# *Gisborne District Road Safety Report 2003 to 2007*





Performance Information Land Transport New Zealand Dunvegan House 215 Hastings St PO Box 972 NAPIER

Ph. (06)974 5520 Fax.

Web: www.landtransport.govt.nz

April 2008

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#### Introduction and general information

Land Transport New Zealand provides information on road safety to its stakeholders and the public. It also has responsibility for promoting safety and sustainability in land transport, among a variety of other functions. This road safety report is an example of information supplied by Land Transport New Zealand.

This report helps identify road safety issues in Gisborne District area ('the district') by presenting tables or graphs of:

- numbers and trends in reported crashes and casualties
- characteristics and types of crashes and casualties
- factors contributing to crashes
- locations with bad crash records
- characteristics of crashes on local authority roads

The information is intended to assist road controlling authorities, the New Zealand Police and others in evaluating the safety performance of the road network in Gisborne District. Comparison with other cities, districts or regions elsewhere in the country is included.

Researchers, students, and organisations with an interest in road safety will also find the information useful.

#### Source of crash information

This report uses data from Land Transport New Zealand's crash database. This database includes all crashes involving injury and non–injury for which Police reports have been completed and forwarded to Land Transport New Zealand. Mostly five-year data (2003 to 2007) has been used, but 10-year data (1998 to 2007) has been used to analyse trends.

#### Local authority peer groups

Traffic crash patterns and features for an area can depend on the traffic and roading characteristics of that area. The most useful comparisons are made with other areas or authorities with similar characteristics, rather than with the whole country. The data for the city is compared with a peer group of similar local authorities (Group C) along with data for all New Zealand.

The peer group used for comparison with Gisborne District is Group C which consists of large provincial towns and hinterland. (Population 35000 - 75000 and/or rural crashes less than 35 percent). Local authorities included in this group are listed in Figure 1.4.



#### Definitions of urban and rural

Data has been separated for urban and rural (open) roads through this report because each has a distinctly different pattern of crashes. In this report urban roads are defined as all those with a speed limit of 70 km/h or less.

#### Definition of statistically significant

A number of graphs include a comparison between the road controlling authority, all New Zealand and a similar peer group. These graphs can include an indication as to whether the difference is statistically significant. For the purposes of this report statistically significant means that a difference of this size is unlikely to be due to chance. Significance is noted at the 5% level (P < 0.05), this means that the observed result would occur by chance in only 1 in 20 similar situations.

#### Road user compliance data

The Ministry of Transport collects information on road user compliance with traffic law. This information includes speed surveys, occupant restraint use surveys and cycle helmet use surveys. Information about these surveys is available on Ministry of Transport web site.

The appropriate web addresses are as follows:

Open road speed	http://www.transport.govt.nz/speed1/
Urban speed	http://www.transport.govt.nz/speed2/
Safety belts	http://www.transport.govt.nz/belts-index/
Cycle helmets	http://www.transport.govt.nz/cycle-helmets-2007-1/

The information is also distributed quarterly in the Ministry of Transport publication Road safety progress.

The Ministry of Transport also conducts public attitude surveys. These have been undertaken annually since 1994. They evaluate attitudes to road safety issues, primarily alcohol-impaired driving and speed. Surveys are carried out in May and June of each year by trained interviewers who conduct interviews with respondents in their homes. The sample is chosen to be representative of the New Zealand adult population, and includes men and women aged 15 and over from towns, cities and rural areas throughout New Zealand.

The results of these surveys are available from:

http://www.transport.govt.nz/public-attitudes-index/

#### General explanatory notes

- Crash and casualty information in this report generally includes data for both local roads and state highways. Some tables and charts can separate this information, however figures 8.1–8.26 provide information for local roads only.
- Crash and casualty rates are based on 2007 populations estimates updated from the 2006 census, traffic flows from the year 2005, and the average of five year crash data (2003–2007).
- 3. Traffic flows are based on Road Asset Maintenance and Management (RAMM) data from December 2004. Caution should be exercised when comparing traffic flow based crash rates in one authority with those of other authorities. Different road controlling authorities update flow data in RAMM at different times and some data will be more up to date than other data.
- 4. With four to five categories of road for each local authority, some categories will only have short lengths of road. This may cause significant variation in the calculated crash and casualty rates.
- 5. The crash numbers include all those within the road controlling authority. The crash numbers used in the crash rate section can, however, vary slightly from the remainder of the document as only 'on road' crashes can be used. These are crashes on roads that have traffic volume information recorded. Crashes that occurred in car parks, reserves, beaches etc are excluded.
- 6. The severity of a crash is determined as the most severely injured casualty in the crash. Injury severity is classified as fatal, serious, or minor as follows:
  - Fatal: Injuries that result in death within 30 days of a crash.
     Serious: Fractures, concussion, internal injuries, crushing, severe cuts and lacerations, severe general shock necessitating medical treatment, and any injury involving removal to and detention in hospital.
     Minor: Injuries which are not serious but which require first aid, or cause discomfort or pain to the person injured, eg sprains and bruises.
- 7. Ethnicity of road users involved in crashes can now be recorded on traffic crash reports, although some reports may not include this data. Figures 3.25 and 3.26 shows the ethnicity of casualties, where known. Ethnicity is divided into five different groups. Only data for 2003 to 2007 is available. The graph includes all casualties irrespective of culpability.

NOTE: Ethnicity data should be treated with cautions as the data can be considered subjective and incomplete

Introduction and general information



- 8. For the licence status grouping in Figures 3.27 and 3.28 the 'no/wrong licence' group includes drivers who have never held a licence or have an expired or wrong class licence. This graph includes all drivers irrespective of injury or culpability.
- 9. See the appendix for detailed descriptions of:
  - crash movement types and crash movement groupings (for Figures 4.1–4.4)
  - grouping of factors contributing to crashes and factors contributing to crashes (for Figures 5.1–5.14)



# Crash rates and costs



#### Crash reporting rates

The ratio of 'reported serious injuries' can be assessed by comparing seriously injured casualty numbers from Police crash reports to hospital admissions, given that a serious injury is generally one requiring hospital attention.

Figure 1.1 below indicates the serious injury reporting rate for each region.

#### Figure 1.1 Reporting rate serious injuries to hospital admissions

Region	1997 1999	2001 2002	2002 2003	2003 2004	2004 2005
Northland	41%	52%	54%	59%	68%
Auckland	63%	63%	67%	67%	67%
Waikato	58%	65%	69%	68%	75%
Bay of Plenty	48%	54%	63%	60%	63%
Gisborne	53%	56%	56%	60%	55%
Hawkes Bay	57%	65%	72%	73%	79%
Taranaki	69%	70%	75%	70%	73%
Manawatu-Wanganui	64%	67%	63%	62%	69%
Wellington	62%	56%	65%	63%	72%
Nelson-Marlborough	74%	67%	72%	68%	71%
West Coast	58%	64%	71%	62%	70%
Canterbury	68%	69%	69%	68%	69%
Otago	62%	79%	79%	77%	83%
Southland	55%	68%	68%	61%	73%
New Zealand	60%	64%	67%	67%	70%

These variations in reporting rates need to be considered when viewing the trends in crashes and casualties shown in this report.

	Local	roads	State highways			
	Urban	Rural	Urban	Rural		
Gisborne District	36	20	34	23		
Group C	34	31	27	19		
All NZ	36	26	32	16		

#### Figure 1.3 Casualties per 100 million vehicle kilometres travelled

	Local	roads	State highways			
	Urban	Rural	Urban	Rural		
Gisborne District	44	29	52	35		
Group C	43	46	38	29		
All NZ	46	38	43	25		



#### Figure 1.4 Peer group crash and casualty rates

#### Group C

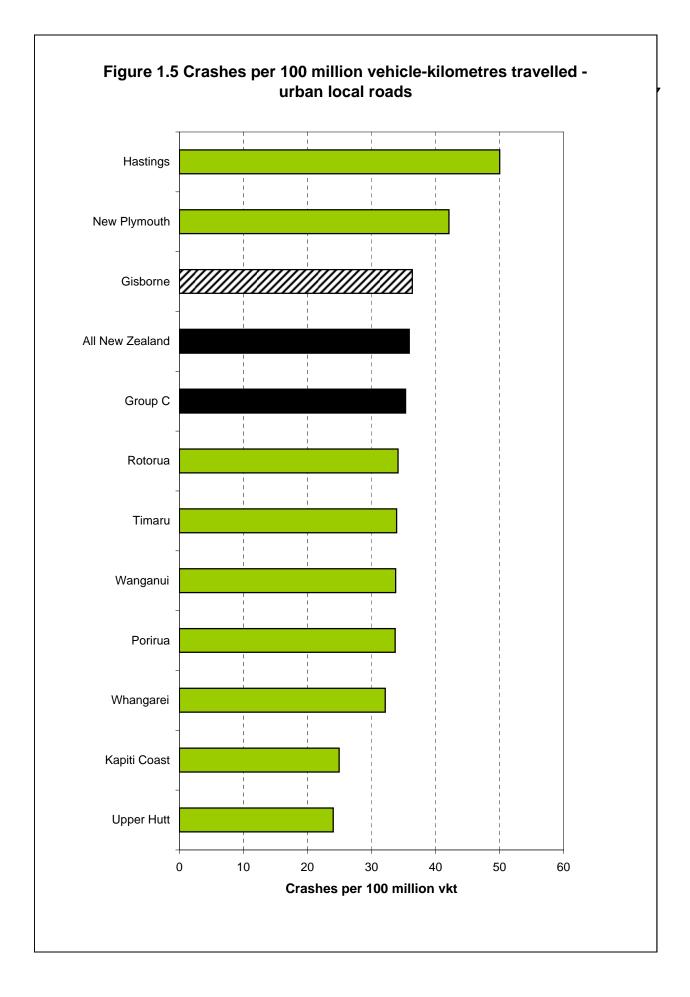
	Crashes per					Casualties per				I		
		100 million vehicle					-	) millio		nicle		
			netres					metre				
			cal	1	ate			cal		ate		
		roa	ads	high	ways		roa	ads	high	ways		
City or District name	10,000 Population (5 vear average)	Urban	Rural	Urban	Rural	10,000 Population (5 vear average)	Urban	Rural	Urban	Rural	2007 Population	% of rural crashes
Gisborne	24	36	20	34	23	33	44	29	52	35	45900	47
Hastings	36	50	35	26	24	52	62	53	41	39	73600	54
Kapiti Coast	18	25	51	25	11	26	31	76	35	20	48000	47
New Plymouth	28	42	36	39	24	39	56	50	49	37	71400	42
Porirua	20	34	37	28	9	28	43	56	41	15	50700	28
Rotorua	27	34	29	23	20	38	42	42	32	33	68000	44
Timaru	21	34	21	20	13	29	44	33	27	17	43900	44
Upper Hutt	16	24	28	51	20	22	29	34	64	31	40000	48
Wanganui	20	34	27	24	18	30	44	52	41	32	43600	32
Whangarei	27	32	27	26	18	36	40	35	34	27	77500	53
				-				-				
Group C	25	35	29	28	18	35	45	43	38	29	562600	46
All New Zealand	26	36	26	32	16	36	46	38	43	25	4227700	41

Group C : Large provincial towns and hinterland. (Population 35000-75000 and/or rural crashes less than 55 percent)

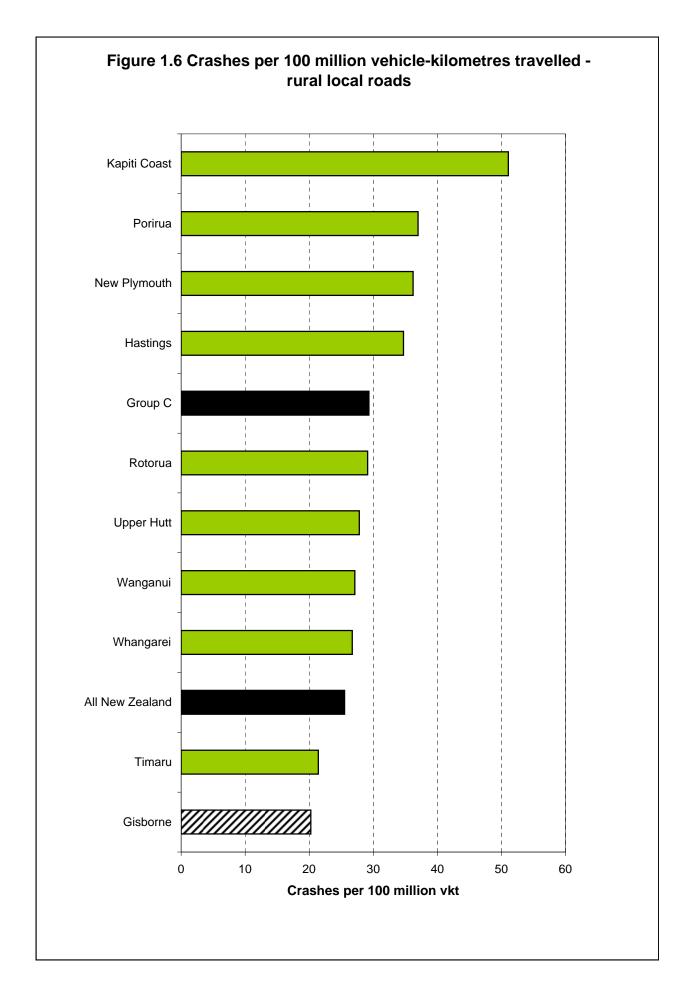
Crashes and casualties per 100 million VKT are based on five years of reported injury on-road crash data (2003-2007) and December (2005) VKT.

Crashes and casualties per 10,000 population are based on five year average crash data (2003-2007) and Statistics NZ 2007 population estimates.

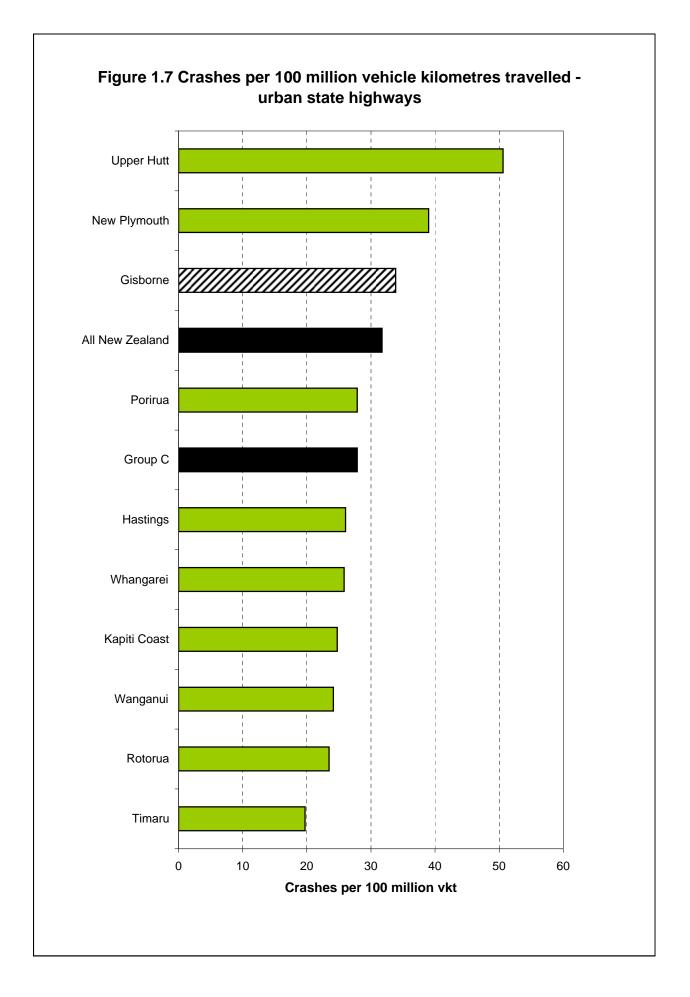




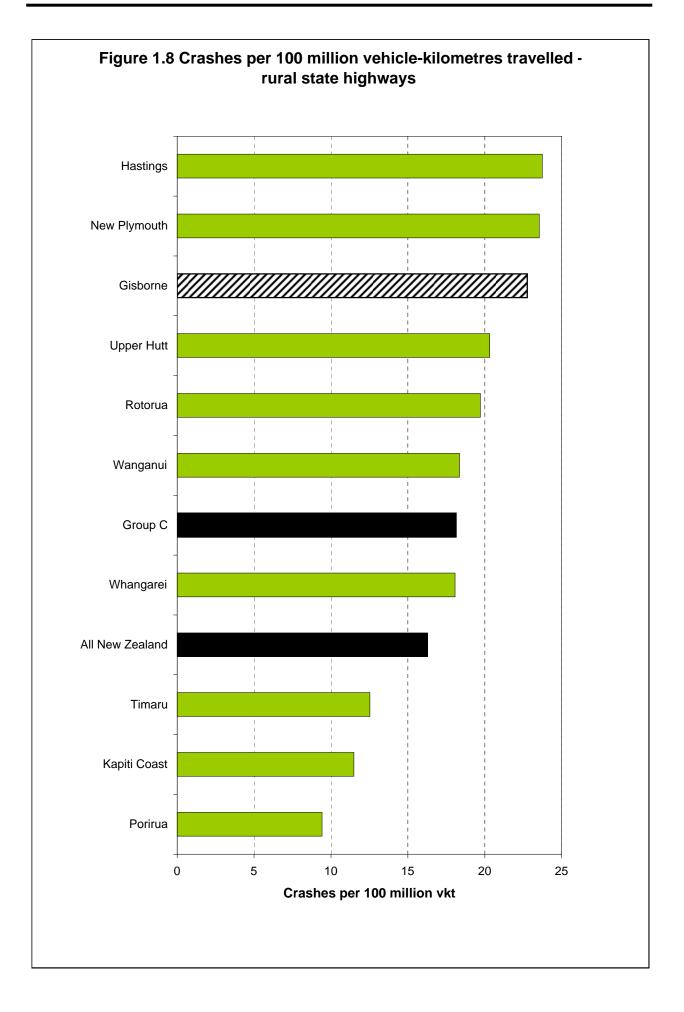




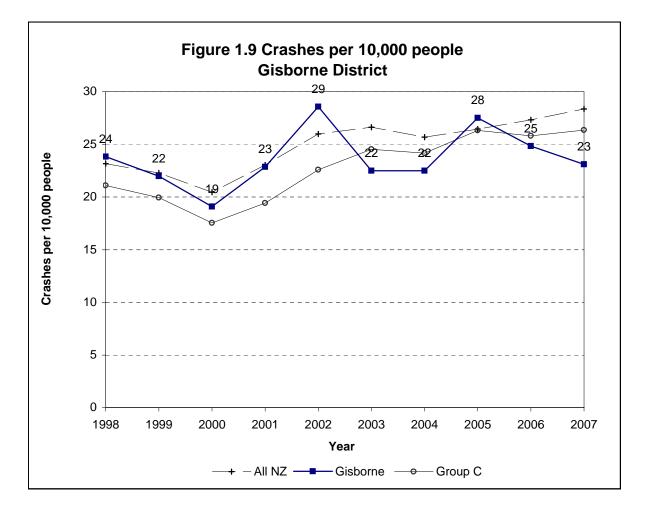


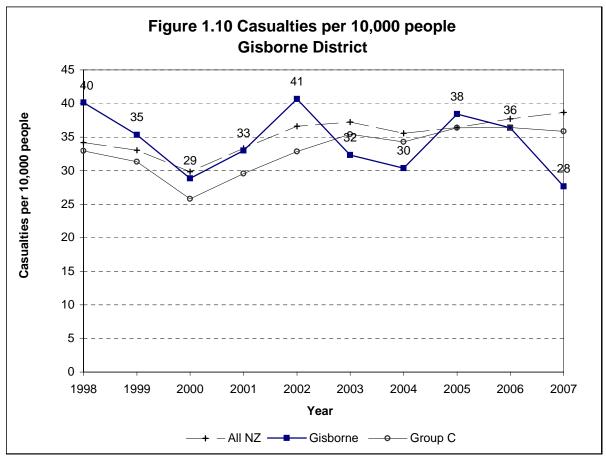












#### Figure 1.11 Social cost of crashes in Gisborne District in 2007

		Gisborne District	New Zealand
Local roads	urban	\$15.31	\$1,609.18
	rural	\$14.62	\$891.74
State highways	urban	\$5.62	\$323.26
State highways	rural	\$35.51	\$1,533.31
Total		\$71.06	\$4,357.48

