gap, checking for cyclists/pedestrians and indicating turns/lane changes.
- Encourage the targeting of programmes to the age group of at-fault drivers featuring in crash statistics.
- Encourage local road controlling authorities to:
 - carry out safety audits and improvements at known black spots
 - continue to improve junctions by installing traffic control and safety devices such as roundabouts, traffic signals, traffic islands, kerb extensions, Stop and Give Way signs and markings.
- Foster increased visible police patrols and other enforcement measures at identified problem spots.

New Zealand Road Safety Programme

Reducing road trauma involves a multi-pronged approach, which includes education, engineering and enforcement. The New Zealand Road Safety Programme (NZRSP) is the primary planning and funding programme for road safety activity undertaken by the New Zealand Police, LTSA and community groups. Transfund New Zealand provides funding to Transit New Zealand and local authorities for roading projects through its National Land Transport Programme.

Community projects

Through the Community Road Safety Programme (CRSP) the NZRSP provides funding for community development and community programmes to support road safety and to bring about positive and sustainable changes in community attitudes and behaviours. CRSP funding of community initiatives aims to encourage local involvement and ownership of road safety issues, and to target local resources and effort to local risks. This year's review of the programme initiates a re-focus of effort and funding into community development. This involves working with and within different communities of people to assist them in becoming aware of their own local road safety issues and developing solutions to achieve better road safety outcomes.

Road policing

Police enforcement hours to support community projects are now allocated to police community services hours rather than to individual projects. The delivery of these hours to support community initiatives will need to be negotiated by the road safety co-ordinator.

In 2003/2004 the Police are funded to deliver 519,180 hours of road policing in the Auckland Region as follows:

Project	Police hours
Strategic – alcohol/drugs, restraints, speed and visible road safety enforcement	345,660
Traffic management – crash attendance events, incidents, emergencies and disasters, traffic flow supervision	141,070
School road safety education	17,660
Police community services	14,790

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 24 percent in the Auckland Region (34 percent at state highway sites and 20 percent at local road sites).

References

Auckland Region Road Safety Report 1998–2002

LTSA Crash Analysis System

Road Safety New Zealand (May 2003)

Where to get more information

For more specific information relating to road crashes in the Auckland Region, please refer to the 1998 to 2002 Road Safety Report or the Land Transport Safety Authority Crash Analysis System, or contact the people or organisations listed below:

Information on the ACC and LTSA programme Practice is available at the web site www.practice.co.nz or 0800 PRACTICE (0800 7722 84).

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