Note: Crash costs are in \$ millions

The social costs of a road crash and the associated injuries include a number of different elements:

- Loss of life and life quality
- · Loss of output due to temporary incapacitation
- Medical costs
- Legal costs
- Property damage costs

The average value of a loss of life due to a road crash is estimated by the amount of money the New Zealand population would be willing to pay for a safety improvement that would result in the expected avoidance of one premature death. This is the willingness to pay based value of statistical life or VOSL. The VOSL was established at \$2 million in 1991. This has been indexed to the average hourly earnings (ordinary time) to express the value in current dollars. The updated VOSL is \$3.19 million (in June 2007 dollars). Based on several international and New Zealand studies on VOSL, the average loss of life quality for permanent impairments due to a serious and a minor injury were estimated to be 10% and 0.4% of the VOSL respectively.

Crash rates can vary due to reporting rates. These are adjusted on a regional basis in this report by comparing with hospitalisation rates.

The other social cost components are estimated based on a number of studies conducted during the early to mid-1990s and are updated for price changes by indexing to an appropriate price index.

For a detail discussion on this, please refer to 'The social cost of road crashes and injuries: June 2007 update', available at the Ministry of Transport's website: http://www.transport.govt.nz/socialcost/Social-cost-June-2007-update[1].pdf

The average social cost per reported crash (in June 2007 dollars) are estimated at:

Rural fatal crash	\$4,016,000
Rural serious crash	\$735,000
Rural minor crash	\$88,000
Urban fatal crash	\$3,539,000
Urban serious crash	\$626,000
Urban minor crash	\$79,000

These values include an allowance for non-reported injury crashes, and the totals in Fig. 1.11 also include an allowance for non–injury crashes.





# Crash counts





	2003	2004	2005	2006	2007	Total	%	Group C
Fatal crashes	5	1	4	4	6	20	4%	4%
Serious crashes	19	24	30	21	22	116	21%	20%
Minor crashes	79	78	92	89	78	416	75%	76%
Total injury crashes	103	103	126	114	106	552	100%	100%
Non-injury crashes	312	342	346	325	298	1623		

#### Figure 2.1: Crash numbers and severity 2003 to 2007 - whole District

	2003	2004	2005	2006	2007	Total	%	Group C
Fatal crashes	2	0	1	1	1	5	2%	2%
Serious crashes	9	10	9	12	8	48	16%	17%
Minor crashes	47	43	54	49	48	241	82%	81%
Total injury crashes	58	53	64	62	57	294	100%	100%
Non-injury crashes	227	242	264	249	242	1224		

Figure 2.3: Crasi	h numbers and severity	2003 to 2007	<sup>7</sup> - rurai roads

	2003	2004	2005	2006	2007	Total	%	Group C
Fatal crashes	3	1	3	3	5	15	6%	7%
Serious crashes	10	14	21	9	14	68	26%	25%
Minor crashes	32	35	38	40	30	175	68%	69%
Total injury crashes	45	50	62	52	49	258	100%	100%
Non-injury crashes	85	100	82	76	56	399		

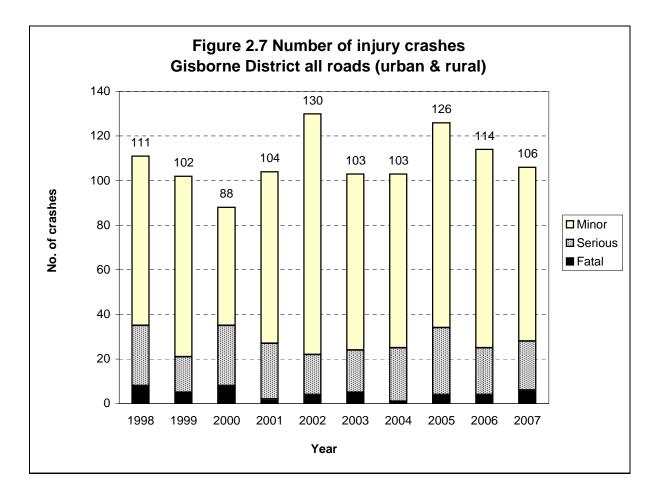
	2003	2004	2005	2006	2007	Total	%	Group C
Fatal casualties	5	1	9	4	7	26	3%	3%
Serious casualties	30	26	35	27	25	143	19%	18%
Minor casualties	113	112	132	136	95	588	78%	78%
Total casualties	148	139	176	167	127	757	100%	100%

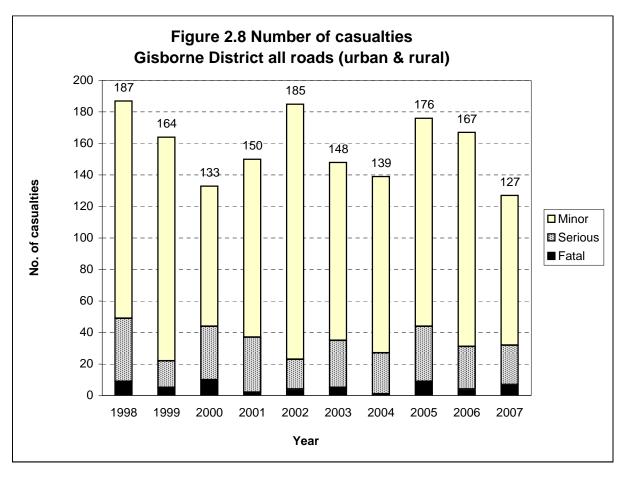
#### Figure 2.5: Casualty numbers and severity 2003 to 2007 - urban roads

	2003	2004	2005	2006	2007	Total	%	Group C
Fatal casualties	2	0	1	1	1	5	1%	2%
Serious casualties	12	12	10	12	9	55	15%	15%
Minor casualties	61	52	73	71	54	311	84%	83%
Total casualties	75	64	84	84	64	371	100%	100%

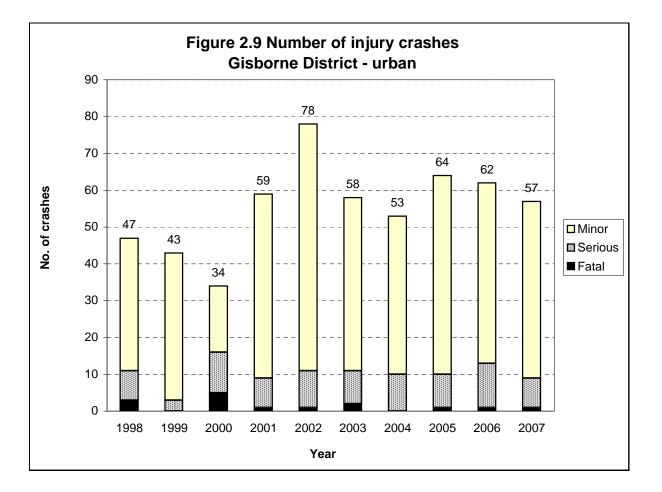
Figure 2.6: Casualty numbers and severity 2003 to 2007 - rural roads

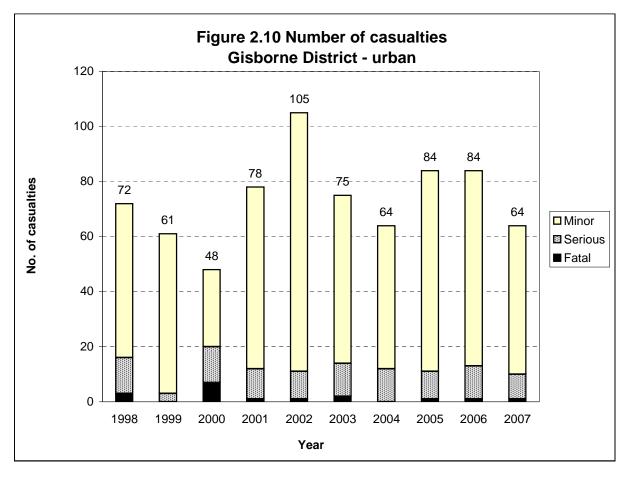
	2003	2004	2005	2006	2007	Total	%	Group C
Fatal casualties	3	1	8	3	6	21	5%	5%
Serious casualties	18	14	25	15	16	88	23%	22%
Minor casualties	52	60	59	65	41	277	72%	73%
Total casualties	73	75	92	83	63	386	100%	100%





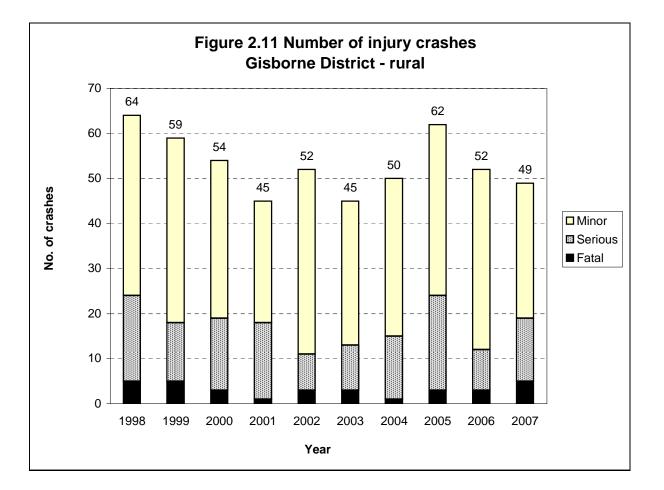


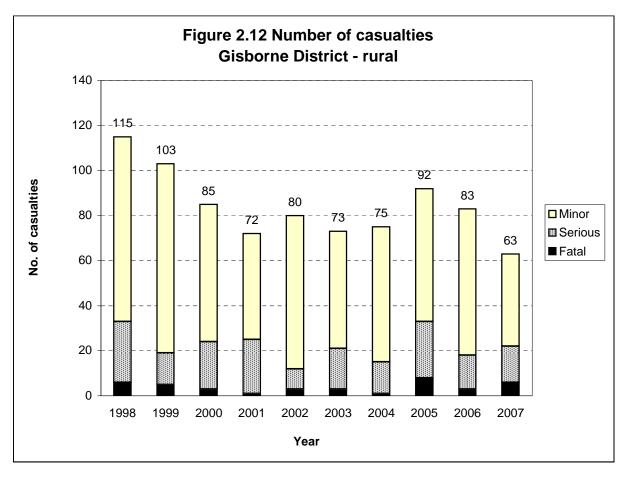




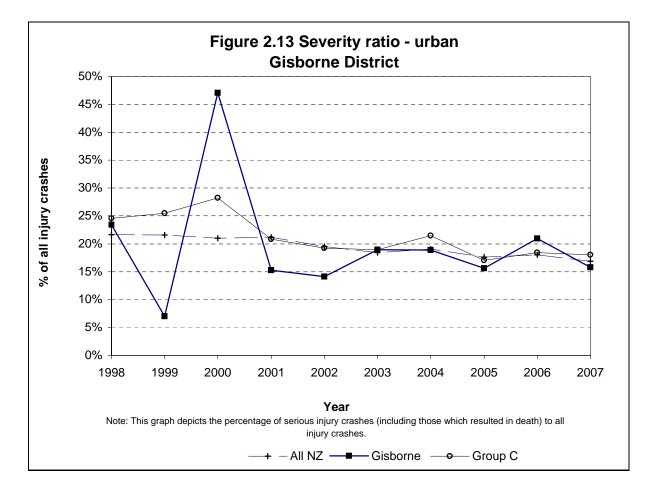
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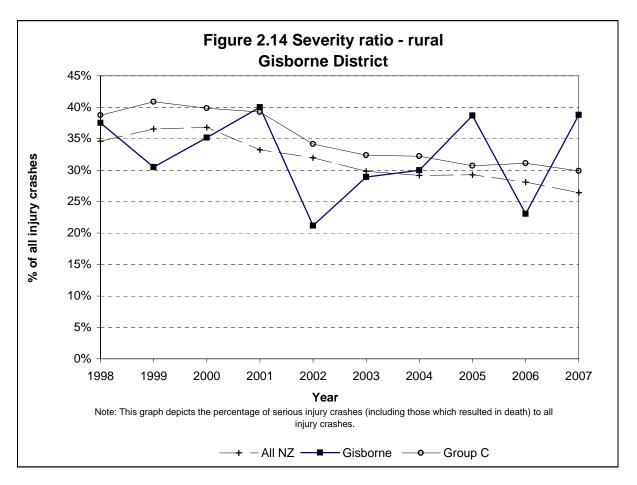










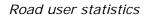




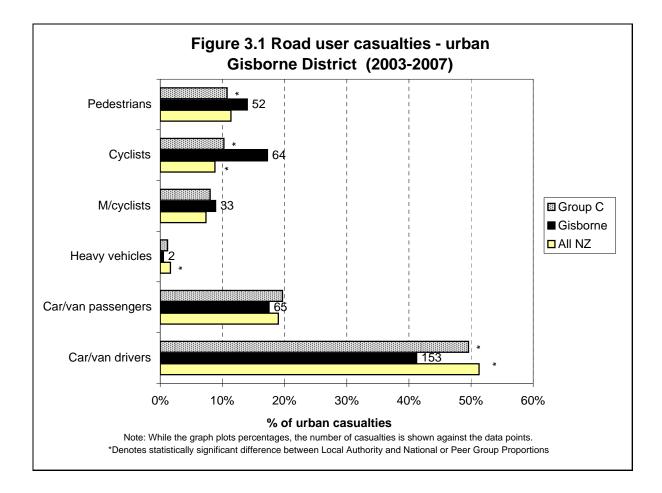


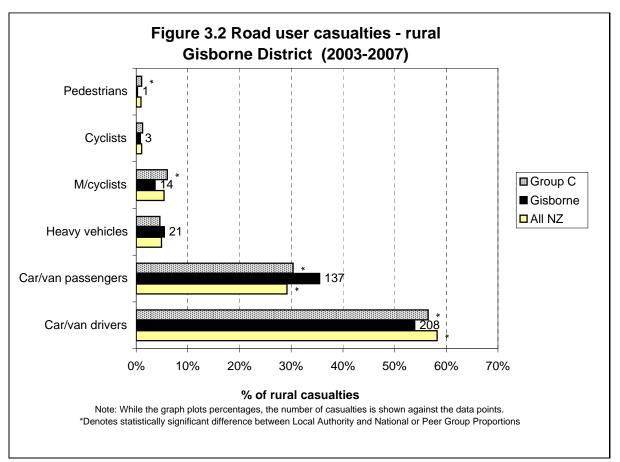
# Road user statistics



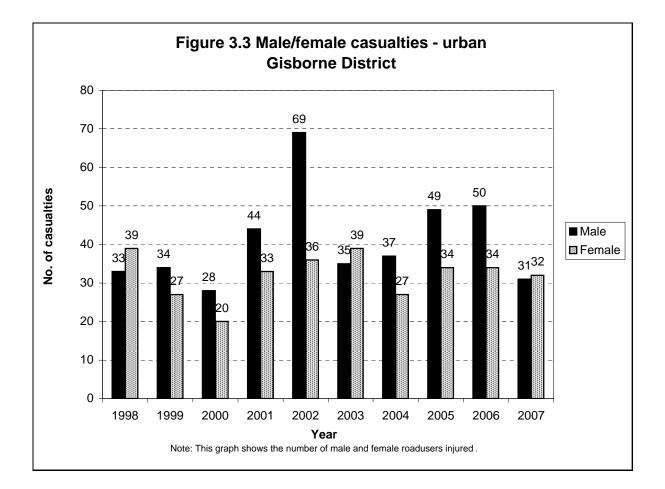


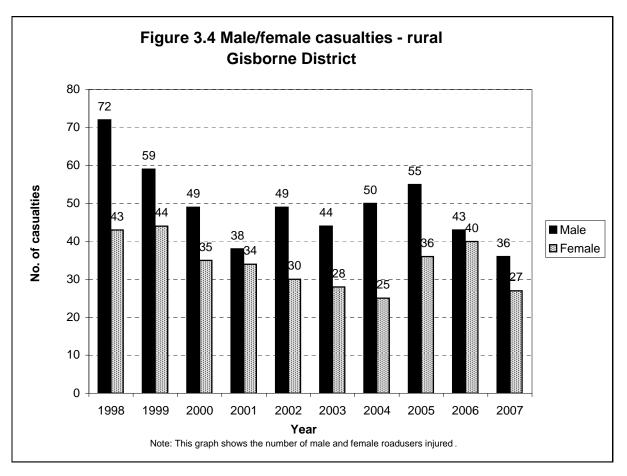




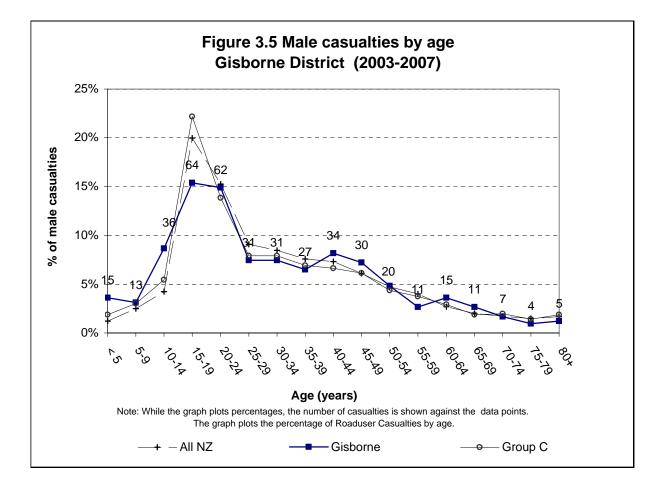


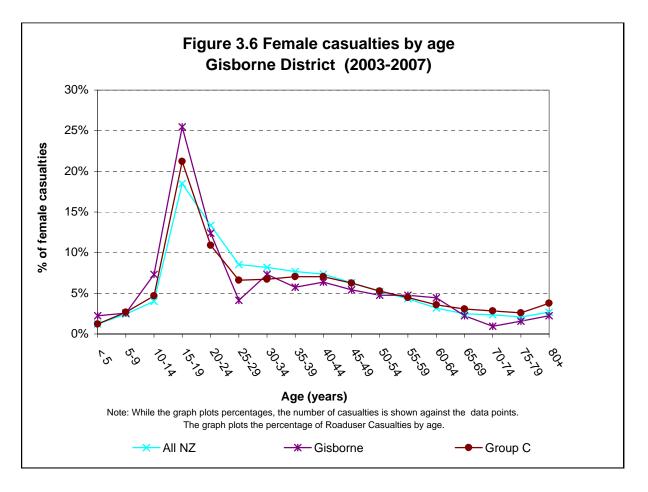




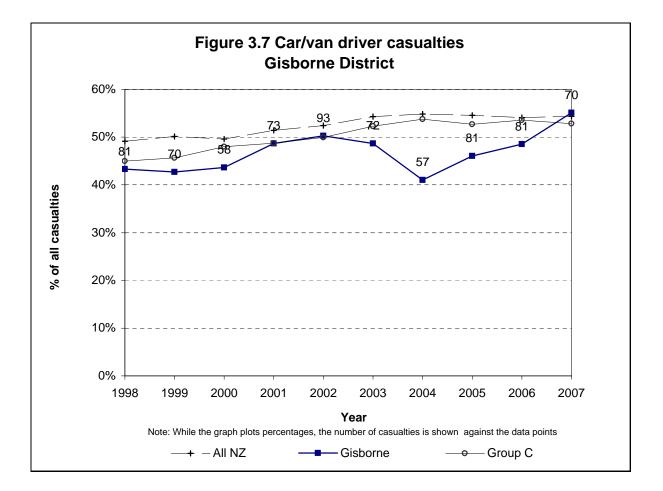


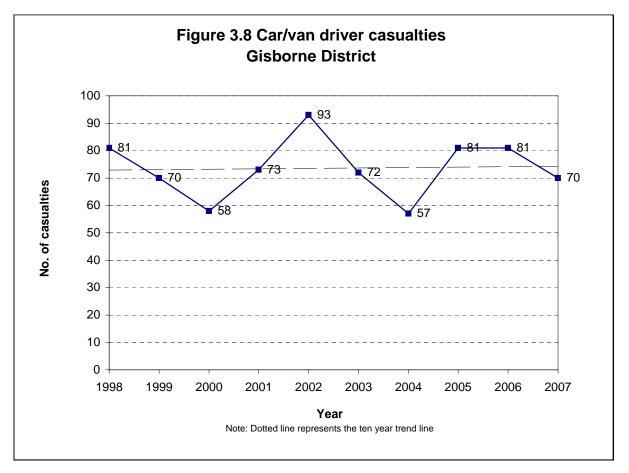


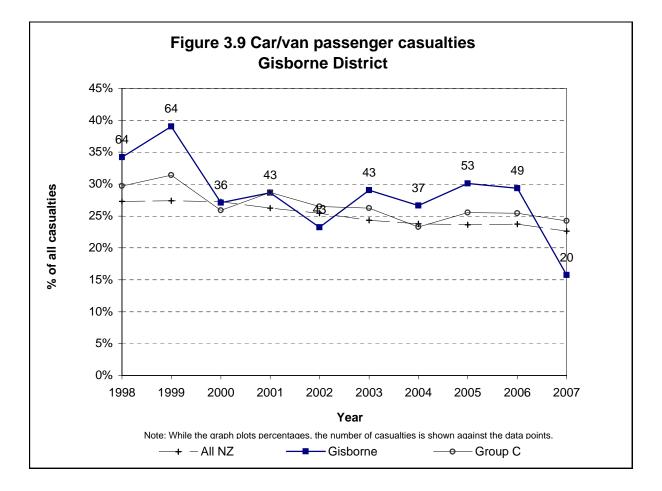


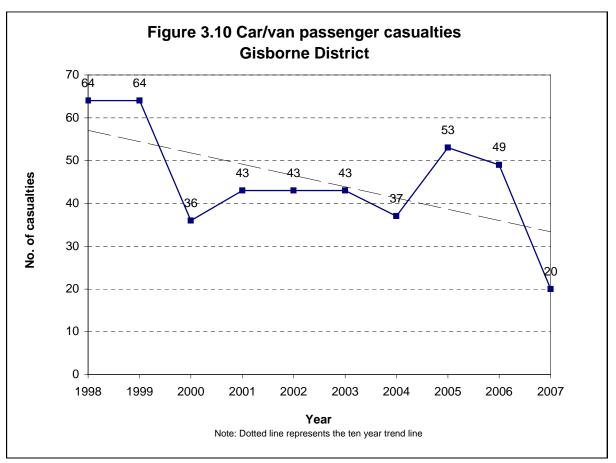




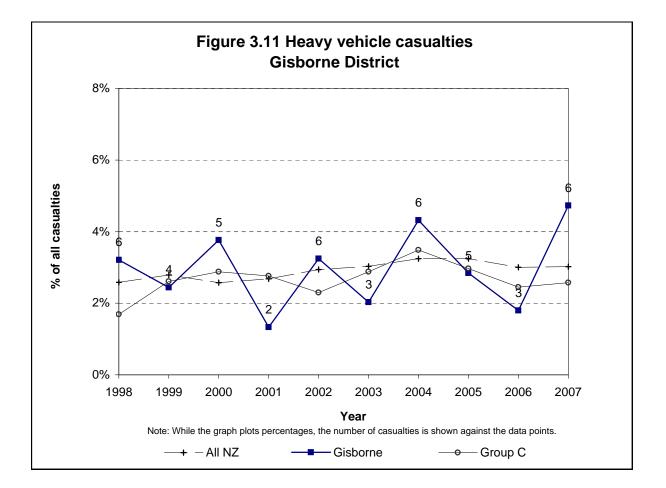


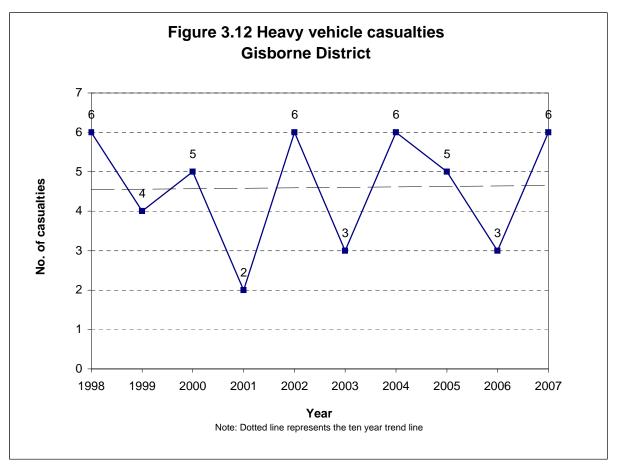




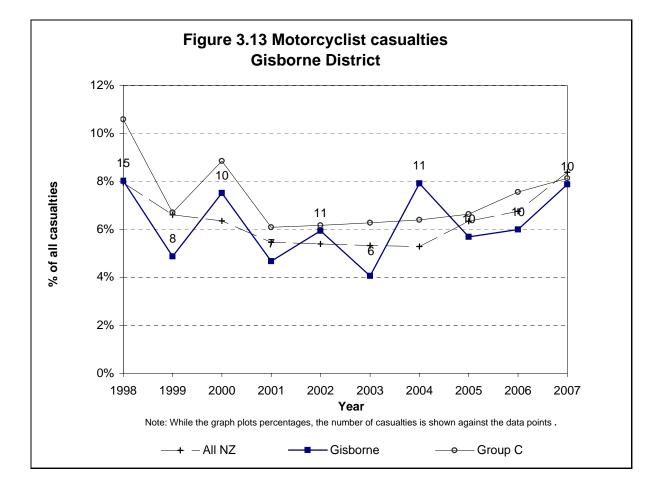


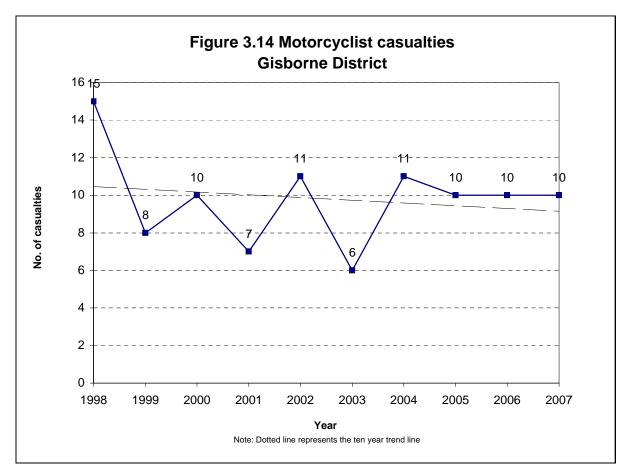




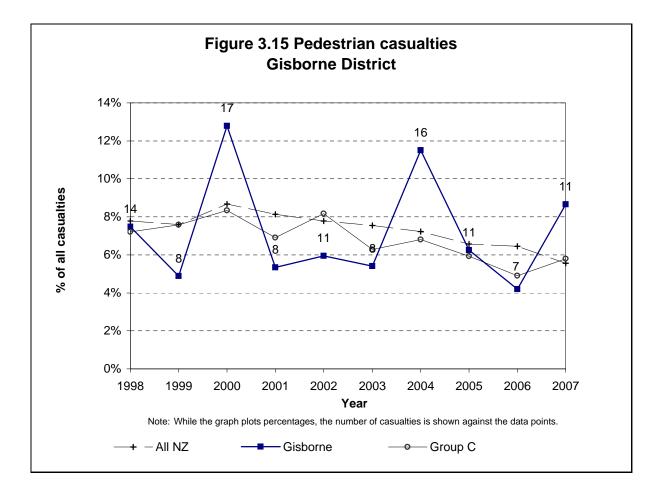


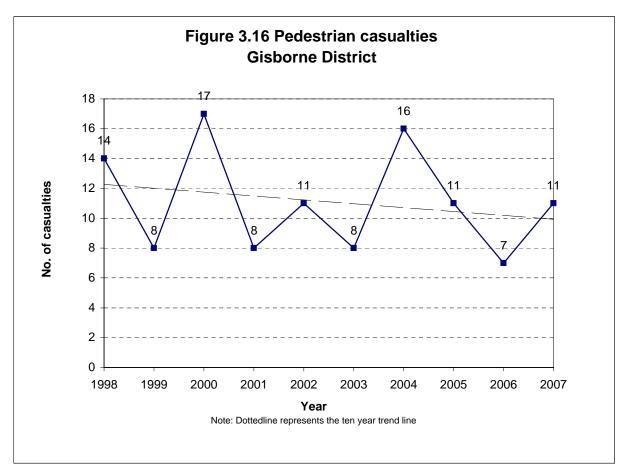




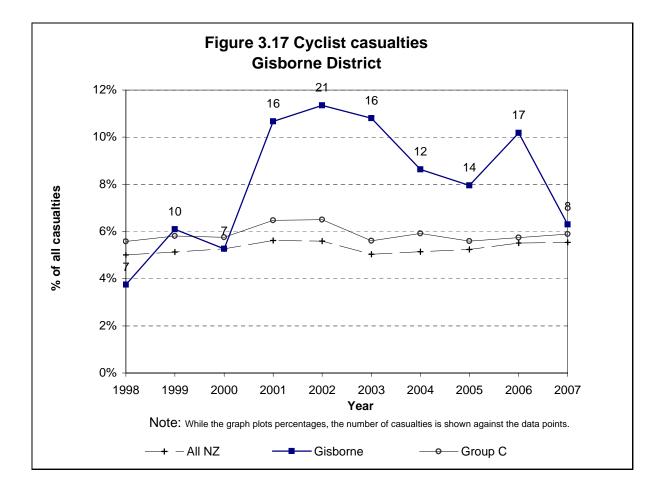


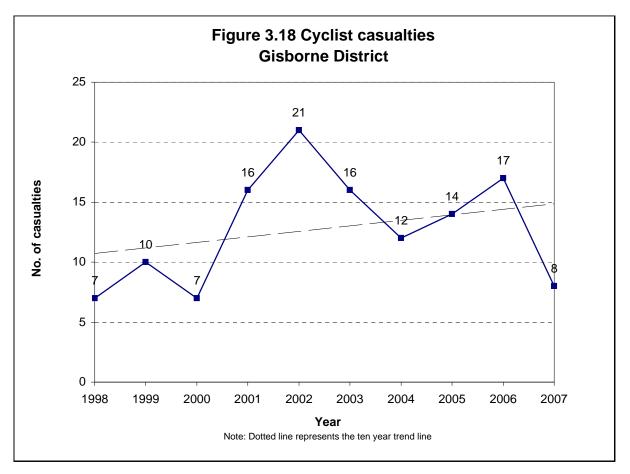




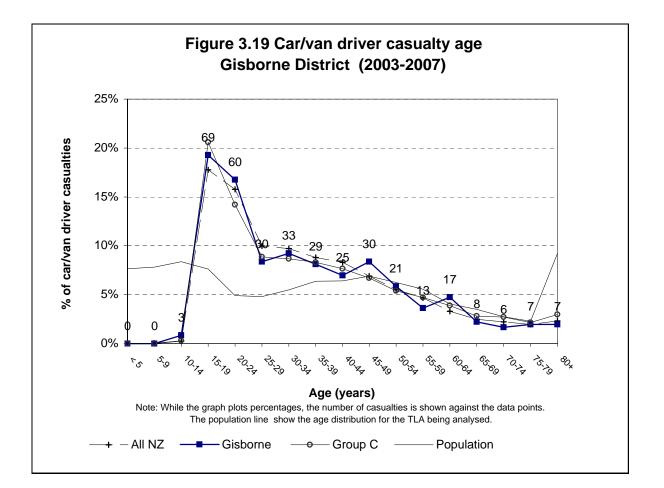


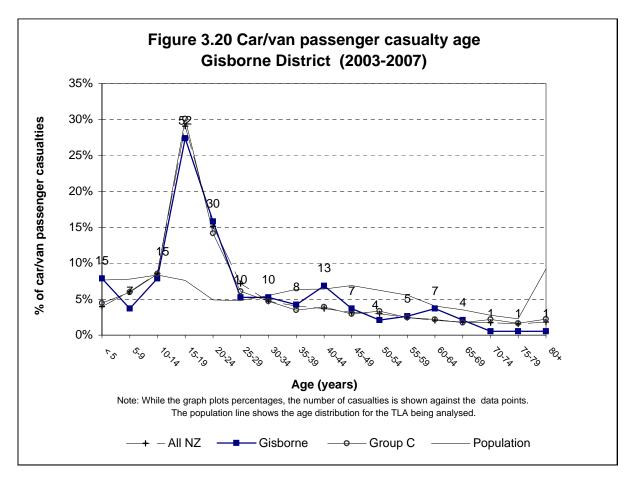




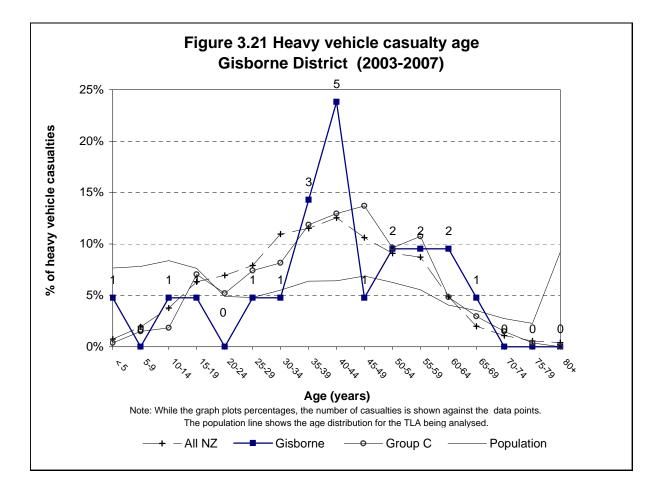


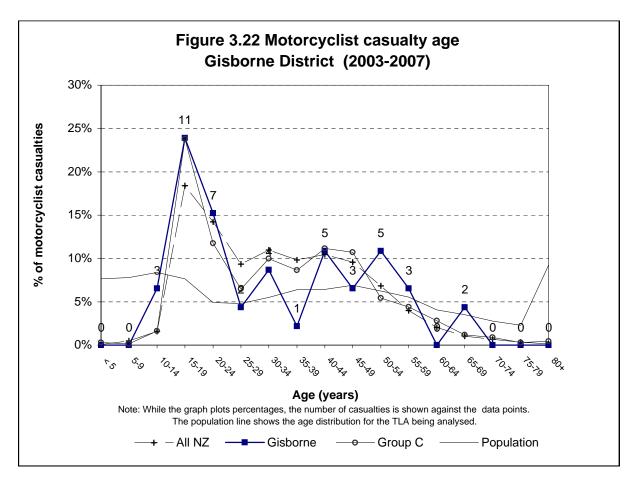




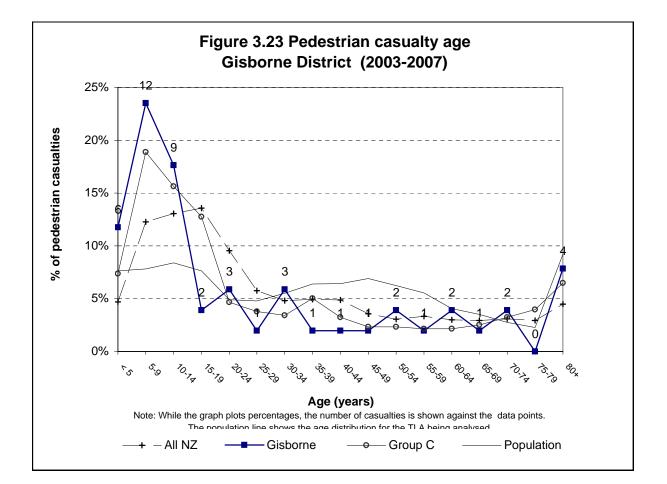


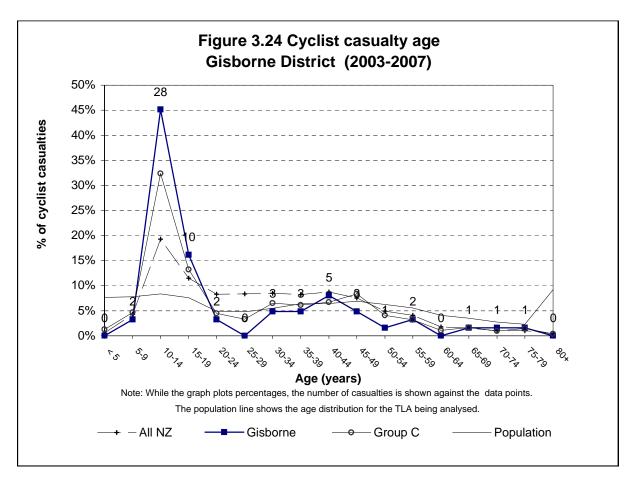


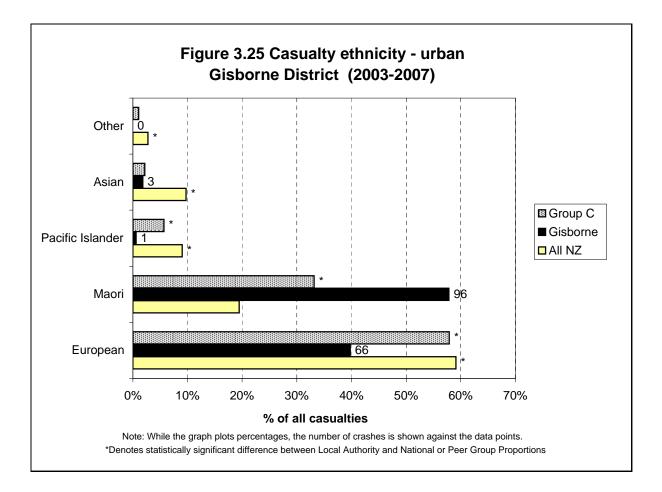


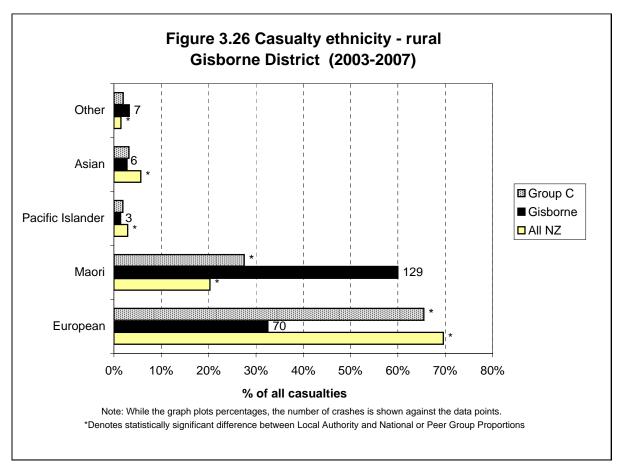




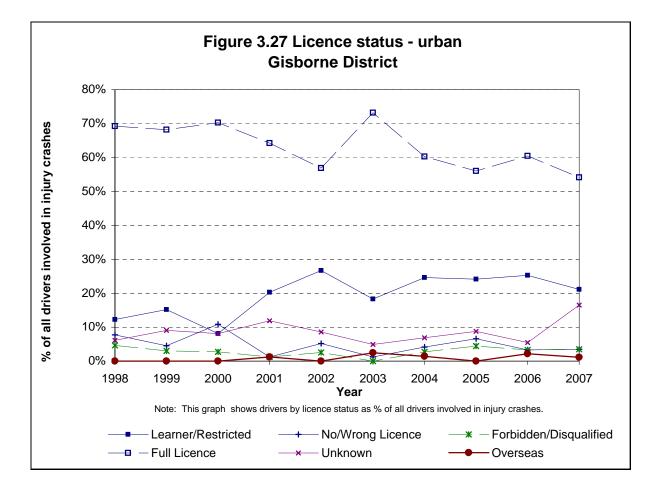


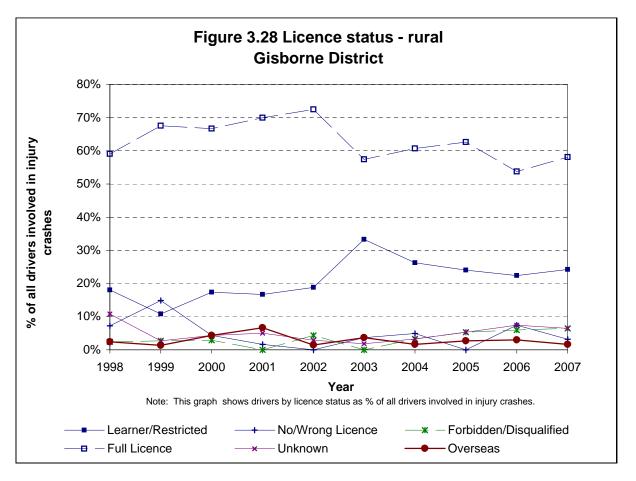








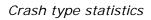




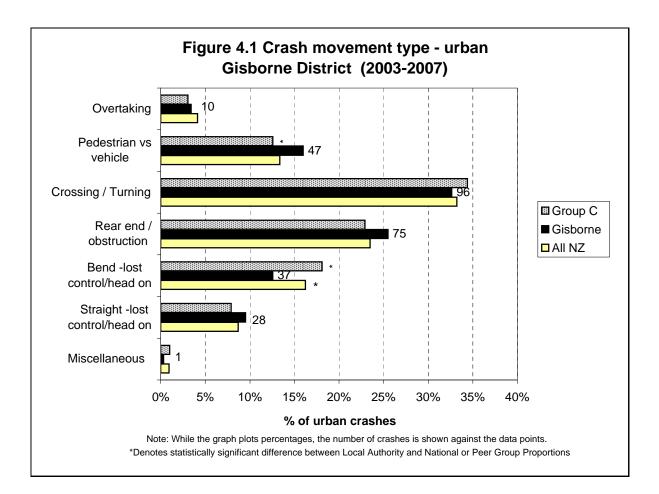


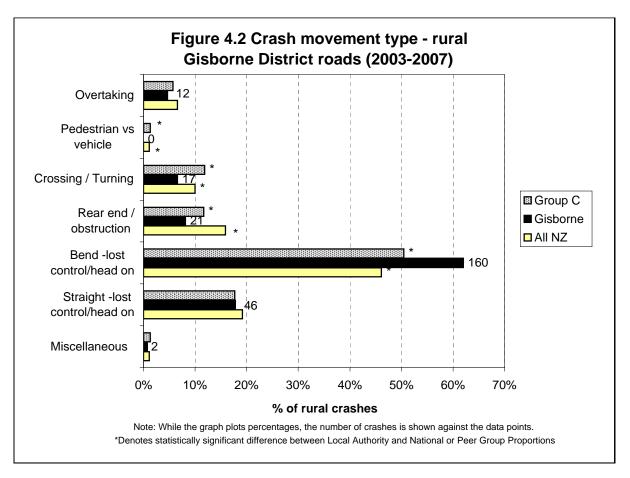
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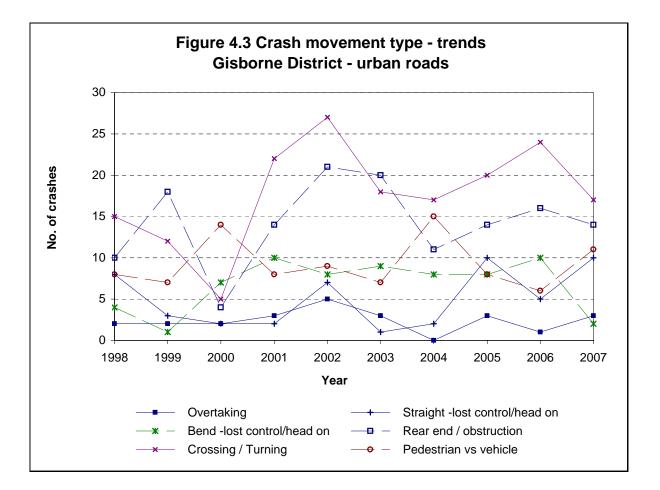


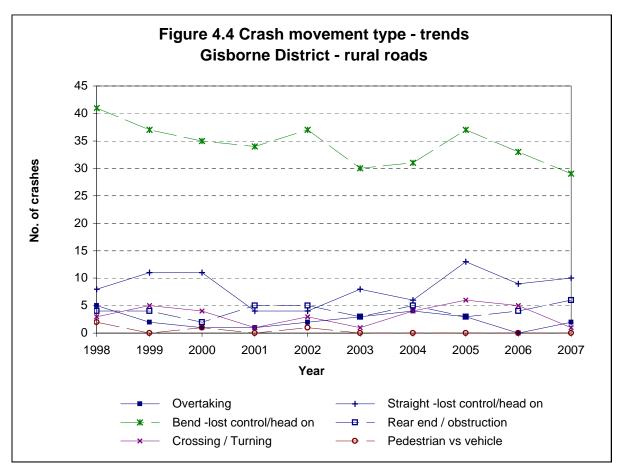




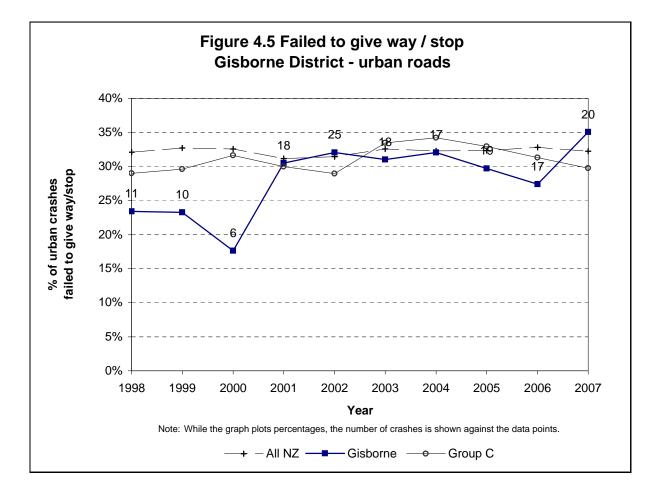


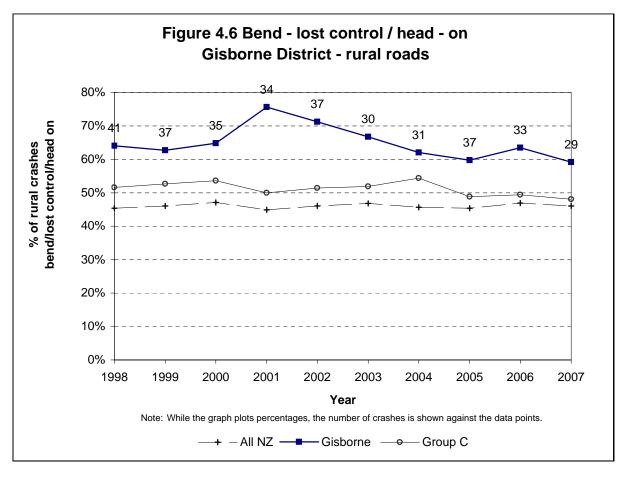




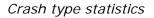








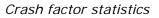




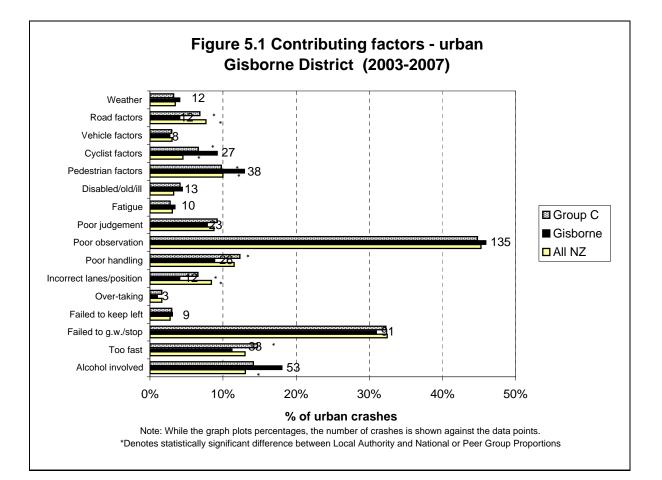


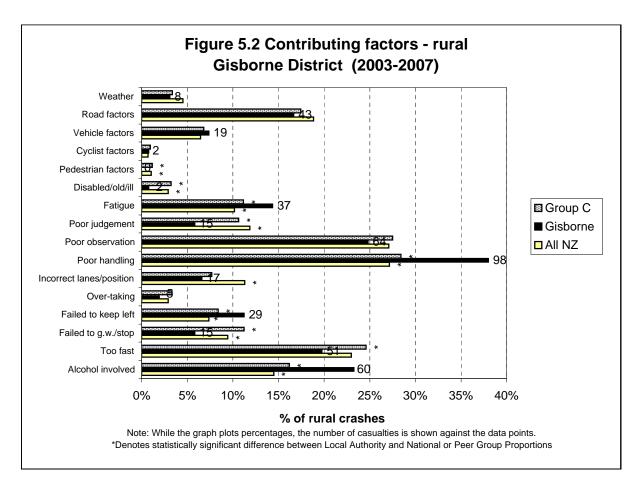
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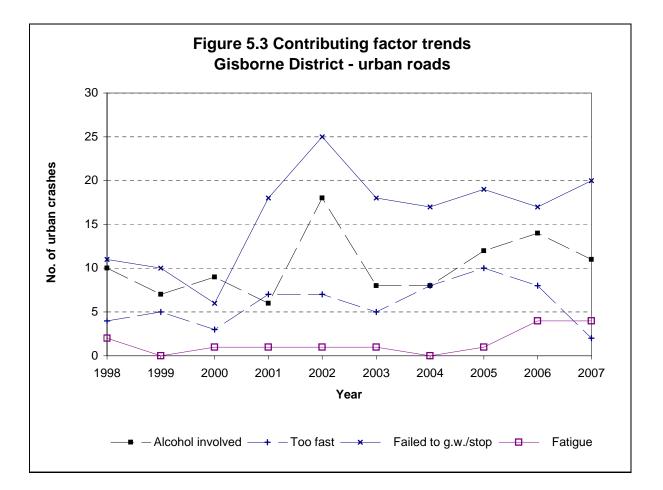


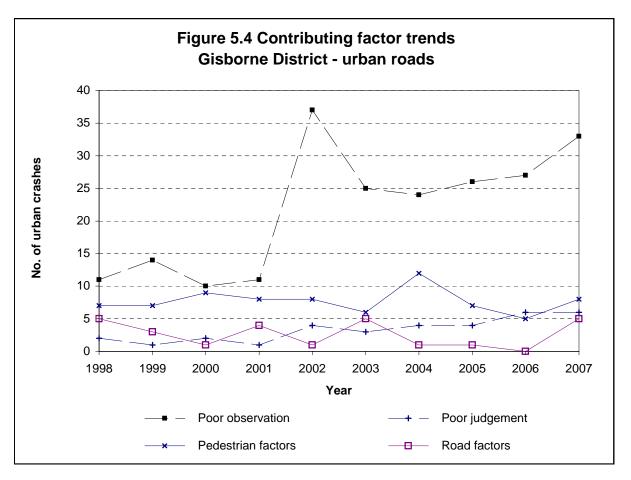




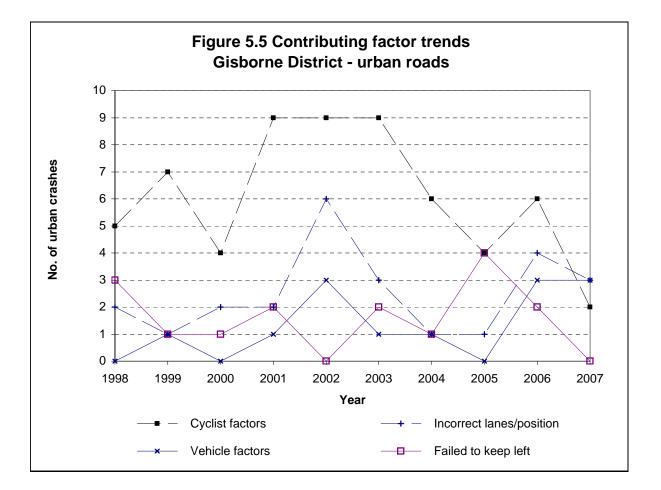


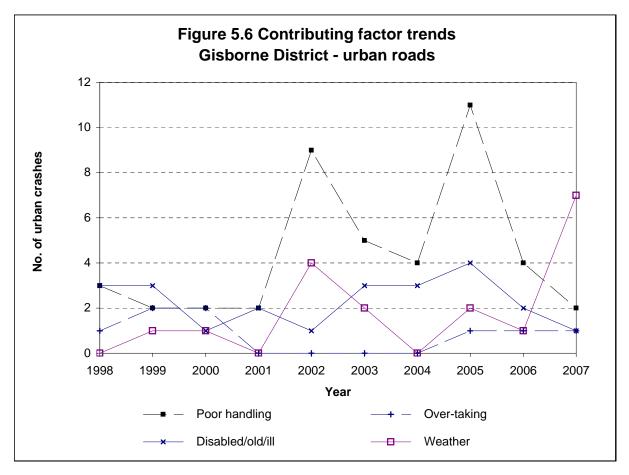




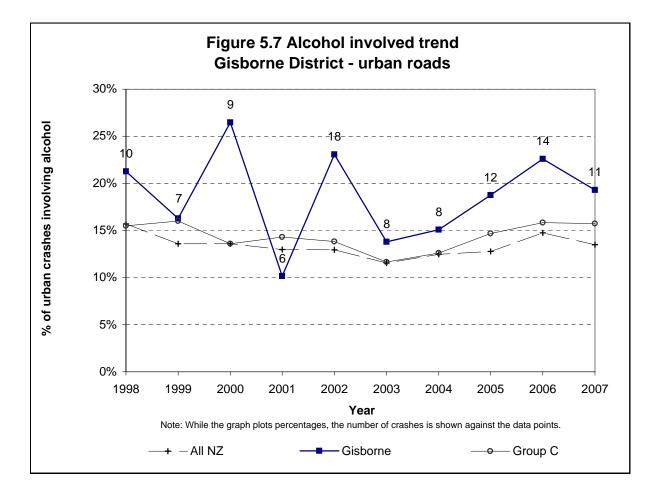


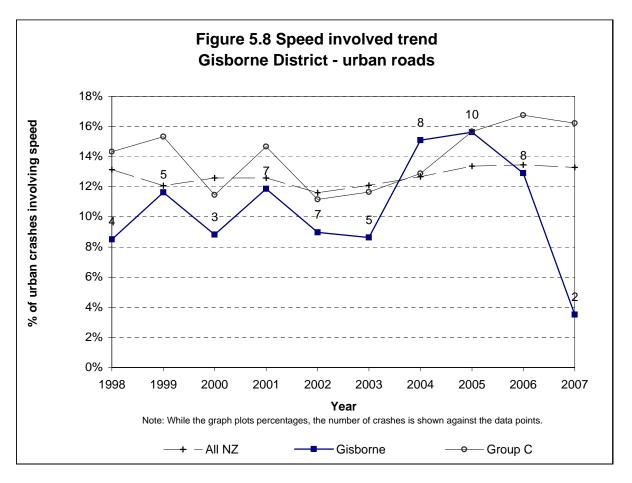




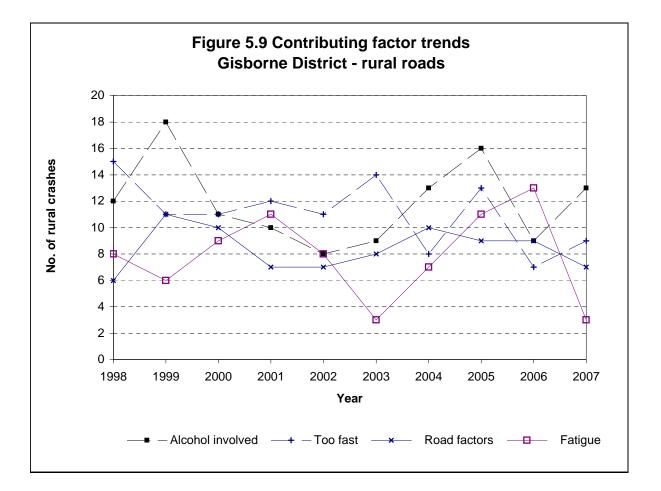


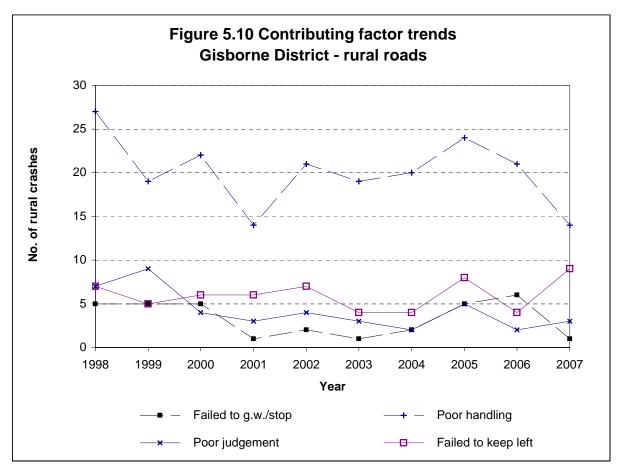


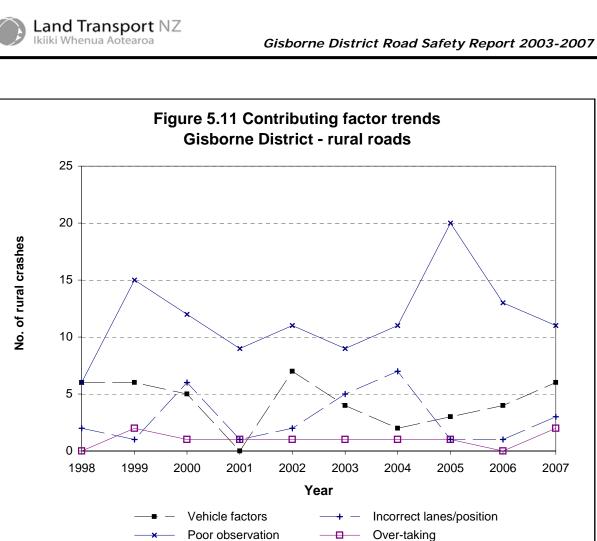


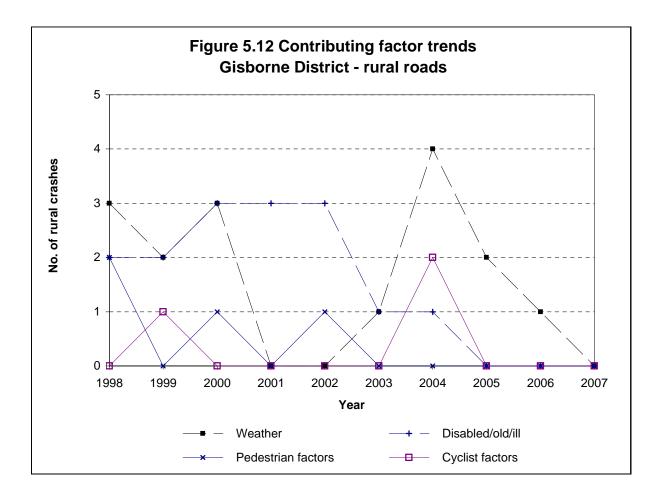




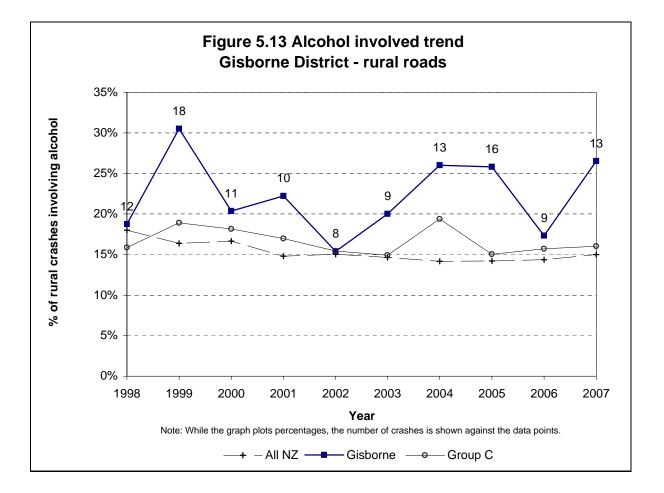


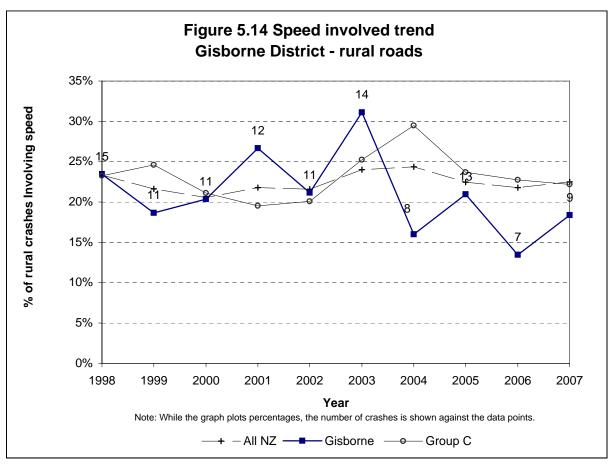










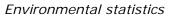




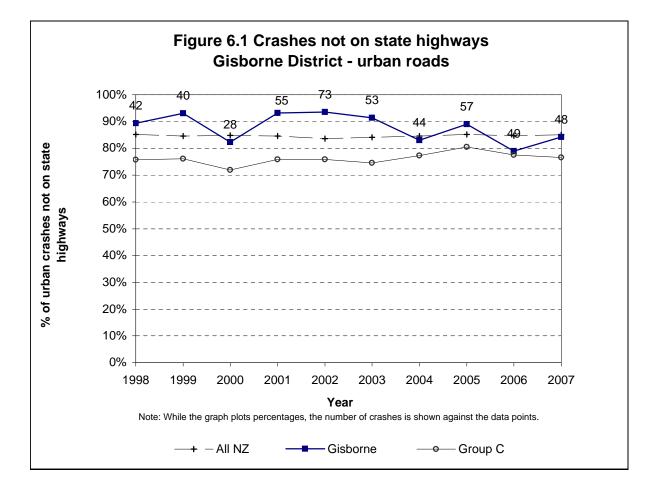


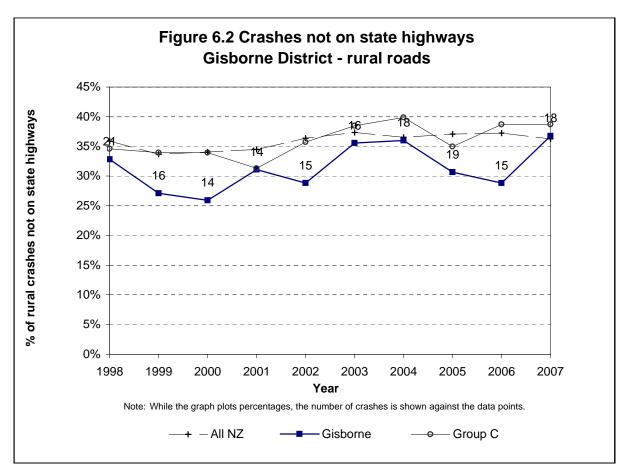
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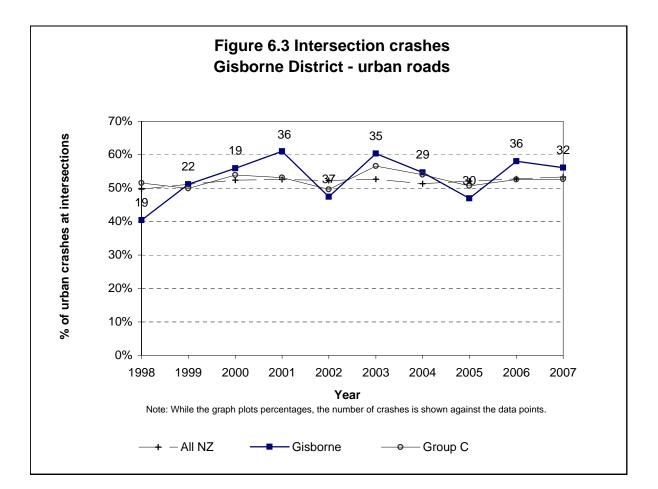




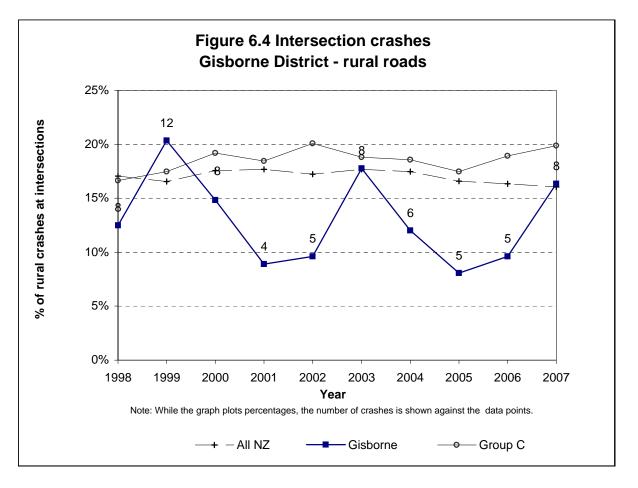




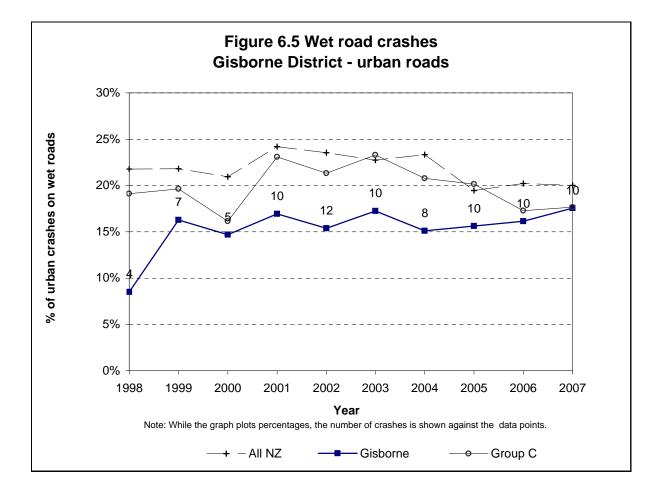


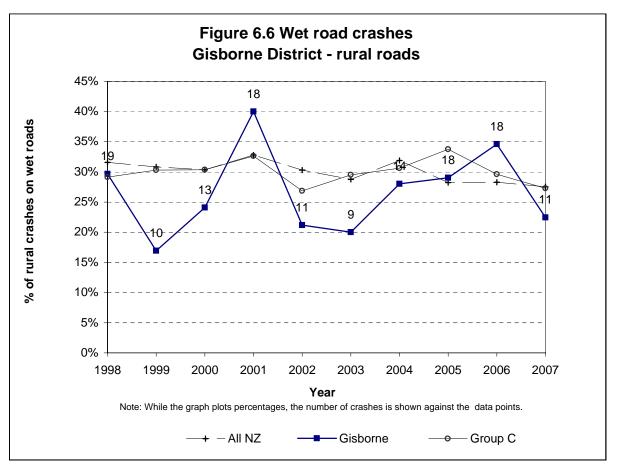


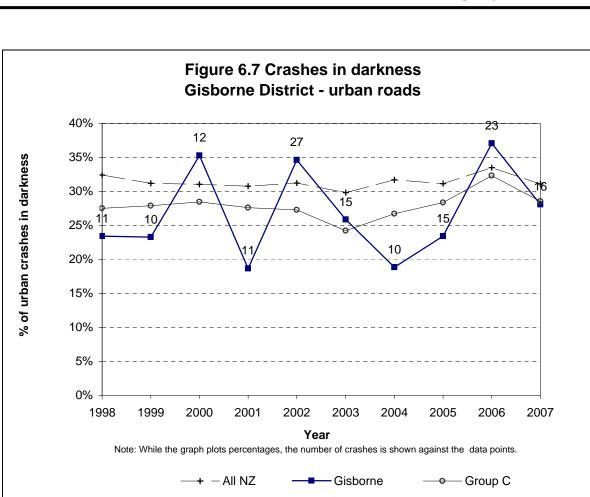
Land Transport NZ Ikiiki Whenua Aotearoa



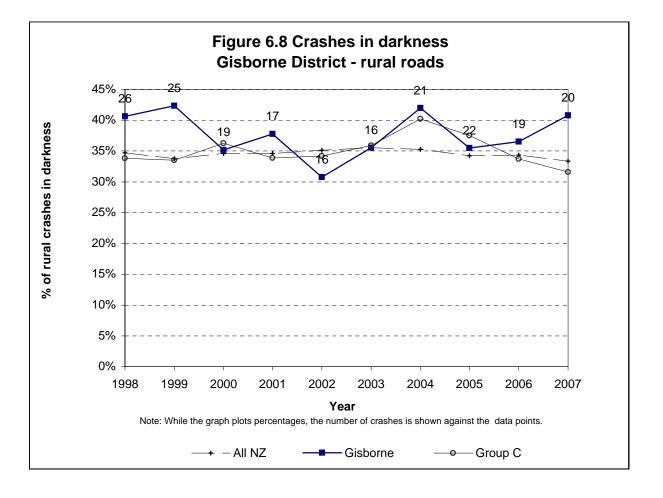


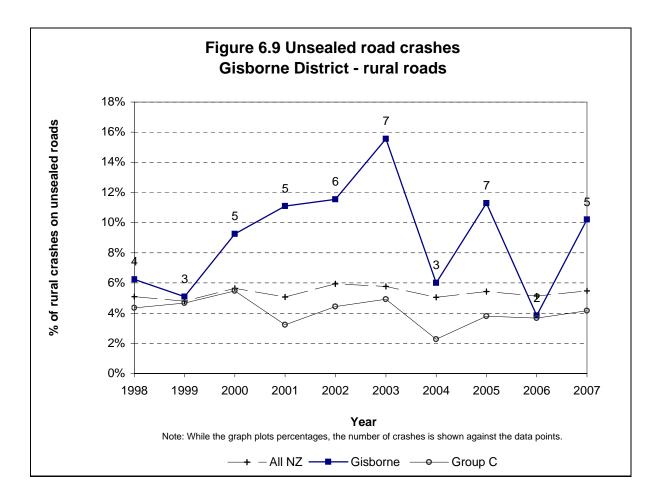






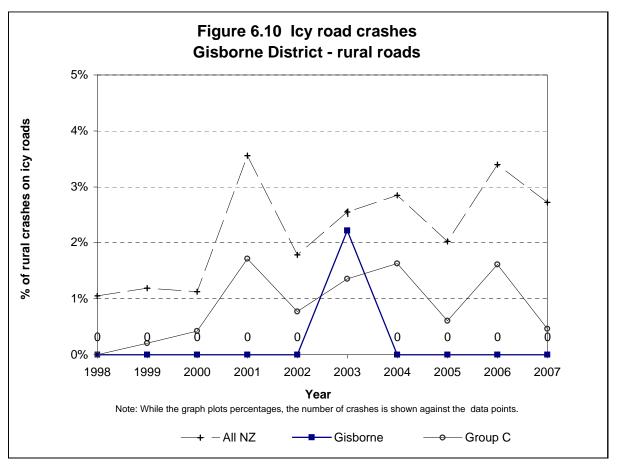
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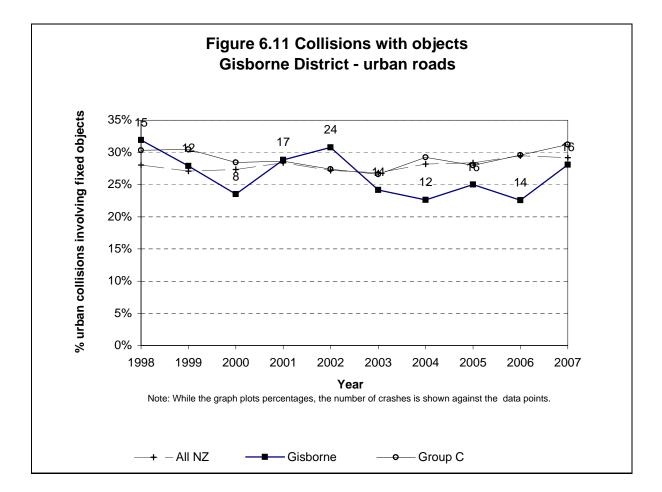




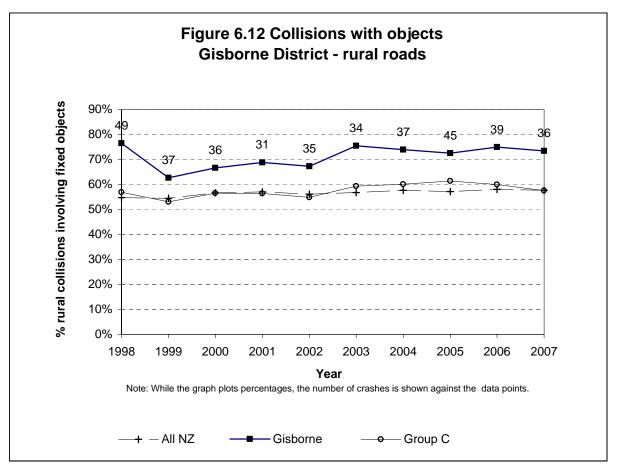
Land Transport NZ Whenua Aotearoa

Ikiiki

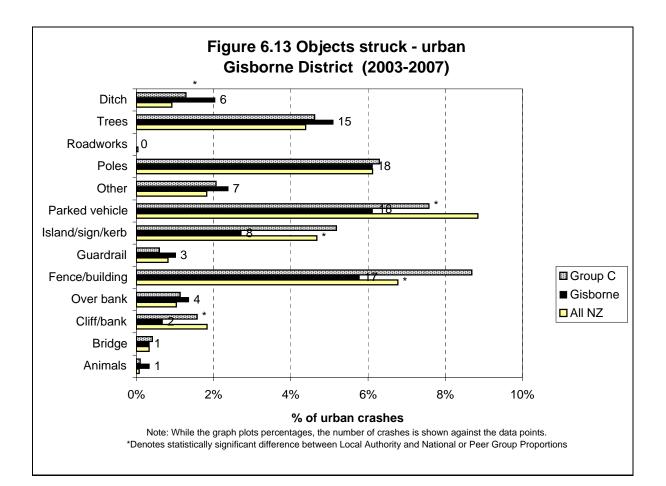


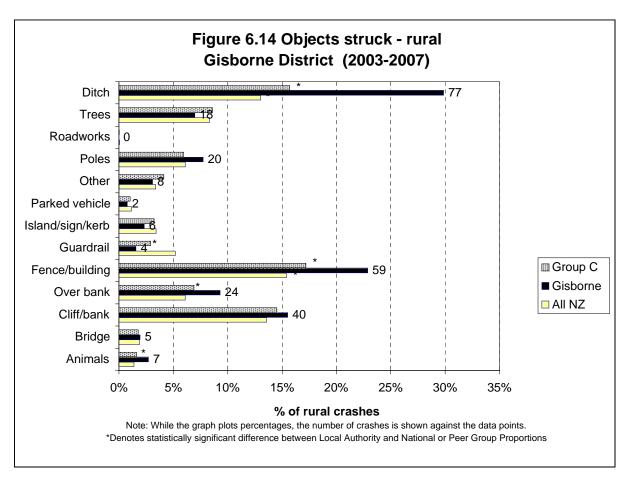


Land Transport NZ Ikiiki Whenua Aotearoa







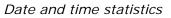


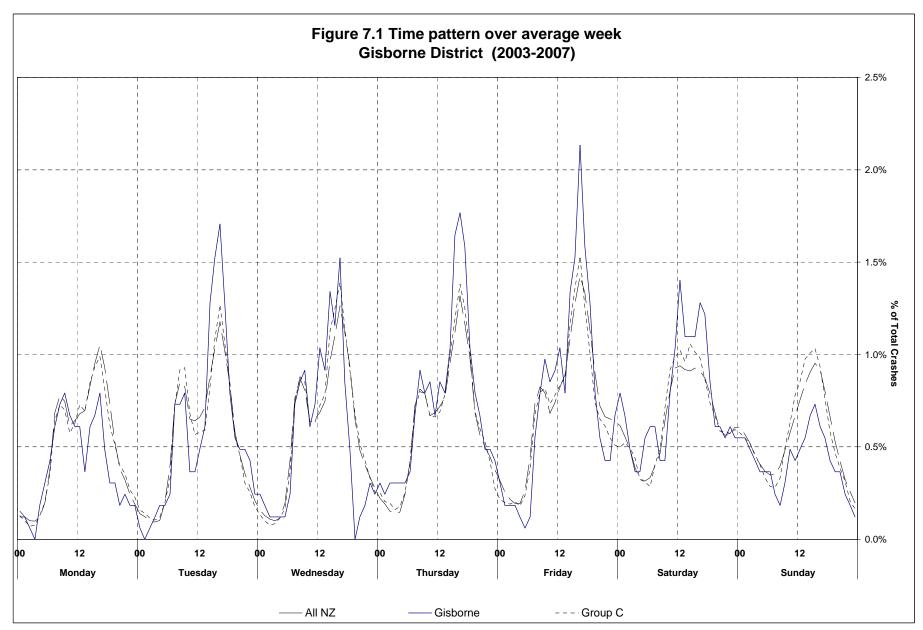




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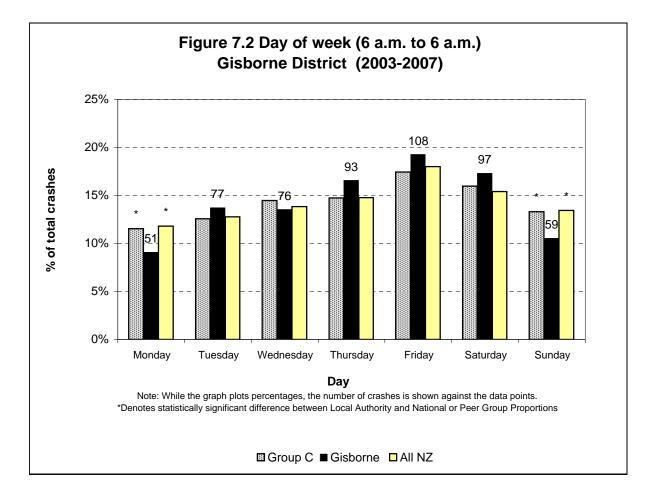


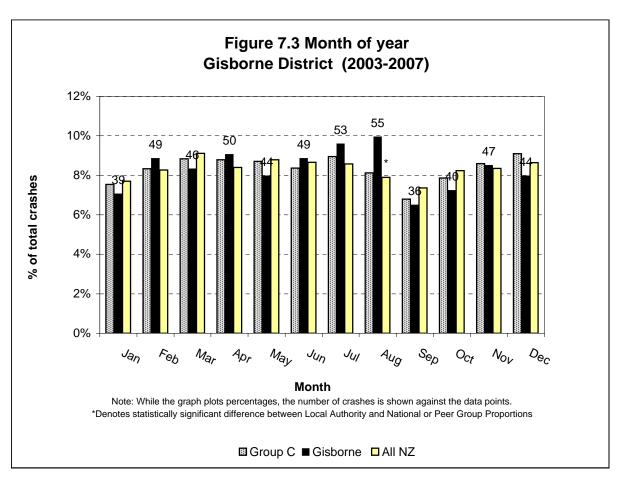


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Date and time statistics



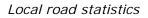




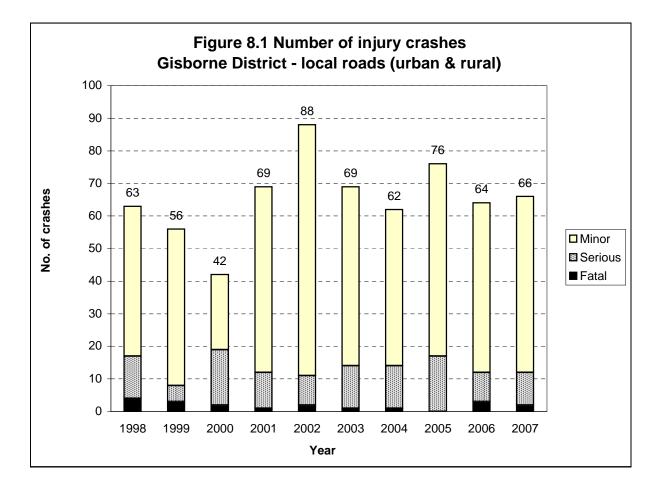


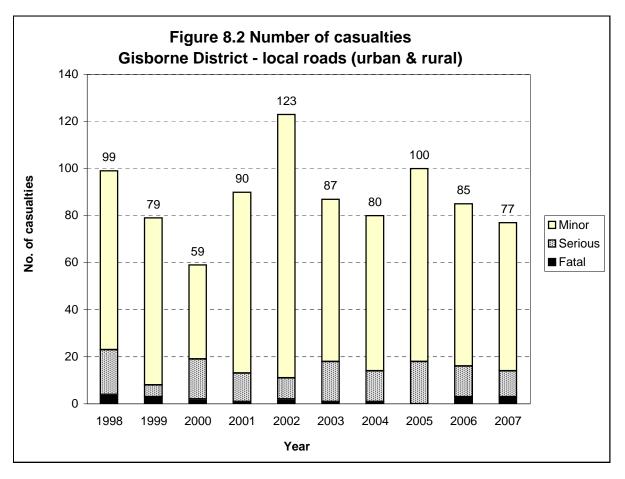
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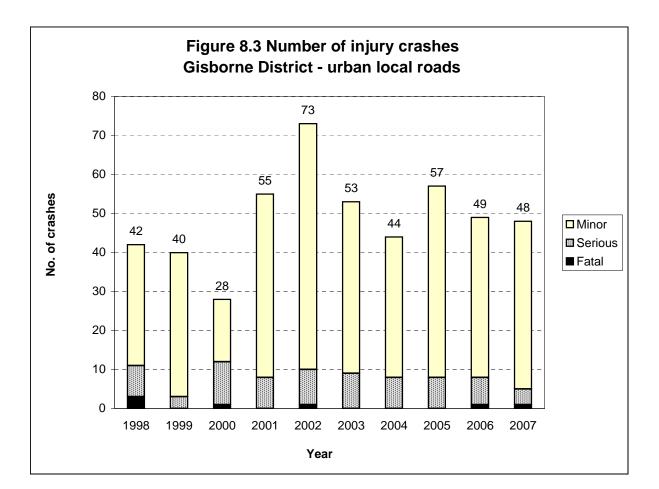




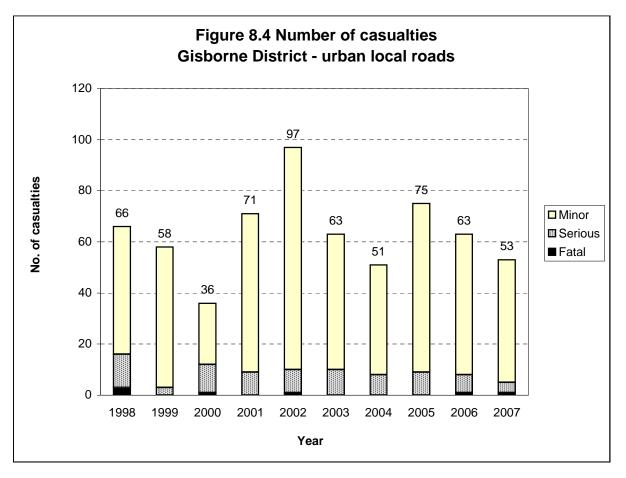




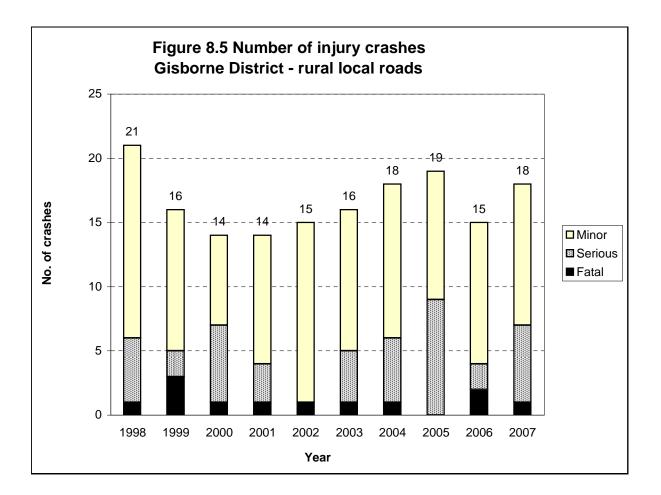


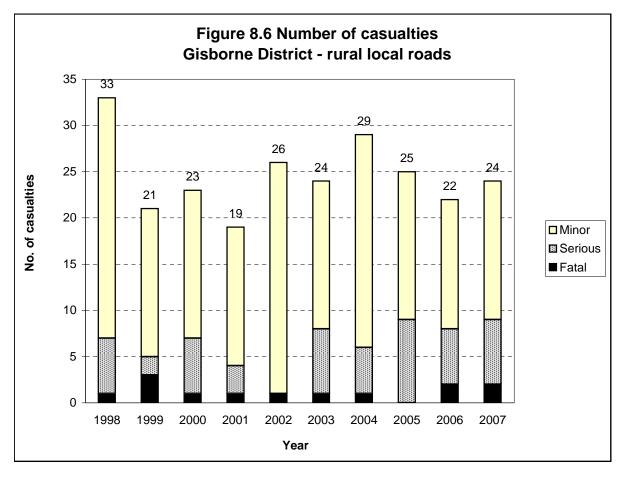


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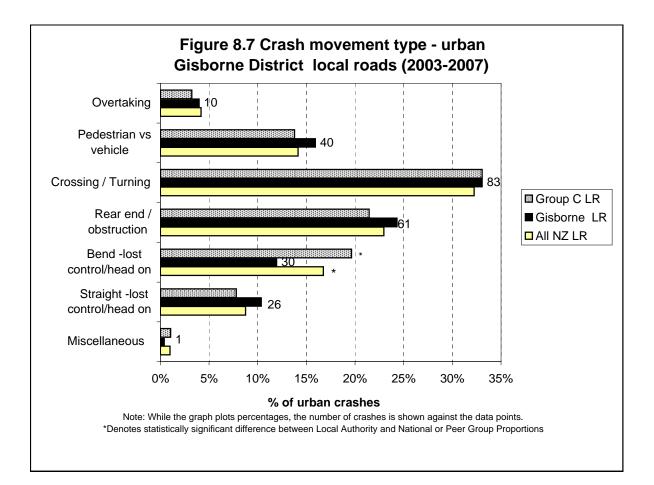


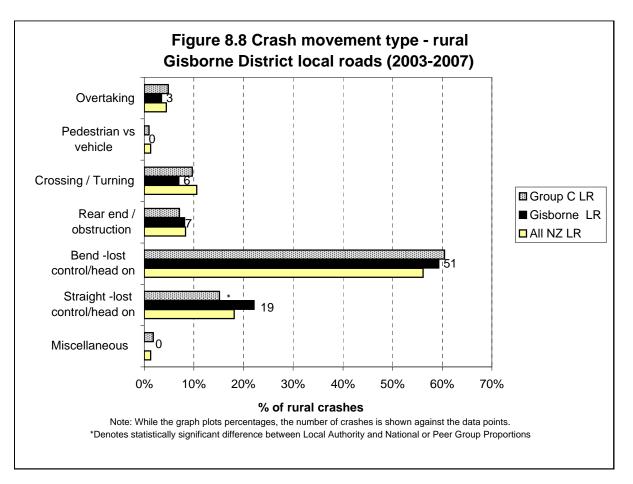




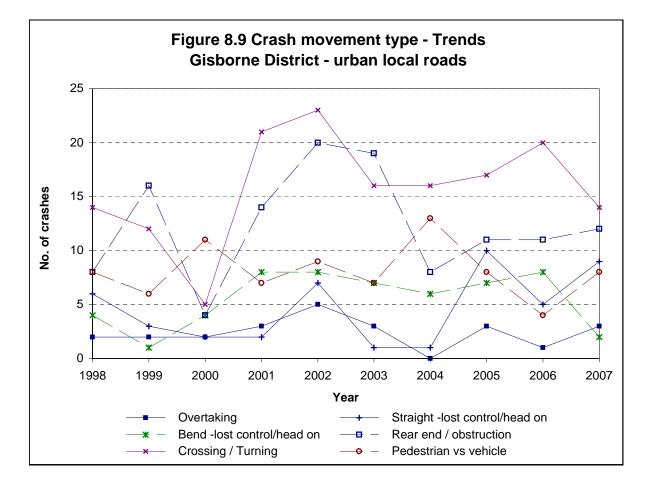


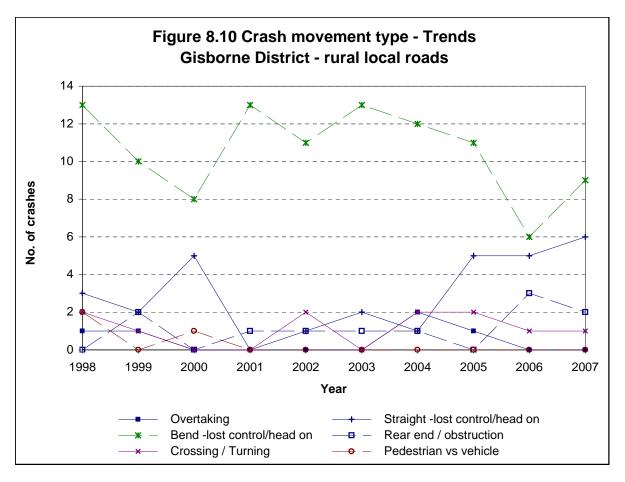




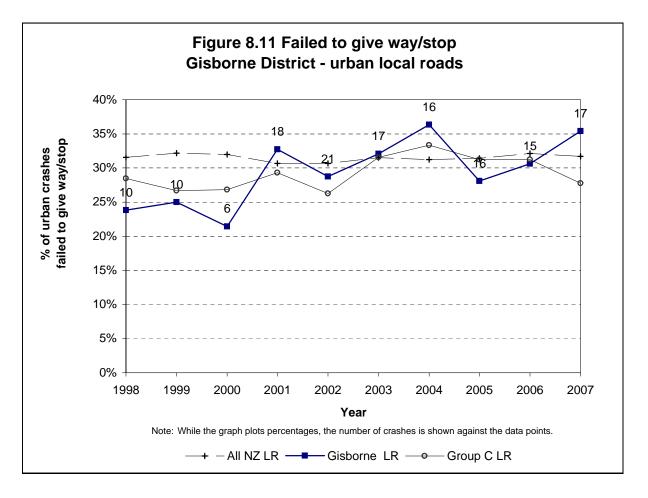


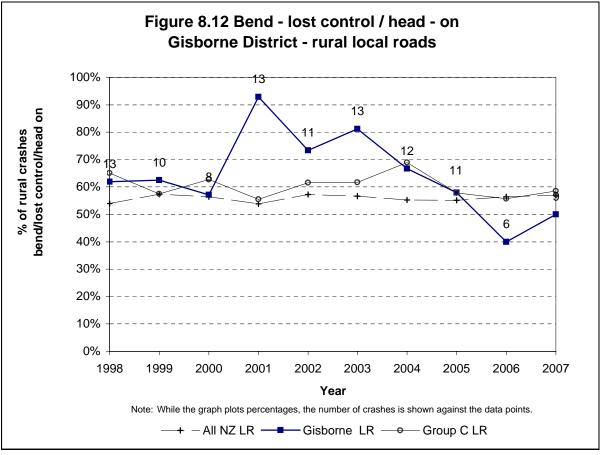




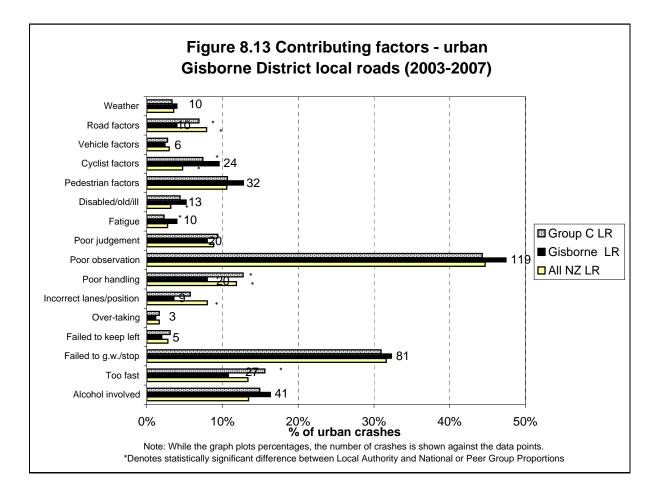


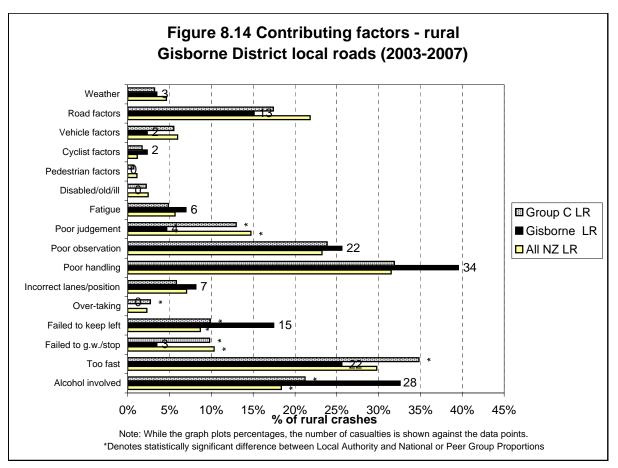




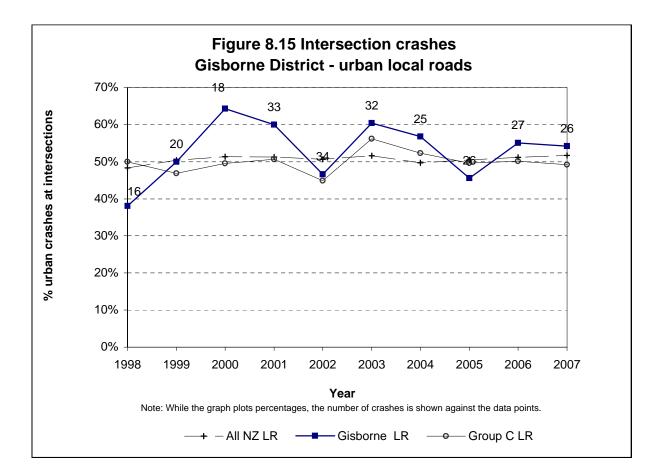


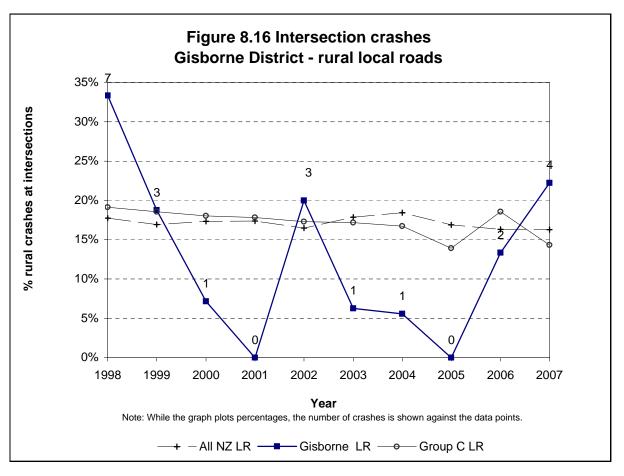


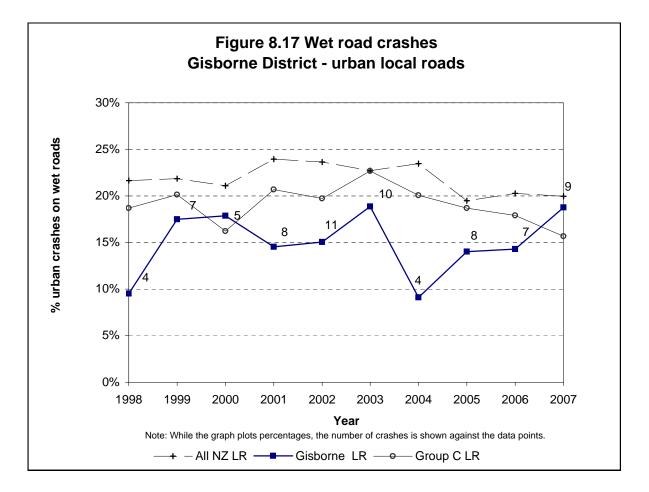


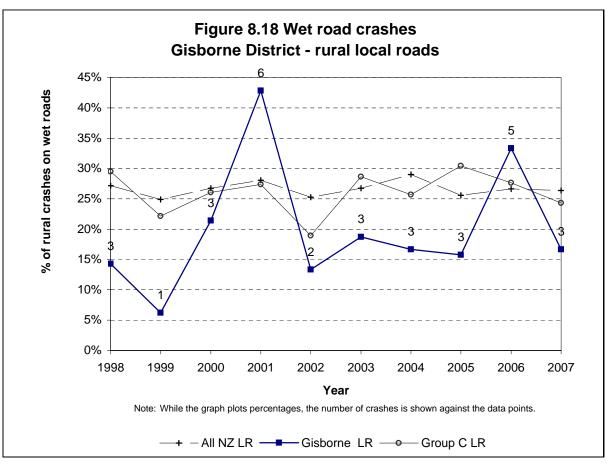




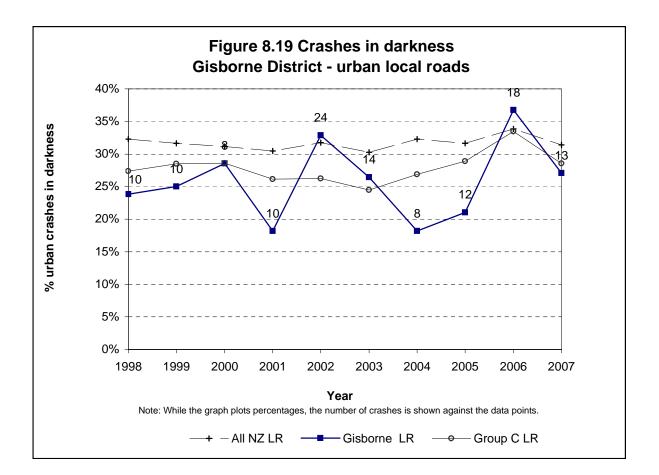


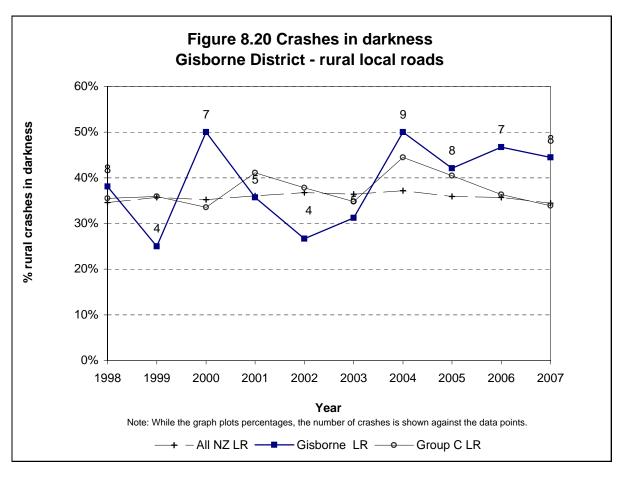




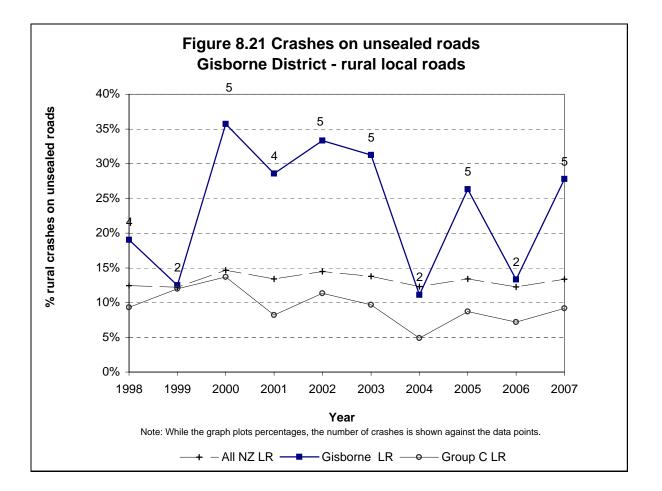


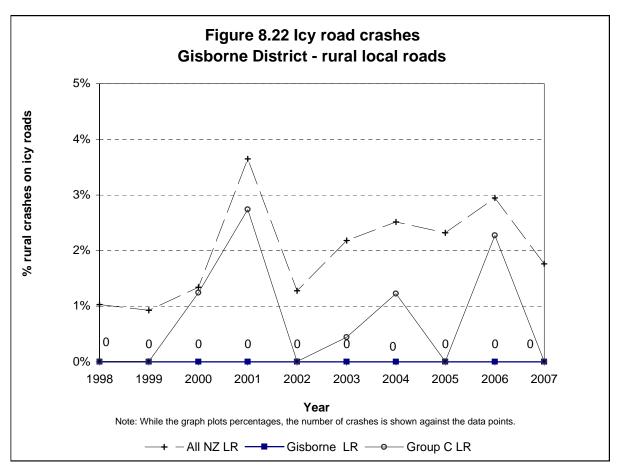




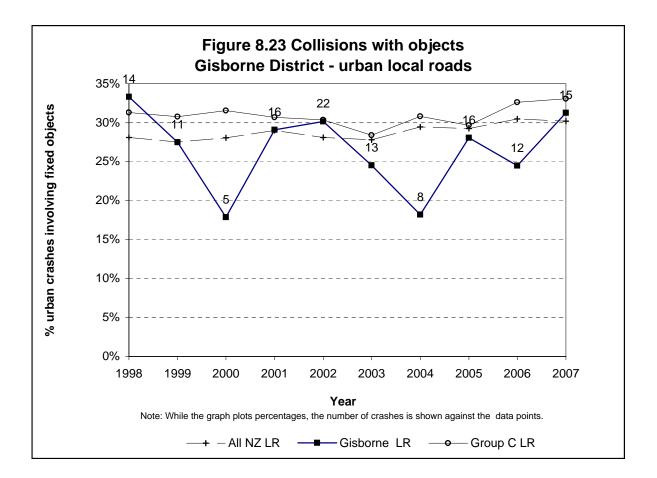


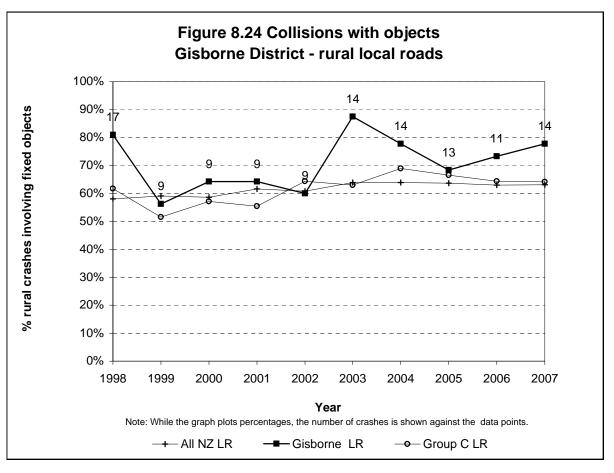




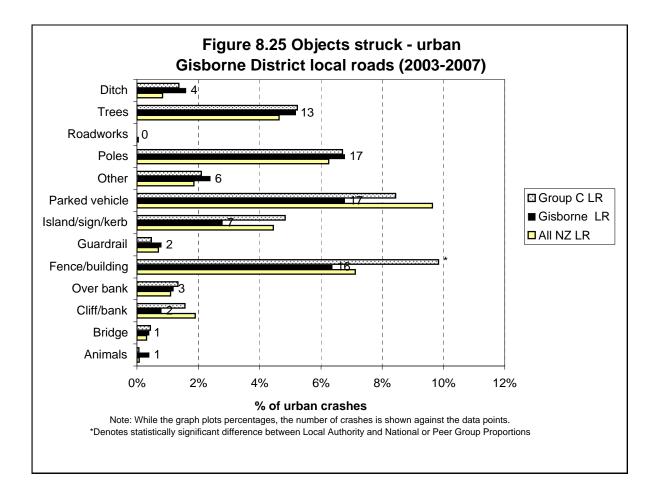


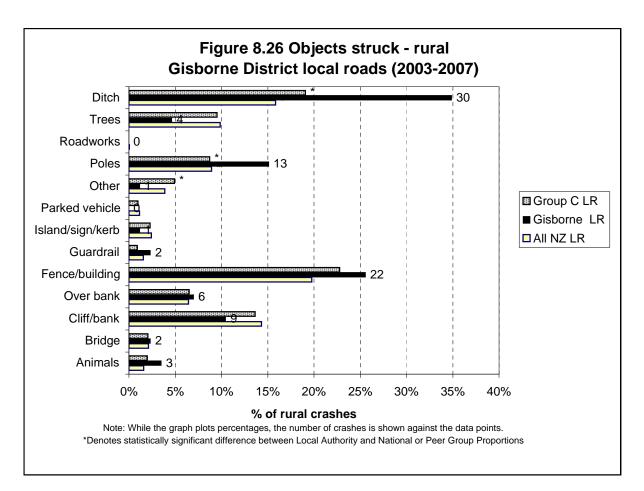














## appendix

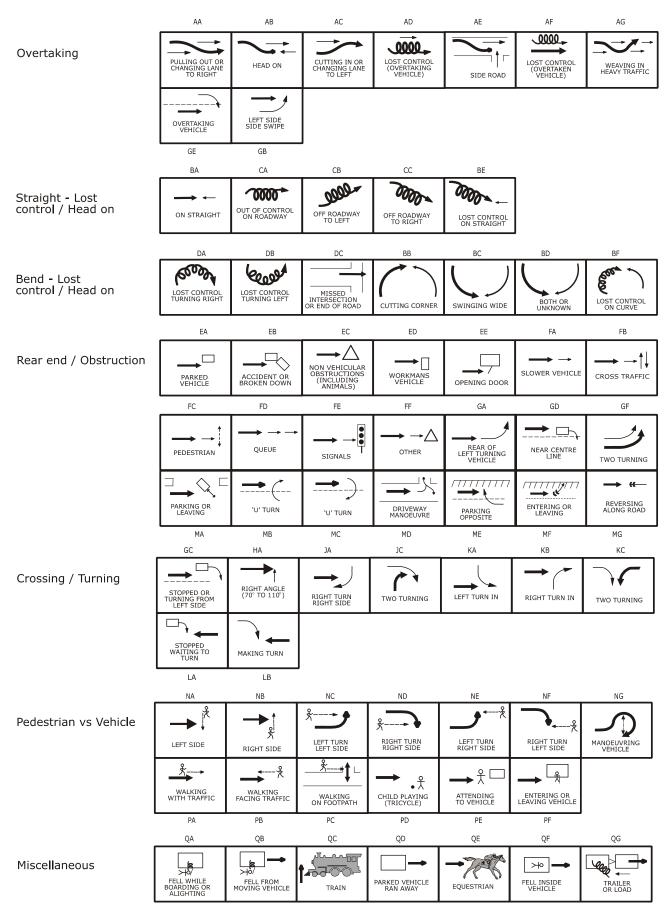
- Groupings of crash types
- Grouping of contributing factors

Appendix

## Explanatory notes for the appendix

- Each traffic crash report has a diagram and a description of what happened. These are used to classify the movements the vehicles were making when they crashed eg 'collided with parked vehicle', or 'lost control while overtaking'. In this report, crash types are grouped into seven categories. The following page shows the types of crashes which are included in each group.
- Traffic crash reports also include information on why the crash occurred, or on factors contributing to the crash. In this report the hundreds of contributing factor codes used by Land Transport New Zealand have been condensed into 16 groups for practical reasons. Lists of the factor groups used in this report, and of all the contributing factors used by Land Transport New Zealand, are shown on the following pages.
- 3. Note that in the year 2000 there were some minor changes to the contributing factor groups. The most significant change was that 'inattention' was grouped with 'inadequate check' to form 'poor observation'. This allowed a more accurate assessment of 'fatigue' as a contributing factor, as it now has its own grouping.
- The factor group 'poor handling' includes factor codes that were only introduced in 1998. This could explain why there may have been a sudden change at this time.
- 5. The coding of the factors contributing to a crash is subjective. Therefore analysis using contributing factor groups needs to be interpreted with caution. Also, to effectively target safety or enforcement campaigns more analysis of the specific contributing factors involved may be needed.
- 6. It should be noted that a traffic crash generally has more than one contributing factor. Therefore, adding the number of crashes on graphs showing the number of crashes with a given factor or factor group will be greater than the total number of crashes in the city or district.

## Groupings of crash types



## Groupings of contributing factors

Factor group	Factor codes included
Alcohol involved	100 – 101
	103 – 109
Too fast	110 – 119
	430 – 432
Failed to give way or stop	300 – 314
	320 – 328
Failed to keep left	120 – 128
	205
Overtaking	150 – 161
Incorrect lanes or position	129
	170 – 183
	200 – 204 206 – 209
	440 - 448
	110 110
Poor handling	130 – 134
	137 – 149
	420 – 429
Poor observation	330 – 360
	370 – 379
Poor judgement	380 – 387
	400 – 407
Fatigue	410 – 415
Disabled, old age or illness	500 – 507
Pedestrian factors	700 – 731
Cyclist factors	Any factor coded against a cyclist
Vehicle factors	136, 600 – 699
Road factors	135, 800 – 899
Weather	900 – 909

Note:

The following factor codes are not included as they do not fit adequately into any of the above groupings: 102, 106, 190–198, 433, 434, 510–534 and 910–999.

## FACTORS PROBABLY CONTRIBUTING TO CRASHES (Version 1.6-

March 2006)

## DRIVER CONTROL

- 100 Alcohol or drugs
  - 101 Alcohol suspected
  - 102 Alcohol test below limit 103 Alcohol test above limit or test
- refused 104 Alcohol test result unknown 105 Visibly intoxicated non-driver
- (pedestrian / cyclist / passenger) 106 Dead driver not suspected, tested
- negative (MOT only) 107
- 108 Drugs suspected
- 109 Drugs proven

## 110 Too fast for conditions

- 111 Cornering 112 On straight
- 113 To give way at intersection
- 114 Approaching railway crossing
- 115 When passing stationary school
- bus
- 116 At temporary speed limit 117 At crash or emergency

## 120 Failed to keep left 121 Swung wide on bend

- 122 Swung wide at intersection 123 Cutting corner on bend
- 124 Cutting corner at intersection
- 125 On straight section 126 Vehicle crossed raised median
- 127 Driving or riding abreast (cyclists more than 2 abreast)
- 128 Wandering or wobbling 129 Too far left / right
- 130 Lost control
- 131 When turning
- 132 Under heavy braking133 Under heavy acceleration134 While returning to seal from
- unsealed shoulder
- 135 Due to road conditions (requires
- road series code) 136 Due to vehicle fault (requires
- vehicle series code) 137 Avoiding another vehicle, pedestrian, party or obstacle on
- roadway 138 On unsealed road
- 139 End of seal
- 140 Failed to signal in time

#### 141 When moving to left, pulling over to left

- 142 When turning left
- 143 When pulling out or moving to the
- right 144 When turning right
- 145 Incorrect Signal

- 150 **Overtaking** 151 Overtaking line of traffic or queue 152 Deliberately in the face of oncoming traffic
  - 153 Failed to notice oncoming traffic 154 Misjudged speed or distance of

  - oncoming traffic 155 At no passing line 156 With insufficient visibility

  - 157 At an intersection without due care
  - 158 On left without due care

  - 159 Cut in after overtaking 160 Vehicle signalling right turn
  - 161 Without care at a pedestrian crossing

## 170 Wrong lane or turned from

- wrong position 171 Turned right from incorrect lane 172 Turned left from incorrect lane
- 173 Travelled straight ahead from
- turning lane or flush median 174 Turned right from left side of road
- 175 Turned left from near centre line 176 Turned into incorrect lane
- 177 Weaving or cut in on multi-lane
- roads
- 178 Moved left to avoid slow vehicle

## 180 In line of traffic

- 181 Following too closely
- 182 Travelling unreasonably slowly 183 Motorist crowded cyclist

370 Did not see or look for another

372 Behind when changing lanes position or direction (includes U-

turns) 373 Behind when pulling out from

374 Behind when opening door or

376 When required to give way to

377 When visibility obstructed by other

vehicles 378 When visibility limited by roadside

features 379 When first in queue on receiving

380 Misjudged speed, distance, size or position of:381 Other vehicle coming from behind

direction with right of way

or alongside 382 Other vehicle coming from another

383 Pedestrian movement or intention 384 Towed vehicle, or while towing a

385 Size or position of fixed object or

386 Of own vehicle387 Misjudged intentions of another

401 In driving in fast, complex or heavy traffic

local conditions 405 Driver under instruction

410 Fatigue (drowsy, tired, fell

415 Exceeded driving hours

408 Unsupervised cyclist

402 New driver showed inexperience 403 Driving strange vehicle 404 Overseas driver fails to adjust to

406 At towing trailer / other vehicle 407 Driver over-reacted

414 Worked long hours before driving

420 Incorrect use of vehicle controls

425 Ignition turned off (steering

427 Foot slipped428 Parking brake not fully applied

432 Playing chicken 433 Wheel spins / wheelies /

440 Parked or stopped 441 Inadequately lit at night: (not lit

444 On incorrect side of road

447 Not clear of rail crossing 448 In cycle or Transit lane

500 Illness and disability 501 Illness with no warning e.g. heart attack, unexpected epilepsy)

Appendix

445 Double parked 446 In 'No Stopping' area

502 Physically disabled 503 Defective vision

by street lights or park lights off) 442 At point of limited visibility 443 Not as close as practicable to side

doughnuts etc 434 Intimidating driving

of road

GENERAL PERSON

429 Trailer coupling or safety chain not secured

party until too late 371 Behind when reversing /

manoeuvring

parked position

leaving vehicle 375 When required to give way to traffic from another direction

pedestrians

green light

vehicle

obstacle

party

GENERAL DRIVER

400 Inexperience

asleep) 411 Long trip

412 Lack of sleep 413 Exhaust fumes

421 Started in gear 422 Stalled engine

423 Wrong pedal 424 Footrest, stand

locked) 426 Lights not switched on

430 Showing off

431 Racing

## 190 Sudden action

- 191 Braked
- 192 Turned left 193 Turned right
- 194 Swerved to avoid pedestrian
- 195 Swerved to avoid animal 196 Swerved to avoid crash or broken down vehicle
- 197 Swerved to avoid vehicle
- 198 Swerved to avoid object or for
- unknown reason 200 Forbidden movements 201 Wrong way in one way street,

  - 202 When turning or U turning contrary to a sign
  - 203 Contrary to "in" or "out" only driveway sign

  - 204 Driving or riding on footpath 205 On incorrect side of island or median
  - 206 Contrary to "no entry" sign
  - 207 In Car Park
  - 208 Motor vehicle in cycle lane 209 Bus / Transit lane

#### VEHICLE CONFLICTS

## 300 Failed to give way

- 301 At Stop sign 302 At Give Way sign 303 When turning to non-turning traffic 304 When deemed turning by
- markings, not geometry 305 When turning left, to opposing right turning traffic 306 To pedestrian on a crossing

- 307 When turning at signals to pedestrians
- 308 When entering roadway from
- driveway 309 To traffic approaching or crossing from the right 310 Failed to give way at one lane
- bridge / road
- 311 Failed to give way to pedestrian on footpath or verge
- 312 Entering roadway not from driveway or intersection

313 To emergency vehicle 314 Driver waved through

323 At steady red arrow 324 At steady amber light

325 At steady amber arrow 326 At flashing red lights (Rail Xing,

Fire Stn etc) 327 For police or flag-person 328 For school patrol / kea crossing

331 Car slowing, stopping or stopped in front

335 Intersection or its Stop / Give Way

336 Other regulatory sign / markings
337 Warning sign
338 Direction, information signs /

340 Lane use arrows / markings? 341 Obstructions on Roadway

352 Scenery or persons outside vehicle 353 Other traffic

354 Animal or insect in vehicle 355 Trying to find intersection, house number, destination

356 Advertising or signs 357 Emotionally upset 358 Cigarette, radio, glove box etc, obj under drivers feet/pedals etc

359 Cell phone / navigation device or

any communications device 360 Driver dazzled

330 Inattentive: failed to notice

333 Indication of vehicle in front

320 **Did not stop** 321 At stop sign 322 At steady red light

332 Bend in road

334 Traffic lights

control

markings 339 Road-works signs

350 Attention diverted by:

351 Passengers

- 504 Medical illness (not sudden) flu,
- diabetes 505 Mental illness (depression,
- psychosis)
- 506 Suicidal (but not successful) 507 Impaired ability due to old age

## 510 Intentional or criminal 511 Deliberate homicide (only if

- succeeded)
- 512 Intentional collision513 Committed suicide (only if
- succeeded)
- 514 Evading enforcement
- 515 Object deliberately thrown at or dropped on vehicle / shot at
- 516 Object thrown from vehicle
- 517 Stolen vehicle
- 520 Driver or passenger, boarding,
  - leaving , in vehicle 521 Boarding moving vehicle
  - 522 Intentionally leaving moving vehicle

  - 523 Riding in insecure position 524 Interfered with driver
  - 525 Opened door inadvertently 526 Overloaded vehicle (with
  - passengers)
  - 527 Child playing in parked vehicle

## 530 Miscellaneous person

- 531 Casualty drowned 532 Casualty thrown from vehicle
- 533 Equestrian not keeping to verge 534 Cyclist or M/cyclist wearing dark
- clothing

#### VEHICLES

- 600 Lights and reflectors at fault or dirty 601 Dazzling headlights

  - 602 Headlights inadequate or no
  - headlights 603 Headlights failed suddenly
  - 604 Brake-lights or indicators faulty or
  - not fitted 605 Tail-lights inadequate or no tail-
  - liahts 606 Reflectors inadequate or no
  - reflectors
  - 607 Lights or reflectors obscured

## 610 Brakes

- 611 Parking brake failed
- 612 Parking brake defective 613 Service brake failed
- 614 Service brake defective 615 Jack-knifed

## 620 Steering 621 Defective

- 622 Failed suddenly
- 630 Tyres

#### 631 Puncture or blowout

- 632 Worn tread on tyre
- 633 Incorrect tyre type
- 634 Mixed treads / space savers

## 640 Windscreen or mirror

- 641 Shattered windscreen 642 Windscreen or rear window dirty
- 643 Rear vision mirror not adjusted
- correctly 644 No rear vision mirror 645 Windscreen or rear window

- misted/frosted
- 646 Inadequate or no sun-visors 647 Inadequate or no windscreen
- wipers 648 Cycle / Motorcycle visor, glasses, goggles or screen
- 650 Mechanical

## 651 Engine failure

- 652 Transmission failure (including
- chains and gears) 653 Accelerator or throttle jammed

## 660 Body or chassis

- 661 Body, chassis or frame (cycle, m/c) failure
- 662 Suspension failure

663 Failure of door catch or door not

813 Deep loose metal 814 High crown

818 Unusually narrow 819 Broken glass

821 Fallen tree or branch

signposted

830 Visibility limited 831 Curve 832 Crest

836 Scrub or long grass

833 Building

834 Trees 835 Hedge or fence

837 Bank

850 Markings

851 Faded

smoke 839 Parked vehicle

840 Signs and signals

844 Necessary 845 Signals turned off

conditions

vehicles

removed

860 Street lighting

861 Failed 862 Inadequate

MI SCELLANEOUS

901 Heavy rain 902 Dazzling sun

903 Strong wind

playing

control

915 Wild animal

921 Roadside stall 922 Service station

904 Fog or mist 905 Snow, sleet or hail

912 Farm animal straying

911 Household pet rushed out or

913 Farm animal attended, but

920 Entering or leaving land use

923 Specialised liquor outlet 924 Take away foods 925 Shopping complex

928 Industrial site 929 Private house / farm

930 Other non-commercial

931 Mobile shop or vendor

999 Unknown

926 Car parking building / area 927 Other commercial

inadequate warning or unexpected

Appendix

914 Farm animal attended, but out of

900 Weather

910 Animals

820 Obstructed

815 Curve not well banked

816 Edge badly defined or gave way817 Under construction or maintenance

822 Slip or subsidence 823 Flood waters, large puddles, ford

824 Road works not adequately lighted 825 Road works not adequately

826 Roadside object fell on vehicle 827 Object flicked up by vehicle

838 Temporary obstruction, dust or

841 Damaged, removed or malfunction 842 Badly located

843 Ineffective or inadequate

852 Difficult to see under weather

853 Markings necessary 854 Not visible due to geometry or

855 Old markings not adequately

863 Glare on wet road 864 Pedestrian crossing not adequately lighted

870 Raised islands and roundabouts 871 Traffic island(s) difficult to see 872 Traffic island(s) Ineffective, badly

located or designed

873 Cyclist squeeze point

- shut 664 Inadequate mudguards
- 665 Inadequate tow coupling
- 666 Inadequate or no safety chain
- 667 Bonnet catch failed
- 668 Wheel off
- 669 Broken axle 670 Inconspicuous colour
- 671 Blind spot
- 672 Seat belt / restraint failed
- 673 Air-bag failed to inflate (fully)

#### 680 Load

- 681 Load interferes with driver 682 Not well secured or load moved 683 Over-hanging

- 684 Load obscured vision 685 Excess dimensions not adequately
- indicated 686 Over dimension vehicle or load
- 687 Load too heavy 688 Towed vehicle or trailer too heavy or incompatible

## 690 Miscellaneous vehicle

- 691 Emergency Vehicle attending emergency 692 Vehicle caught fire

- 693 Being towed694 Air-bag contributed to crash or
- injury 695 Seatbelt / restraint absent or unusable
- 696 Dangerous goods

## PEDESTRIANS

## 700 Walking along road

- 701 Not keeping to footpath 702 Not keeping to side of road 703 Not facing oncoming traffic 704 Not on outside of blind curve
- 705 Wheeled ped inconsiderate or dangerous on footpath

712 Stepping out from behind vehicles 713 Running heedless of traffic

714 Failed to use pedestrian crossing when one within 20 metres 715 Waiting on roadway for moving

716 Confused by traffic or stepped

717 Suddenly stepped onto pedestrian

718 Not complying with traffic signals or school patrols

719 Misjudged speed and / or distance

720 Miscellaneous 721 Pushing, working on or unloading

722 Playing on road or unnecessarily on road

725 Vision obscured by umbrella or clothing

726 Child escaped from supervision

729 Pedestrian from school bus 730 Pedestrian behind reversing /

manoeuvring vehicle

723 Working on road 724 Wearing dark clothing

727 Unsupervised child 728 Sitting / lying on road

731 Overseas pedestrian

803 Snow or hail 804 Loose material on seal

808 Recently graded 809 Surface bleeding / defective

806 Oil / Diesel / Fuel

807 Painted markings

<u>ROAD</u>

800 Slippery

801 Rain 802 Frost or ice

805 Mud

810 Surface

811 Potholed 812 Uneven

## 710 Crossing road 711 Walking heedless of traffic

traffic

back

crossing

of vehicle

vehicle